



**U.S. Department of Housing and Urban
Development**
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
espanol.hud.gov

**Environmental Review for Activity/Project that is
Categorically Excluded Subject to Section 58.5
Pursuant to 24 CFR 58.35(a)**

Project Information

Project Name: Hubbard-Farms-Apartments

HEROS Number: 900000010267665

Responsible Entity (RE): DETROIT, PLANNING AND DEVELOPMENT DEPARTMENT
DETROIT MI, 48226

State / Local Identifier: Detroit, Michigan

RE Preparer: Kim Siegel

Certifying Office Julie Schneider
r:

Grant Recipient (if different than Responsible Entity):

Point of Contact:

Consultant (if applicable): PM Environmental

Point of Contact: Carey Kratz

Project Location: Multiple, Detroit, MI 48216

Additional Location Information:

Cole Apartments - 3615 West Vernor Highway Harrington Apartments - 461 - 465
West Grand Boulevard Harwill Manor Apartments - 1441 - 1453 Hubbard Street

Direct Comments to: Penny Dwoinen, the City of Detroit Environmental Review
Officer

Telephone: 313.224.2933

Email: dwoinenp@detroitmi.gov

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Hubbard Farms encompasses three separate residential properties, which include 3615 West Vernor Highway, 461 - 465 West Grand Boulevard, and 1441 - 1453 Hubbard Street in Detroit, Michigan. A Site Vicinity Map is provided as Attachment 1. The Project consists of the preservation and rehabilitation of three historic buildings that will provide sixty units of affordable housing, including thirty permanent supportive housing units that will have project based rental assistance. Federal historic rehabilitation tax credits will be part of the project's funding to renovate and preserve these affordable historic apartment buildings. There are a total of 60 apartments and new set asides including 30 units at or below 50% of the Area Median Income (AMI) and 30 units for permanent supportive housing for households earning at or below 30% AMI. There will be eight studios, 20 one-bedroom, 22 two-bedroom, and 10 three-bedroom apartments. A combined total of 1,334 net square feet of community space and private offices are available within the three buildings. The Harrington (18 units and 9,537 square feet) is a 3-story Colonial Revival-style building constructed in 1926 and includes an adjacent courtyard. The Harwill (19 units and 20,448 square feet) is 3-story Craftsman-style building constructed in 1927. The Cole (23 units and 13,392 square feet) is a Spanish-Moorish Style building constructed in 1924. Street parking is available to all three properties. All three buildings are in close proximity to the historic Clark Park. The LHDA will achieve one of the Enterprise Green Communities Certifications. Rehabilitation activities include enhancement of landscaping, window repair/restoration, brick tuck pointing, repair of limestone details/sculptures, minor roof repairs and gutter replacement, replacement of common area flooring and new paint, upgrades to kitchens, bathrooms, bedrooms, and living spaces, video cameras and other security updates, keyless entries for front and rear doors, and new LED exterior lights in the courtyards and green spaces. Site and Architectural Plans and Alta Surveys are provided in Attachment 2. This review is for \$1,900,000 in CDBG 2023. This review is valid for up to five years.

Maps, photographs, and other documentation of project location and description:

[Attachment 2B Architectural Plans.pdf](#)

[Attachment 2A Site Plans.pdf](#)

[Attachment 1 Site Vicinity Map.pdf](#)

Level of Environmental Review Determination:

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at 58.5:

Determination:

	This categorically excluded activity/project converts to EXEMPT per Section 58.34(a)(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license; Funds may be committed and drawn down after certification of this part for this (now) EXEMPT project; OR
✓	This categorically excluded activity/project cannot convert to Exempt status because one or more statutes or authorities listed at Section 58.5 requires formal consultation or mitigation. Complete consultation/mitigation protocol requirements, publish NOI/RROF and obtain "Authority to Use Grant Funds" (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
	This project is not categorically excluded OR, if originally categorically excluded, is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Approval Documents:

[Signature Page - Hubbard Farms Apts.pdf](#)

**7015.15 certified by Certifying Officer
on:**

**7015.16 certified by Authorizing Officer
on:**

Funding Information

Grant / Project Identification Number	HUD Program	Program Name
B23MC260006	Community Planning and Development (CPD)	Community Development Block Grants (CDBG) (Entitlement)

Estimated Total HUD Funded, Assisted or Insured Amount: \$1,900,000.00

This project anticipates the use of funds or assistance from another federal agency in addition to HUD in the form of:

Estimated Total Project Cost: \$14,737,606.00

Compliance with 24 CFR §50.4, §58.5 and §58.6 Laws and Authorities

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §50.4, §58.5, and §58.6	Are formal compliance steps or mitigation required?	Compliance determination (See Appendix A for source determinations)
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.6		
Airport Hazards Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	The subject properties are not located in an FAA-designated airport Runway Clear Zone or Approach Protection Zone. Airport Hazards are provided in Phase I ESAs in the Adobe Attachment Tab/CD. An Airport Location Map is provided as Attachment 3.
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Review of the John H. Chafee Coastal Barrier Resources System Map and the U.S. Fish and Wildlife Service online Coastal Barrier Resources System Mapper, documents that the subject properties are not located within a designated coastal zone boundary. Attachment 4
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	According to the FEMA floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the subject properties are not located within the 100-year flood zone. PM did not observe any sensitive ecological areas on the subject properties, including potential wetlands, during the site reconnaissance. Furthermore, topographical features present in the subject property areas are not representative of a flood plain. Attachment 5
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5		

<p>Air Quality Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The entire State of Michigan is designated as "attainment" for carbon monoxide, lead, nitrogen dioxide, and particulate matter (PM10). The southwestern portion of Detroit is within a sulfur dioxide nonattainment area. Additionally, as of July 2023, Wayne County is an attainment/maintenance area for ozone. The Project was reviewed by the Michigan Environment, Great Lakes, and Energy (EGLE) for conformance with the State Implementation Plan (SIP). EGLE determined the Project should not exceed the de minimis levels included in the federal general conformity requirements and therefore, does not require a detailed conformity analysis. Attachment 6</p>
<p>Coastal Zone Management Act Coastal Zone Management Act, sections 307(c) & (d)</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Review of the Wayne County Coastal Zone Management Boundary and Coastal Zone Management Area map documents the subject properties are not located within a designated Coastal Zone Management area. Attachment 7</p>
<p>Contamination and Toxic Substances 24 CFR 50.3(i) & 58.5(i)(2)]</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>PM completed a Phase I ESAs for each subject property dated August 23, 2023. No recognized environmental conditions (RECs) were identified, except for a vapor intrusion condition at the Harrington. In summary, the Harrington was historically impacted by gasoline vapor migration through the sewer system from the open LUST release at the north adjoining property gas station. The previous site investigations completed onsite and adjacent to the subject property, have not detected soil contamination, or identified groundwater present within the subsurface. Further, the January 2023 indoor air sampling did not exceed the Residential RIASLs. PM prepared a Work Plan proposal that was approved by EGLE on May 3, 2023, to install multi-increment/depth in-boring soil gas</p>

	<p>points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. Based on EGLE-approval of the proposal, PM prepared a Site Evaluation Summary & Construction Management Practices Work Plan for the subject property which outlines in detail the mitigation strategy. Although there are no known current exposure concerns based on the analytical data that was previously collected, additional evaluations will be completed during the approximately one-year-long construction renovation period for the subject building in accordance with the EGLE approved contract. These activities will further evaluate VIAP and determine if any additional corrective actions will be necessary to prevent unacceptable exposure to construction workers and future residential tenants of the subject building. If such corrective action needs are identified, measures will be undertaken to eliminate the exposure pathway and to ensure the health and safety for the building occupants. The building will remain unoccupied until renovations are complete. All three subject properties are in Wayne County, which is within the EPA Radon Zone 3. The subject properties are not located within one of the 24 counties designated by EGLE as a county where 25% or more homes tested equal to or above 4.0 picocuries/liter (pCi/L) of radon exposure. Therefore, no additional investigation or mitigation is necessary. The tagged fire doors and frames and flat roofing materials were not sampled during Asbestos-Containing Materials (ACM) Surveys conducted in September 2020 and are therefore, considered assumed ACM. PM completed ACM Operation and Maintenance (O and M)</p>
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		<p>Plans dated October 9, 2020. No ACMs were identified during the 2020 Surveys. PM completed Lead-Based Paint (LBP) Inspection and Risk Assessments dated September 18, 2020. Painted surfaces that tested positive for intact LBP at Cole Apartments were limited to the exterior sign and drywall in the third-floor north stairs. LBP dust hazards were identified on window troughs and the floor of Unit BA. No painted surfaces tested positive for LBP at Harrington. LBP dust hazards were identified on all window troughs and on the floor in Stairwells A and D. Painted surfaces that tested positive for intact LBP at Harwill Manor were limited to exterior awnings, beams, and brick walls. LBP dust hazards were identified in all window troughs in the building, on windowsills in Unit 2B, and on the floors in the basement storage area, utility area, and fuse box room. PM also completed LBP O and M Plans dated October 25, 2021. Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning/renovation activities are completed, clearance testing will be performed prior to re-occupancy. Copies of the ACM and LBP O and M Plans are provided in the attached August 2023 Phase I ESAs.</p>
<p>Endangered Species Act Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>None of the state-listed threatened or endangered species were observed at the subject properties. No federally listed threatened or endangered species or unique features are present at the Project and no Critical Habitats are present. The listed species include the Indiana Bat, the Northern Long-eared Bat, the Piping Plover, the Red Knot, the Eastern Massasauga, the Northern Riffleshell, the Monarch Butterfly, and the Eastern Prairie Fringed Orchid.</p>

		<p>Using the U.S. Fish and Wildlife online Information for Planning and Consultation (IPaC) system, Michigan Endangered Species Determination Key (Michigan DKey) evaluations for each property were completed. All listed species received a No effect determination except for the Eastern Massasauga, which received a not likely to adversely effect determination. The subject properties and/or general areas have been developed since at least the 1800s. Given this and results of the DKey evaluations, the Project does not appear to have an adverse effect on any endangered/threatened species or critical habitat. Attachment 9</p>
<p>Explosive and Flammable Hazards Above-Ground Tanks][24 CFR Part 51 Subpart C</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and/or historical presence of ASTs/55-gallon drum storage within one mile of any of the three subject properties. In accordance with HUD's Guidebook entitled "Siting of HUD-Assisted Projects Near Hazardous Facilities" (hereafter "Guidebook"), PM searched a one-mile radius around the subject properties for ASTs containing flammable materials. PM did not identify any ASTs that would require the calculation of acceptable separation distances (ASD) for thermal radiation and/or blast overpressure. Attachment 10</p>
<p>Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Review of the USDA Web Soil Survey indicates this Project does not affect any prime or unique farmland. The subject properties are located within an "urbanized" area and no new construction is planned. Therefore, the Project is not subject to the statutory or regulatory requirements. Attachment 11</p>

<p>Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>According to the Federal Emergency Management Agency (FEMA) floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the subject properties are not located within the 100-year flood zone. Furthermore, topographical features present in the subject properties area are not representative of a flood plain. Attachment 5</p>
<p>Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources located in the City of Detroit and Wayne County, documents the subject properties are listed on the National Register of Historic Places as part of Hubbard Farms. The Cole also falls within the NRHP eligible Mexicantown Historic District. The Project was reviewed under a Programmatic Agreement between the City of Detroit, ACHP, and the Michigan SHPO. A Section 106 application was submitted to the City of Detroit to determine if the Project will adversely impact the Properties or area of potential effect (APE). The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. In a letter dated June 10, 2022, . This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met: * The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022; * Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and</p>

		<p>approval prior to the start of any work. * Photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist Attachment 12</p>
<p>Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>The Properties are located between six and seven miles of Coleman A. Young International Airport and Windsor International Airport. Cole and Harrington are both within 1,000 feet of West Grand Boulevard and West Vernor Highway, and both are also within 3,000 feet of CSX Transportation railroad. Harwill Manor is within 1,000 feet of Scotten Avenue. For busy roads, PM completed a ten-year projection for 2031, assuming a 1% traffic increase per year. Cole Apartments - 3615 West Vernor Highway The HUD Site Day/Night Noise Level (DNL) Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The noise assessment location (NAL) was located closest to the potential roadway noise sources, which were the northern face and southern face of the building. The combined calculated noise level for 3615 West Vernor Highway is 70 dB, which is within HUD's Unacceptable range (<75 dB and >65 dB). The Project architect completed a HUD Noise Sound Transmission Classification Assessment Tool (StraCAT). The combined Sound Transmission Classification (STC) (for wall assembly is 32 dB which documents interior noise levels will be below 45 dB (Attachment 13). Harrington Apartments - 461 - 465 W Grand Boulevard The HUD Site DNL Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The NAL was located closest to the potential roadway noise sources, which were the western face and northern face of the building.</p>

		<p>The combined calculated noise level for 461 - 465 W Grand Boulevard is 63 dB, which is within HUD's Acceptable range (<65 dB). It is noted that a Noise Assessment was also completed in 2020 for the Harrington and the dB was calculated as 68 dB. However, the traffic data was incorrectly doubled for the 2020 calculation and has since been corrected. Harwill Manor Apartments - 1441 - 1453 Hubbard Street The HUD DNL Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The NALs were located closest to the potential roadway noise sources, which were the southwestern and southeastern corners of the building. The combined calculated noise level for 1441 - 1453 Hubbard Street are 50 and 44 dB, which are within HUD's Acceptable range (<65 dB). The Desktop Noise Analysis reports are provided within the Phase I ESAs (Section 9.8 and Appendix 10.7) provided in Attachment 8.</p>
<p>Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>There are no sole source aquifers located in Detroit or Wayne County. Attachment 14</p>
<p>Wetlands Protection Executive Order 11990, particularly sections 2 and 5</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Areas potentially associated with wetlands were not observed on the subject properties during the site reconnaissance. In addition, review of the National Wetlands Inventory (NWI) Map from the U.S. Fish and Wildlife Service, did not identify any wetlands on the subject properties. Attachment 15</p>
<p>Wild and Scenic Rivers Act Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>The National Wild and Scenic Rivers System map (maintained and managed by the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service and U.S. Forest Service) was reviewed to determine if the subject properties are within a designated wild and scenic river area.</p>

		There are no wild and scenic rivers are located within the City of Detroit or Wayne County. Attachment 16
HUD HOUSING ENVIRONMENTAL STANDARDS		
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	This Project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations. The buildings serve low-income and minority populations and the Project entails renovation/rehabilitation of the subject buildings. Therefore, this Project is intended to improve the present environment of low-income citizens. The subject properties are in the City of Detroit, which is made up of 87% ethnic minorities. The Project will not result in disproportionately adverse environmental effects on minority or low-income populations. No persons will be displaced due to this Project. Attachment 17

Mitigation Measures and Conditions [40 CFR 1505.2(c)]:

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure or Condition	Comments on Completed Measures	Mitigation Plan	Complete
Historic Preservation	The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. This project has been given a Conditional	N/A		

	<p>No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long as the following conditions are met: The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and, photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist.'</p>			
<p>Contamination and Toxic Substances</p>	<p>PM completed a Phase I ESAs for each subject property dated August 23, 2023. No recognized environmental conditions (RECs) were identified, except for a vapor intrusion condition at the Harrington. Additional information is included below. In December 2021, residents of the Harrington were evacuated as a result of vapors entering the building from a release of petroleum products at a north adjoining gasoline dispensing station (3801 West Vernor Highway) that migrated via the sewer system toward the building. Representatives from EGLE and Michigan Department of Health and Human Services (DHHS) responded. City of Detroit BSEED also discovered issues with the foundation of the Harrington building that will be addressed as part of the proposed renovation (Foundation Letter dated July 12, 2022, is provided in the Adobe Attachment Tab). Based</p>	<p>N/A</p>		

	<p>on the cumulative site investigation data collected as part of the open release investigations from the adjacent gas station (3801 West Vernor Highway), the subject building is located within the 30-foot lateral inclusion zone (LIZ) from soil and/or perched groundwater impacts that remain on the gas station property. Further, the lateral sewer service line was replaced at the gas station in February 2022, and a partial replacement and lining of the municipal sewer main was completed in May and November 2022, by the Detroit Water & Sewer Department (DWSD). Initial vapor intrusion evaluations were completed at the Harrington that consisted of ambient indoor air monitoring, sewer vapor screenings, along with sampling five (5) sub-slab soil gas points (SG4 through SG8) that were installed in the basement of the subject building. Various gasoline compounds were detected on January 27, 2022, at soil gas points SG7 and SG8 exceeding the EGLE Residential and Nonresidential Volatilization to Indoor Air Pathway (VIAP) screening levels, which were adopted for use as the Site-Specific Target Levels (SSTLs). PM also utilized these sub-slab soil gas points as part of a long-term air monitoring program that was established in December 2021, and modified based on site conditions and on discussions with EGLE and</p>			
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	<p>other stakeholders. PM also completed subsurface investigation consisting of soil borings within the basement of the Harrington as well as within the adjacent public alleyway that consisted of the advancement of six soil borings (SB5 through SB10). Groundwater was not encountered at any of the locations. The soil analytical results did not identify gasoline constituents exceeding the laboratory method detection limits (MDLs) at any of these locations. Ambient air and sewer vapor screenings conducted by PM through December 1, 2022, confirmed that gasoline vapors had subsided within the sewer following the November 1, 2022, lining of the alleyway main by DWSD, and that vapors were no longer migrating through the lateral service lines and causing vapors to accumulate beneath the subject building. PM also collected indoor air samples in January 2023 that did not exceed the applicable Residential Recommended Interim Action Screening Levels (RIASLs). Based on discussions with EGLE, PM was unable to collect new sub-slab soil gas samples from the existing sample points to evaluate VIAP after the sewer repairs due to ambient air level oxygen readings routinely observed during screening events. Based on further discussions with EGLE, PM prepared a Work Plan</p>			
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	<p>proposal that was approved by EGLE on May 3, 2023, to install multi-increment/depth in-boring soil gas points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. Based on EGLE-approval of the proposal, PM prepared a Site Evaluation Summary and Construction Management Practices Work Plan for the subject property which outlines in detail the mitigation strategy. The building will remain unoccupied until renovations are complete.</p>			
Contamination and Toxic Substances - Lead-Based Paint	<p>Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning, renovation activities are completed, clearance testing will be performed prior to re-occupancy. All records obtained associated with lead-based paint abatement will be maintained as part of the project's environmental records.</p>	N/A	Attachment 18	
Noise Abatement and Control	<p>The Cole is the only building requiring noise mitigation. Existing windows include 3x5 foot wood-framed double hung windows; each sash has one 7/16 inch glass and 6x5 foot window-framed picture windows single panel glazed double strength with STCs of 26 and 29, respectively. Windows will be repaired with a full refurbishment including sash, hardware, and glazing. The current wall construction</p>	N/A	Attachment 18	

	includes common brick; 3/4 inch mortar-filled cavity; 1/2 inch gypsum 1 inch wood furring with an STC of 53. Doors consists of 3x7 foot hollow-core with 1 3/4 inch thick 30% glazed with 1/8 inch glass and a STC of 19. The combined STC for wall assembly is 32.01 with meets the required STC rating of 31.			
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Project Mitigation Plan

A Mitigation Plan is provided as Attachment 18.

[Attachment 18 Mitigation Plan .pdf](#)

Supporting documentation on completed measures

APPENDIX A: Related Federal Laws and Authorities

Airport Hazards

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

No

Based on the response, the review is in compliance with this section. Document and upload the map showing that the site is not within the applicable distances to a military or civilian airport below

Yes

Screen Summary

Compliance Determination

The subject properties are not located in an FAA-designated airport Runway Clear Zone or Approach Protection Zone. Airport Hazards are provided in Phase I ESAs in the Adobe Attachment Tab/CD. An Airport Location Map is provided as Attachment 3.

Supporting documentation

[Attachment 3 Airport Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Coastal Barrier Resources

General requirements	Legislation	Regulation
HUD financial assistance may not be used for most activities in units of the Coastal Barrier Resources System (CBRS). See 16 USC 3504 for limitations on federal expenditures affecting the CBRS.	Coastal Barrier Resources Act (CBRA) of 1982, as amended by the Coastal Barrier Improvement Act of 1990 (16 USC 3501)	

1. Is the project located in a CBRS Unit?

No

Document and upload map and documentation below.

Yes

Screen Summary

Compliance Determination

Review of the John H. Chafee Coastal Barrier Resources System Map and the U.S. Fish and Wildlife Service online Coastal Barrier Resources System Mapper, documents that the subject properties are not located within a designated coastal zone boundary.
Attachment 4

Supporting documentation

[Attachment 4B John H Chaffee CBRS.pdf](#)

[Attachment 4A CBRS.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Flood Insurance

General requirements	Legislation	Regulation
Certain types of federal financial assistance may not be used in floodplains unless the community participates in National Flood Insurance Program and flood insurance is both obtained and maintained.	Flood Disaster Protection Act of 1973 as amended (42 USC 4001-4128)	24 CFR 50.4(b)(1) and 24 CFR 58.6(a) and (b); 24 CFR 55.1(b).

1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?

No. This project does not require flood insurance or is excepted from flood insurance.

Yes

2. Upload a FEMA/FIRM map showing the site here:

[Attachment 5C Harwill FEMA.pdf](#)

[Attachment 5B Harrington FEMA.pdf](#)

[Attachment 5A Cole FEMA.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The [FEMA Map Service Center](#) provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site. Provide FEMA/FIRM floodplain zone designation, panel number, and date within your documentation.

Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?

No

Based on the response, the review is in compliance with this section.

Yes

4. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures maintain flood insurance under the National Flood Insurance

Program (NFIP). Will flood insurance be required as a mitigation measure or condition?

Yes

✓ No

Screen Summary

Compliance Determination

According to the FEMA floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the subject properties are not located within the 100-year flood zone. PM did not observe any sensitive ecological areas on the subject properties, including potential wetlands, during the site reconnaissance. Furthermore, topographical features present in the subject property areas are not representative of a flood plain. Attachment 5

Supporting documentation

[Attachment 5C Harwill FEMA\(1\).pdf](#)

[Attachment 5B Harrington FEMA\(1\).pdf](#)

[Attachment 5A Cole FEMA\(1\).pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered by the U.S. Environmental Protection Agency (EPA), which sets national standards on ambient pollutants. In addition, the Clean Air Act is administered by States, which must develop State Implementation Plans (SIPs) to regulate their state air quality. Projects funded by HUD must demonstrate that they conform to the appropriate SIP.	Clean Air Act (42 USC 7401 et seq.) as amended particularly Section 176(c) and (d) (42 USC 7506(c) and (d))	40 CFR Parts 6, 51 and 93

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

Yes

No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

The entire State of Michigan is designated as "attainment" for carbon monoxide, lead, nitrogen dioxide, and particulate matter (PM10). The southwestern portion of Detroit is within a sulfur dioxide nonattainment area. Additionally, as of July 2023, Wayne County is an attainment/maintenance area for ozone. The Project was reviewed by the Michigan Environment, Great Lakes, and Energy (EGLE) for conformance with the State Implementation Plan (SIP). EGLE determined the Project should not exceed the de minimis levels included in the federal general conformity requirements and therefore, does not require a detailed conformity analysis. Attachment 6

Supporting documentation

[Attachment 6A - Revised Air Quality Map 2023.pdf](#)

[Attachment 6B SIP Compliance.pdf](#)

Are formal compliance steps or mitigation required?

Yes

Hubbard-Farms-
Apartments

Detroit, MI

900000010267665

✓ No

Coastal Zone Management Act

General requirements	Legislation	Regulation
Federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with federally approved State Coastal Zone Management Act Plans.	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

Yes

No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

Review of the Wayne County Coastal Zone Management Boundary and Coastal Zone Management Area map documents the subject properties are not located within a designated Coastal Zone Management area. Attachment 7

Supporting documentation

[Attachment 7 Coastal Zone Boundary Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Contamination and Toxic Substances

General requirements	Legislation	Regulations
It is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property.		24 CFR 58.5(i)(2) 24 CFR 50.3(i)

1. How was site contamination evaluated? Select all that apply. Document and upload documentation and reports and evaluation explanation of site contamination below.

- American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA)
- ASTM Phase II ESA
- Remediation or clean-up plan
- ASTM Vapor Encroachment Screening
- None of the Above

2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

No

- Yes

3. Mitigation

Document and upload the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental effects cannot be mitigated, then HUD assistance may not be used for the project at this site.

Can adverse environmental impacts be mitigated?

Adverse environmental impacts cannot feasibly be mitigated.

- ✓ Yes, adverse environmental impacts can be eliminated through mitigation.
Document and upload all mitigation requirements below.

4. Describe how compliance was achieved in the text box below. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls, or use of institutional controls.

PM completed a Phase I ESAs for each subject property dated August 23, 2023. No recognized environmental conditions (RECs) were identified, except for a vapor intrusion condition at the Harrington. Additional information is included below. In December 2021, residents of the Harrington were evacuated as a result of vapors entering the building from a release of petroleum products at a north adjoining gasoline dispensing station (3801 West Vernor Highway) that migrated via the sewer system toward the building. Representatives from EGLE and Michigan Department of Health and Human Services (DHHS) responded. City of Detroit BSEED also discovered issues with the foundation of the Harrington building that will be addressed as part of the proposed renovation (Foundation Letter dated July 12, 2022, is provided in the Adobe Attachment Tab). Based on the cumulative site investigation data collected as part of the open release investigations from the adjacent gas station (3801 West Vernor Highway), the subject building is located within the 30-foot lateral inclusion zone (LIZ) from soil and/or perched groundwater impacts that remain on the gas station property. Further, the lateral sewer service line was replaced at the gas station in February 2022, and a partial replacement and lining of the municipal sewer main was completed in May and November 2022, by the Detroit Water & Sewer Department (DWSD). Initial vapor intrusion evaluations were completed at the Harrington that consisted of ambient indoor air monitoring, sewer vapor screenings, along with sampling five (5) sub-slab soil gas points (SG4 through SG8) that were installed in the basement of the subject building. Various gasoline compounds were detected on January 27, 2022, at soil gas points SG7 and SG8 exceeding the EGLE Residential and Nonresidential Volatilization to Indoor Air Pathway (VIAP) screening levels, which were adopted for use as the Site-Specific Target Levels (SSTLs). PM also utilized these sub-slab soil gas points as part of a long-term air monitoring program that was established in December 2021, and modified based on site conditions and on discussions with EGLE and other stakeholders. PM also completed subsurface investigation consisting of soil borings within the basement of the Harrington as well as within the adjacent public alleyway that consisted of the advancement of six soil borings (SB5 through SB10). Groundwater was not encountered at any of the locations. The soil analytical results did not identify gasoline constituents exceeding the laboratory method detection limits (MDLs) at any of these locations. Ambient air and sewer vapor screenings conducted by PM through December 1, 2022,

confirmed that gasoline vapors had subsided within the sewer following the November 1, 2022, lining of the alleyway main by DWSD, and that vapors were no longer migrating through the lateral service lines and causing vapors to accumulate beneath the subject building. PM also collected indoor air samples in January 2023 that did not exceed the applicable Residential Recommended Interim Action Screening Levels (RIASLs). Based on discussions with EGLE, PM was unable to collect new sub-slab soil gas samples from the existing sample points to evaluate VIAP after the sewer repairs due to ambient air level oxygen readings routinely observed during screening events. Based on further discussions with EGLE, PM prepared a Work Plan proposal that was approved by EGLE on May 3, 2023, to install multi-increment/depth in-boring soil gas points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. Based on EGLE-approval of the proposal, PM prepared a Site Evaluation Summary and Construction Management Practices Work Plan for the subject property which outlines in detail the mitigation strategy. The building will remain unoccupied until renovations are complete.

If a remediation plan or clean-up program was necessary, which standard does it follow?

- ✓ Complete removal
- ✓ Risk-based corrective action (RBCA)

Screen Summary

Compliance Determination

PM completed a Phase I ESAs for each subject property dated August 23, 2023. No recognized environmental conditions (RECs) were identified, except for a vapor intrusion condition at the Harrington. In summary, the Harrington was historically impacted by gasoline vapor migration through the sewer system from the open LUST release at the north adjoining property gas station. The previous site investigations completed onsite and adjacent to the subject property, have not detected soil contamination, or identified groundwater present within the subsurface. Further, the January 2023 indoor air sampling did not exceed the Residential RIASLs. PM prepared a Work Plan proposal that was approved by EGLE on May 3, 2023, to install multi-increment/depth in-boring soil gas points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. Based on EGLE-approval of the proposal, PM prepared a Site Evaluation Summary & Construction Management Practices Work Plan for the subject property which outlines in detail the mitigation strategy. Although there are no known current exposure concerns based on

the analytical data that was previously collected, additional evaluations will be completed during the approximately one-year-long construction renovation period for the subject building in accordance with the EGLE approved contract. These activities will further evaluate VIAP and determine if any additional corrective actions will be necessary to prevent unacceptable exposure to construction workers and future residential tenants of the subject building. If such corrective action needs are identified, measures will be undertaken to eliminate the exposure pathway and to ensure the health and safety for the building occupants. The building will remain unoccupied until renovations are complete. All three subject properties are in Wayne County, which is within the EPA Radon Zone 3. The subject properties are not located within one of the 24 counties designated by EGLE as a county where 25% or more homes tested equal to or above 4.0 picocuries/liter (pCi/L) of radon exposure. Therefore, no additional investigation or mitigation is necessary. The tagged fire doors and frames and flat roofing materials were not sampled during Asbestos-Containing Materials (ACM) Surveys conducted in September 2020 and are therefore, considered assumed ACM. PM completed ACM Operation and Maintenance (O and M) Plans dated October 9, 2020. No ACMs were identified during the 2020 Surveys. PM completed Lead-Based Paint (LBP) Inspection and Risk Assessments dated September 18, 2020. Painted surfaces that tested positive for intact LBP at Cole Apartments were limited to the exterior sign and drywall in the third-floor north stairs. LBP dust hazards were identified on window troughs and the floor of Unit BA. No painted surfaces tested positive for LBP at Harrington. LBP dust hazards were identified on all window troughs and on the floor in Stairwells A and D. Painted surfaces that tested positive for intact LBP at Harwill Manor were limited to exterior awnings, beams, and brick walls. LBP dust hazards were identified in all window troughs in the building, on windowsills in Unit 2B, and on the floors in the basement storage area, utility area, and fuse box room. PM also completed LBP O and M Plans dated October 25, 2021. Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning/renovation activities are completed, clearance testing will be performed prior to re-occupancy. Copies of the ACM and LBP O and M Plans are provided in the attached August 2023 Phase I ESAs.

Supporting documentation

[Attachment 8g Harrington Site Evaluation and CMP June 2023.pdf](#)

[Attachment 8i EPA MI Radon Map.pdf](#)

[Attachment 8h EGLE Radon Map.pdf](#)

[Attachment 8f State Contract Services Proposal - Acceptance FINAL.pdf](#)

[Attachment 8e Harrington EGLE Contract Work Plan May2023.pdf](#)

[Attachment 8d The Harrington-Shelter Foundation Letter.pdf](#)

[Attachment 8c Harwill Manor Apartments Hubbard St Detroit MI Phase I ESAEreportAugust2023.pdf](#)

[Attachment 8b Harrington Apartments 461-465 W Grand Blvd Detroit MI MSHDA PI
ESA EreportAugust2023.pdf](#)

[Attachment 8a Cole Apartments 3625 W Vernor Hwy Detroit MI Phase I ESA
EreportAugust 2023.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Endangered Species

General requirements	ESA Legislation	Regulations
Section 7 of the Endangered Species Act (ESA) mandates that federal agencies ensure that actions that they authorize, fund, or carry out shall not jeopardize the continued existence of federally listed plants and animals or result in the adverse modification or destruction of designated critical habitat. Where their actions may affect resources protected by the ESA, agencies must consult with the Fish and Wildlife Service and/or the National Marine Fisheries Service (“FWS” and “NMFS” or “the Services”).	The Endangered Species Act of 1973 (16 U.S.C. 1531 <i>et seq.</i>); particularly section 7 (16 USC 1536).	50 CFR Part 402

1. Does the project involve any activities that have the potential to affect species or habitats?

- ✓ No, the project will have No Effect due to the nature of the activities involved in the project.

This selection is only appropriate if none of the activities involved in the project have potential to affect species or habitats. Examples of actions without potential to affect listed species may include: purchasing existing buildings, completing interior renovations to existing buildings, and replacing exterior paint or siding on existing buildings.

Based on the response, the review is in compliance with this section.

No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office

Yes, the activities involved in the project have the potential to affect species and/or habitats.

Screen Summary

Compliance Determination

None of the state-listed threatened or endangered species were observed at the subject properties. No federally listed threatened or endangered species or unique features are present at the Project and no Critical Habitats are present. The listed species include the Indiana Bat, the Northern Long-eared Bat, the Piping Plover, the

Red Knot, the Eastern Massasauga, the Northern Riffleshell, the Monarch Butterfly, and the Eastern Prairie Fringed Orchid. Using the U.S. Fish and Wildlife online Information for Planning and Consultation (IPaC) system, Michigan Endangered Species Determination Key (Michigan DKey) evaluations for each property were completed. All listed species received a No effect determination except for the Eastern Massasauga, which received a not likely to adversely effect determination. The subject properties and/or general areas have been developed since at least the 1800s. Given this and results of the DKey evaluations, the Project does not appear to have an adverse effect on any endangered/threatened species or critical habitat.

Attachment 9

Supporting documentation

[Attachment 9F HarwillNLAAAll Species Michigan Determination Key 2022-07-06.pdf](#)

[Attachment 9E End Species Harwill.pdf](#)

[Attachment 9D HarringtonNLAAAll Species Michigan Determination Key 2022-07-06 \(1\).pdf](#)

[Attachment 9C Endag Species Harrington.pdf](#)

[Attachment 9B Cole NLAAAll Species Michigan Determination Key 2022-07-06.pdf](#)

[Attachment 9A End Spec Cole.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Explosive and Flammable Hazards

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C

1. Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

No

Yes

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and/or historical presence of ASTs/55-gallon drum storage within one mile of any of the three subject properties. In accordance with HUD's Guidebook entitled "Siting of HUD-Assisted Projects Near Hazardous Facilities" (hereafter "Guidebook"), PM searched a one-mile radius around the subject properties for ASTs containing flammable materials. PM did not identify any ASTs that would require the calculation of acceptable separation distances (ASD) for thermal radiation and/or blast overpressure. Attachment 10

Supporting documentation

[Attachment 10B Blast AST Map Harwill Manor.pdf](#)

[Attachment 10A Blast AST Map Cole and Harrington.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Farmlands Protection

General requirements	Legislation	Regulation
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

Yes

✓ No

If your project includes new construction, acquisition of undeveloped land or conversion, explain how you determined that agricultural land would not be converted:

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

Review of the USDA Web Soil Survey indicates this Project does not affect any prime or unique farmland. The subject properties are located within an "urbanized" area and no new construction is planned. Therefore, the Project is not subject to the statutory or regulatory requirements. Attachment 11

Supporting documentation

[Attachment 11C Harwill Soil Survey.pdf](#)

[Attachment 11B Harrington Soil Survey.pdf](#)

[Attachment 11A Cole Soil Survey.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Floodplain Management

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988	24 CFR 55

1. Do any of the following exemptions apply? Select the applicable citation? [only one selection possible]

- 55.12(c)(3)
- 55.12(c)(4)
- 55.12(c)(5)
- 55.12(c)(6)
- 55.12(c)(7)
- 55.12(c)(8)
- 55.12(c)(9)
- 55.12(c)(10)
- 55.12(c)(11)
- None of the above

2. Upload a FEMA/FIRM map showing the site here:

[Attachment 5C Harwill FEMA.pdf](#)
[Attachment 5B Harrington FEMA.pdf](#)
[Attachment 5A Cole FEMA.pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use **the best available information** to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.

Does your project occur in a floodplain?

- No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

According to the Federal Emergency Management Agency (FEMA) floodplain map, dated February 2, 2012 (Panel Number 26163C0280E), the subject properties are not located within the 100-year flood zone. Furthermore, topographical features present in the subject properties area are not representative of a flood plain. Attachment 5

Supporting documentation

[Attachment 5C Harwill FEMA\(2\).pdf](#)

[Attachment 5B Harrington FEMA\(2\).pdf](#)

[Attachment 5A Cole FEMA\(2\).pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Historic Preservation

General requirements	Legislation	Regulation
Regulations under Section 106 of the National Historic Preservation Act (NHPA) require a consultative process to identify historic properties, assess project impacts on them, and avoid, minimize, or mitigate adverse effects	Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)	36 CFR 800 “Protection of Historic Properties” https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf

Threshold

Is Section 106 review required for your project?

No, because the project consists solely of activities listed as exempt in a Programmatic Agreement (PA). (See the PA Database to find applicable PAs.)

No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].

- ✓ Yes, because the project includes activities with potential to cause effects (direct or indirect).

Step 1 – Initiate Consultation

Select all consulting parties below (check all that apply):

Indian Tribes, including Tribal Historic Preservation Officers (THPOs) or Native Hawaiian Organizations (NHOs)

- ✓ Other Consulting Parties

✓ City of Detroit Preservation Specialist

Completed

Describe the process of selecting consulting parties and initiating consultation here:

The Project was reviewed under a Programmatic Agreement between the City of Detroit, ACHP, and the Michigan SHPO. A Section 106 application was submitted to the City of Detroit to determine if the Project will adversely impact the Property area or area of potential effect (APE).

Document and upload all correspondence, notices and notes (including comments and objections received below).

Was the Section 106 Lender Delegation Memo used for Section 106 consultation?

Yes

No

Step 2 – Identify and Evaluate Historic Properties

1. Define the Area of Potential Effect (APE), either by entering the address(es) or uploading a map depicting the APE below:

The Project involves the rehabilitation of three discontinuous, 3-story apartment buildings in the Hubbard Farms Historic District. The APE encompasses all areas from which the buildings are visible, which range from 12 to 138 feet around the buildings, depending on the surrounding environment. Attached are individual photo logs/keys for each of the three sites.

In the chart below, list historic properties identified and evaluated in the APE. Every historic property that may be affected by the project should be included in the chart.

Upload the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination below.

Address / Location / District	National Register Status	SHPO Concurrence	Sensitive Information
-------------------------------	--------------------------	------------------	-----------------------

Cole - Mexicantown Historic District	Eligible	Yes	✓ Not Sensitive
Hubbard Farms Historic District	Listed	Yes	✓ Not Sensitive

Additional Notes:

Refer to APE Map

2. Was a survey of historic buildings and/or archeological sites done as part of the project?

✓ Yes

Document and upload surveys and report(s) below.
For Archeological surveys, refer to HP Fact Sheet #6, Guidance on Archeological Investigations in HUD Projects.

Additional Notes:

Refer to Section 106 documentation

No

Step 3 –Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. (36 CFR 800.5)] Consider direct and indirect effects as applicable as per guidance on direct and indirect effects.

Choose one of the findings below - No Historic Properties Affected, No Adverse Effect, or Adverse Effect; and seek concurrence from consulting parties.

No Historic Properties Affected

✓ No Adverse Effect

Based on the response, the review is in compliance with this section.

Document reason for finding:

Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources located in the City of Detroit and Wayne County, documents the Property is not listed in the National Register of Historic Places nor is the property located within an historic district of the City of Detroit or Wayne County. The Project was reviewed under a Programmatic Agreement between the City of Detroit, ACHP, and the Michigan SHPO. A Section 106 application was submitted to the City of Detroit to determine if the Project will adversely impact the Property area or area of potential effect (APE). In a letter dated June 10, 2022 and a revised letter dated August 25, 2023, the City's Preservation Specialist approved a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met. The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met: The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and, photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist.'

Does the No Adverse Effect finding contain conditions?

Yes (check all that apply)

Avoidance

Modification of project

Other

Describe conditions here:

The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. This project has been given a Conditional No Adverse Effect determination (Federal Regulations

36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met: The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and, photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist.'

No

Adverse Effect

Screen Summary

Compliance Determination

Review of the National Park Service (NPS) National Register of Historic Places, the Michigan State Historic Preservation Office (SHPO), and locally designated resources located in the City of Detroit and Wayne County, documents the subject properties are listed on the National Register of Historic Places as part of Hubbard Farms. The Cole also falls within the NRHP eligible Mexicantown Historic District. The Project was reviewed under a Programmatic Agreement between the City of Detroit, ACHP, and the Michigan SHPO. A Section 106 application was submitted to the City of Detroit to determine if the Project will adversely impact the Properties or area of potential effect (APE). The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. In a letter dated June 10, 2022, . This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met: * The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022; * Any changes to the scope of work for the project shall be submitted to the Preservation Specialist for review and approval prior to the start of any work. * Photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist Attachment 12

Supporting documentation

[Attachment 12C2CNAESection106Letter.pdf](#)

[Attachment 12C1 CNAESection106Letter.pdf](#)

[Attachment 12B Historic Preservation.pdf](#)
[Attachment 12A APE Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Noise Abatement and Control

General requirements	Legislation	Regulation
HUD’s noise regulations protect residential properties from excessive noise exposure. HUD encourages mitigation as appropriate.	Noise Control Act of 1972 General Services Administration Federal Management Circular 75-2: “Compatible Land Uses at Federal Airfields”	Title 24 CFR 51 Subpart B

1. What activities does your project involve? Check all that apply:

New construction for residential use

Rehabilitation of an existing residential property

NOTE: For modernization projects in all noise zones, HUD encourages mitigation to reduce levels to acceptable compliance standards. See 24 CFR 51 Subpart B for further details. The definition of “modernization” is determined by program office guidance.

A research demonstration project which does not result in new construction or reconstruction

An interstate land sales registration

Any timely emergency assistance under disaster assistance provision or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

None of the above

2. Do you have standardized noise attenuation measures that apply to all modernization and/or minor rehabilitation projects, such as the use of double glazed windows or extra insulation?

Yes

Indicate the type of measures that will apply (check all that apply):

- ✓ Improved building envelope components (better windows and doors, strengthened sheathing, insulation, sealed gaps, etc.)
Redesigned building envelope (more durable or substantial materials, increased air gap, resilient channels, staggered wall studs, etc.)
Other

Explain:

Based
on
the

The Cole is the only building requiring noise mitigation. Existing windows include 3x5 foot wood-framed double hung windows; each sash has one 7/16 inch glass and 6x5 foot window-framed picture windows single panel glazed double strength with STCs of 26 and 29, respectively. Windows will be repaired with a full refurbishment including sash, hardware, and glazing. The current wall construction includes common brick; 3/4 inch mortar-filled cavity; 1/2 inch gypsum 1 inch wood furring with an STC of 53. Doors consist of 3x7 foot hollow-core with 1 3/4 inch thick 30% glazed with 1/8 inch glass and a STC of 19. The combined STC for wall assembly is 32.01 which meets the required STC rating of 31. response, the review is in compliance with this section.

No

Screen Summary

Compliance Determination

The Properties are located between six and seven miles of Coleman A. Young International Airport and Windsor International Airport. Cole and Harrington are both within 1,000 feet of West Grand Boulevard and West Vernor Highway, and both are also within 3,000 feet of CSX Transportation railroad. Harwill Manor is within 1,000 feet of Scotten Avenue. For busy roads, PM completed a ten-year projection for 2031, assuming a 1% traffic increase per year. Cole Apartments - 3615 West Vernor Highway The HUD Site Day/Night Noise Level (DNL) Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The noise assessment location (NAL) was located closest to the potential roadway noise sources, which were the northern face and southern face of the building. The combined calculated noise level for 3615 West Vernor Highway is 70 dB, which is within HUD's Unacceptable range (<75 dB and >65 dB). The Project architect completed a HUD Noise Sound Transmission Classification Assessment Tool (StraCAT). The combined Sound Transmission Classification (STC) (for wall assembly is 32 dB which documents interior noise levels will be below 45 dB (Attachment 13). Harrington Apartments - 461 -

465 W Grand Boulevard The HUD Site DNL Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The NAL was located closest to the potential roadway noise sources, which were the western face and northern face of the building. The combined calculated noise level for 461 - 465 W Grand Boulevard is 63 dB, which is within HUD's Acceptable range (<65 dB). It is noted that a Noise Assessment was also completed in 2020 for the Harrington and the dB was calculated as 68 dB. However, the traffic data was incorrectly doubled for the 2020 calculation and has since been corrected. Harwill Manor Apartments - 1441 - 1453 Hubbard Street The HUD DNL Calculator was utilized to obtain a combined DNL for the potential roadway noise sources. The NALs were located closest to the potential roadway noise sources, which were the southwestern and southeastern corners of the building. The combined calculated noise level for 1441 - 1453 Hubbard Street are 50 and 44 dB, which are within HUD's Acceptable range (<65 dB). The Desktop Noise Analysis reports are provided within the Phase I ESAs (Section 9.8 and Appendix 10.7) provided in Attachment 8.

Supporting documentation

[Attachment 13 2022-0713 Cole-StraCAT.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Sole Source Aquifers

General requirements	Legislation	Regulation
The Safe Drinking Water Act of 1974 protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300f et seq., and 21 U.S.C. 349)	40 CFR Part 149

1. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

Yes

Based on the response, the review is in compliance with this section.

No

Screen Summary

Compliance Determination

There are no sole source aquifers located in Detroit or Wayne County. Attachment 14

Supporting documentation

[Attachment 14 Sole Source Aquifers.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. The Fish and Wildlife Service's National Wetlands Inventory can be used as a primary screening tool, but observed or known wetlands not indicated on NWI maps must also be processed Off-site impacts that result in draining, impounding, or destroying wetlands must also be processed.	Executive Order 11990	24 CFR 55.20 can be used for general guidance regarding the 8 Step Process.

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance? The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order

✓ No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

Areas potentially associated with wetlands were not observed on the subject properties during the site reconnaissance. In addition, review of the National Wetlands Inventory (NWI) Map from the U.S. Fish and Wildlife Service, did not identify any wetlands on the subject properties. Attachment 15

Supporting documentation

[Attachment 15B EGLE Wetland Maps.pdf](#)

[Attachment 15A NWI Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

Wild and Scenic Rivers Act

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297

1. Is your project within proximity of a NWSRS river?

No

Yes, the project is in proximity of a Designated Wild and Scenic River or Study Wild and Scenic River.

Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

Screen Summary

Compliance Determination

The National Wild and Scenic Rivers System map (maintained and managed by the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service and U.S. Forest Service) was reviewed to determine if the subject properties are within a designated wild and scenic river area. There are no wild and scenic rivers located within the City of Detroit or Wayne County. Attachment 16

Supporting documentation

[Attachment 16 Scenic Rivers.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Environmental Justice

General requirements	Legislation	Regulation
Determine if the project creates adverse environmental impacts upon a low-income or minority community. If it does, engage the community in meaningful participation about mitigating the impacts or move the project.	Executive Order 12898	

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project’s total environmental review?

Yes

No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

This Project will not have a disproportionately high adverse effect on human health or environment of minority populations and/or low-income populations. The buildings serve low-income and minority populations and the Project entails renovation/rehabilitation of the subject buildings. Therefore, this Project is intended to improve the present environment of low-income citizens. The subject properties are in the City of Detroit, which is made up of 87% ethnic minorities. The Project will not result in disproportionately adverse environmental effects on minority or low-income populations. No persons will be displaced due to this Project. Attachment 17

Supporting documentation

[Attachment 17 EJS.pdf](#)

Are formal compliance steps or mitigation required?

Yes

Hubbard-Farms-
Apartments

Detroit, MI

900000010267665

✓ No



**U.S. Department of Housing and Urban
Development**
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov
espanol.hud.gov

**Environmental Review for Activity/Project that is
Categorically Excluded Subject to Section 58.5
Pursuant to 24 CFR 58.35(a)**

Project Information

Project Name: Hubbard-Farms-Apartments

HEROS Number: 900000010267665

State / Local Identifier: Detroit, Michigan

Project Location: Multiple, Detroit, MI 48216

Additional Location Information:

Cole Apartments - 3615 West Vernor Highway Harrington Apartments - 461 - 465 West Grand
Boulevard Harwill Manor Apartments - 1441 - 1453 Hubbard Street

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Hubbard Farms encompasses three separate residential properties, which include 3615 West Vernor Highway, 461 - 465 West Grand Boulevard, and 1441 - 1453 Hubbard Street in Detroit, Michigan. A Site Vicinity Map is provided as Attachment 1. The Project consists of the preservation and rehabilitation of three historic buildings that will provide sixty units of affordable housing, including thirty permanent supportive housing units that will have project based rental assistance. Federal historic rehabilitation tax credits will be part of the project's funding to renovate and preserve these affordable historic apartment buildings. There are a total of 60 apartments and new set asides including 30 units at or below 50% of the Area Median Income (AMI) and 30 units for permanent supportive housing for households earning at or below 30% AMI. There will be eight studios, 20 one-bedroom, 22 two-bedroom, and 10 three-bedroom apartments. A combined total of 1,334 net square feet of community space and private offices are available within the three buildings. The Harrington (18 units and 9,537 square feet) is a 3-story Colonial Revival-style building constructed in 1926 and includes an adjacent courtyard. The Harwill (19 units and 20,448 square feet) is 3-story Craftsman-style building constructed in 1927. The Cole (23 units and 13,392 square feet) is a Spanish-Moorish Style building constructed in 1924. Street parking is available to all three properties. All three buildings are in close proximity to the historic Clark Park. The LHDA will achieve one of the Enterprise Green Communities Certifications. Rehabilitation activities include enhancement of landscaping, window repair/restoration, brick tuck pointing, repair of limestone details/sculptures, minor roof repairs and gutter replacement, replacement of common area flooring and new paint, upgrades to kitchens, bathrooms, bedrooms, and living spaces, video cameras and other security updates, keyless entries for front and rear doors, and new LED exterior lights in the courtyards and green spaces. Site and Architectural Plans and Alta Surveys are provided in Attachment 2. This review is for \$1,900,000 in CDBG 2023. This review is valid for up to five years.

Hubbard-Farms-Apartments

Detroit, MI

900000010267665

Level of Environment Review Determination:

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at §58.5: 58.35(a)(3)(ii)

Funding Information

Grant Number	HUD Program	Program Name
B23MC260006	Community Planning and Development (CPD)	Community Development Block Grants (CDBG) (Entitlement)

Estimated Total HUD Funded Amount: \$1,900,000.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: \$14,737,606.00

Mitigation Measures and Conditions [CFR 1505.2(c)]:

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure or Condition	Comments on Completed Measures	Complete
Historic Preservation	The project shall be carried out in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. This project has been given a Conditional No Adverse Effect determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long as the following conditions are met: The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist.'	N/A	
Contamination and Toxic Substances	PM completed a Phase I ESAs for each subject property dated August 23, 2023. No recognized environmental conditions (RECs) were identified, except for a vapor intrusion condition at the Harrington.	N/A	

	<p>Additional information is included below.</p> <p>In December 2021, residents of the Harrington were evacuated as a result of vapors entering the building from a release of petroleum products at a north adjoining gasoline dispensing station (3801 West Vernor Highway) that migrated via the sewer system toward the building. Representatives from EGLE and Michigan Department of Health and Human Services (DHHS) responded. City of Detroit BSEED also discovered issues with the foundation of the Harrington building that will be addressed as part of the proposed renovation (Foundation Letter dated July 12, 2022, is provided in the Adobe Attachment Tab). Based on the cumulative site investigation data collected as part of the open release investigations from the adjacent gas station (3801 West Vernor Highway), the subject building is located within the 30-foot lateral inclusion zone (LIZ) from soil and/or perched groundwater impacts that remain on the gas station property. Further, the lateral sewer service line was replaced at the gas station in February 2022, and a partial replacement and lining of the municipal sewer main was completed in May and November 2022, by the Detroit Water & Sewer Department (DWSD).</p> <p>Initial vapor intrusion evaluations were completed at the Harrington that consisted of ambient indoor air monitoring, sewer vapor screenings, along with sampling five (5) sub-slab soil gas points (SG4 through SG8) that were installed in the basement of the subject building. Various gasoline compounds were detected on January 27, 2022, at soil gas points SG7 and SG8 exceeding the EGLE Residential and Nonresidential Volatilization to Indoor Air Pathway (VIAP) screening levels, which were adopted for use as the Site-Specific Target Levels (SSTLs). PM also utilized these sub-slab soil gas points as part of a</p>		
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	<p>long-term air monitoring program that was established in December 2021, and modified based on site conditions and on discussions with EGLE and other stakeholders.</p> <p>PM also completed subsurface investigation consisting of soil borings within the basement of the Harrington as well as within the adjacent public alleyway that consisted of the advancement of six soil borings (SB5 through SB10). Groundwater was not encountered at any of the locations. The soil analytical results did not identify gasoline constituents exceeding the laboratory method detection limits (MDLs) at any of these locations. Ambient air and sewer vapor screenings conducted by PM through December 1, 2022, confirmed that gasoline vapors had subsided within the sewer following the November 1, 2022, lining of the alleyway main by DWSD, and that vapors were no longer migrating through the lateral service lines and causing vapors to accumulate beneath the subject building. PM also collected indoor air samples in January 2023 that did not exceed the applicable Residential Recommended Interim Action Screening Levels (RIASLs). Based on discussions with EGLE, PM was unable to collect new sub-slab soil gas samples from the existing sample points to evaluate VIAP after the sewer repairs due to ambient air level oxygen readings routinely observed during screening events. Based on further discussions with EGLE, PM prepared a Work Plan proposal that was approved by EGLE on May 3, 2023, to install multi-increment/depth in-boring soil gas points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. Based on EGLE-approval of the proposal, PM prepared a Site Evaluation Summary and Construction Management Practices Work Plan for the subject property which</p>		
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	outlines in detail the mitigation strategy. The building will remain unoccupied until renovations are complete.			
Contamination and Toxic Substances - Lead-Based Paint	Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning, renovation activities are completed, clearance testing will be performed prior to re-occupancy. All records obtained associated with lead-based paint abatement will be maintained as part of the project's environmental records.	N/A	Attachment 18	
Noise Abatement and Control	The Cole is the only building requiring noise mitigation. Existing windows include 3x5 foot wood-framed double hung windows; each sash has one 7/16 inch glass and 6x5 foot window-framed picture windows single panel glazed double strength with STCs of 26 and 29, respectively. Windows will be repaired will a full refurbishment including sash, hardware, and glazing. The current wall construction includes common brick; 3/4 inch mortar-filled cavity; 1/2 inch gypsum 1 inch wood furring with an STC of 53. Doors consists of 3x7 foot hollow-core with 1 3/4 inch thick 30% glazed with 1/8 inch glass and a STC of 19. The combined STC for wall assembly is 32.01 with meets the required STC rating of 31.	N/A	Attachment 18	

Determination:


<input type="checkbox"/>	This categorically excluded activity/project converts to EXEMPT per Section 58.34(a)(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license; Funds may be committed and drawn down after certification of this part for this (now) EXEMPT project; OR
<input checked="" type="checkbox"/>	This categorically excluded activity/project cannot convert to Exempt status because one or more statutes or authorities listed at Section 58.5 requires formal consultation or mitigation. Complete consultation/mitigation protocol requirements, publish NOI/RROF and obtain "Authority to Use Grant Funds" (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR

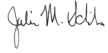
Hubbard-Farms-Apartments

Detroit, MI

900000010267665

<input type="checkbox"/>	This project is not categorically excluded OR, if originally categorically excluded, is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).
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DocuSigned by:

Preparer Signature: _____ **Date:** 10/16/2023
9390B097C5434FC...

Name / Title / Organization: Kim Siegel / / DETROIT
 DocuSigned by:

Responsible Entity Agency Official Signature: _____ **Date:** 10/16/2023
E17050515DAF408...

Name/ Title: Julie Schneider, Director, Housing and Revitalization Department

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environment Review Record (ERR) for the activity / project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

**Hubbard Farms
PM Environmental
August 24, 2023**

Response Activity or Continuing Obligation	Required Activities	Party Responsible for Completing Activity	Timing of Activity	Required Follow-up or Reporting
<p>Site Evaluation Summary and Construction Management Practices Work Plan (Harrington Building)</p>	<ol style="list-style-type: none"> 1- Install permanent groundwater monitoring wells and multi-increment/depth in-boring soil gas monitoring points within the adjacent public alleyway, which is between the source and the subject property. 2- PM will collect additional soil, groundwater (if encountered), and soil gas analytical data during the approximately one-year long renovation of the subject building that will be used to demonstrate that either 1) the VIAP is not complete or 2) to evaluate additional measures to mitigate vapors to prevent future exposure risks via the vapor intrusion pathway. This will involve monthly soil gas sample collection for a total of five (5) months/events along with four (4) quarterly groundwater monitoring events, if groundwater is encountered. 3- Site workers will adhere to their company issued site-specific health and safety plan in accordance with the Occupational Safety and Health Organization (OSHA) 29 Code of Federal Regulations (CFR) 1910.120 Worker Protection Regulations and will practice appropriate awareness and management for gasoline contaminated soil, groundwater, and/or vapors, if detected, on the subject property during construction activities 	<p style="text-align: center;">General Contractor, Consultant, EGLE</p>	<p style="text-align: center;">Concurrent with rehabilitation</p>	<p style="text-align: center;">Foundation Repair Approvals – BSEED and Contract Required Reporting to EGLE</p>

**Hubbard Farms
PM Environmental
August 24, 2023**

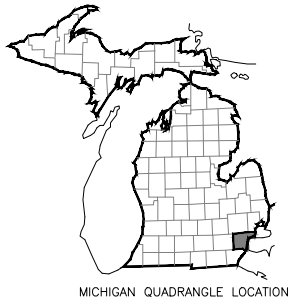
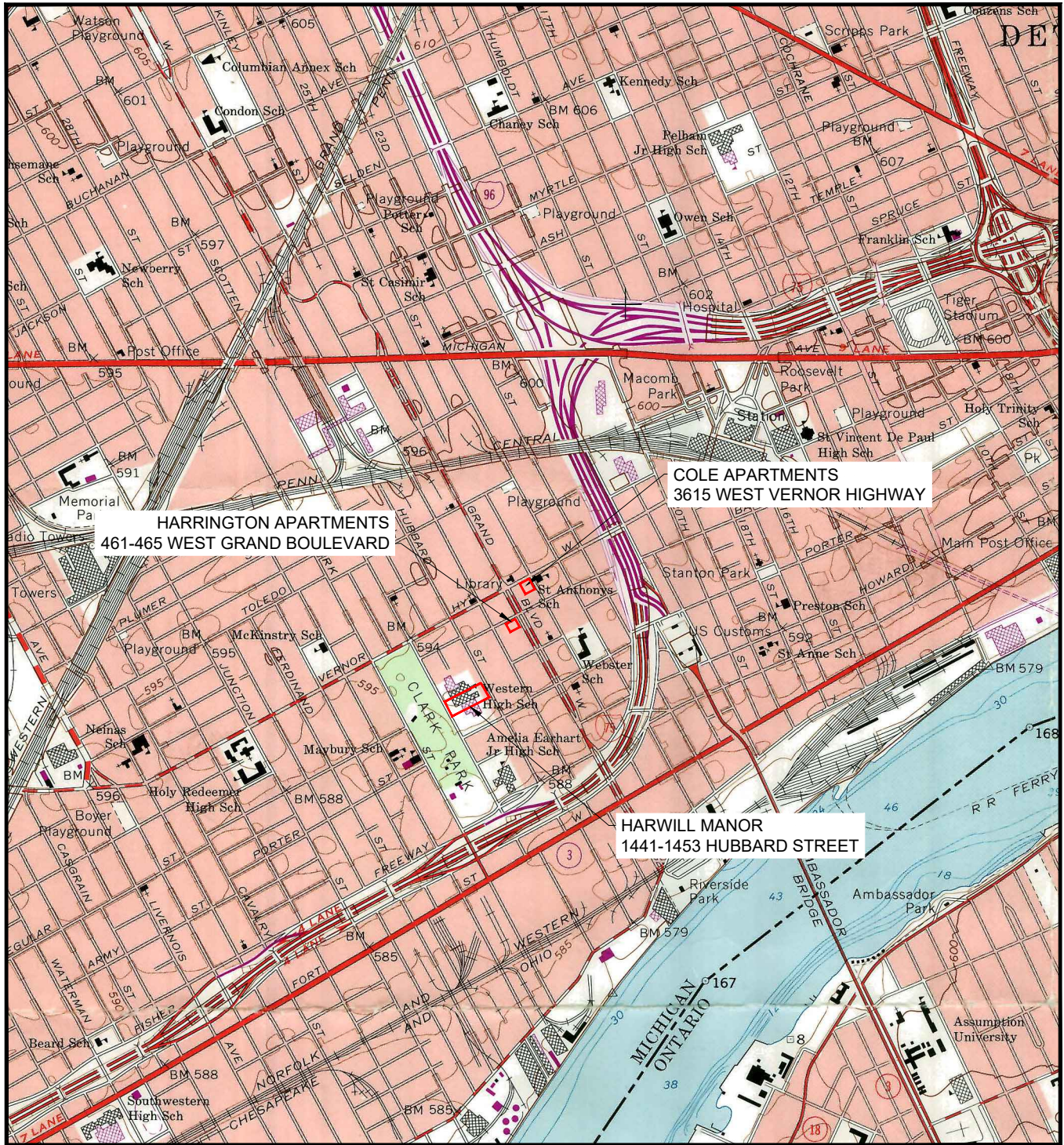
<p>Vapor Intrusion Mitigation – If Warranted (Harrington Building)</p>	<ol style="list-style-type: none">1- PM will complete a baseline air screening event of the previously approved monitoring locations using a photoionization detector (PID), multi-gas meter with lower explosive limit (LEL) capabilities, and an UltraRae PID equipped with benzene sorbent (SEP) tubes. This data will be logged and shared with EGLE as a baseline of site conditions prior to the collection of air samples for laboratory analysis.2- The baseline screening event was completed by PM on June 12, 2023 and the data was tabulated and disclosed to EGLE on June 15, 2023. All screened locations inside the subject building, and the sewer monitoring points adjacent to the subject property, were non-detect (0.0 ppm) for total VOCs and benzene, and no LEL readings were detected.3- PM will collect air samples from the two (2) apartment floor drains (laundry room and utility closet) along with the sanitary sewer main manhole (MH-1) and the exterior PVC drain cleanout located along the northern exterior wall of the subject building. The analytical results will assist with confirming if there is a lingering source of gasoline vapors.4- PM will contract with a certified plumber to complete a camera inspection of the lateral sanitary sewer lines from the Harrington Apartment building to the municipal sewer main located in the alley. This will determine the integrity of each of the laterals.			
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**Hubbard Farms
PM Environmental
August 24, 2023**

	<p>5- There are three (3) total lateral feeds based on sewer camera inspections that were previously conducted and none of the lateral feeds are equipped with vapor traps. PM will solicit competitive bids from eligible contractors to perform the installation of vapor traps on the lateral service lines.</p> <p>6- Sub-slab soil gas samples may be collected from the existing sample points (SG-4 through SG-8) to determine current concentrations if the conditions are found to be suitable based on screening of each of the pins with a manometer. PM will deploy a manometer to collect pressure readings from each of these locations to determine if there is outside ambient air influence. This data will be shared with EGLE to determine if soil gas samples should be collected.</p>			
<p>Section 106 – Conditional No Adverse Effect Requirements</p>	<p>A. The work will be conducted in accordance with the specifications submitted to the Preservation Specialist in May 2022.</p> <p>B. If there is a change in the scope of work, those changes will be required to undergo additional Section 106 Review prior to the execution of any work.</p>	<p>General Contractor, Project Architect</p> <p>General Contractor, Project Architect</p>	<p>Prior to Construction</p> <p>At any time</p>	<p>Photos of the completed work submitted to Preservation Specialist</p>
<p>Noise Analysis – Unacceptable Noise</p>	<p>The Cole is the only building requiring noise mitigation. Existing windows include 3x5 foot wood-framed double hung windows; each sash has one 7/16-inch glass and 6x5 foot window-framed picture windows single panel glazed</p>	<p>Architect, Construction, Crew, Foremen, Developer,</p>	<p>During rehabilitation</p>	<p>Building specs</p>

**Hubbard Farms
PM Environmental
August 24, 2023**

	<p>double strength with STCs of 26 and 29, respectively. Windows will be repaired with a full refurbishment including sash, hardware, and glazing. The current wall construction includes common brick; 3/4-inch mortar-filled cavity; 1/2-inch gypsum 1 inch wood furring with an STC of 53. Doors consists of 3x7 foot hollow-core with 1 3/4-inch thick 30% glazed with 1/8-inch glass and a STC of 19. The combined STC for wall assembly is 32.01 with meets the required STC rating of 31.</p>			
<p>Lead-Based Paint</p>	<p>Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning/renovation activities are completed, clearance testing will be performed prior to re-occupancy. All records obtained associated with lead-based paint abatement will be maintained as part of the project's environmental records.</p>	<p>General Contractor, Consultant</p>	<p>During rehabilitation</p>	<p>Close Out Report</p>



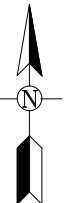
MICHIGAN QUADRANGLE LOCATION

WAYNE COUNTY

FIGURE 1

SITE VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES
 DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 AND 1980.



PROJ:

HUBBARD FARMS
 DETROIT, MI

THIS IS NOT A LEGAL
 SURVEY

VERIFY SCALE

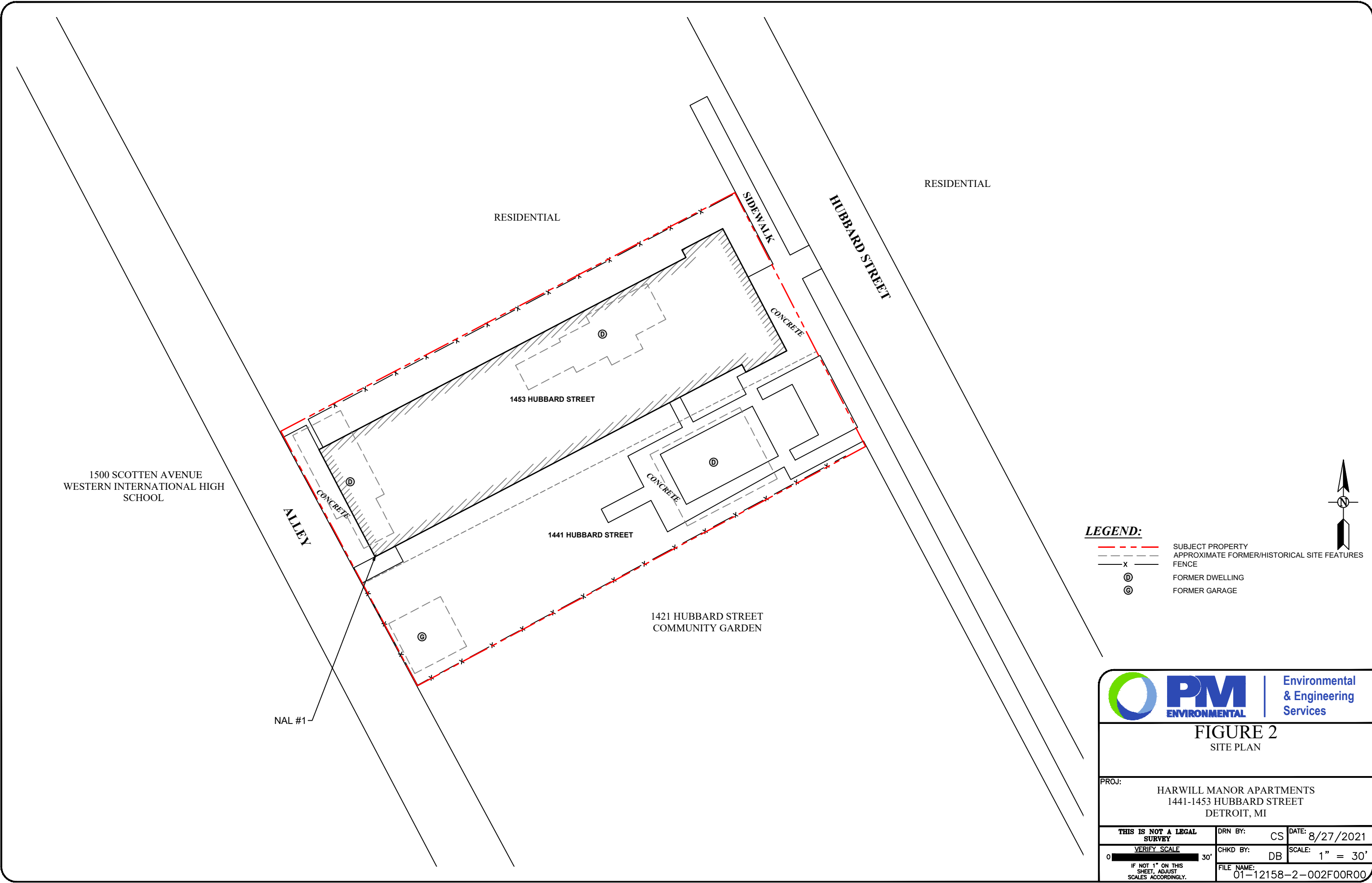
0 2,000'

IF NOT 1" ON THIS
 SHEET, ADJUST
 SCALES ACCORDINGLY.

DRN BY: CS DATE: 3/15/2022

CHKD BY: CD SCALE: 1" = 2,000'

FILE NAME:
 01-12158-2-004F01R00



1500 SCOTTEN AVENUE
WESTERN INTERNATIONAL HIGH SCHOOL

NAL #1

RESIDENTIAL

RESIDENTIAL

1453 HUBBARD STREET

1441 HUBBARD STREET

1421 HUBBARD STREET
COMMUNITY GARDEN

SIDEWALK

HUBBARD STREET



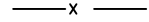


ALLEY

CONCRETE

CONCRETE

CONCRETE

LEGEND:

-  SUBJECT PROPERTY
-  APPROXIMATE FORMER/HISTORICAL SITE FEATURES
-  FENCE
-  FORMER DWELLING
-  FORMER GARAGE

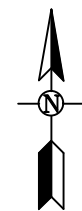








FIGURE 2
SITE PLAN

PROJ: HARWILL MANOR APARTMENTS
1441-1453 HUBBARD STREET
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: CS	DATE: 8/27/2021
VERIFY SCALE	CHKD BY: DB	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FILE NAME: 01-12158-2-002F00R00	

LEGEND:

-  SUBJECT PROPERTY
-  APPROXIMATE FORMER/HISTORICAL SITE FEATURES
-  PARCEL / LOT BOUNDARIES
-  FORMER DWELLING
-  FORMER GARAGE
-  NOISE ASSESSMENT LOCATION

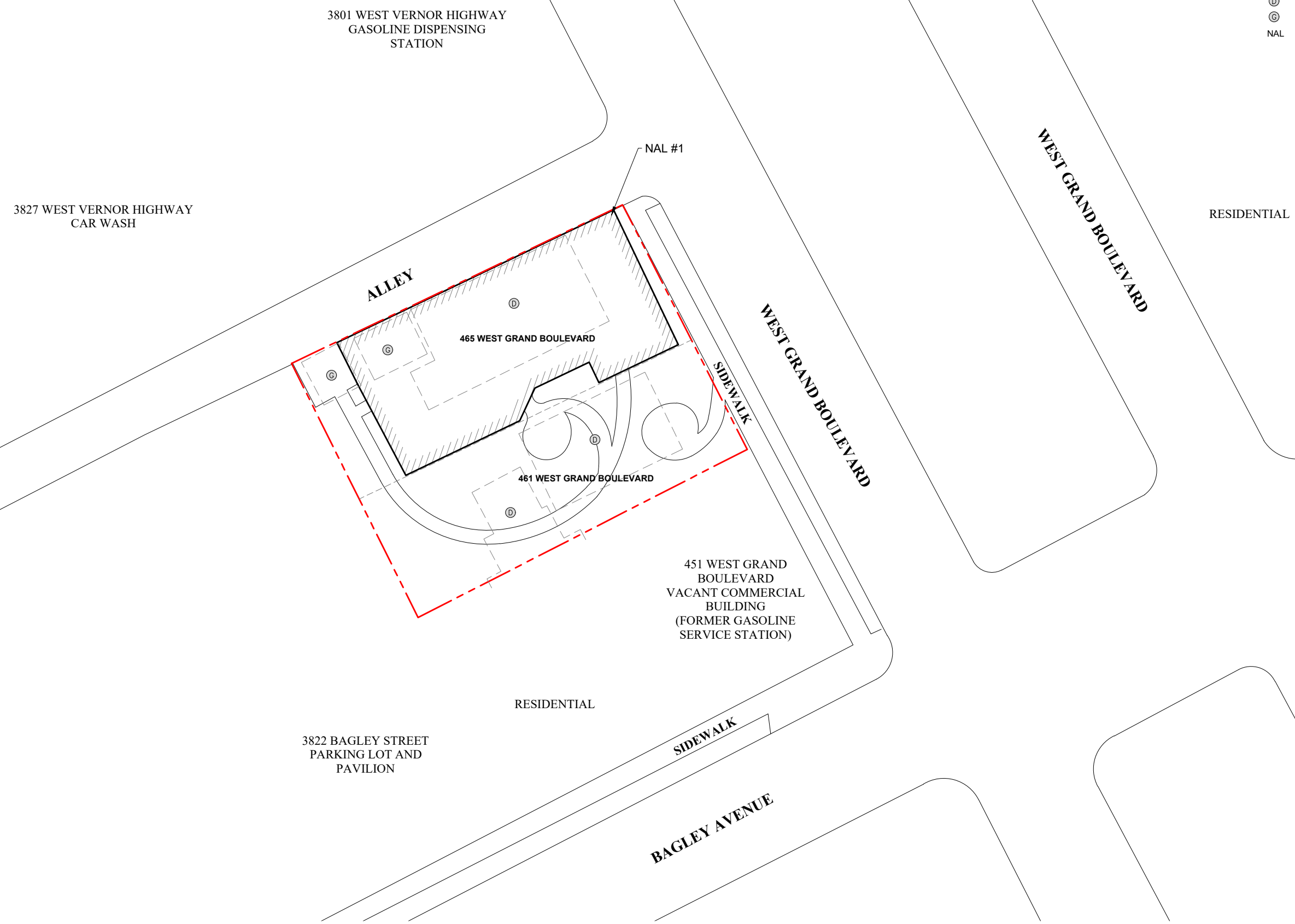
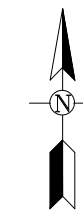
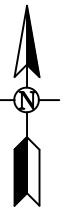








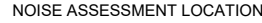
FIGURE 2
SITE PLAN

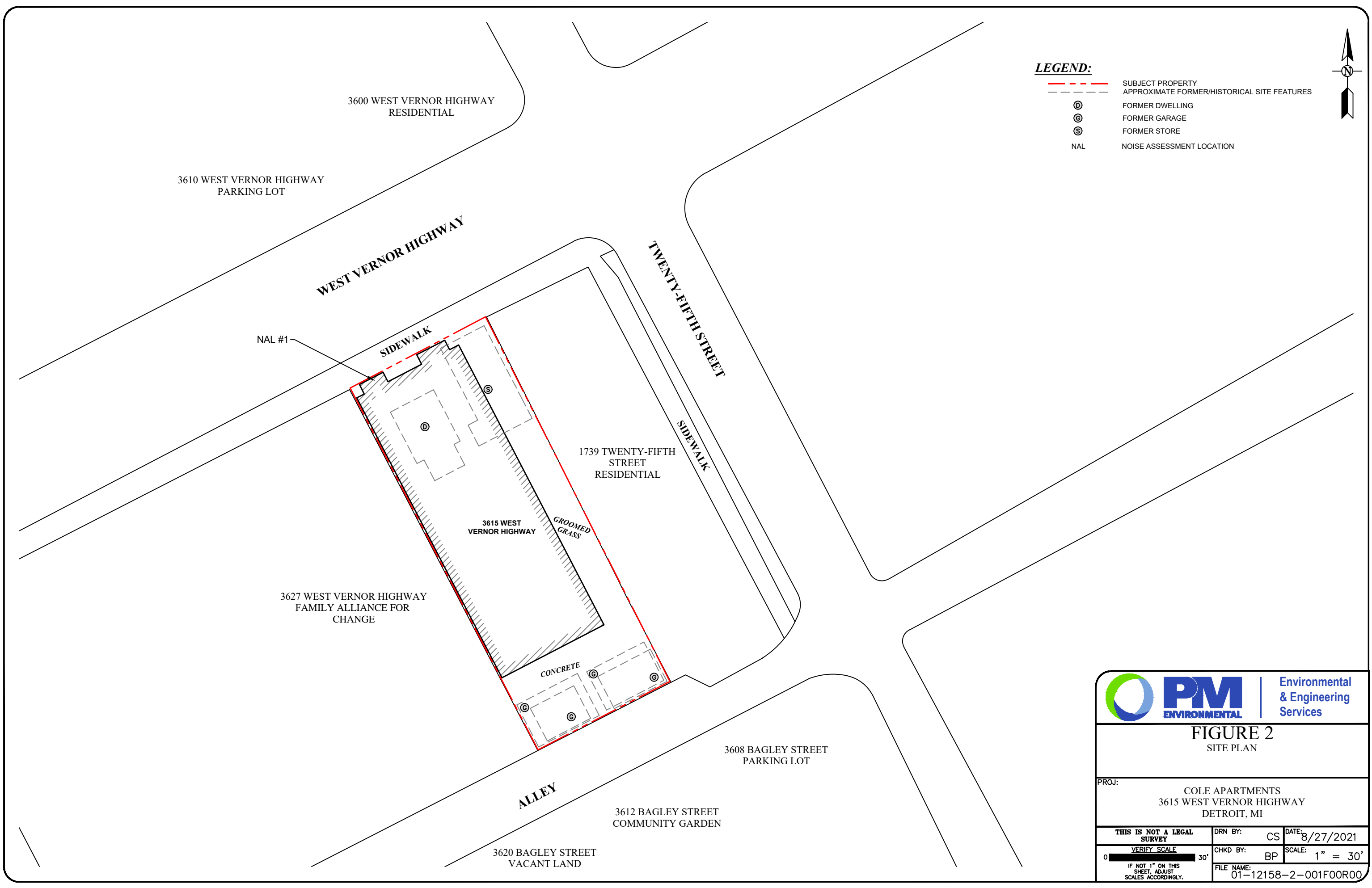
PROJ: HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI



THIS IS NOT A LEGAL SURVEY	DRN BY: CS	DATE: 5/27/2020
VERIFY SCALE	CHKD BY: BP	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-12158-2-003F00R00		



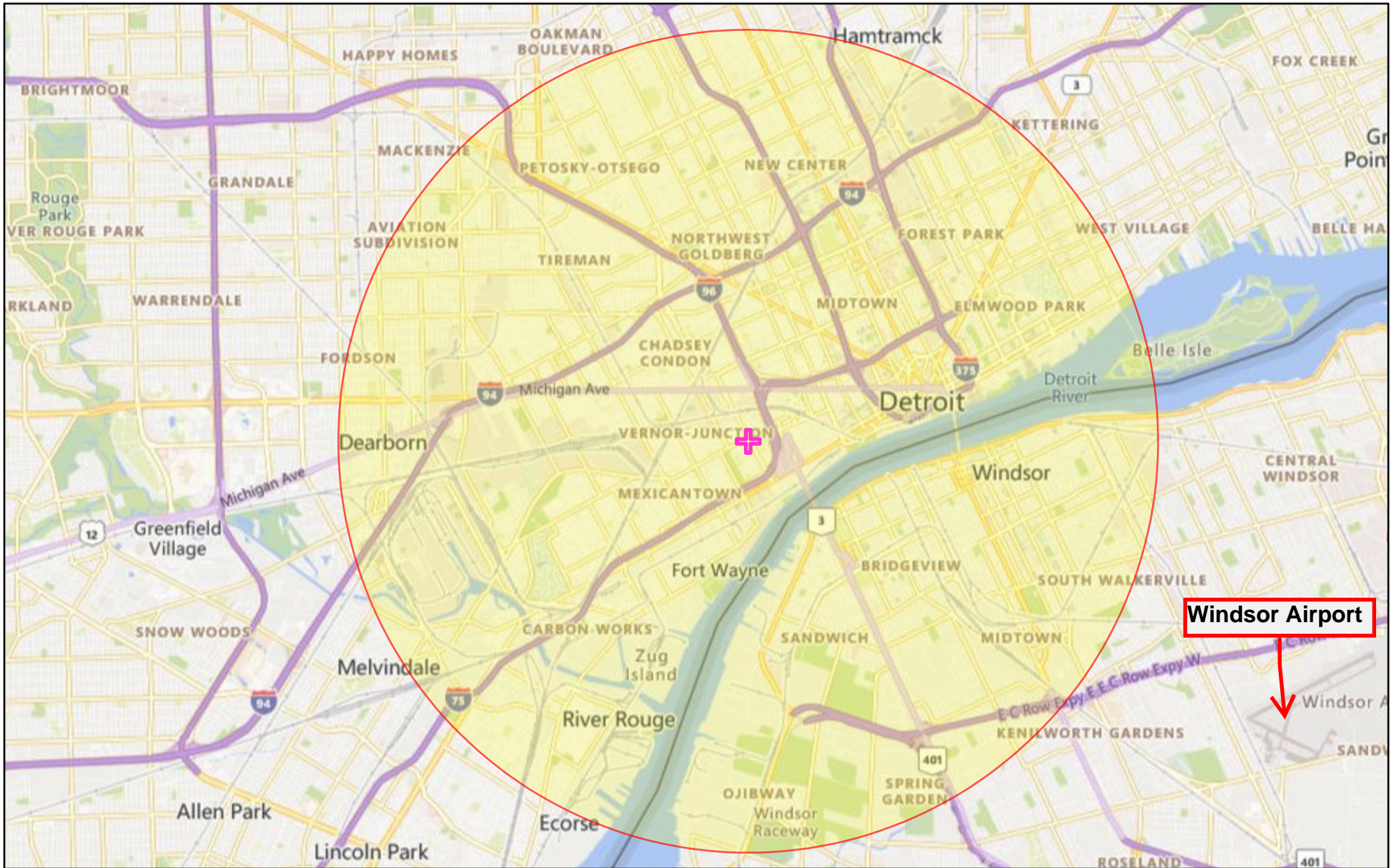
LEGEND:

-  SUBJECT PROPERTY
-  APPROXIMATE FORMER/HISTORICAL SITE FEATURES
-  FORMER DWELLING
-  FORMER GARAGE
-  FORMER STORE
-  NAL
-  NOISE ASSESSMENT LOCATION



		Environmental & Engineering Services
FIGURE 2 SITE PLAN		
PROJ: COLE APARTMENTS 3615 WEST VERNOR HIGHWAY DETROIT, MI		
THIS IS NOT A LEGAL SURVEY	DRN BY: CS	DATE: 8/27/2021
VERIFY SCALE	CHKD BY: BP	SCALE: 1" = 30'
0  30'	FILE NAME: 01-12158-2-001F00R00	
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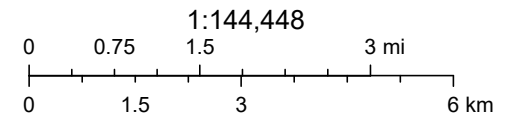
Airport Location Map



March 15, 2022

 Project Buffer

 Airport Map



© 2022 Microsoft Corporation © 2022 TomTom



January 29, 2020

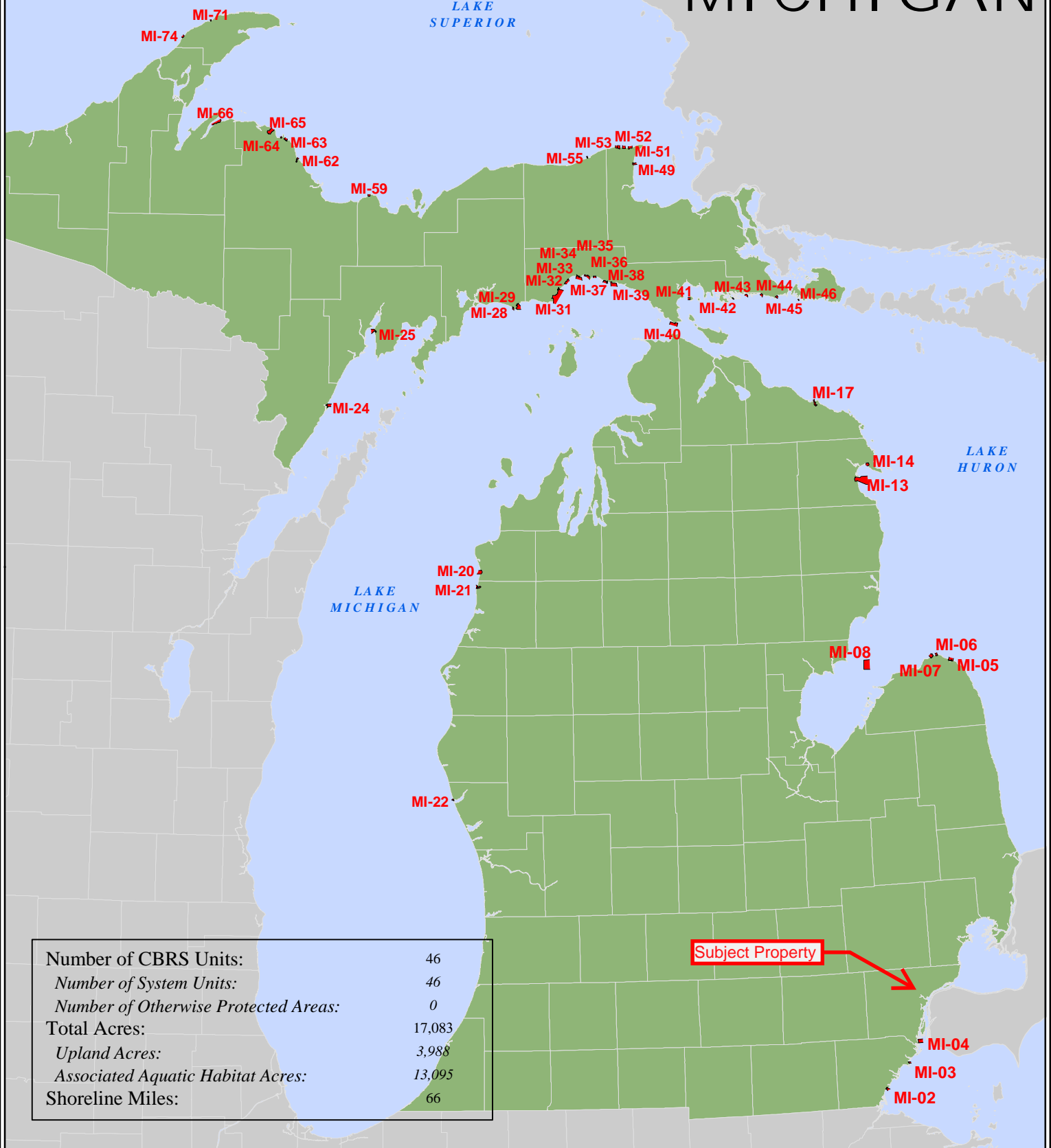
 CBRS Units

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/cbra/maps/index.html>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<http://www.fws.gov/cbra/Determinations.html>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.

JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM MICHIGAN



Number of CBRS Units:	46
Number of System Units:	46
Number of Otherwise Protected Areas:	0
Total Acres:	17,083
Upland Acres:	3,988
Associated Aquatic Habitat Acres:	13,095
Shoreline Miles:	66

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and are maintained by the U.S. Fish and Wildlife Service. The official CBRS maps are available for download at <http://www.fws.gov/CBRA>.

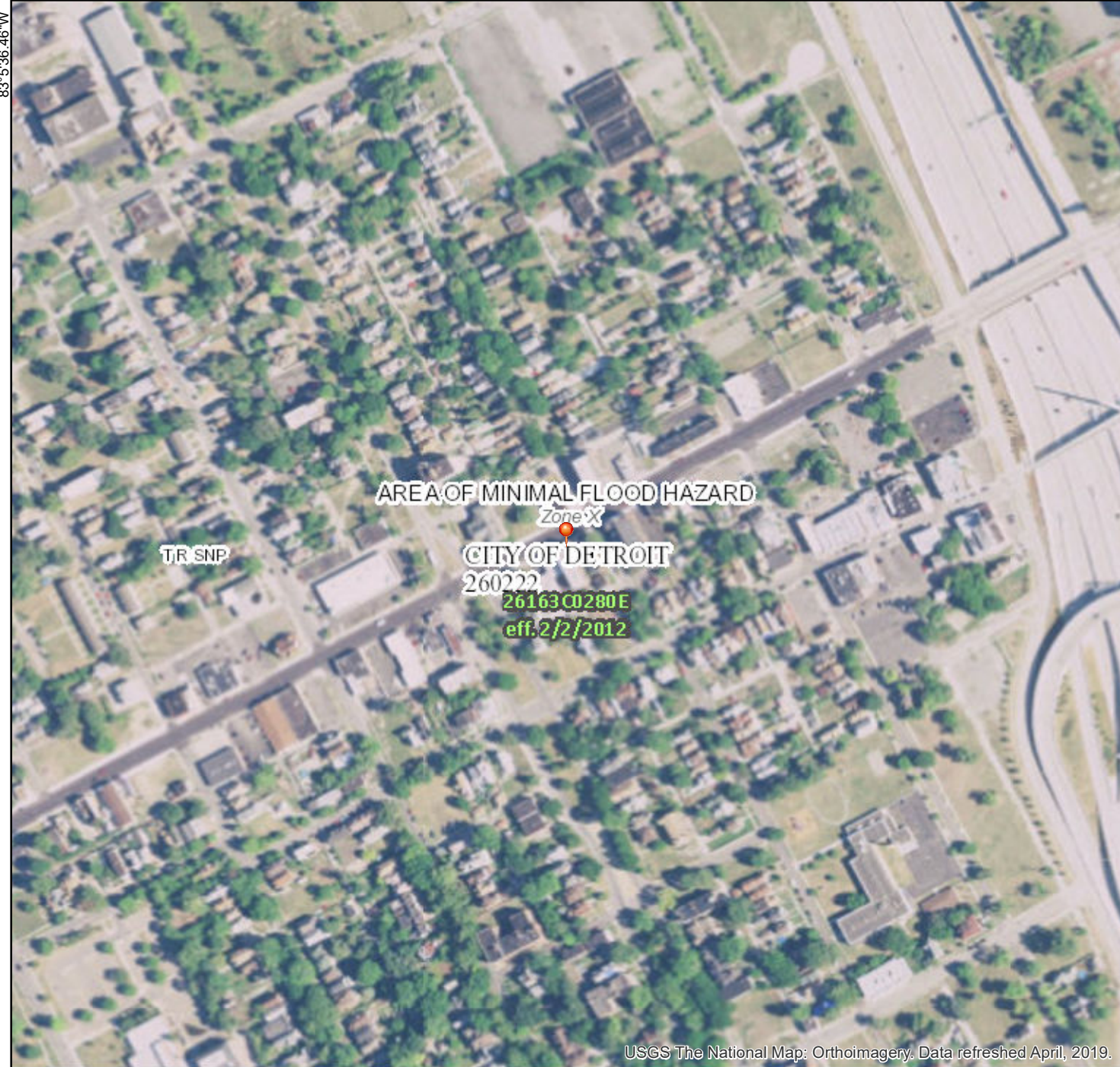


National Flood Hazard Layer FIRMette

Cole Apartments



42°19'36.86"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/8/2020 at 10:50:13 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

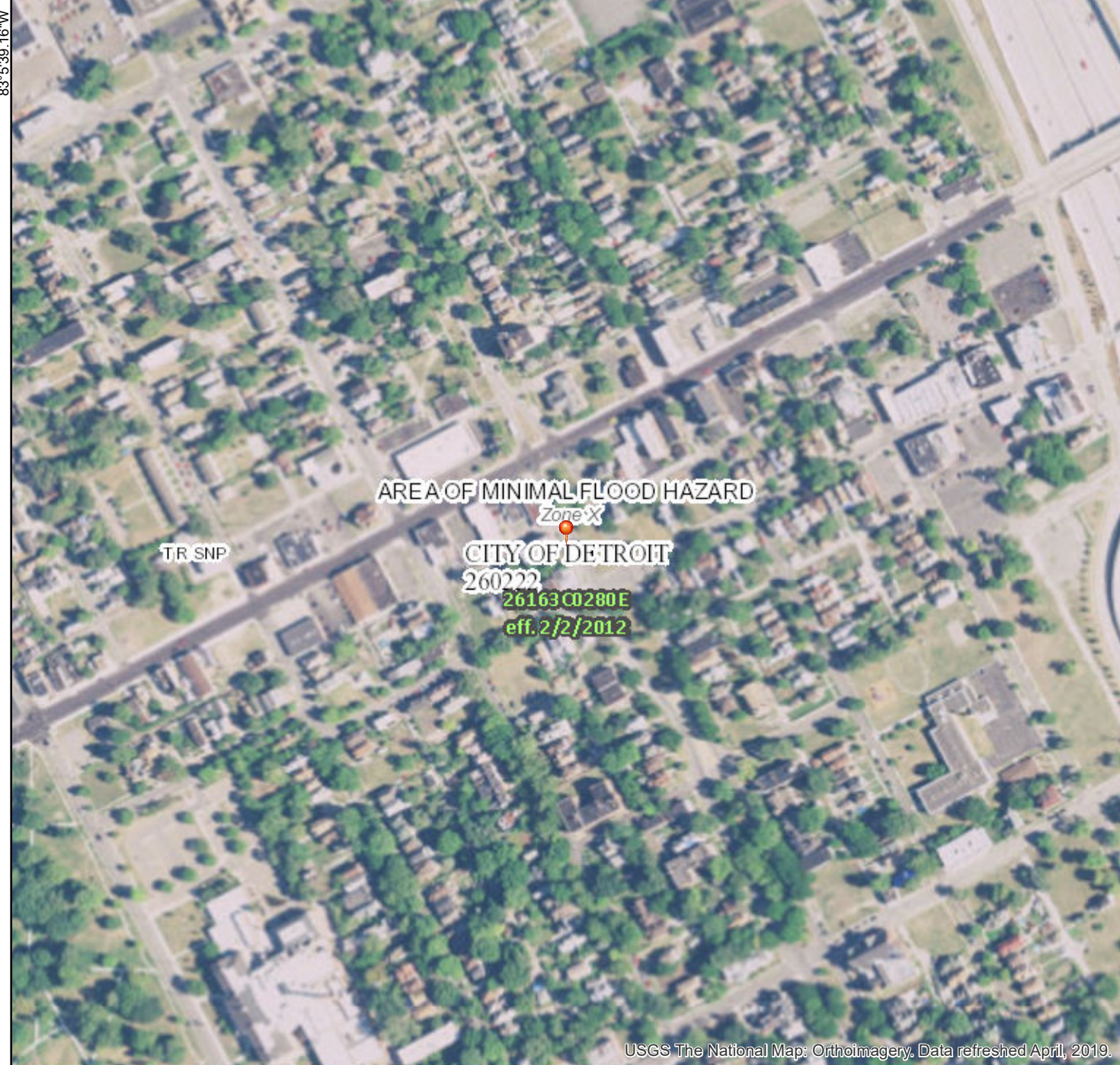
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

Harrington Apartments



42°19'33.68"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X

OTHER AREAS OF FLOOD HAZARD		Area with Flood Risk due to Levee Zone D
		Area of Minimal Flood Hazard Zone X

OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)

OTHER FEATURES		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
OTHER FEATURES		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/8/2020 at 2:19:00 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

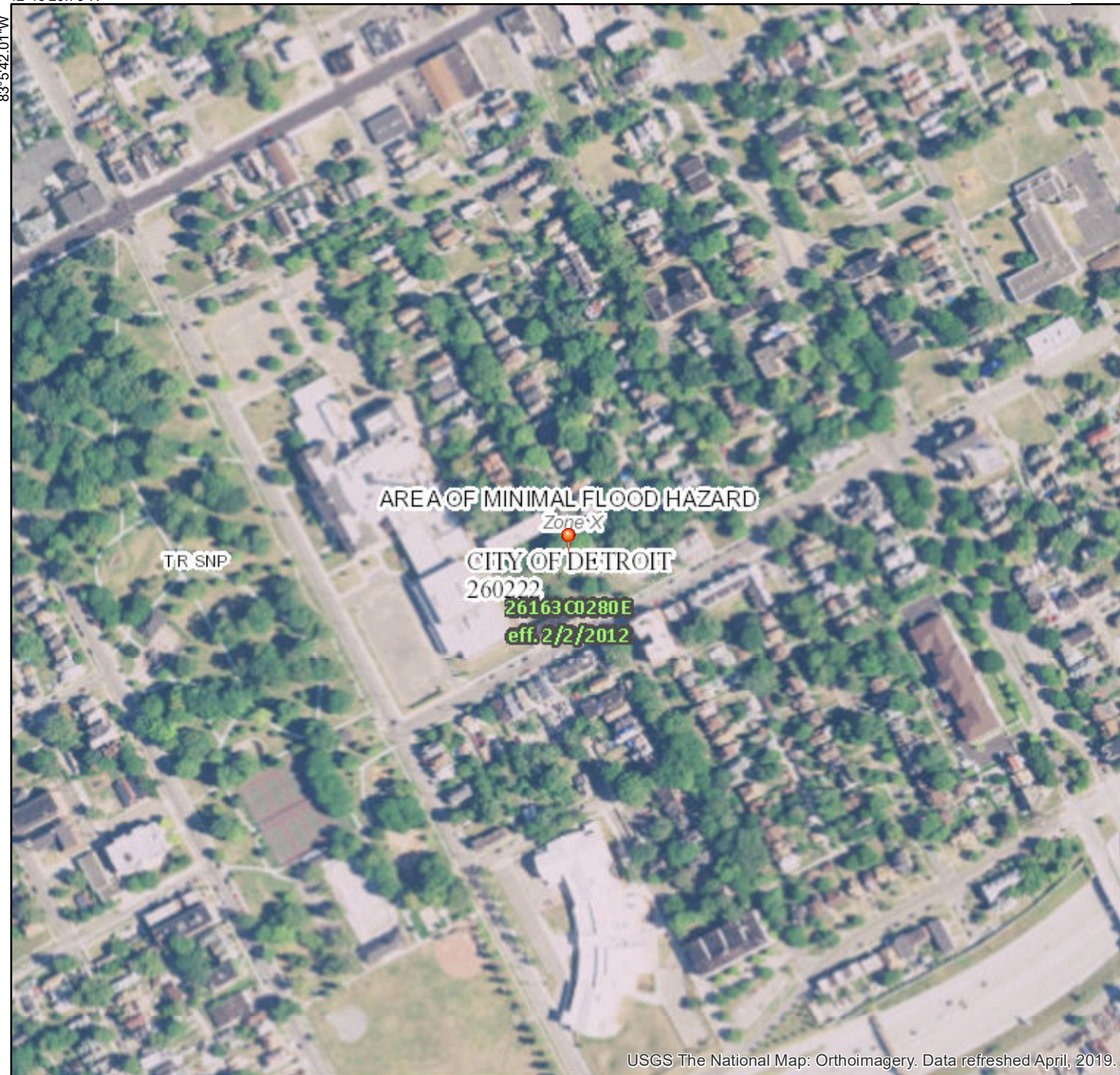
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette Harwill Manor



42°19'20.79"N

83°5'42.01"W



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>

OTHER AREAS OF FLOOD HAZARD		Area with Flood Risk due to Levee <i>Zone D</i>
		Area of Minimal Flood Hazard <i>Zone X</i>

OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)

OTHER FEATURES		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
OTHER FEATURES		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

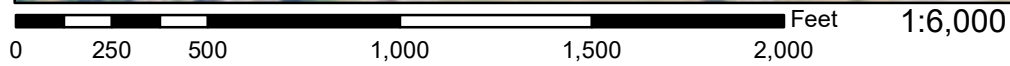
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/8/2020 at 3:04:54 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USGS The National Map: Orthoimagery. Data refreshed April, 2019.



42°18'54.19"N

83°5'4.56"W

Attainment Status for the National Ambient Air Quality Standards

The National Ambient Air Quality Standards (NAAQS) are health-based pollution standards set by EPA.

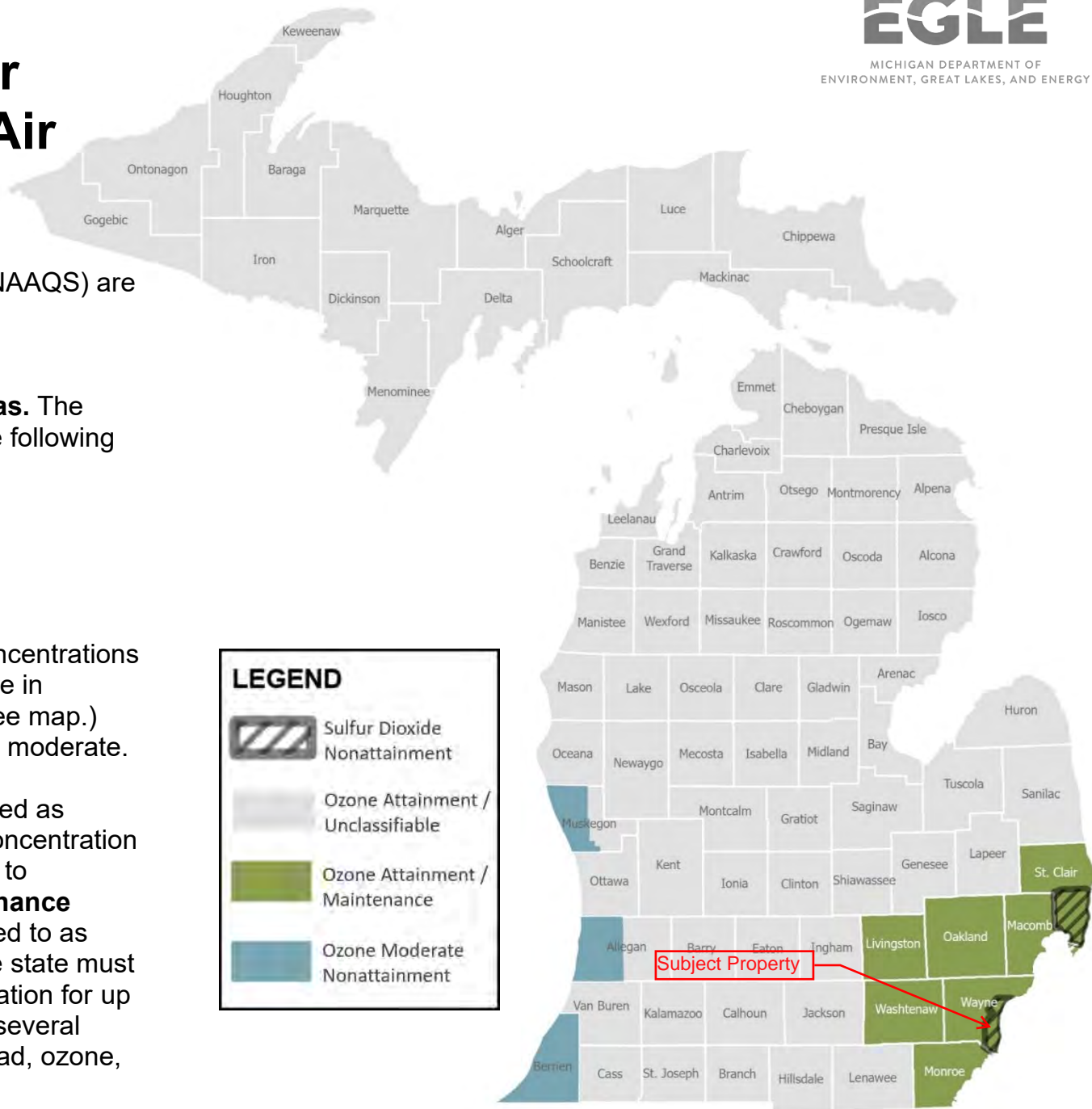
Areas of the state that are below the NAAQS concentration level are called **attainment areas**. The entire state of Michigan is in attainment for the following pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO₂)
- Particulate Matter (PM₁₀ & PM_{2.5})

Nonattainment areas are those that have concentrations over the NAAQS level. Portions of the state are in nonattainment for sulfur dioxide and ozone (see map.) The ozone nonattainment area is classified as moderate.

Areas of the state that were previously classified as nonattainment but have since reduced their concentration levels below the NAAQS can be redesignated to attainment and are called **attainment/maintenance areas**. These areas are also commonly referred to as “attainment” after reclassification, however the state must continue monitoring and submitting documentation for up to 20 years after the redesignated. There are several maintenance areas throughout the state for lead, ozone, and particulate matter.

**For readability purposes the map only includes the most recently reclassified ozone maintenance area in southeast Michigan. For more information, please consult the Michigan.gov/AIR webpage or contact the division directly.*



**See Page 2 for close-up maps of partial county nonattainment areas.*

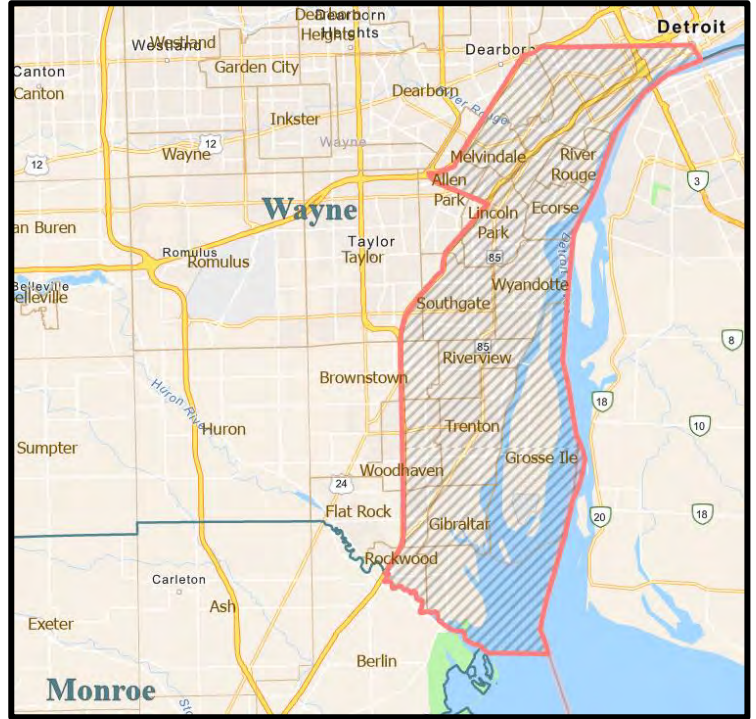
Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas

St. Clair County



Wayne County



Ozone Moderate Nonattainment Areas

Allegan County



Muskegon County





GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

January 21, 2022

Ms. Chelsea Dantuma, Project Consultant - Architectural Historian
PM Environmental, Inc.
3340 Ranger Road
Lansing, Michigan 48906

Dear Ms. Dantuma:

Subject: Hubbard Farms Apartments Rehabilitation Project, Detroit, Michigan

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has reviewed the federal regulations related to general conformity of projects with state implementation plans (SIP) for air quality. In particular, 40 Code of Federal Regulations (CFR) Section 93.150 et seq, which states that any federally funded project in a nonattainment or maintenance area must conform to the Clean Air Act requirements including the State's SIP if they may constitute a significant new source of air pollution.

On August 3, 2018, Wayne County was designated nonattainment for the 2015 National Ambient Air Quality Standard (NAAQS) for ozone, and thus, general conformity must be evaluated when completing construction projects of a given size and scope. EGLE is currently working to complete the required SIP submittal for this area; therefore, an alternative evaluation was completed to assess conformity. Specifically, EGLE considered the following information from the United States Environmental Protection Agency's (USEPA) general conformity guidance, which states "historical analysis of similar actions can be used in cases where the proposed projects are similar in size and scope to previous projects."

EGLE has reviewed the Hubbard Farms Apartments Rehabilitation project proposed to be completed with federal grant monies, including the rehabilitation of three historic apartment buildings in Detroit, Michigan. The project consists of the rehabilitation of a total of 60 apartments. New set asides will be 30 apartments at or below 50 percent of the area median income (AMI), and the other 30 apartments will be set aside for permanent supportive housing for households earning at or below 30 percent AMI. The project locations are: 3615 West Vernor Highway (Cole Apartments); 461-465 West Grand Boulevard (Harrington Apartments); and 1441-1453 Hubbard Street (Harwill Manor Apartments). The project is expected to commence in the summer/fall of 2022 and has an expected completion date of fall 2023.

Ms. Chelsea Dantuma

January 21, 2022

Page 2

In reviewing the *"Air Quality and Greenhouse Gas Study: Uptown Orange Apartments in Orange, California,"* dated December 2012, prepared for KTTY Group, Inc., by UltraSystems Environmental, Inc., it was determined that emission levels for the project were below the de minimis levels for general conformity. The Uptown Orange Apartments project and related parking structure construction was estimated to take 33 months to complete, would encompass an area of 5.57 acres, and included two four-story residential units with a total of 334 apartments, and two parking structures with a total of 494 and 679 parking stalls, respectively.

The size, scope, and duration of the Hubbard Farms Apartments Rehabilitation project proposed is much smaller in scale than the Uptown Orange Apartments project described above and should not exceed the de minimis levels included in the federal general conformity requirements. Therefore, it does not require a detailed conformity analysis.

If you have any further questions regarding this matter, please contact me at 517-648-6314; BukowskiB@Michigan.gov; or EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

Sincerely,

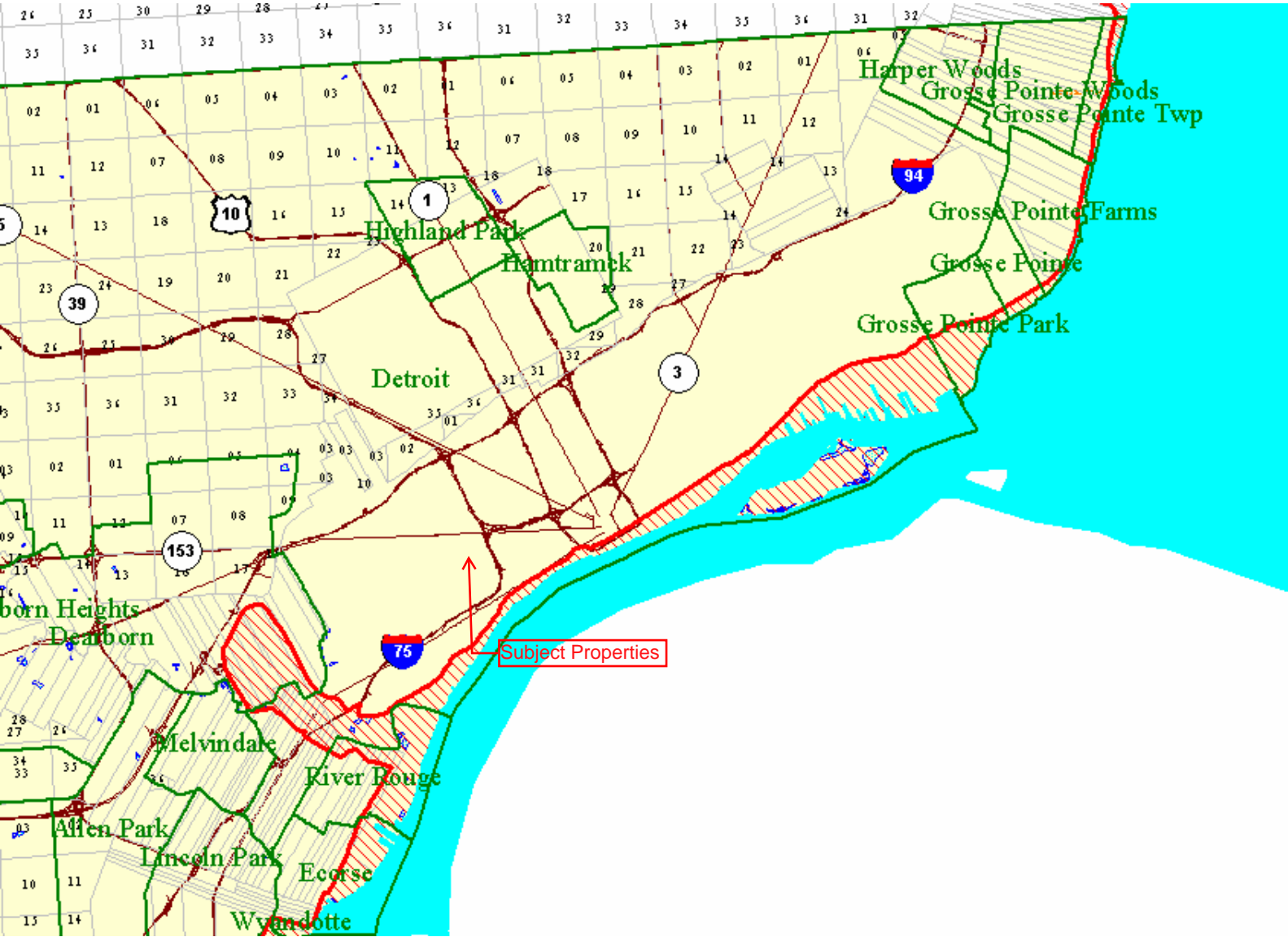
A handwritten signature in blue ink that reads "Breanna Bukowski".

Breanna Bukowski
Environmental Quality Analyst

cc: Mr. Michael Leslie, USEPA Region 5
Ms. Penny Dwoinen, City of Detroit

Wayne County
Grosse Pointe Township, Grosse Pointe Woods, Grosse Pointe Farms
Grosse Pointe, Grosse Pointe Park, and Detroit, T1S R14E
Detroit, T1S R14E, T2S R13E, and T2S R12E
River Rouge, T2S R11E

The heavy red line is the **Coastal Zone Management Boundary**
The red hatched area is the **Coastal Zone Management Area**.





July 12, 2022

Hubbard Farms Apartments, LDHA LC
1920 25th Street, Suite A
Detroit Michigan 48216

Attention: Ms. Janay Mallett

Re: The Harrington, 465 W. Grand Boulevard, Detroit, MI 48216

Dear Ms. Mallett:

As requested Shelter Design Studio, LLC performed an investigation of the existing foundations at 465 W. Grand Boulevard, a.k.a. The Harrington. The purpose of this investigation was to determine the structural viability of the existing foundations as they relate to a larger scope of building renovation.

Steve Pariseau, the principal architect at Shelter Design Studio, LLC toured the site with Patrick O'Dell from Keating Contracting. Several areas in the lower level of the building were exposed due to a recent investigation into possible water intrusion, which exposed the foundation at multiple locations.

Thorough examination did not expose any significant cracking or settling in the foundation, nor did the investigation identify any areas of moisture intrusion. (See below figures for photo evidence of exposed foundation areas).


Furthermore, observation of the interior and exterior walls of the building showed no signs of movement which would indicate foundation failure.

It should be noted that the north wall of The Harrington showed evidence multiple penetrations and that the north alley has been removed for replacement. In order to prevent moisture intrusion through these previous wall penetrations it would be prudent to excavate below grade, (approximately 4'-0" depth), and waterproof this exterior foundation wall. This recommended as a precaution to ensure no water infiltration occurs at this location.

It is our opinion that the existing foundation at The Harrington is viable, and does not need replacement.

Please do not hesitate to contact our offices if there happen to be any questions.

Cordially,



Stephen G. Pariseau, AIA

104 W. Fourth St., Suite 303
Royal Oak, Michigan 48067
(p) 248.629.7153 (f) 248.629.7154





Figure 1. Foundation wall under North Stair



Figure 2. Foundation wall in lift shaft enclosure.



Figure 3. Foundation wall in laundry room.



Figure 4. Foundation wall under entry stair.



Figure 5. North wall along public alley.

Contract Order

Department of Technology, Management and Budget, Facilities Adm

2nd Floor, Stevens T. Mason Building
P.O. Box 30026
Lansing, Michigan 48909

PSC Contract

Contract Order Number: Y23350

<p>Department Department of Environment, Great Lakes, and Energy</p> <p>Agency/Institution: EGLE/F & S Food & Fuel (Site ID# 00036314)</p> <p>Location: Detroit</p>	<p>File No: 761 / 23325 . SAR</p> <p>Project Name: Leaking underground storage tank remedial investigation</p> <p>Project Scope:</p>
<p>Name and Address of Contractor PM Environmental, Inc. 3340 Ranger Road Lansing MI 48906 CV0036073</p>	<p>Approval</p> <p style="text-align: center;"><i>(Signature)</i></p> <p style="text-align: right;">Date May 12, 2023</p> <p style="text-align: center;">Facilities Administration</p>

NOTICE TO CONTRACTOR: A. This CONTRACT serves as official notice that the State of Michigan will enter into a contract for the service or work described below and performed under the conditions of the respective CONTRACT. The order will not become effective until such a contract is executed. (AUTHORITY: 1984 PA31). B. The order number, account number, and name must be referenced when submitting billings for or correspondence about this order. C. A request for payment for service or work, either partial or final, must be submitted on a Payment Request form (DMB-440). The payment request must be appropriately supported in sufficient detail to explain and justify the amount requested. D. A CONTRACT CHANGE ORDER (DMB-403) must be approved and processed before payment will be made in excess of the amount(s) indicated. *No payment can be processed without federal identification or social security numbers.

Limited to the services and amounts indicated below **Description of Service or Work**

Professional services for: Phase(s) 100 professional services associated with the F&S Food and Fuel / 3801 W. Vernor Highway – Remedial Investigation in Detroit, Michigan.

Service	Compensation not to exceed	Multiplier	Total Compensation
PH 100 FEE Direct Payroll	\$████████	1	████████
PH 100 REIM Reimbursable	████████	1	████████
PH 200 FEE Direct Payroll	\$0.00	1	████████
PH 200 REIM Reimbursable	\$0.00	1	████████
PH 300 FEE Direct Payroll	\$0.00	1	████████
PH 300 REIM Reimbursable	\$0.00	1	████████
PH 400 FEE Direct Payroll	\$0.00	1	████████
PH 400 REIM Reimbursable	\$0.00	1	████████
PH 500 FEE Direct Payroll	\$0.00	1	████████
PH 500 REIM Reimbursable	\$0.00	1	████████
PH 600 FEE Direct Payroll	\$0.00	1	████████
PH 600 REIM Reimbursable	\$0.00	1	████████
PH 700 FEE Direct Payroll	\$0.00	1	████████
PH 700 REIM Reimbursable	\$0.00	1	████████
PH 800 FEE Direct Payroll	\$0.00	1	████████
PH 800 REIM Reimbursable	\$0.00	1	████████

Total Authorized: ██████████

Dept	Accounting Template	Unit	Loc	Obj	Dept Obj	Program
761		7140	7J33	6136	6127	

Phase	Prog Period	Appropriation	Fund	Activity	Function
		42050	2236	M100	

Template Total
██████████

This Change: ██████████

	Contract Change
Revised Contract:	██████████

Approved by the **Director, Department of Management and Budget** on **5/12/2023**

Copies to: Contract Office, File
Company: **PM Environmental, Inc.**
Agency: **Department of Environment, Great Lakes, and Energy**
Project Director: **Sadi Rayyan**
Region Supervisor:



DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION

**PROFESSIONAL SERVICES CONTRACT
INDEFINITE SCOPE INDEFINITE DELIVERY (ISID) ASSIGNMENT**

This form is required to execute a professional services contract. (Authority: 1984 PA 431)

ISID Contract Number:	00939	Department:	761 - Environment, Great Lakes, and Energy
File Number:	761/23325.SAR	Contract Number:	Y 23350
SIGMA Coding:		SIGMA Vendor No.	
Project Name:	3801 W. Vernor		

THIS ISID Assignment, authorized on the date below by the Director, Department of Technology, Management and Budget, is hereby made by and BETWEEN the STATE OF MICHIGAN acting through the STATE FACILITIES ADMINISTRATION of the DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET, 3111 W. St. Joseph St., Building 100, Lansing, Michigan 48917, hereinafter called the "State," and:

**PM Environmental
3340 Ranger Road
Lansing, Michigan 48906**

*SAR
5/10/23*

the prime Professional Service Contractor, hereinafter called the "Professional," as listed above, hereby proposes to provide the services listed below:

The scope of work includes: preparation of a work plan; health & safety, site access, and notifications; site investigations; monitoring; and reporting.

Attached Appendices are part of this proposal. Please attach project schedule. The above shall be effective as of the date above. All other terms and provisions of the current ISID contract remain fully effective.

FOR THE PROFESSIONAL:

FOR THE STATE:

Signature

Director, DTMB, SFA, Design and Construction

Manager-State Contract Services

Printed Name/Title

May 12, 2023

Approval Date

5/9/2023

Date

2

Assignment #

PHASE BUDGET DETAIL - REIMBURSABLES

FILE NUMBER 761/23325.SAR	SIGMA CODING 0
-------------------------------------	--------------------------

PROJECT NAME 3801 W. Vernor

FIRM NAME PM Environmental

REIMBURSABLE DESCRIPTION/ACTIVITY	PHASE/COST								TOTAL	MARK UP	COST
	Phase 100	Phase 200	Phase 300	Phase 400	Phase 500	Phase 600	Phase 700	Phase 800			
Sample Shipping	\$										
PID Water Traps	\$										
4-Gas Meter	\$										
Low Flow Meter	\$										
Peristaltic Pump	\$										
Poly Tubing	\$										
Master Flex Tubing	\$										
Teflon Tubing	\$										
Tools/PPE	\$										
Soil Gas Sample Kit/Helium Shroud	\$										
Oil Water Interface Probe	\$										
Turbidity Meter	\$										
Methane Meter	\$										
PID	\$										
Utility Locating	\$										
Drilling	\$										
Survey	\$										
Waste Disposal-Drums	\$										
Waste Disposal-Mobilization	\$										
									\$ -	0%	\$0.00
									\$ -	0%	\$0.00
									\$ -	0%	\$0.00
Total Cost per Phase	\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			

APPENDIX B-1 Reimbursables

COST/BUDGET SUMMARY

ARTICLE 2 COMPENSATION

FILE NUMBER 761/23325.SAR	SIGMA CODING 0	ISID NUMBER 939
PROJECT NAME 3801 W. Vernor		
FIRM NAME PM Enviornmental		

PHASE					COMPENSATION NOT TO EXCEED
100 Study	Personnel Costs	\$	██████████		
	Reimbursements	\$	██████████		
				\$	██████████
				Total	
200 Program Analysis	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
300 Schematic Design	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
400 Preliminary Design	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
500 Final Design	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
600 Construction Administration - Office	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
700 Construction Administration - Field	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
800 Supplemental Design	Personnel Costs	\$	-		
	Reimbursements	\$	-		
				\$	0.00
				Total	
TOTAL PROJECT COMPENSATION NOT TO EXCEED					\$
					Total
					██████████

SIGNATURE - PROFESSIONAL	DATE 5/10/23
SIGNATURE - PROJECT DIRECTOR	DATE

WORK PLAN FOR VAPOR INTRUSION ASSESSMENTS AND OFFSITE RELEASE DELINEATION ACTIVITIES

For the F&S Food & Fuel LLC Project

Associated with 3801 West Vernor Highway in Detroit, Michigan

PM Proposal No. 01022428

PM Environmental, a Pinchin Company (PM) is pleased to present this work plan and cost estimate to conduct vapor intrusion assessments and offsite release delineation activities for the F&S Food & Fuel LLC project associated with 3801 West Vernor Highway in Detroit, Michigan (Site). PM has prepared this proposal in accordance with its 2023 billing rates for Indefinite Service/Indefinite Delivery (ISID) Contract #00939 for the Michigan Department of Environment, Great Lakes and Energy (EGLE) – Remediation and Redevelopment Division (RRD).

PM has been providing environmental consulting services to F&S Food & Fuel LLC related to a release of gasoline that was identified in December 2021 (C-0262-21) from the onsite underground storage tank (UST) system. F&S Food & Fuel LLC has a claim with the Michigan Underground Storage Tank Authority (MUSTA) to pursue closure; however, those funds are expected to be exhausted in the near future due to the extent of the release and the extensive initial response activities that have been completed to reduce and/or eliminate immediate hazards. Refer to the Master Data Form prepared by EGLE, dated February 1, 2023 along with PM's previous report submittals to EGLE for additional details regarding the release response efforts along with documentation of the results of the previous site investigations.

In general, the following items are currently anticipated to be needed to delineate the extent of the release impacts offsite and to evaluate the volatilization to indoor air pathway (VIAP) relative to offsite properties. Further, the adjacent Harrington Apartments (465 W. Grand Boulevard) have been evacuated since December 2021 because of the release and additional reporting is currently being required by several agencies involved with an affordable housing redevelopment project scheduled to occur at this property.

- PM will prepare a Work Plan specific to the adjacent Harrington Apartments (465 W. Grand Boulevard) that will be provided to all relevant stakeholders involved for review and commentary.
- Install groundwater and soil gas monitoring wells offsite in attempt to delineate the extent of soil, groundwater, and/or soil gas impacts resulting from the release. Complete quarterly seasonal groundwater sampling events along with monthly soil gas sampling events for up to five (5) months to evaluate VIAP.
- The adjacent Harrington Apartments (465 West Grand Boulevard) has been the most significantly impacted by gasoline vapor migration through the sanitary sewer system. This building has been evacuated since December 2021. Repairs to the sewer completed by the City of Detroit between October and November 2022 appear to have eliminated the vapor migration through the sanitary sewer based on the results of the previously executed air monitoring program. However, this property is located within the lateral inclusion zone (LIZ) based upon soil and/or perched groundwater impacts identified at the Site and additional soil gas sampling is needed to evaluate VIAP.
 - PM will collect air samples from up to two (2) apartment floor drains (laundry room and utility closet) along with the sanitary sewer main manhole (MH-1) and the exterior PVC drain cleanout located beneath the alleyway between the Site and the Harrington Apartment building. The analytical results will assist with confirming if there is a lingering source of gasoline vapors and determine if additional measures will be needed to eliminate the migratory route into the building.



- Due to planned renovations to the building, the structure is not expected to be occupied for approximately one (1) year. It is understood that EGLE will support measures to prevent the potential for vapor intrusion through the lateral sanitary sewer service feeds to this building.
 - PM will contract with a certified plumber to complete a camera inspection of the lateral sanitary sewer lines from the Harrington Apartment building to the municipal sewer main located in the alley. This will determine the integrity of each of the laterals.
 - There are three (3) total lateral feeds based on sewer camera inspections that were previously conducted and none of the lateral feeds are equipped with vapor traps. PM will solicit competitive bids from eligible contractors to perform the installation of the vapor traps on the lateral service lines.
- PM will attempt to coordinate with the Detroit Water and Sewer Department (DWSD) to complete camera inspections of additional sewer mains located along West Grand Boulevard and West Vernor Highway. It is currently unknown if access can be obtained with a video camera due to previous correspondence between PM and DWSD that indicated vapor traps prevent entry into the closest catch basins. *The cost to complete the camera inspection is not included in this proposal, only costs related to the oversight of the camera inspection for data collection purposes.*
- Sub-slab soil gas samples may be collected from the existing sample points (SG-4 through SG-8) to determine current concentrations if the conditions are found to be suitable based on screening of the pins with a manometer. PM will deploy a manometer to collect pressure readings from each of these locations to determine if there is outside ambient air influence. This data will be shared with RRD to determine if soil gas samples should be collected.
- Based on discussions with the Michigan Department of Health and Human Services (MDHHS) and the City of Detroit Health Department (DHD), indoor air sampling will be required prior to residential re-occupancy of this building. PM will collect indoor air samples to support re-occupancy requirements.
- Indoor air sampling may be necessary based on correspondences with MDHHS and DHD of select commercial businesses in the area once the extent of the release impacts is fully delineated in all directions. Specifically, indoor air samples are to be collected in the following businesses:
 - Amicci's Pizza: 3849 West Vernor Highway
 - Vernor Express Liquor: 3855 West Vernor Highway
 - Dollar Center Store: 3917 West Vernor Highway

PM has developed a scope of work based on the above site information along with the goals and objectives of EGLE:

- Task 1 Prepare a Work Plan specific to the Harrington Apartments (465 W. Grand Boulevard)
- Task 2 Health & Safety Plan, Site Access, Pre-Work Notifications
- Task 3 Site Investigation Activities
- Task 4 Quarterly Groundwater and Monthly Soil Gas Monitoring, Indoor Air Screening and Sampling, Air Sampling – Floor Drain and Sewer Locations
- Task 5 Technical Report, Monthly Status Reports

The following section describes PM's approach to conducting the work recommended by PM and discussed with EGLE-RRD prior to submittal of this RFP.

SCOPE OF WORK

Task 1: Work Plan Preparation

PM will prepare a Work Plan specific to the adjacent Harrington Apartments (465 W. Grand Boulevard) outlining the measures that will be undertaken during the planned construction renovation process, which will include construction management measures, additional sampling (soil gas and indoor air) processes and protocols to further evaluate VIAP, and a contingency for possible vapor mitigation measures, if determined to be warranted. This Work Plan will be provided to all stakeholders involved.

Task 2: Health & Safety Plan, Site Access, and Notifications

PM will prepare a site-specific Health and Safety Plan that addresses hazards associated with Site contaminants and hazards associated with the various types of work being performed at the Site (geophysical survey, drilling, etc.). PM's HASP will include the protocols being employed to address COVID-19.

PM is already in the process of obtaining a right-of-entry (ROE) permit from the City of Detroit for offsite monitoring well locations to the north and east of the Site, as well as within the alleyway to the south of the Site. An access agreement will be required to the west adjoining property, currently occupied by a car wash (3827 West Vernor Highway). Once the extent of soil and groundwater impacts are fully defined, additional properties may need to be investigated if determined to be within the LIZ.

PM will notify the EGLE project manager 2-weeks prior to commencing field activities, as well as providing notification 48-hours in advance using the notification feature in the Remedial Information Database Exchange (RIDE) program.

Laboratory services will be scheduled a minimum of two weeks prior to sampling events with the EGLE Environmental Laboratory. Bottle order will be completed approximately 1-month in advance of scheduled sampling events with the EGLE.

Task 3: Sewer Camera Inspections, Sewer Main Inspections, Sewer Vapor Traps, Site Conditions Assessment & Geophysical Survey, Site Investigations

Harrington Apartments

PM will contract with a certified and licensed plumber to complete a camera inspection of the lateral sanitary sewer lines from the Harrington Apartment building to the municipal sewer main located in the alley. This will determine the integrity of each of the laterals. PM will provide oversight to the plumber during the inspection process.

Sewer Mains

PM will attempt to coordinate camera inspections of the sewer mains located along West Grand Boulevard and West Vernor Highway with DWSD. As noted above, it is currently unknown if access can be obtained with a video camera due to previous correspondence between PM and DWSD that indicated vapor traps prevent entry into the closest catch basins. *The cost to complete the camera inspection is not included in this proposal, only costs related to the oversight of the camera inspection for data collection purposes.*



Sewer Vapor Traps (Harrington Apartments)

There are three (3) total lateral sewer service lines that enter the alley municipal sewer main from the adjacent Harrington Apartments (465 W Grand Boulevard) based on sewer camera inspections that were previously conducted and none of the lateral feeds appear to be equipped with vapor traps to prevent gasoline vapor intrusion from the offsite release. PM will solicit competitive bids from eligible contractors to perform the installation of these vapor traps on the lateral service lines.

Site Conditions Assessment and Geophysical Survey

PM will retain a subcontractor to conduct a geophysical survey of the Site and surrounding properties that are likely to fall within the study area. The survey will include evaluating for the presence buried objects and to locate all utilities that fall within the anticipated study area. The geophysical survey will be conducted concurrently with the field activities (see Task 6). All utilities identified during the geophysical survey will be mapped in the field and included on drawings.

Site Investigations (Soil Boring/Monitoring Well Installation)

PM will retain a drilling contractor to advance up to 22 soil borings to varying depths up to 20 feet below surface grade (bsg) using a combination of hand auger and/or direct push drilling techniques. Borings will be advanced using a hand auger to a minimum of 5-feet bsg to clear utilities. Groundwater monitoring wells will be installed in up to nine (9) of the boreholes.

Concurrently, PM's drilling contractor will install in-boring soil gas points in up to eight (8) of the boreholes, each located in the municipal alley between the release site and the Harrington Apartments, and finished with flush mounted monitoring well covers. The soil gas implants will be overlain with 1-2 feet of sand and the bentonite to within 1-foot of the ground surface. **The depths of the in-boring soil gas points will be discussed with RRD prior to installation.**

Soil samples will be collected continuously from each boring for classification of soil type, moisture content and field screening using a photoionization detector (PID) equipped with a 10.6 eV lamp. A boring log will be created for each location. Soil sample intervals will be discussed with the EGLE project manager, and a determination made on what intervals are submitted to the EGLE Environmental Laboratory for analysis. Up to 10 samples will be collected for laboratory analysis of unleaded gasoline volatile organic compounds (VOCs) and gasoline range organics (GRO) using methods 5035/8260 and SW8015M, respectively. Sample data will be recorded on EGLE Environmental Laboratory chain of custody forms that will accompany the samples from the time of collection through delivery to the laboratory. Soil samples collected for analysis of unleaded gasoline VOCs will be preserved in the field using methanol. All samples will be stored in a cooler on "wet" ice.

Monitoring wells will be constructed of 2-inch diameter polyvinyl chloride (PVC) equipped with 5-foot long well screens that are set to intersect the water table. The borehole annular space will be backfilled with a sand filter pack to a depth of 2-feet above the top of the well screen and overlain by bentonite to approximately 2-feet bsg. Monitoring wells will be equipped with steel flush-mount covers set in concrete. Well risers will be equipped with expandable locking caps. Monitoring wells will be developed using pumps and surge techniques until water is generally free of sediment. All soil cuttings and purge water will be stored in 55-gallon drums, characterized and transported to disposal facilities (including cutting from in-boring soil gas points, see Task 7).

PM will retain a survey contractor to survey the locations of monitoring wells and in-boring soil gas points. The survey will include the locations (in NAD-83) of each well/point. Ground surface elevations and top of casing elevations for monitoring wells will be surveyed to the nearest 0.01 foot (North American Vertical Datum).



Task 4: MONITORING

Groundwater & Soil Gas Sampling

A total of four (4) consecutive quarters of groundwater monitoring will be conducted to evaluate plume conditions and groundwater samples, if encountered, will be submitted for laboratory analysis of unleaded gasoline volatile organic compounds (VOCs) using USEPA method 8260, respectively. Monitoring wells will be opened and allowed to reach equilibrium prior to the collection of groundwater samples. Static water levels will be measured to the nearest 0.01 foot using an electronic oil-water interface probe. Groundwater samples will be collected using low-flow methodologies. Groundwater samples collected for VOC analysis will be preserved using hydrochloric acid. All samples will be stored in a cooler on “wet” ice. Sample data will be recorded on EGLE Environmental Laboratory chain of custody forms that will accompany the samples from the time of collection through delivery to the laboratory.

A total of five (5) monthly soil gas monitoring events will be completed to evaluate soil gas conditions. This will include the eight (8) proposed in-boring soil gas points in the adjacent alley, along with up to five (5) existing sub-slab soil gas points (SG-4 through SG-8) located within the Harrington Apartment building (465 West Grand Boulevard). PM will obtain sample containers from the Environmental Laboratory. All samples will be collected in accordance with EGLE’s vapor intrusion guidance document. Pressure tests and a helium chamber will be utilized for leak detection. All soil gas samples will be submitted to the EGLE Environmental Laboratory with chain of custody documentation. Samples will be field screened for methane, oxygen carbon dioxide, lower explosive limit and VOCs using a methane meter, 4-gas meter and PID. Results will be recorded on field forms and note that will be provided to EGLE.

Indoor Air Screening and Sampling

PM will screen select indoor air and/or vapor points using a PID, multi-gas meter, and a UltraRae meter with benzene tubes calibrated specifically to detect benzene concentrations in ambient air. PM will log the results for each test location and tabulate the data in a presentable format that will be provided to EGLE.

Indoor air samples will be collected from within the Harrington Apartments (465 West Grand Boulevard) prior to residency re-occupancy of the structure, which is not anticipated to occur for approximately one (1) year due to planned interior renovations. The indoor air sampling will be completed in general accordance with the guidelines established in the May 2013 EGLE Guidance Document for the Vapor Intrusion Pathway using pre-cleaned vacuum canisters and laboratory calibrated regulators set to collect the samples over a 24-hour time period. The canisters will be set up to collect air from the breathing zone (i.e. 4.0-5.0 feet above the floor surface).

Indoor air samples will also be collected from the neighboring commercial businesses, following the sewer investigations, per MDHHS directives. Up to 3 samples will be collected from the dollar store, 2 samples will be collected from the liquor store, and 1 sample will be collected from Amicci’s Pizza. *Once the release impacts are fully delineated, additional indoor air sampling may be necessary dependent upon MDHHS and DHD requirements.*

Sewer & Floor Drain Sampling (Ambient Air)

PM will collect air samples from two (2) floor drains located in the basement of the Harrington Apartments (465 W Grand Blvd) along with select sanitary sewer locations, up to (5) locations, to verify gasoline impacts are not present and/or continuing to migrate into the sewer system. The sampling will occur at least 24 hours prior to a precipitation event and at least 24 hours after a rain or significant snow melt event. PM will conduct an initial observation of each sampling point including recording the number and locations of inlet and outlet piping, presence/absence of standing water, and sewer water flow direction. Once these observations are recorded, the surface of each sampling point will be sealed with 6-mil thick or greater plastic sheeting using either duct tape or the weight of the manhole cover.

The sampling event will involve collecting the sewer gas sample with minimal interference from surface air. A length of plastic sample tubing is measured and cut to be one foot above the measured water depth or one foot from the bottom

of the manhole, if dry. The sample tubing is carefully pushed to puncture through the plastic seal and then carefully hand fed down to the required sample depth within the sewer. A three-way valve is attached to the above surface end of the sample tubing and a hand syringe of known volume is connected to the three-way valve. The syringe is pulled to evacuate ambient air within the sample tubing and the three-way valve is used to allow for the syringe to discharge the ambient air to the surface. Air pressure inside the manhole is measure with a digital manometer connected to the three-way valve. The number of purges is calculated based on the length and diameter of the sample tubing using a standard 60mL capacity syringe. Following the purge, gas readings are collected using a multi-gas meter and PID. After collecting the readings, a quick-connect regulator is fitted to the three-way valve and secures it to a bottle vac, allowing the sewer gas to be steadily collected into the bottle vac. Once the bottle vac has reached an equilibrium pressure and cannot receive any additional sample volume, the bottle vac is labeled and placed into a box to prevent breakage and limit exposure to sunlight. To prevent cross contamination between sample locations, dedicated three-way valves, regulators, and bottle vacs are used at each sample location.

TASK 5: REPORTING

RI Report

PM will prepare an RI report after each event outlined above that includes the following:

- Site history;
- Discussion of investigation methods and results;
- Analytical tables and figures (including cross section) illustrating site features (buildings, roads, etc.), sample locations, groundwater flow, the extent of impacted media and analytical results;
- A discussion of the CSM;
- Boring logs and well construction diagrams;
- Conclusions and recommendations; and
- Daily Field Logs and Field Notes.

Reports will be prepared within two (2) weeks of the receipt of analytical data and uploaded for review using RIDE. Reports will be sent via email if RIDE is not operating. PM will also prepare monthly status reports in accordance with contract requirements.

LABORATORY COORDINATION

PM will obtain all sample containers from the EGLE Environmental Laboratory. Laboratory services will be scheduled approximately 2 weeks in advance of sampling using laboratory provided form that indicates the number of samples per media and the anticipated delivery date of the samples.

SCHEDULE

Sub-slab soil gas sampling and sewer ambient air sampling will occur within 2-4 weeks of authorization of this scope of work. Utility locating/geophysical survey would be completed prior to or concurrently before the start of the field drilling/monitoring well/in-boring soil gas installation activities. Sample locations may be adjusted based on utility locations or other information observed during the event. The first quarterly sampling would begin approximately 1-week following the completion of drilling. Surveying would be completed concurrently with the first quarterly groundwater/soil gas sampling event. Subsequent quarterly sampling events will be conducted at approximately 3-month intervals. Reports will be provided within 5 days of receiving analytical results from each quarterly sampling event.



COSTS

PM estimates the following costs for each task, a detailed cost breakdown is provided in Appendix B.

ESTIMATED PROJECT COSTS BY TASK				
Task No.	Description	Labor	Reimbursements	Total
Task 1	Work Plan (Harrington Apartments)	\$ [REDACTED]	\$ -	\$ [REDACTED]
Task 2	HASP, Access & Notifications	\$ [REDACTED]	\$ -	\$ [REDACTED]
Task 3	Site Investigations	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
Task 4	Quarterly Monitoring	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
Task 5	Reporting	\$ [REDACTED]	\$ -	\$ [REDACTED]
	Monthly Reporting	\$ [REDACTED]	\$ -	\$ [REDACTED]
Totals		\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
Total				\$ [REDACTED]

The estimated laboratory analytical costs for this project are shown in the following table:

ESTIMATED EGLE LABORATORY COSTS				
Matrix	Parameters	Quantity	Rate	Amount
Soil	VOCs	25	\$ [REDACTED]	\$ [REDACTED]
Groundwater	VOCs	48	\$ [REDACTED]	\$ [REDACTED]
Soil Gas/Sewer	VOCs	100	\$ [REDACTED]	\$ [REDACTED]
Indoor Air	VOCs	11	\$ [REDACTED]	\$ [REDACTED]
Total Estimated Laboratory Costs:				\$ [REDACTED]

PM looks forward to assisting you with this project. Please contact me at 800-313-2966 or email at Alan.Nicholls@pmenv.com with any questions related to the project or this proposal.

Sincerely,
PM ENVIRONMENTAL, a Pinchin Company

Alan Nicholls
 Manager – State Contract Services



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
DETROIT DISTRICT OFFICE



AARON B. KEATLEY
ACTING DIRECTOR

May 3, 2023

Mr. Alan Nicholls
Manager – State Contract Services
PM Environmental, a Pinchin Company

Dear Mr. Nicholls:

SUBJECT: Notice of Approval of Work Plan for the
F&S Food & Fuel LLC Project,
3801 West Vernor Highway, Detroit, Wayne County, Michigan
Facility ID No. 00036314

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD), has reviewed the Work Plan for remedial investigation and remedial action plan for the F&S Food & Fuel LLC Project, 3801 West Vernor Highway, Detroit, Wayne County, Michigan submitted by PM Environmental, a Pinchin Company on the behalf of EGLE RRD on May 1, 2023 pursuant to Section 20114b(3) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Based upon representations and information contained in the submittal, EGLE RRD find the Work Plan acceptable.

This Work Plan is acceptable based upon the representations and information contained in the submittal, therefore EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the activities that are proposed. Notwithstanding this approval, if environmental contamination is found to exist that is not addressed by the Work Plan additional response activities may be necessary.

If you should have further questions or concerns, please contact Joshua Scheels, EGLE RRD, Detroit District Office, at 586-324-0372, ScheelsJ@Michigan.gov.

Sincerely,

Paul Owens, District Supervisor
Detroit District Office
Remediation and Redevelopment Division
586-235-6990

cc: Joshua Scheels, EGLE RRD



ENVIRONMENTAL SERVICES

BUILDING ARCHITECTURE,
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INDUSTRIAL HYGIENE SERVICES

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INCENTIVES CONSULTING

SITE EVALUATION SUMMARY & CONSTRUCTION MANAGEMENT PRACTICES WORK PLAN

Hubbard Farms/Harrington Apartment Building
465 West Grand Boulevard | Detroit, Michigan
PM Project Number 01-13782-1

Prepared for:

**Michigan Department of Environment, Great Lakes, and Energy
Remediation and Redevelopment Division**
27700 Donald Court
Warren, Michigan 48092

Prepared by:

PM Environmental, a Pinchin Company
4080 West Eleven Mile Road
Berkley, Michigan 48072

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Michigan Locations
Berkley Bay City
Grand Rapids Lansing
Oak Park

June 15, 2023

Mr. Joshua Scheels
Michigan Department of Environment, Great Lakes, and Energy
Remediation and Redevelopment Division
Detroit District Office
27700 Donald Court
Warren, Michigan 48092

**Re: Site Evaluation Summary & Construction Management Practices Work Plan
 Hubbard Farms/Harrington Apartment Building
 Located at 465 West Grand Boulevard, Detroit, Michigan
 PM Environmental Project No. 01-13782-1**

Dear Mr. Scheels:

PM Environmental (PM), a Pinchin Company, has prepared the enclosed Site Evaluation and Construction Management Work Plan to provide guidance to contractors that will soon be completing onsite construction renovation activities at the above referenced subject property. This report also outlines additional measures that will be completed to evaluate potential exposure pathways related to the historical presence of gasoline vapors that had impacted the onsite building. These gasoline vapors originated from a leaking underground storage tank (LUST) release at the north adjoining property (3801 West Vernor Highway). Gasoline and associated vapors entered the combined storm and sanitary sewer system that services both properties resulting in the evacuation of the building in December 2021. This report and the additional proposed site evaluations outlined within this report are being completed in accordance with the approved indefinite scope indefinite delivery (ISID) contract number 00939.

INTRODUCTION AND BACKGROUND

The subject property consists of two parcels of land totaling approximately 0.19 acres and is located north of Bagley Street, south of West Vernor Highway, and west of West Grand Boulevard, in Detroit, Wayne County, Michigan (Figure 1). The subject building is located on the northern most parcel and consists of a three-story 18-unit apartment building totaling approximately 9,537 square feet. An occupiable partial basement exists with three (3) apartment units, laundry and storage/utility areas, and a restroom (Figure 2). Typical sewer floor drains are present in the utility rooms and laundry room in the basement; however, there are no sumps present. The basement extends to a depth of approximately 5.0 feet below grade. The southern parcel primarily consists of a common area for tenants with grass and trees.

The subject building has been evacuated since December 2021 due to the LUST release of gasoline at the north adjoining gas station (3801 West Vernor Highway). Various initial response efforts and subsurface investigations were completed that confirmed gasoline had migrated through a previously unknown and uncapped historical sanitary sewer lateral service line on the gas station property, which discharged into the municipal combined storm/sanitary sewer main that is located in the public alleyway that separates this property from the subject property. PM completed indoor air monitoring and sampling, sewer vapor screening, sub-slab soil gas

sampling, and collected soil samples from several soil borings advanced within the basement of the subject building. Groundwater was not encountered beneath the subject building or within the alleyway adjacent to the subject building. The results indicated that soil contamination is not present onsite or immediately adjacent to the subject property. Therefore, the subject property does not meet the definition of a “facility” under Part 201 of P.A. 451 of 1994, as amended. However, to obtain re-occupancy approval from the City of Detroit Health Department (DHD), and complete the planned building renovation activities, additional site investigations are warranted to evaluate the vapor intrusion pathway and to ensure that gasoline vapors are no longer present and/or will not impact the subject building in the future.

PRE-CONSTRUCTION SITE INVESTIGATION ACTIVITIES (DEC 2021-JAN 2023)

As noted above, soil and groundwater impacts have not been identified onsite or immediately adjacent to the subject property. Based on the cumulative site investigation data collected as part of the open release investigations from the adjacent gas station (3801 West Vernor Highway), the subject building is located within the 30-foot lateral inclusion zone (LIZ) from soil and/or perched groundwater impacts that remain on the gas station property. Further, the lateral sewer service line was replaced at the gas station in February 2022, and a partial replacement and lining of the municipal sewer main was completed in May and November 2022, by the Detroit Water & Sewer Department (DWSD). These combined efforts appear to have eliminated the migration of gasoline vapors through the sewer system.

Initial vapor intrusion evaluations were completed relative to the subject property that consisted of ambient indoor air monitoring, sewer vapor screenings, along with sampling five (5) sub-slab soil gas points (SG-4 through SG-8) that were installed in the basement of the subject building. Various gasoline compounds were detected on January 27, 2022 at soil gas points SG-7 and SG-8 exceeding the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Residential and Nonresidential Volatilization to Indoor Air Pathway (VIAP) screening levels, which were adopted for use as the Site-Specific Target Levels (SSTLs). PM also utilized these sub-slab soil gas points as part of a long-term air monitoring program that was established in December 2021, and modified based on site conditions, based on discussions with EGLE and other stakeholders.

PM also completed subsurface investigation consisting of soil borings within the basement of the subject building as well as within the adjacent public alleyway that consisted of the advancement of six (6) soil borings (SB-5 through SB-10). Groundwater was not encountered at any of the locations, which were advanced as follows:

- SB-5, SB-8, SB-9, and SB-10 were advanced in the public alleyway, adjacent to the subject building, to a depth of 15.0 feet below ground surface (bgs);
- SB-6 and SB-7 were advanced in basement of the subject building to a depth of 10.0 feet below the depth of the basement floor; estimated 15.0 feet bgs.
- A soil sample (S-1) was collected in May 2022 within the alleyway, beneath the sanitary sewer lateral service feed from the adjacent gas station, during a partial sewer replacement completed by DWSD.

The soil analytical results did not identify gasoline constituents exceeding the laboratory method detection limits (MDLs) at any of these locations. Ambient air and sewer vapor screenings conducted by PM through December 1, 2022 confirmed that gasoline vapors had subsided within

the sewer following the November 1, 2022 lining of the alleyway main by DWSD, and that vapors were no longer migrating through the lateral service lines and causing vapors to accumulate beneath the subject building. PM also collected indoor air samples in January 2023 that did not exceed the applicable Residential Recommended Interim Action Screening Levels (RIASLs).

Based on discussions with EGLE, PM was unable to collect new sub-slab soil gas samples from the existing sample points (SG-4 through SG-8) to evaluate VIAP after the sewer repairs due to ambient air level oxygen readings routinely observed during screening events. Based on further discussions with EGLE, PM prepared a work plan that was approved by EGLE on May 3, 2023 to install multi-increment/depth in-boring soil gas points in the alleyway to evaluate potential lateral intrusion through the basement wall and from beneath the basement slab. These in-boring soil gas points will be installed soon to further evaluate VIAP. Additional details regarding these approved activities are provided below.

The soil, soil gas, and indoor air sample locations are depicted on the enclosed Figure 2B. The soil data is also depicted on Figure 3 and summarized in Table 1. The January 2022 soil gas analytical results are summarized in Table 2, and the January 2023 indoor air analytical results are summarized in Table 3.

GEOLOGY/HYDROGEOLOGY

Based on review of the onsite soil boring logs (SB-6 and SB-7), geology generally consists of an approximately one-foot-thick layer of gravely sand, which is underlain by clay to a depth of approximately 10 feet below basement depth. Groundwater was not encountered. Refer to the soil boring logs in Appendix A for additional information. A geological cross section was also prepared and is included as Figure 5.

FUTURE SITE INVESTIGATION ACTIVITIES & CONSTRUCTION PLANS

As noted above, the subject property is expected to soon undergo a construction renovation process that will take approximately one year to complete. No significant structural changes or earthwork activities are currently anticipated.

PM recently received permit approval from the City of Detroit to install permanent groundwater monitoring wells and multi-increment/depth in-boring soil gas monitoring points within the adjacent public alleyway, which is between the source and the subject property. PM will collect additional soil, groundwater (if encountered), and soil gas analytical data during the approximately one-year long renovation of the subject building that will be used to demonstrate that either 1) the VIAP is not complete or 2) to evaluate additional measures to mitigate vapors to prevent future exposure risks via the vapor intrusion pathway. This will involve monthly soil gas sample collection for a total of five (5) months/events along with four (4) quarterly groundwater monitoring events, if groundwater is encountered.

Based on the analytical data obtained prior to this report, and prior correspondence with EGLE and stakeholders, commercial construction activities can proceed in adherence with occupational health and safety regulations. Post construction residential re-occupancy requirements will be established based on the above sampling efforts (soil, groundwater, and soil gas) from the adjacent alley along with additional indoor air and sewer vapor screening and sampling. If vapor intrusion mitigation is determined to be warranted, such actions will be implemented during the construction renovation phase, prior to residential re-occupancy.

Specifically, the EGLE approved contract calls for the following work activities that will also be completed during the construction renovation process, and prior to residential re-occupancy:

- PM will complete a baseline air screening event of the previously approved monitoring locations using a photoionization detector (PID), multi-gas meter with lower explosive limit (LEL) capabilities, and an UltraRae PID equipped with benzene sorbent (SEP) tubes. This data will be logged and shared with EGLE as a baseline of site conditions prior to the collection of air samples for laboratory analysis.
 - The baseline screening event was completed by PM on June 12, 2023 and the data was tabulated and disclosed to EGLE on June 15, 2023. All screened locations inside the subject building, and the sewer monitoring points adjacent to the subject property, were non-detect (0.0 ppm) for total VOCs and benzene, and no LEL readings were detected.
- PM will collect air samples from the two (2) apartment floor drains (laundry room and utility closet) along with the sanitary sewer main manhole (MH-1) and the exterior PVC drain cleanout located along the northern exterior wall of the subject building. The analytical results will assist with confirming if there is a lingering source of gasoline vapors.
- PM will contract with a certified plumber to complete a camera inspection of the lateral sanitary sewer lines from the Harrington Apartment building to the municipal sewer main located in the alley. This will determine the integrity of each of the laterals.
- There are three (3) total lateral feeds based on sewer camera inspections that were previously conducted and none of the lateral feeds are equipped with vapor traps. PM will solicit competitive bids from eligible contractors to perform the installation of vapor traps on the lateral service lines.
- Sub-slab soil gas samples may be collected from the existing sample points (SG-4 through SG-8) to determine current concentrations if the conditions are found to be suitable based on screening of each of the pins with a manometer. PM will deploy a manometer to collect pressure readings from each of these locations to determine if there is outside ambient air influence. This data will be shared with EGLE to determine if soil gas samples should be collected.

Sampling Techniques

The ambient air and sewer screening locations that were previously approved by EGLE and the other relevant stakeholders will be first screened to establish a baseline of site conditions. Specifically, PM will screen the locations with a PID, multi-gas meter equipped with LEL capabilities (i.e., calibrated to methane), and an UltraRae PID equipped with benzene SEP tubes. Teflon tubing will be attached to each of the three (3) screening tools, and data logging will occur at each of the sampling points in accordance with the previously approved work plan that is on file with EGLE.

The sewer sample locations, new proposed eight (8) in-boring soil gas monitoring points, and the existing six sub-slab soil gas points (SG-4 through SG-8) will be sampled using vacuum canister methods in accordance with EGLE's May 2013 Guidance Document for the Vapor Intrusion Pathway (updated 2021). As noted previously, the existing sub-slab soil gas points will only be sampled after discussions with RRD pertaining to the oxygen and/or sub-slab vacuum readings, if conditions are suitable.

Soil gas sampling will include the use of an isolation chamber during sample collection, which will be placed over each soil gas sample point. Helium gas (i.e., as a tracer gas) will be pumped into each chamber and monitored in the field during the collection of each soil gas sample to assess the integrity of the surface seal and tubing associated with each sample point. This will include purging the lines from the soil gas sampling point, followed by the collection of one soil gas sample using a vacuum canister equipped with a 200ml/minute regulator. The regulators will be pre-calibrated by the laboratory.

Indoor air sampling will be conducted in accordance with EGLE regulations and industry standards and samples will be collected from the breathing zone (i.e., between 3.0 and 5.0-feet above the floor) using vacuum canisters with laboratory-calibrated regulators that are set to continuously collect each sample over a 24-hour period (i.e., 24-hour draw).

The soil gas and indoor air samples will be submitted to the laboratory under chain of custody procedures for analysis of volatile organic compounds (VOCs) using USEPA method TO-15. The soil gas and sewer air sample laboratory analytical results will be compared to Residential and Nonresidential SSTLs, and the indoor air analytical results will be compared to Michigan Department of Health and Human Services (MDHHS) Residential and Nonresidential Indoor Air Recommended Indoor Air Screening Levels (RIASLs). The Nonresidential SSTLs and Nonresidential RIASLs will be considered applicable during the construction renovation activities, and the Residential SSTLs and RIASLs will be applicable for pre-occupancy evaluations.

If any of the above sampling data exceeds the applicable SSTLs and/or RIASLs, or if evidence of gasoline vapor migration from the adjoining gas station onto the subject property is identified, immediate measures will be taken to evaluate the potential vapor source and measures will be implemented to either eliminate the vapor migration and/or mitigate the vapor intrusion risk. If such a situation occurs, this work plan may be revised to accommodate any changes to the proposed work activities. EGLE will be notified along with any relevant stakeholders at the request of EGLE.

CONSTRUCTION MANAGEMENT PRACTICES WORK PLAN

Site workers will adhere to their company issued site-specific health and safety plan in accordance with the Occupational Safety and Health Organization (OSHA) 29 Code of Federal Regulations (CFR) 1910.120 Worker Protection Regulations and will practice appropriate awareness and management for gasoline contaminated soil, groundwater, and/or vapors, if detected, on the subject property during construction activities. As noted previously, soil contamination has not been detected onsite or immediately adjacent to the property, and groundwater was not encountered during the previous site investigations; however, additional site investigations are scheduled to be completed to verify no additional exposure routes may exist. Further, although the January 2023 indoor air samples collected within the subject building did not exceed the most restrictive Residential RIASLs, gasoline vapors historically had impacted ambient air within the

subject building through the sewer lateral lines and further evaluation is still needed to verify these vapors will not return and/or that additional sources of contamination are not present.

Prior to onsite work, workers will complete an evaluation of this report and/or other available environmental reports, along with an evaluation of their company issued health & safety plan, to review the potential hazardous substances (i.e., gasoline) to assure protection of persons who may come into contact with gasoline vapors. If visual or olfactory evidence of gasoline contamination is detected or encountered during the construction renovation activities, an environmental professional will be notified and may be present during completion of any activities that entail the exposure and/or management of contaminated soil, groundwater, or vapors.

Contingency Interim Response Actions - Air Monitoring

If indoor air and/or sewer ambient air screening results exceed the established target thresholds, or the laboratory analytical results identify gasoline related contaminants exceeding the applicable MDHHS RIASLs in one or more of the indoor air samples, or in one or more of the soil gas samples exceeding the applicable SSTLs, the following interim actions will be conducted:

- As part of the baseline air monitoring/screening, action levels for gasoline of 1.0 parts per million (ppm) of benzene, 5.0 ppm for total VOCs, and an LEL greater than 5%, was established to ensure worker and occupant protection. If these thresholds are exceeded continuously for 10-minutes, the work area allowed to ventilate, and ambient air conditions will be re-evaluated before work can resume. If the ambient air concentrations continue to exceed these thresholds, work will not be performed within the impacted area an additional hazard evaluation will be conducted by an environmental professional to determine if an upgrade in personal protective equipment (PPE), additional ventilation, and/or vapor suppression controls (i.e., air scrubbers) will be implemented prior to re-testing the area(s) and resuming work.
- If any of the above thresholds are met, no soil gas or indoor air sampling will occur until re-screening confirms concentrations remain below threshold levels.

The sewer screening methodology is considered an interim approach and not an EGLE approved standard operating procedure (SOP). Procedures and/or reporting thresholds may be modified based on the analytical data and communications with EGLE.

Exceedances of MDHHS Nonresidential RIASLs and/or Nonresidential SSTLs

If the ambient air screening remains below target thresholds, soil gas samples will be collected in accordance it the previously approved work plan. If the soil gas concentrations exceed the Nonresidential SSTLs, indoor air samples will be collected from the impacted area(s) within the subject building. If the indoor air laboratory analytical results identify concentrations exceeding MDHHS Nonresidential RIASLs in one or more of the indoor air samples, the following interim actions will be conducted:

- EGLE, the property owner, and any relevant stakeholders will be notified of the results upon receipt of the laboratory data even if a potential source other than vapor intrusion is suspected to be the source of the indoor air or soil gas concentrations.

- If indoor air samples exceed the Nonresidential RIASLs, the above ventilation practices will occur, and air scrubbers may also be deployed. The impacted location(s) will be then re-tested to confirm concentrations. The ventilation activities implemented will remain active until any additional vapor intrusion compliance actions are implemented.
- If indoor air samples exceed the Nonresidential Time Sensitive RIASLs, the building will be evacuated, and no work can continue until it has been demonstrated that concentrations have been reduced to below the Nonresidential RIASLs.

Soil and Groundwater Management

Although not expected to occur based on current construction renovation plans, if any evidence of contaminated soil and/or groundwater is encountered, the following soil and groundwater management procedures will be conducted:

- Contaminated soils will not be relocated to non-contaminated portions of the subject property. Contaminated soil that cannot be relocated onsite will be properly characterized and disposed at a licensed disposal facility.
- Whenever possible, contaminated soil will be directly loaded onto appropriately placarded trucks for disposal at a licensed disposal facility under manifest or bill of lading, as applicable.
- Contaminated soils can be temporarily stockpiled on the non-contaminated portion of the subject property provided that 1) the stockpiled soils are staged on plastic sheeting with a minimum thickness of 6-mils; 2) are covered with plastic sheeting with a minimum thickness of 6-mils; and 3) are identified as contaminated soils. Contaminated, characteristically hazardous soils or listed hazardous soils (if present) will be managed and stored separately from characteristically non-hazardous soils.
- Contaminated soil and groundwater (if encountered) will not be relocated offsite, removed from the subject property, or moved from one portion of the subject property to another without proper characterization and/or appropriate notices in accordance with Section 20c of Part 201, and/or the use of engineering controls (i.e., liners, surface cover, etc.).
- Contaminated characteristically non-hazardous soil that cannot be reused onsite will be transported under manifest for proper disposal at a licensed disposal facility using a licensed transporter, in accordance with Michigan Parts 115 and 111 (as appropriate) and federal RCRA requirements.
- Short-term dewatering for construction purposes is permitted provided the dewatering, including management and disposal of the groundwater, is conducted in accordance with all applicable local, state, and federal laws and regulations and does not cause or result in the exacerbation of contamination, or any other violation of local, state, and federal environmental laws and regulations including, but not limited to, Part 201 of the NREPA, as amended. Groundwater may be temporarily stored in frac tanks prior to treatment (if necessary) and disposal.

Contaminated, characteristically hazardous groundwater or listed hazardous groundwater (if present) will be managed and stored separately from characteristically non-hazardous groundwater. Characteristically hazardous and listed groundwater (if present) must be transported under manifest for proper disposal at a licensed disposal facility using a licensed transporter, in accordance with Michigan Part 111 and federal RCRA requirements.

CONCLUSIONS

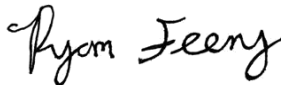
In summary, the subject property was historically impacted by gasoline vapor migration through the sewer system from the open LUST release at the north adjoining property gas station. The previous site investigations completed onsite and adjacent to the subject property, have not detected soil contamination, or identified groundwater present within the subsurface. Further, the January 2023 indoor air sampling did not exceed the Residential RIASLs. Although there are no known current exposure concerns based on the analytical data that was previously collected, additional evaluations will be completed during the approximately one-year-long construction renovation period for the subject building in accordance with the EGLE approved ISID contract 00939. These approved activities will further evaluate VIAP and determine if any additional corrective actions will be necessary to prevent unacceptable exposure to construction workers and future residential tenants of the subject building. If such corrective action needs are identified, measures will be undertaken to eliminate the exposure pathway and to ensure the health and safety for the building occupants.

Specifically, PM currently anticipates the following schedule to occur:

- Baseline air monitoring screening event: Completed on June 12, 2023
- PM will install permanent monitoring wells for vertical and horizontal delineation: July 2023
- PM will complete quarterly seasonal groundwater monitoring (if groundwater is encountered) and monthly soil gas sampling for five (5) monthly events. Beginning July 2023 then in accordance with the monthly (soil gas) or quarterly (groundwater) sampling schedules
- Sewer lateral line(s) camera inspection & sewer air sampling: June/July 2023
- Indoor Air Sampling: Following construction renovation activities, and prior to residential re-occupancy; expected mid-2024.

If you have any questions related to this report, please contact our office at (800) 313-2966.

REPORT PREPARED BY:
PM Environmental, a Pinchin Company



Ryan Feeny
Senior Project Manager

REPORT REVIEWED BY:
PM Environmental, a Pinchin Company



J. Adam Patton, CHMM
Vice President

FIGURES

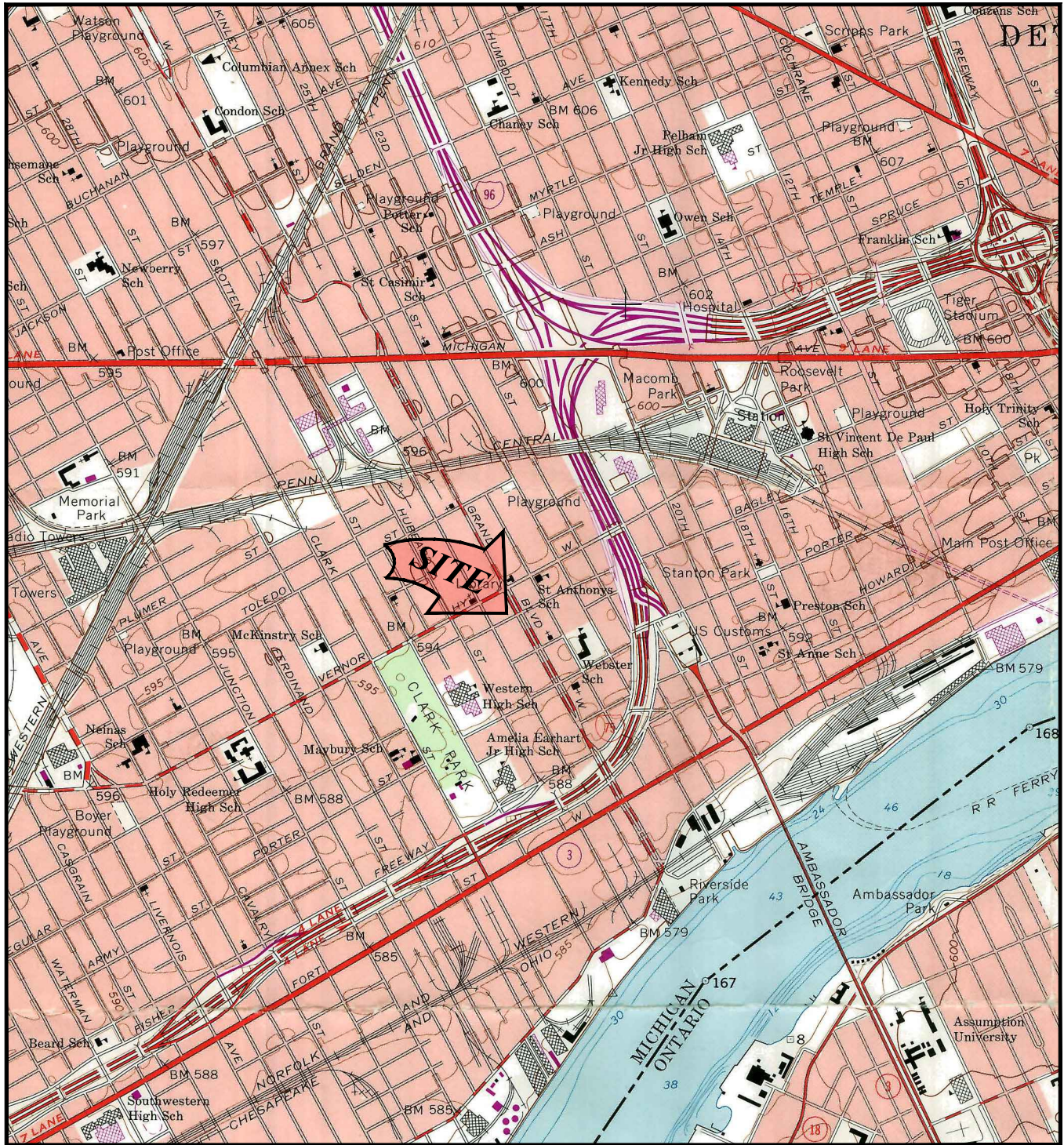
- Figure 1: Property Vicinity Map
Figure 2: Property and Adjoining Properties
Figure 2B: Sample Location Map
Figure 3: Soil Analytical Results
Figure 4: Cross Section Location Map
Figure 5: Geological Cross Section (A-A')

TABLES

- Table 1: Soil Analytical Results: Unleaded Gas VOCs & GRO
Table 2: Soil Gas Analytical Results: VOCs
Table 3: Indoor Air Analytical Results: VOCs

Figures





MICHIGAN QUADRANGLE LOCATION

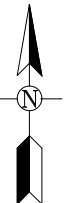
WAYNE COUNTY

FIGURE 1

SITE VICINITY MAP

UNITED STATES GEOLOGICAL SURVEY, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 AND 1980.



PROJ:
HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI

THIS IS NOT A LEGAL
SURVEY

VERIFY SCALE
0 2,000'

IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY.

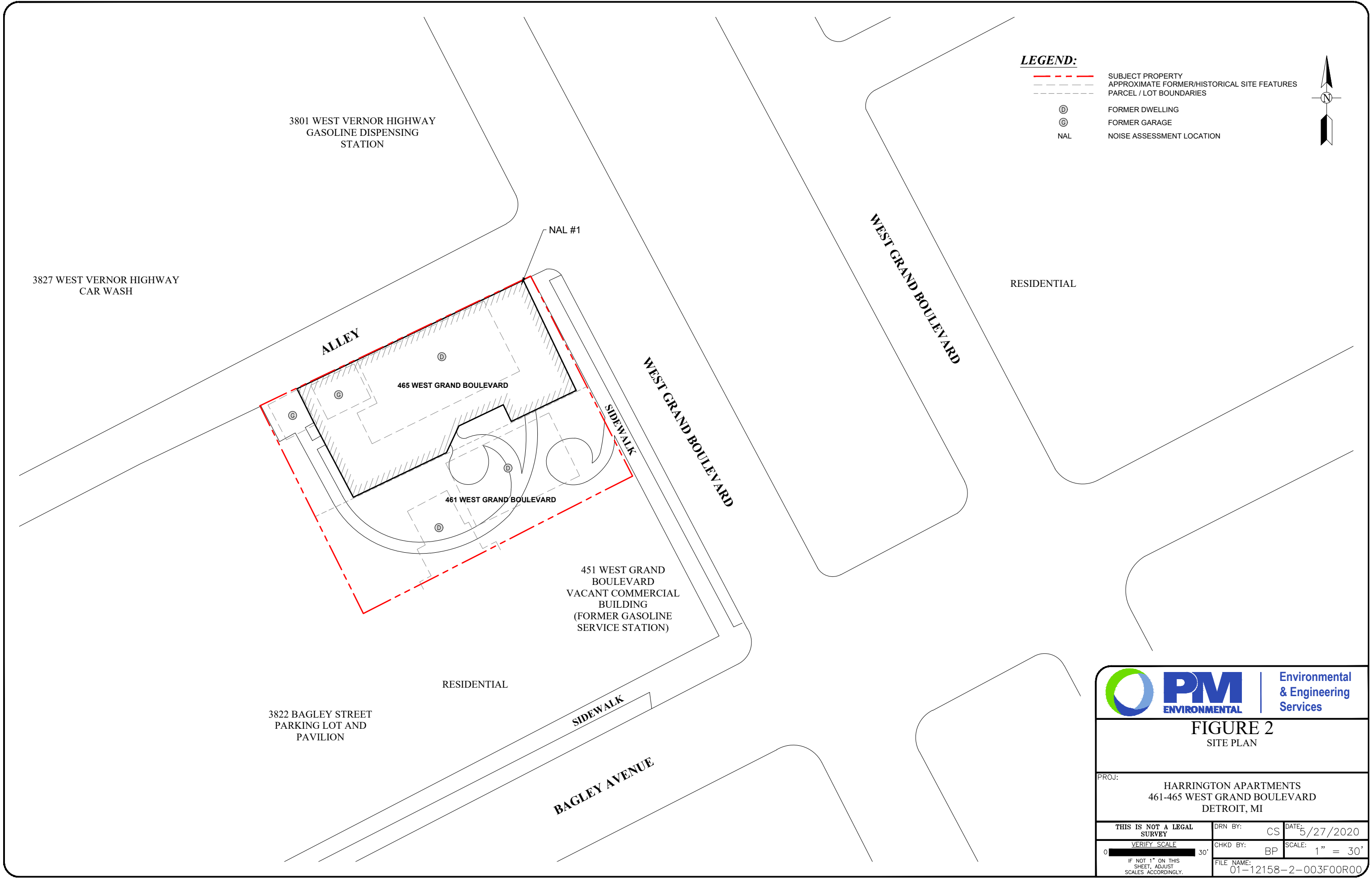
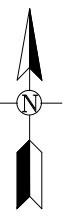
DRN BY: CS DATE: 5/27/2020


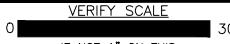
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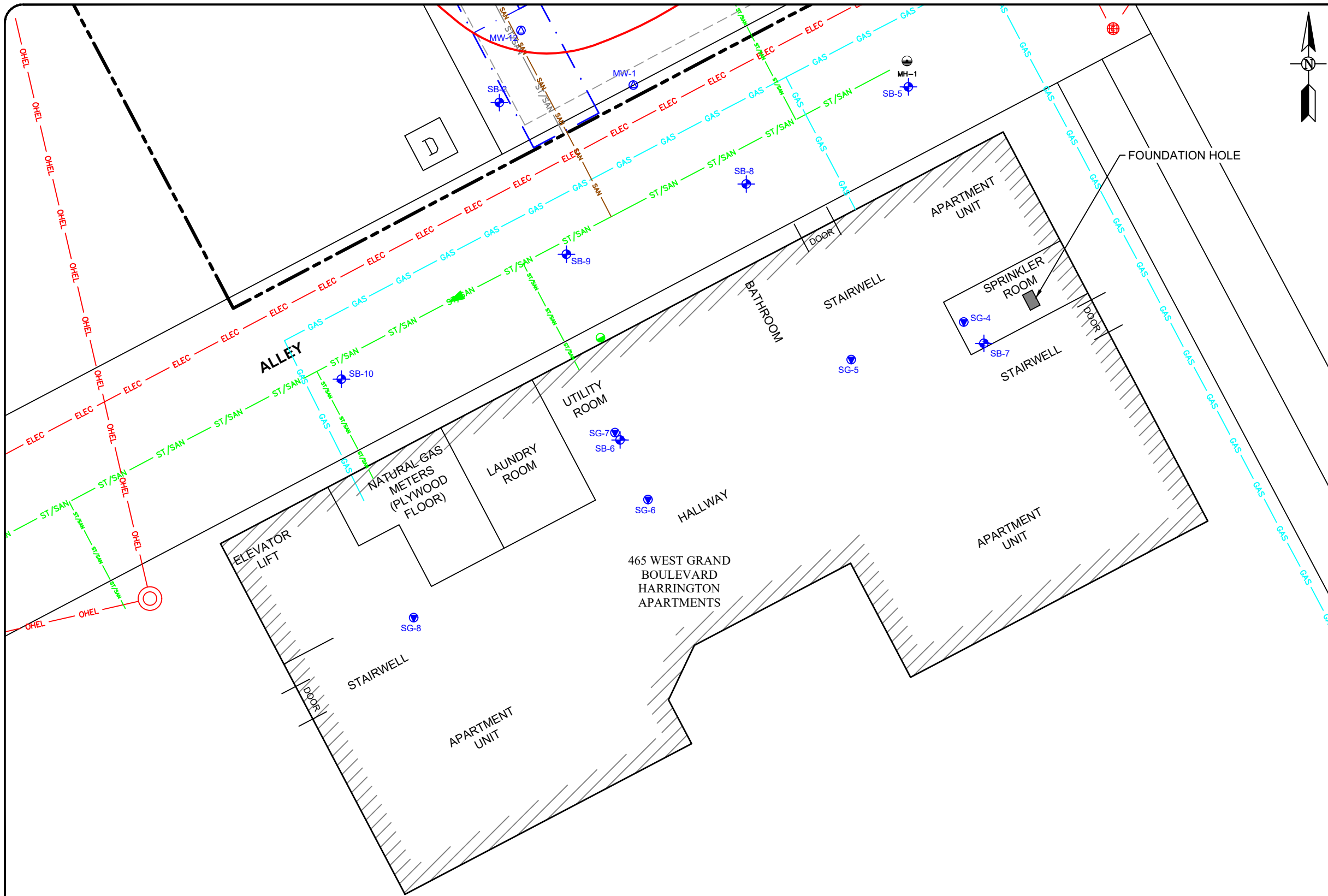
FILE NAME:
01-12158-2-003F00R00

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- FORMER DWELLING
- FORMER GARAGE
- NAL NOISE ASSESSMENT LOCATION



 PM ENVIRONMENTAL		Environmental & Engineering Services
FIGURE 2 SITE PLAN		
PROJ: HARRINGTON APARTMENTS 461-465 WEST GRAND BOULEVARD DETROIT, MI		
THIS IS NOT A LEGAL SURVEY	DRN BY: CS	DATE: 5/27/2020
VERIFY SCALE	CHKD BY: BP	SCALE: 1" = 30'
0  30'	IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	
FILE NAME: 01-12158-2-003F00R00		



LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- ELEC — ELEC — ELECTRIC
- OHEL — OHEL — OVERHEAD ELECTRIC LINE
- W — W — WATER
- GAS — GAS — GAS
- SAN — SAN — SANITARY SEWER
- ABANDONED SANITARY SERVICE LINE
- ST/SAN — ST/SAN — COMBINATION SANITARY / STORM SEWER
- TELE — TELE — COMMUNICATION LINE
- PL — PL — FORMER PRODUCT LINE
- MANHOLE
- DUMPSTER CORAL
- PVC DRAIN CLEANOUT
- UTILITY POLE
- MONITORING WELL
- SOIL BORING
- SOIL GAS SAMPLE

NOTE:

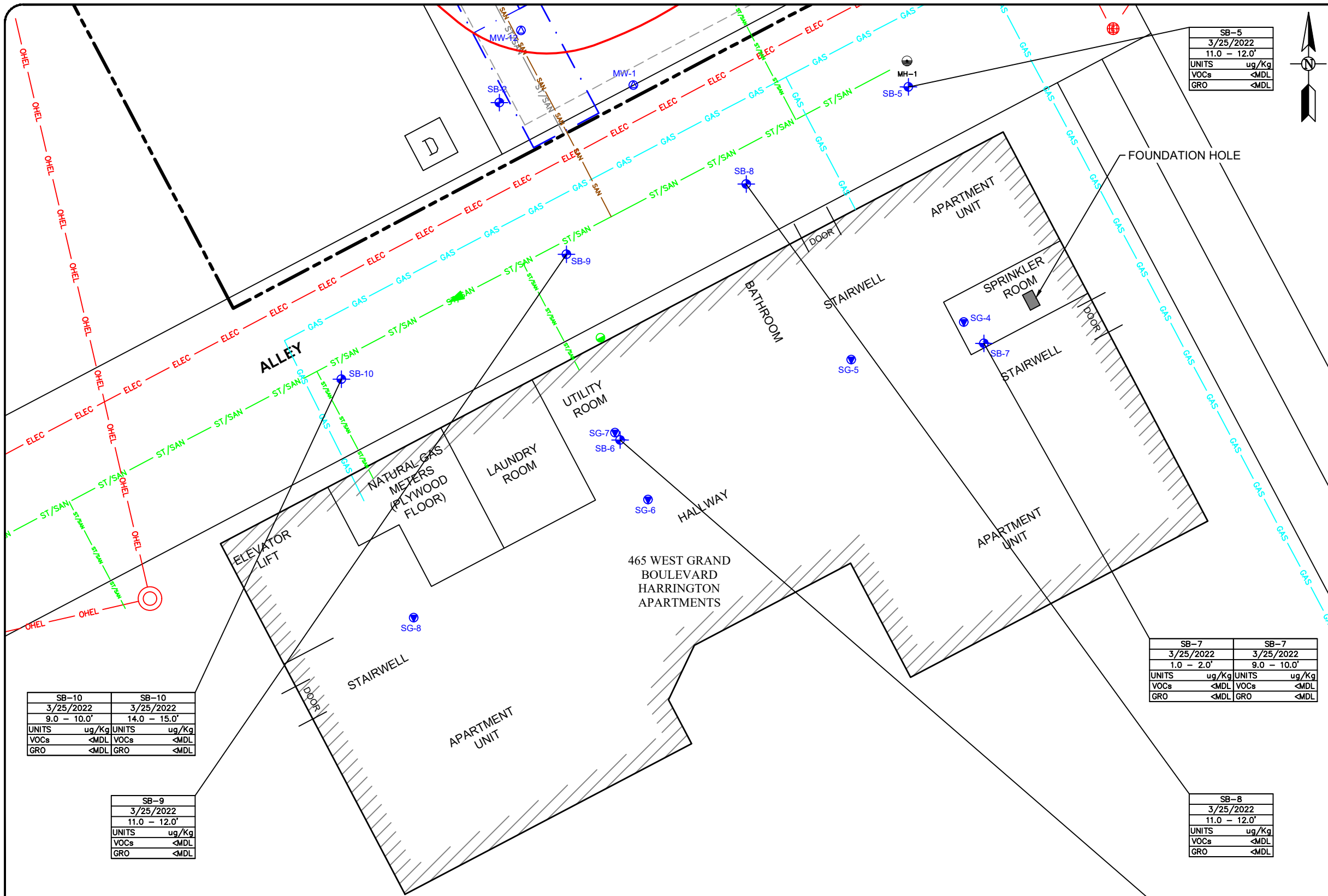
1. LOCATION OF HISTORICAL SITE FEATURES ARE APPROXIMATE ONLY.
2. REFERENCES: AERIAL PHOTOGRAPH FROM GOOGLE EARTH, IMAGERY DATE 5/9/2010
3. UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO PM ENVIRONMENTAL, INC. BY THE VARIOUS COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF. PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG.



FIGURE 2B
SAMPLE LOCATION MAP

PROJECT: HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRAWN BY: KS/MRM	DATE: 6/2/2023
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IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		FILE NAME: 01-13782-1-001F00R00



LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- ELEC — ELEC — ELECTRIC
- OHEL — OHEL — OVERHEAD ELECTRIC LINE
- W — W — WATER
- GAS — GAS — GAS
- SAN — SAN — SANITARY SEWER
- ABANDONED SANITARY SERVICE LINE
- ST/SAN — ST/SAN — COMBINATION SANITARY / STORM SEWER
- TELE — TELE — COMMUNICATION LINE
- PL — PL — FORMER PRODUCT LINE

- MANHOLE
- DUMPSTER CORAL
- PVC DRAIN CLEANOUT
- UTILITY POLE
- MONITORING WELL
- SOIL BORING
- SOIL GAS SAMPLE

GRO VOLATILE ORGANICS
VOCs VOLATILE ORGANIC COMPOUNDS
UNITS METHOD DETECTION LIMIT
µg/Kg (UNLESS NOTED)

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

NOTE:
 1. LOCATION OF HISTORICAL SITE FEATURES ARE APPROXIMATE ONLY.
 2. REFERENCES: AERIAL PHOTOGRAPH FROM GOOGLE EARTH, IMAGERY DATE 5/9/2010
 3. UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO PM ENVIRONMENTAL, INC. BY THE VARIOUS COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF. PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG.

SB-10	
3/25/2022	
9.0 - 10.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-9	
3/25/2022	
11.0 - 12.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-7	
3/25/2022	
1.0 - 2.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-8	
3/25/2022	
11.0 - 12.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

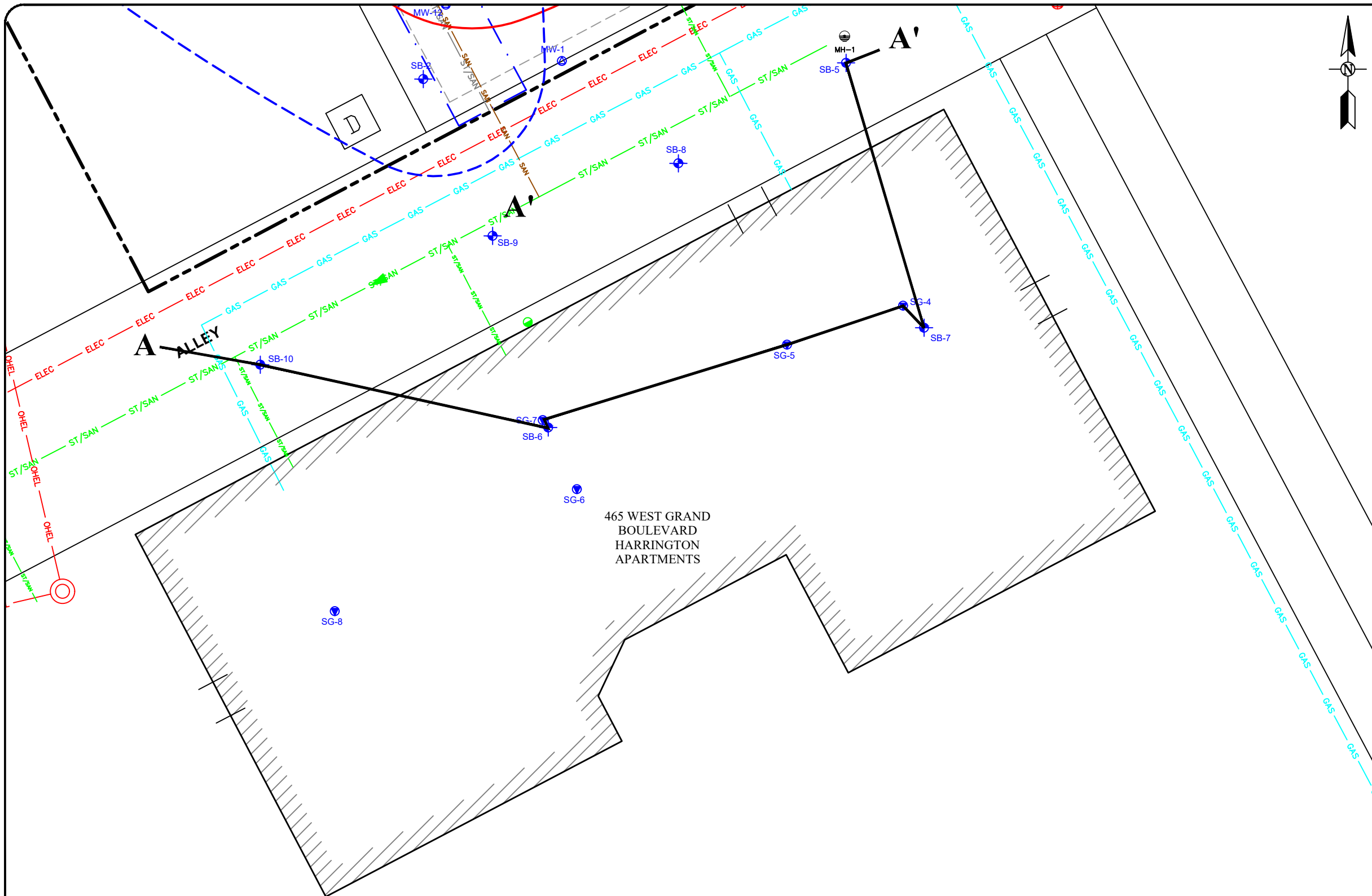
SB-6	
3/25/2022	
0.5 - 1.5'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL



FIGURE 3
SOIL ANALYTICAL RESULTS

PROJECT: HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI

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VERIFY SCALE	CHECKED BY: KS/RF	SCALE: 1" = 10'
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LEGEND:

	SUBJECT PROPERTY
	APPROXIMATE FORMER/HISTORICAL SITE FEATURES
	ELECTRIC
	OVERHEAD ELECTRIC LINE
	WATER
	GAS
	SANITARY SEWER
	ABANDONED SANITARY SERVICE LINE
	COMBINATION SANITARY / STORM SEWER
	COMMUNICATION LINE
	PRODUCT LINE
	FORMER PRODUCT LINE
	EXCAVATION LIMITS
	MANHOLE
	DUMPSTER CORAL
	PVC DRAIN CLEANOUT
	UTILITY POLE
	MONITORING WELL
	SOIL BORING
	SOIL GAS SAMPLE
	APPROXIMATE EXTENT OF SOIL CONTAMINATION ABOVE PART 213 RBLS AND/OR SSTLS
	APPROXIMATE EXTENT OF GROUNDWATER IMPACT EXCEEDING PART 213 RBLS AND/OR SCREENING LEVELS

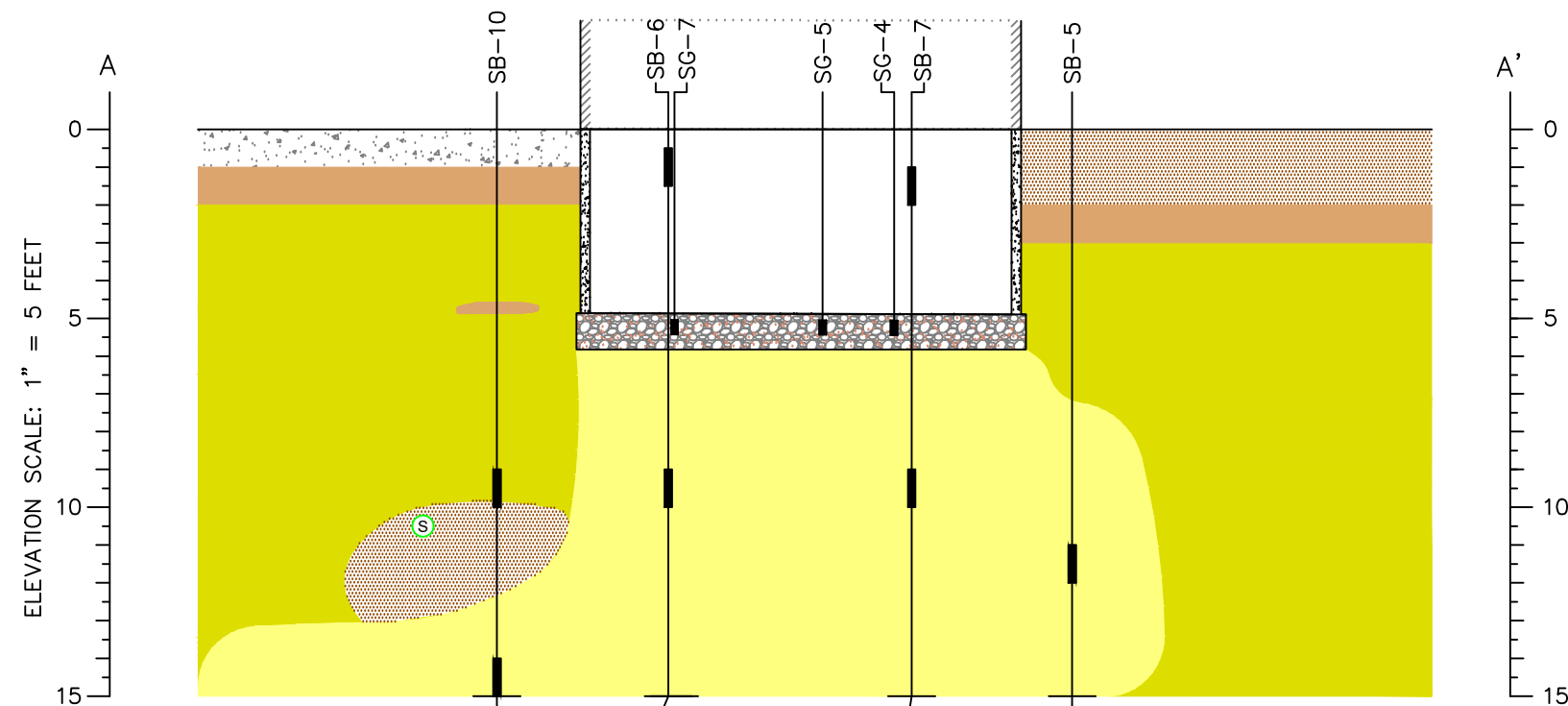


FIGURE 4
CROSS-SECTION LOCATION MAP

PROJECT: HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRAWN BY: KS/CS	DATE: 6/2/2023
VERIFY SCALE	CHECKED BY: KS/RF	SCALE: 1" = 30'
0 [Scale bar] 30'	FILE NAME: 01-13782-1-001F00R00	

NOTE:
 1. LOCATION OF HISTORICAL SITE FEATURES ARE APPROXIMATE ONLY.
 2. REFERENCES: AERIAL PHOTOGRAPH FROM GOOGLE EARTH, IMAGERY DATE 5/9/2010
 3. UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO PM ENVIRONMENTAL, INC. BY THE VARIOUS COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF. PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG.



SB-10	
3/25/2022	
9.0 - 10.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-6	
3/25/2022	
0.5 - 1.5'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-7	
3/25/2022	
1.0 - 2.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-5	
3/25/2022	
11.0 - 12.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-10	
3/25/2022	
14.0 - 15.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-6	
3/25/2022	
9.0 - 10.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

SB-7	
3/25/2022	
9.0 - 10.0'	
UNITS	ug/Kg
VOCs	<MDL
GRO	<MDL

LEGEND:

- CONCRETE PAVEMENT
- GRAVEL
- SAND
- FILL
- CLAY
- SANDY CLAY
- 18" DIAMETER SEWER
- SOIL SAMPLE INTERVAL FOR LABORATORY ANALYSIS
- GRO GASOLINE RANGE ORGANICS
- VOCs VOLATILE ORGANIC COMPOUNDS
- MDL METHOD DETECTION LIMIT
- UNITS ug/Kg (UNLESS NOTED)

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

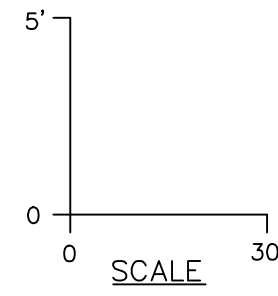


FIGURE 5
GEOLOGICAL CROSS-SECTION
(A~ A')

PROJECT: HARRINGTON APARTMENTS
461-465 WEST GRAND BOULEVARD
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRAWN BY: KS/CS	DATE: 6/2/2023
VERIFY SCALE	CHECKED BY: KS/RF	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FILE NAME:	01-13782-1-001F00R00

Tables



**TABLE 1
SUMMARY OF SOIL BORING ANALYTICAL RESULTS
UNLEADED GASOLINE VOCs, GRO, AND LNAPL EVALUATION
465 W GRAND BLVD, DETROIT, MICHIGAN
PM PROJECT #01-13782-1**

Unleaded Gasoline Volatile Organic Compounds (VOCs) Gasoline Range Organics (GRO), and LNAPL Evaluation (µg/Kg)			Benzene	Toluene	Ethylbenzene	Xylenes	Methyl-tert-butyl ether (MTBE)	1,2,3-Trimethylbenzene ¹	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene	2-Methylnaphthalene	GRO ²	LNAPL Present?	SVII RBSLs Acceptable for Comparison?	<0.5% Saturation for SDC RBSLs Acceptable for Comparison?
Chemical Abstract Service Number (CAS#)			71432	108883	100414	1330207	1634044	526738	95636	108678	91203	91576	NA	>250,000	≤350,000	≤900,000
Sample ID	Sample Date	Sample Depth (feet bgs)	Unleaded Gasoline VOCs										LNAPL Evaluation			
SB-5 A-3 (co-located)	03/25/2022	11.0-12.0	<70	<70	<70	<170	<300	<70	<70	<70	<300	<100	<7,000	No	Yes	Yes
			<70	<70	<70	<170	<300	<70	<70	<70	<400	<100	<7,000	No	Yes	Yes
SB-6	03/25/2022	0.5-1.5	<70	<70	<70	<170	<300	<70	<70	<70	<400	<100	<7,000	No	Yes	Yes
SB-6	03/25/2022	9.0-10.0	<70	<70	<70	<170	<300	<70	<70	<70	<300	<100	<7,000	No	Yes	Yes
SB-7	03/25/2022	1.0-2.0	<80	<80	<80	<280	<300	<80	<80	<80	<400	<200	<8,000	No	Yes	Yes
SB-7	03/25/2022	9.0-10.0	<80	<80	<80	<280	<300	<80	<80	<80	<400	<200	<8,000	No	Yes	Yes
SB-8	03/25/2022	11.0-12.0	<70	<70	<70	<170	<300	<70	<70	<70	<400	<100	<7,000	No	Yes	Yes
SB-9	03/25/2022	11.0-12.0	<70	<70	<70	<170	<300	<70	<70	<70	<400	<100	<7,000	No	Yes	Yes
SB-10	03/25/2022	9.0-10.0	<80	<80	<80	<280	<300	<80	<80	<80	<400	<200	<8,000	No	Yes	Yes
SB-10	03/25/2022	14.0-15.0	<70	<70	<70	<170	<300	<70	<70	<70	<400	<100	<7,000	No	Yes	Yes
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/ Part 213 Risk-Based Screening Levels, June 25, 2018 EGLE Volatilization to Indoor Air Pathway (VIAP) Screening Levels, September 4, 2020																
Residential (µg/Kg)																
Drinking Water Protection (Res DWP)	100	16,000	1,500	5,600	800	1,800	2,100	1,800	35,000	57,000						
Groundwater Surface Water Interface Protection (GSIP)	4,000 (X)	5,400	360	820	1.40E+05 (X)	570	570	1,100	730	4,200						
Soil Volatilization to Indoor Air Inhalation (Res SVII)	1,600	3.3E+05 (C)	87,000	6.3E+06 (C)	9.9E+06 (C)	2.6E+06 (C)	4.3E+06 (C)	2.6E+06 (C)	2.50E+05	2.70E+06						
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	13,000	2.80E+06	7.20E+05	4.60E+07	2.50E+07	1.60E+07	2.10E+07	1.60E+07	3.00E+05	1.50E+06						
Ambient Air Finite VSI for 5 Meter Source Thickness	34,000	5.10E+06	1.00E+06	6.10E+07	3.90E+07	3.80E+08	5.00E+08	3.80E+08	3.00E+05	1.50E+06						
Ambient Air Finite VSI for 2 Meter Source Thickness	79,000	1.20E+07	2.20E+06	1.30E+08	8.70E+07	3.80E+08	5.00E+08	3.80E+08	3.00E+05	1.50E+06						
Ambient Air Particulate Soil Inhalation (Res PSI)	3.80E+08	2.70E+10	1.00E+10	2.90E+11	2.00E+11	8.20E+10	8.20E+10	8.20E+10	2.00E+08	6.70E+08						
Direct Contact (Res DC)	1.80E+05	5.0E+07 (C)	2.2E+07 (C)	4.1E+08 (C)	1.50E+06	3.2E+07 (C)	3.2E+07 (C)	3.2E+07 (C)	1.60E+07	8.10E+06						
Nonresidential (µg/Kg)																
Drinking Water Protection (Nonres DWP)	100	16,000	1,500	5,600	800	1,800	2,100	1,800	1.00E+05	1.70E+05						
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	8,400	6.1E+05 (C)	4.6E+05 (C)	1.2E+07 (C)	1.8E+07 (C)	4.8E+06 (C)	8.0E+06 (C)	4.8E+06 (C)	4.70E+05	4.90E+06						
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	45,000	3.30E+06	2.40E+06	5.40E+07	3.00E+07	1.90E+07	2.50E+07	1.90E+07	3.50E+05	1.80E+06						
Ambient Air Finite VSI for 5 Meter Source Thickness	99,000	3.60E+07	3.10E+06	6.50E+07	4.10E+07	4.60E+08	6.00E+08	4.60E+08	3.50E+05	1.80E+06						
Ambient Air Finite VSI for 2 Meter Source Thickness	2.30E+05	3.60E+07	6.50E+06	1.30E+08	8.90E+07	4.60E+08	6.00E+08	4.60E+08	3.50E+05	1.80E+06						
Ambient Air Particulate Soil Inhalation (Nonres PSI)	4.70E+08	1.20E+10	1.30E+10	1.30E+11	8.80E+10	3.60E+10	3.60E+10	3.60E+10	8.80E+07	2.90E+08						
Direct Contact (Nonres DC)	8.40E+05 (C)	1.6E+08 (C)	7.1E+07 (C)	1.0E+09 (C)	7.1E+06 (C)	1.0E+08 (C)	1.0E+08 (C)	1.0E+08 (C)	5.20E+07	2.60E+07						
Screening Levels (µg/Kg)																
Soil Saturation Concentration Screening Levels (Csat)	4.00E+05	2.50E+05	1.40E+05	1.50E+05	5.90E+06	94,000	1.10E+05	94,000	NA	NA						
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)	1.7 (M)	3,700	12 (M)	280 (J)	74 (M)	270 (JT)	150 (JT)	100 (JT)	67 (M)	1,700						
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)	47 (M)	64,000 (EE)	340	5,000 (J)	2,100	4,800 (JT)	2,600 (JT)	1,800 (JT)	1,900	30,000						

 Applicable Criterion/RBSL Exceeded
BOLD Value Exceeds Applicable Criterion/RBSL
 Value Exceeds Applicable Screening Level
underline Applicable Screening Level Exceeded
 µg/Kg Micrograms per Kilogram
 bgs Below Ground Surface (feet)
¹ 1,2,3-Trimethylbenzene RBSLs based on the more restrictive of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.
² GRO evaluated for carbon chain lengths C1 through C10
4,000 (X) Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, December 21, 2020
 MDL Method Detection Limits
 NA Not Applicable

**TABLE 2
SUMMARY OF SOIL GAS ANALYTICAL RESULTS: VOCs
465 W GRAND BLVD, DETROIT, MICHIGAN
PM PROJECT NO.: 01-13782-1**

Volatile Organic Compounds (VOCs) (µg/m ³)				Acetone	Benzene	Chloroform	Cyclohexane	Ethanol	Ethylbenzene	4-Ethyltoluene	Heptane	Hexane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	Tetrachloroethylene	Toluene	Xylenes (total)	Other VOCs
Chemical Abstract Service Number (CAS#)				67641	71432	67663	110827	64175	100414	622968	142825	110543	95636	108678	540841	127184	108883	1330207	Various
Sample ID	Sample Date	Location	Sample Depth/Type (feet bgs)	VOCs															
SG-4	NA	465 W. Grand Blvd.	sub-slab	Not sampled due to ambient air gasoline odors at sample point															
SG-5	01/27/2022	465 W. Grand Blvd.	sub-slab	<48	<6.4	20	<6.9	51	<8.7	<9.8	<8.2	<7.0	<9.8	<9.8	<9.3	<14	<7.5	<26	<MDLs
SG-6	01/27/2022	465 W. Grand Blvd.	sub-slab	95	<6.4	<9.8	<6.9	<47	<8.7	<9.8	<8.2	<7.0	<9.8	<9.8	<9.3	<14	15	<26	<MDLs
SG-7	01/27/2022	465 W. Grand Blvd.	sub-slab	<17,000	22,000	<3,400	27,000	<17,000	16,000	<3,400	41,400	85,300	8,800	<3,400	37,000	<4,700	130,000	78,000	<MDLs
SG-8	01/27/2022	465 W. Grand Blvd.	sub-slab	<760	1,700	<150	3,200	<750	2,900	790	4,630	8,390	3,100	1,000	3,800	<200	15,000	16,000	<MDLs
EGLE Volatilization to Indoor Air Pathway (VIAP) Screening Levels, September 4, 2020																			
EGLE Residential/Nonresidential Volatilization to Indoor Air Pathway (VIAP) Screening Levels (µg/m ³)																			
Residential Volatilization to Indoor Air Pathway Screening Level (VIAP)				1.0E+06 (EE)	110	37	210,000	6.3E+05 (EE)	340	NL	120,000	24,000	2,100 (JT)	2,100 (JT)	120,000	1,400 (EE)	170,000	7,600 (J)	Various
Nonresidential Volatilization to Indoor Air Pathway Screening Level (VIAP)				1.0E+06 (EE)	260	87	310,000	6.3E+05 (EE)	800	NL	180,000	36,000	3,100 (JT)	3,100 (JT)	180,000	1,400 (EE)	2.50E+05 (EE)	11,000 (J)	Various

Screening Level Exceeded
BOLD Value Exceeds Applicable Screening Level
 <MDL Not detected at or above laboratory reporting or detection limits
 bgs Below Ground Surface
 NL Not Listed
 µg/m³ micrograms per cubic meter
 { } Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, December 21, 2020

TABLE 3
SUMMARY OF INDOOR AIR ANALYTICAL RESULTS: SELECT GASOLINE VOCs
465 W GRAND BLVD, DETROIT, MICHIGAN
PM PROJECT NO.: 01-13782-1

Gasoline Volatile Organic Compounds (VOCs) (µg/m ³)			Benzene	Ethylbenzene	Methyl-tert-butyl-ether	Isopropylbenzene	n-propylbenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene	Toluene	Xylenes (total)
Chemical Abstract Service Number (CAS#)			71432	100414	1634044	98828	103651	526738	95636	108678	91203	108883	1330207
Sample ID	Sample Date	Location	Gasoline VOCs										
IA-1	1/11/2023	Basement apartment unit	1.48	<0.867	<0.721	<0.983	<0.982	<0.982	<0.982	<0.982	<3.30	2.98	<0.982
IA-2	1/11/2023	Basement apartment unit	1.44	<0.867	<0.721	<0.983	<0.982	<0.982	<0.982	<0.982	<3.30	2.8	<0.982
IA-3	1/11/2023	Basement utility room	1.32	<0.867	<0.721	<0.983	<0.982	<0.982	<0.982	<0.982	<3.30	2.98	<0.982
IA-4	1/11/2023	Basement elevator room	1.41	<0.867	<0.721	<0.983	<0.982	<0.982	<0.982	<0.982	<3.30	3.43	<0.982
IA-5	1/11/2023	Basement apartment unit	1.29	<0.867	<0.721	<0.983	<0.982	<0.982	<0.982	<0.982	<3.30	2.78	<0.982
Media Specific Volatilization to Indoor Air Interim Action Screening Levels (August 2017)													
Residential MDHHS/EGLE Volatilization to Indoor Air RIASLS and TSRIASLs (µg/m ³)													
RIASL for Indoor Air			3.3	10	98.0	NL	NL	63	63	63	NL	5,200	230
TSRIASL for Indoor Air			19	100	980.0	NL	NL	190	190	190	NL	7,500	690
Nonresidential MDHHS/EGLE Volatilization to Indoor Air RIASLS and TSRIASLs (µg/m ³)													
RIASL for Indoor Air			7.7	24	230	NL	NL	92	92	92	NL	7,500	340
RIASL for Indoor Air (12-hour Exposure)			15	48	460	NL	NL	180	180	180	NL	7,500	680
TSRIASL for Indoor Air (12-hour Exposure)			54	480	4,600	NL	NL	560	560	560	NL	7,500	2,000

Value Exceeds Applicable Screening Level
underline Applicable Screening Level Exceeded
 bgs Below Ground Surface
 <MDL Not detected at levels above the laboratory Method Detection Limit (MDL)
 NL Not Listed
 RIASL Recommended Interim Action Screening Level
 TSRIASL Time-Sensitive Recommended Interim Action Screening Level



WASTE

Solid Waste
Hazardous Waste
Transporters
Radiological Protection
Michigan Indoor Radon Program
Low-Level Radioactive Waste
Radioactive Materials
Radiological Monitoring & Reporting
Radiological Emergency Preparedness
Waste Compliance & Enforcement

DEQ / WASTE / RADIOLOGICAL PROTECTION / MICHIGAN INDOOR RADON PROGRAM

Your County's Radon Levels

Contact: 800-723-6642 or radon@michigan.gov
 Agency: Environmental Quality

Some counties are known to have a higher likelihood of having homes with elevated radon. Check out the map below to see if homes in your county typically have elevated radon levels. Keep in mind that homes in counties with a lower likelihood of having high radon levels should still be tested.

While your neighbor's test results may give you an idea of the potential for a problem in your home, radon levels can vary significantly from lot to lot and home to home. Do not rely on your neighbor's test results to determine your risk. Test your own home and be certain! Find additional details on county radon levels on-line at http://mi-radon.info/MI_counties.html.



Click [here](#) to learn more about the radon survey, mapping radon levels in Michigan, and the indoor radon program.

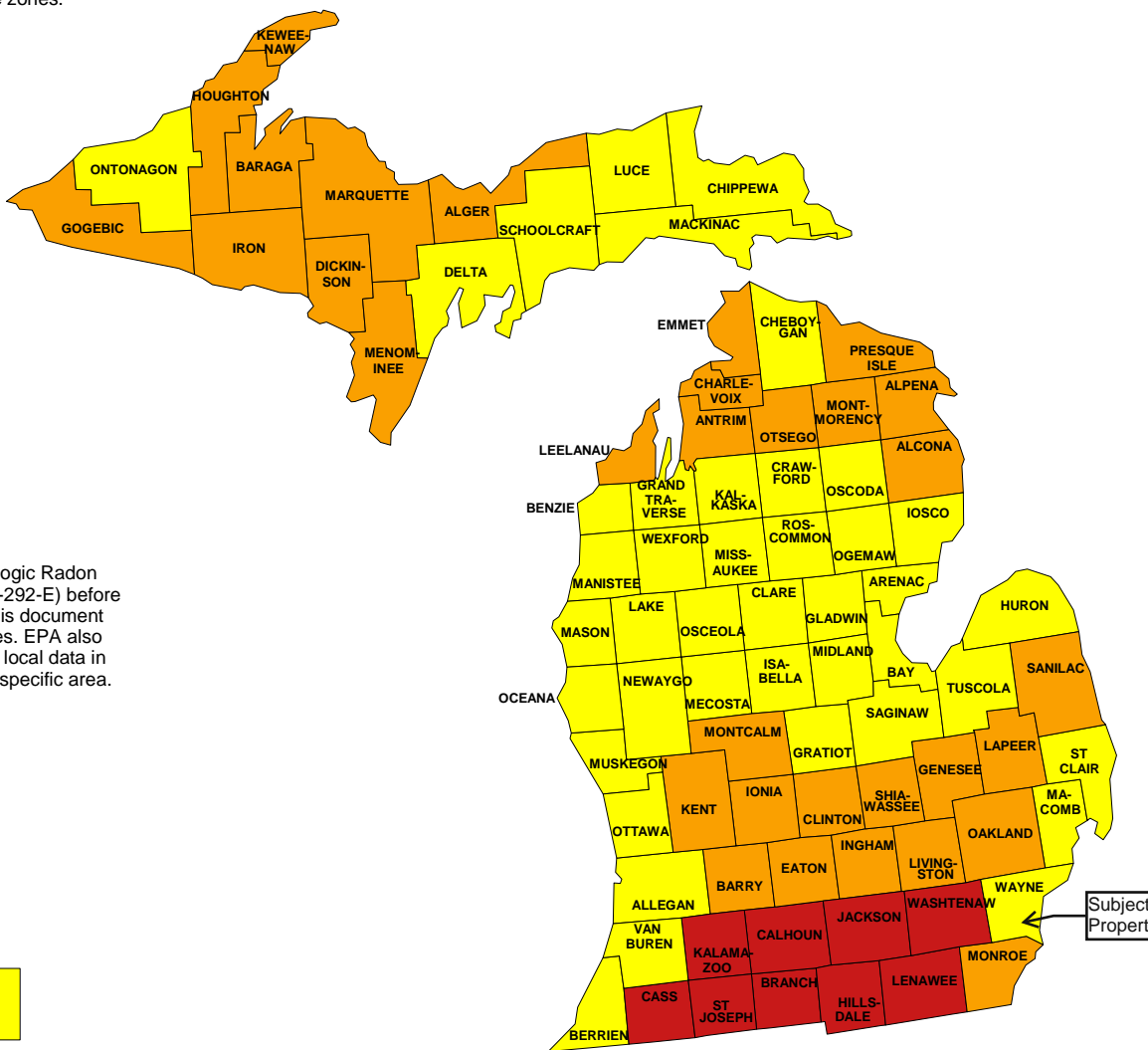
MICHIGAN - EPA Map of Radon Zones

<http://www.epa.gov/radon/zonemap.html>

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

All homes should be tested, regardless of zone designation.



IMPORTANT: Consult the publication entitled "Preliminary Geologic Radon Potential Assessment of Michigan" (USGS Open-file Report 93-292-E) before using this map. <http://energy.cr.usgs.gov/radon/grpinfo.html> This document contains information on radon potential variations within counties. EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.



Zone 1



Zone 2



Zone 3



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443
<http://www.fws.gov/midwest/EastLansing/>

In Reply Refer To:
Project Code: 2022-0019399
Project Name: Hubbard Farms

March 14, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in

making determinations for listed species for some projects. In many cases, the determination key will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit https://www.fws.gov/midwest/EastLansing/te/pdf/MIFO_IPAC_instructions_v1_Jan2021.pdf. Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/midwest/eagle/permits/index.html> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/administrative-orders/executive-orders.php>.

We appreciate your consideration of threatened and endangered species during your project planning. Please include a copy of this letter with any request for consultation or correspondence

about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

Project Summary

Project Code: 2022-0019399
Event Code: None
Project Name: Hubbard Farms
Project Type: Mixed-Use Construction
Project Description: Cole Apartments
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.32299225,-83.08816461451048,14z>



Counties: Wayne County, Michigan

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/L5MQECU2VBEADGJUJ6L4CSAEWQ/documents/generated/5663.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/L5MQECU2VBEADGJUJ6L4CSAEWQ/documents/generated/5664.pdf	Threatened

Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Endangered
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> For all Projects: Project is within EMR Range Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/L5MQECU2VBEADGJUJ6L4CSAEWQ/documents/generated/5280.pdf	Threatened

Clams

NAME	STATUS
Northern Riffleshell <i>Epioblasma torulosa rangiana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/527	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

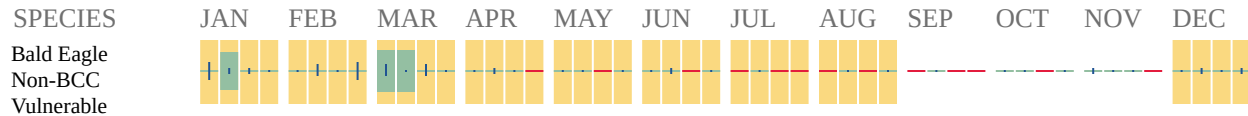
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPaC User Contact Information

Agency: PM Environmental, Inc.

Name: Chelsea Dantuma

Address: 3340 Ranger Road

City: Lansing

State: MI

Zip: 48906

Email: dantuma@pmenv.com

Phone: 5173236534



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To:
Project code: 2022-0060893
Project Name: Hubbard Farms - Cole Apartments

July 06, 2022

Subject: Verification letter for the project named 'Hubbard Farms - Cole Apartments' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Carey Kratz:

The U.S. Fish and Wildlife Service (Service) received on **July 06, 2022** your effect determination(s) for the 'Hubbard Farms - Cole Apartments' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	No effect
Northern Riffleshell (<i>Epioblasma rangiana</i>)	Endangered	No effect
Piping Plover (<i>Charadrius melodus</i>)	Endangered	No effect
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	No effect

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This

verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your “No Effect” determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service’s 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Bald and Golden Eagles:

Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit <https://www.fws.gov/library/collections/all-about-eagles>. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at <https://www.fws.gov/media/national-bald-eagle-management-guidelines-0>.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators

In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

<https://www.fws.gov/initiative/monarchs>

<https://www.fws.gov/library/collections/pollinators>

Wetland impacts:

Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

Eastern massasauga

Materials used for erosion control and site restoration must be wildlife-friendly. Do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.

To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at <https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet>), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w).

During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

The project will occur entirely within the EMR inactive season (in the southern Lower Peninsula: October 16 through April 14; in the northern Lower Peninsula, October 2 through April 30).

Northern long-eared bat

Based on the project area you entered into IPaC, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. Tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree.

Qualification Interview

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

No

4. Is the action being funded, authorized, or carried out by a Federal agency?

Yes

5. Does the action involve the installation or operation of wind turbines?

No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

No

15. Is the action a utility-scale solar development project?

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?
Automatically answered
Yes
17. Have you determined that this project will have no effect on the monarch?
Yes
18. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?
Automatically answered
Yes
19. Does your action involve prescribed fire?
No
20. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?
Yes
21. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?
No
22. Will you watch MDNR's "[60-Second Snakes: The Eastern Massasauga Rattlesnake \(EMR\)](#)" video, review the [EMR factsheet](#) or call 517-351-2555 to increase human safety and awareness of EMR?
Yes
23. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?
Yes
24. [Semantic] Does the action area intersect the northern riffelshell area of influence?
Automatically answered
Yes
25. [Hidden Semantic] Does the action area intersect the piping plover area of influence?
Automatically answered
Yes
26. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?
Automatically answered
Yes
27. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
-

28. [Hidden Semantic] Does the action area intersect the Indiana bat area of influence?

Automatically answered

Yes

29. The project has the potential to affect Indiana bat. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

No

30. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide [Indiana Bat Summer Survey Guidelines](#) been conducted within the action area?

No

31. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting Indiana bats?

No

32. Does the action include removal/modification of an existing bridge or culvert?

No

33. Does the action include herbicide application?

No

34. Does the action include tree cutting/trimming, prescribed fire, and/or pesticide (e.g., insecticide, rodenticide) application?

No

35. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

Automatically answered

Yes

37. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

Automatically answered

No

38. Will the action involve Tree Removal as defined in the 4(d) rule for northern long-eared bat?

No

IPaC User Contact Information

Agency: PM Environmental
Name: Carey Kratz
Address: 3340 Ranger Road
City: Lansing
State: MI
Zip: 48906
Email: kratz@pmenv.com
Phone: 2487627093

Lead Agency Contact Information

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443
<http://www.fws.gov/midwest/EastLansing/>

In Reply Refer To:
Project Code: 2022-0019406
Project Name: Hubbard Farms

March 14, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in

making determinations for listed species for some projects. In many cases, the determination key will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit https://www.fws.gov/midwest/EastLansing/te/pdf/MIFO_IPAC_instructions_v1_Jan2021.pdf. Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/midwest/eagle/permits/index.html> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/administrative-orders/executive-orders.php>.

We appreciate your consideration of threatened and endangered species during your project planning. Please include a copy of this letter with any request for consultation or correspondence

about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

Project Summary

Project Code: 2022-0019406
Event Code: None
Project Name: Hubbard Farms
Project Type: Mixed-Use Construction
Project Description: Harrington Apartments
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.32219905,-83.08920374842043,14z>



Counties: Wayne County, Michigan

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/SYIJP5ORAJA65MWXWCJQBNQ4ME/documents/generated/5663.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/SYIJP5ORAJA65MWXWCJQBNQ4ME/documents/generated/5664.pdf	Threatened

Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Endangered
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> For all Projects: Project is within EMR Range Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/SYIJP5ORAJA65MWXWCJQBNQ4ME/documents/generated/5280.pdf	Threatened

Clams

NAME	STATUS
Northern Riffleshell <i>Epioblasma torulosa rangiana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/527	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

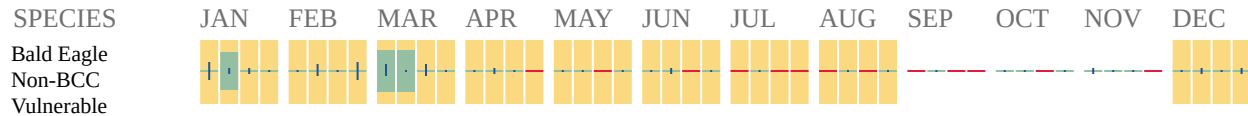
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPaC User Contact Information

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
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East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To:
Project code: 2022-0060961
Project Name: Hubbard Farms - Harrington

July 06, 2022

Subject: Verification letter for the project named 'Hubbard Farms - Harrington' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Lindsey Sorensen:

The U.S. Fish and Wildlife Service (Service) received on **July 06, 2022** your effect determination(s) for the 'Hubbard Farms - Harrington' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	No effect
Northern Riffleshell (<i>Epioblasma rangiana</i>)	Endangered	No effect
Piping Plover (<i>Charadrius melodus</i>)	Endangered	No effect
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	No effect

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This

verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your “No Effect” determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service’s 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Bald and Golden Eagles:

Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit <https://www.fws.gov/library/collections/all-about-eagles>. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at <https://www.fws.gov/media/national-bald-eagle-management-guidelines-0>.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators

In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

<https://www.fws.gov/initiative/monarchs>

<https://www.fws.gov/library/collections/pollinators>

Wetland impacts:

Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

Eastern massasauga

Materials used for erosion control and site restoration must be wildlife-friendly. Do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.

To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at <https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet>), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w).

During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

The project will occur entirely within the EMR inactive season (in the southern Lower Peninsula: October 16 through April 14; in the northern Lower Peninsula, October 2 through April 30).

Northern long-eared bat

Based on the project area you entered into IPaC, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. Tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Hubbard Farms - Harrington

2. Description

The following description was provided for the project 'Hubbard Farms - Harrington':

Rehabilitation of a historic apartment building in the City of Detroit

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.3221877,-83.08918181468714,14z>



Qualification Interview

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

No

4. Is the action being funded, authorized, or carried out by a Federal agency?

Yes

5. Does the action involve the installation or operation of wind turbines?

No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

No

15. Is the action a utility-scale solar development project?

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?
Automatically answered
Yes
17. Have you determined that this project will have no effect on the monarch?
Yes
18. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?
Automatically answered
Yes
19. Does your action involve prescribed fire?
No
20. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?
Yes
21. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?
No
22. Will you watch MDNR's "[60-Second Snakes: The Eastern Massasauga Rattlesnake \(EMR\)](#)" video, review the [EMR factsheet](#) or call 517-351-2555 to increase human safety and awareness of EMR?
Yes
23. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?
Yes
24. [Semantic] Does the action area intersect the northern riffelshell area of influence?
Automatically answered
Yes
25. [Hidden Semantic] Does the action area intersect the piping plover area of influence?
Automatically answered
Yes
26. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?
Automatically answered
Yes
27. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
-

28. [Hidden Semantic] Does the action area intersect the Indiana bat area of influence?

Automatically answered

Yes

29. The project has the potential to affect Indiana bat. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

No

30. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide [Indiana Bat Summer Survey Guidelines](#) been conducted within the action area?

No

31. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting Indiana bats?

No

32. Does the action include removal/modification of an existing bridge or culvert?

No

33. Does the action include herbicide application?

No

34. Does the action include tree cutting/trimming, prescribed fire, and/or pesticide (e.g., insecticide, rodenticide) application?

No

35. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

Automatically answered

Yes

37. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

Automatically answered

No

38. Will the action involve Tree Removal as defined in the 4(d) rule for northern long-eared bat?

No

IPaC User Contact Information

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Lead Agency Contact Information

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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<http://www.fws.gov/midwest/EastLansing/>

In Reply Refer To:
Project Code: 2022-0019408
Project Name: Hubbard Farms

March 14, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in

making determinations for listed species for some projects. In many cases, the determination key will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit https://www.fws.gov/midwest/EastLansing/te/pdf/MIFO_IPAC_instructions_v1_Jan2021.pdf. Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/midwest/eagle/permits/index.html> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/administrative-orders/executive-orders.php>.

We appreciate your consideration of threatened and endangered species during your project planning. Please include a copy of this letter with any request for consultation or correspondence

about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

Project Summary

Project Code: 2022-0019408
Event Code: None
Project Name: Hubbard Farms
Project Type: Mixed-Use Construction
Project Description: Harwill Apartments
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.31879495,-83.09018962183268,14z>



Counties: Wayne County, Michigan

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/NLBH3NS2IVBFLGJ6H2GEP7A2AY/documents/generated/5663.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/NLBH3NS2IVBFLGJ6H2GEP7A2AY/documents/generated/5664.pdf	Threatened

Birds

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Endangered
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> For all Projects: Project is within EMR Range Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/NLBH3NS2IVBFLGJ6H2GEP7A2AY/documents/generated/5280.pdf	Threatened

Clams

NAME	STATUS
Northern Riffleshell <i>Epioblasma torulosa rangiana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/527	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

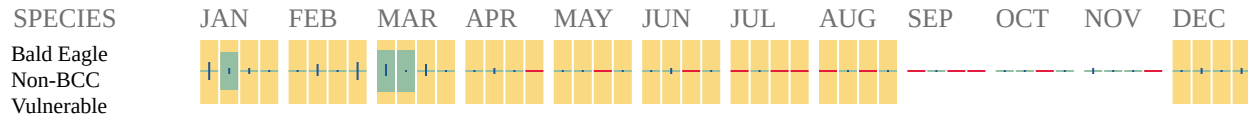
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPaC User Contact Information

Agency: PM Environmental, Inc.

Name: Chelsea Dantuma

Address: 3340 Ranger Road

City: Lansing

State: MI

Zip: 48906

Email: dantuma@pmenv.com

Phone: 5173236534



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443

In Reply Refer To:
Project code: 2022-0060972
Project Name: Hubbard Farms - Harwill

July 06, 2022

Subject: Verification letter for the project named 'Hubbard Farms - Harwill' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Lindsey Sorensen:

The U.S. Fish and Wildlife Service (Service) received on **July 06, 2022** your effect determination(s) for the 'Hubbard Farms - Harwill' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	No effect
Northern Riffleshell (<i>Epioblasma rangiana</i>)	Endangered	No effect
Piping Plover (<i>Charadrius melodus</i>)	Endangered	No effect
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	No effect

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This

verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your “No Effect” determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service’s 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Bald and Golden Eagles:

Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit <https://www.fws.gov/library/collections/all-about-eagles>. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at <https://www.fws.gov/media/national-bald-eagle-management-guidelines-0>.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators

In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan's pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

<https://www.fws.gov/initiative/monarchs>

<https://www.fws.gov/library/collections/pollinators>

Wetland impacts:

Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

Eastern massasauga

Materials used for erosion control and site restoration must be wildlife-friendly. Do not use erosion control products containing plastic mesh netting or other similar material that could entangle eastern massasauga rattlesnake (EMR). Several products for soil erosion and control exist that do not contain plastic netting including net-less erosion control blankets (for example, made of excelsior), loose mulch, hydraulic mulch, soil binders, unreinforced silt fences, and straw bales. Others are made from natural fibers (such as jute) and loosely woven together in a manner that allows wildlife to wiggle free.

To increase human safety and awareness of EMR, those implementing the project must first review the EMR factsheet (available at <https://www.fws.gov/media/eastern-massasauga-rattlesnake-fact-sheet>), and watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/~PFnXe_e02w).

During project implementation, report sightings of any federally listed species, including EMR, to the Service within 24 hours

The project will not result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of EMR upland habitat (uplands associated with high quality wetland habitat) to other land uses.

The project will occur entirely within the EMR inactive season (in the southern Lower Peninsula: October 16 through April 14; in the northern Lower Peninsula, October 2 through April 30).

Northern long-eared bat

Based on the project area you entered into IPaC, the project does not occur within 0.25 miles of a known northern long-eared bat hibernaculum. Tree removal, as defined in the 4(d) rule, will not occur within 150 feet of a known occupied northern long-eared bat maternity roost tree.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Hubbard Farms - Harwill

2. Description

The following description was provided for the project 'Hubbard Farms - Harwill':

Rehabilitation of a historic apartment building in the City of Detroit

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.318774399999995,-83.09020797127513,14z>



Qualification Interview

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

No

4. Is the action being funded, authorized, or carried out by a Federal agency?

Yes

5. Does the action involve the installation or operation of wind turbines?

No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

No

15. Is the action a utility-scale solar development project?

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?
Automatically answered
Yes
17. Have you determined that this project will have no effect on the monarch?
Yes
18. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?
Automatically answered
Yes
19. Does your action involve prescribed fire?
No
20. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?
Yes
21. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?
No
22. Will you watch MDNR's "[60-Second Snakes: The Eastern Massasauga Rattlesnake \(EMR\)](#)" video, review the [EMR factsheet](#) or call 517-351-2555 to increase human safety and awareness of EMR?
Yes
23. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?
Yes
24. [Semantic] Does the action area intersect the northern riffelshell area of influence?
Automatically answered
Yes
25. [Hidden Semantic] Does the action area intersect the piping plover area of influence?
Automatically answered
Yes
26. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?
Automatically answered
Yes
27. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?
Automatically answered
Yes
-

28. [Hidden Semantic] Does the action area intersect the Indiana bat area of influence?

Automatically answered

Yes

29. The project has the potential to affect Indiana bat. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

No

30. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide [Indiana Bat Summer Survey Guidelines](#) been conducted within the action area?

No

31. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting Indiana bats?

No

32. Does the action include removal/modification of an existing bridge or culvert?

No

33. Does the action include herbicide application?

No

34. Does the action include tree cutting/trimming, prescribed fire, and/or pesticide (e.g., insecticide, rodenticide) application?

No

35. [Hidden Semantic] Does the action area intersect the Indiana bat AOI?

Automatically answered

Yes

36. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

Automatically answered

Yes

37. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

Automatically answered

No

38. Will the action involve Tree Removal as defined in the 4(d) rule for northern long-eared bat?

No

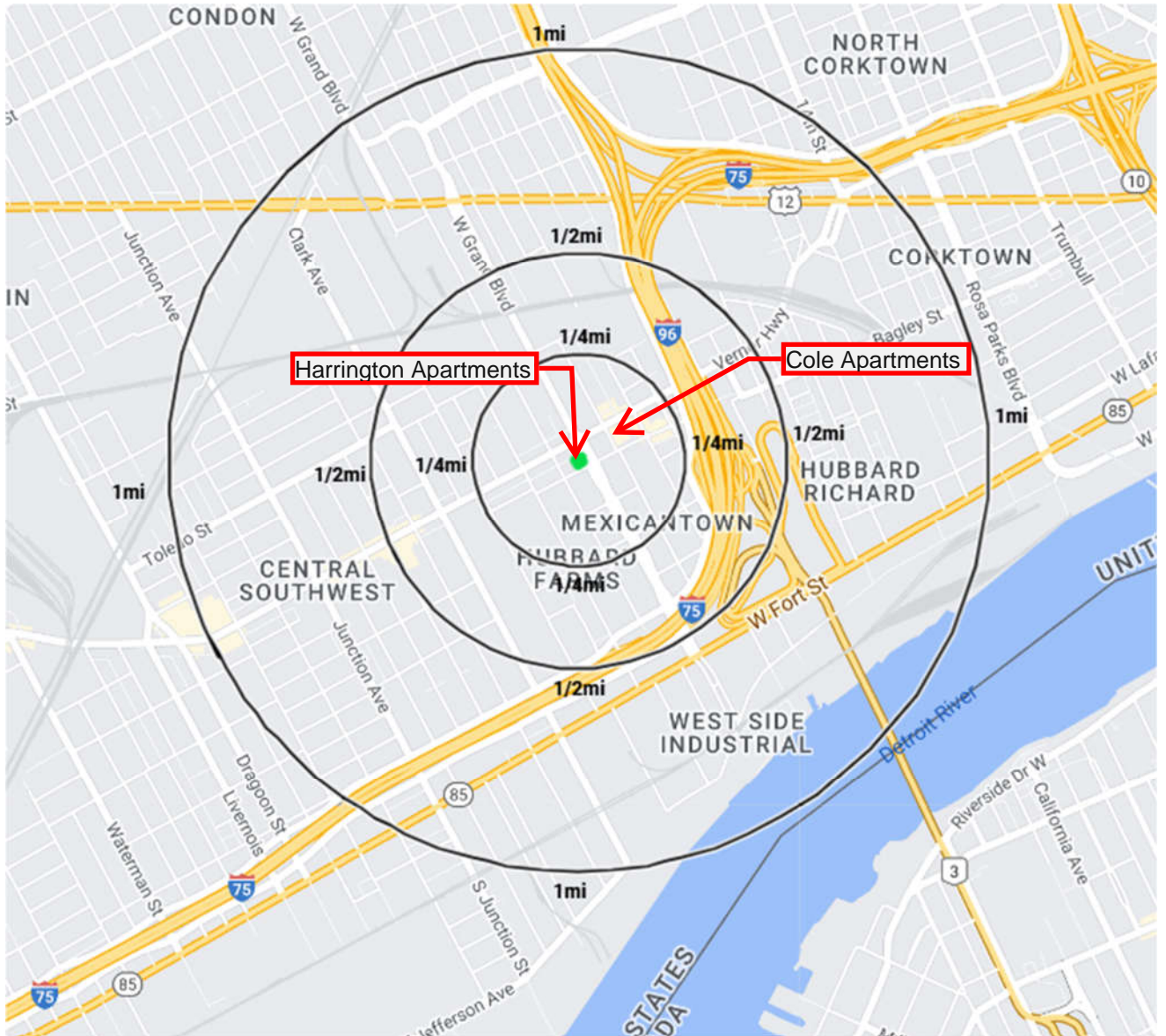
IPaC User Contact Information

Agency: PM Environmental
Name: Lindsey Sorensen
Address: 560 5th Street NW, Suite 301
City: Grand Rapids
State: MI
Zip: 49504
Email: sorensen@pmenv.com
Phone: 6162221777

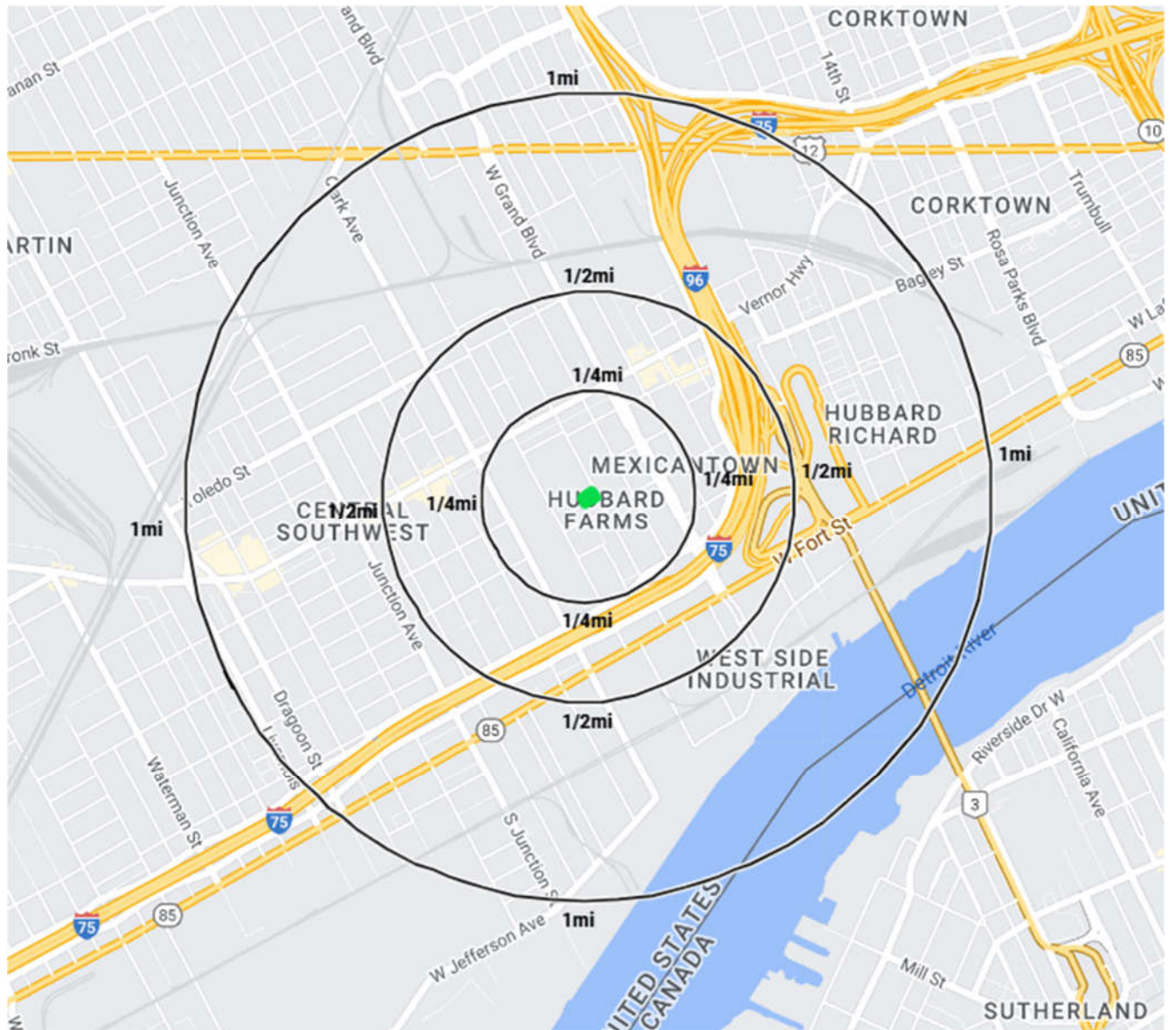
Lead Agency Contact Information

Lead Agency: Department of Housing and Urban Development

BLAST/AST MAP – HUBBARD FARMS COLE AND HARRINGTON



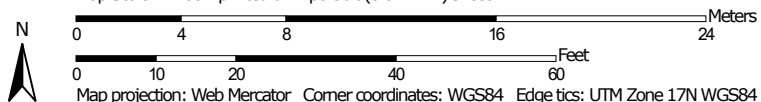
BLAST/AST MAP – HUBBARD FARMS HARWILL MANOR



Soil Map—Wayne County, Michigan
(Hubbard Farms - Cole Apartments)



Map Scale: 1:288 if printed on A portrait (8.5" x 11") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Wayne County, Michigan

Survey Area Data: Version 7, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 10, 2020—Aug 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

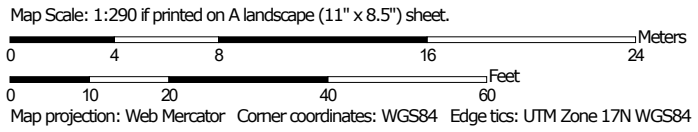
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrmubB	Brems-Urban land complex, dense substratum, 0 to 4 percent slopes	0.4	100.0%
Totals for Area of Interest		0.4	100.0%

Soil Map—Wayne County, Michigan
(Hubbard Farms - Harrington Apartments)



Soil Map may not be valid at this scale.



Soil Map—Wayne County, Michigan
(Hubbard Farms - Harrington Apartments)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

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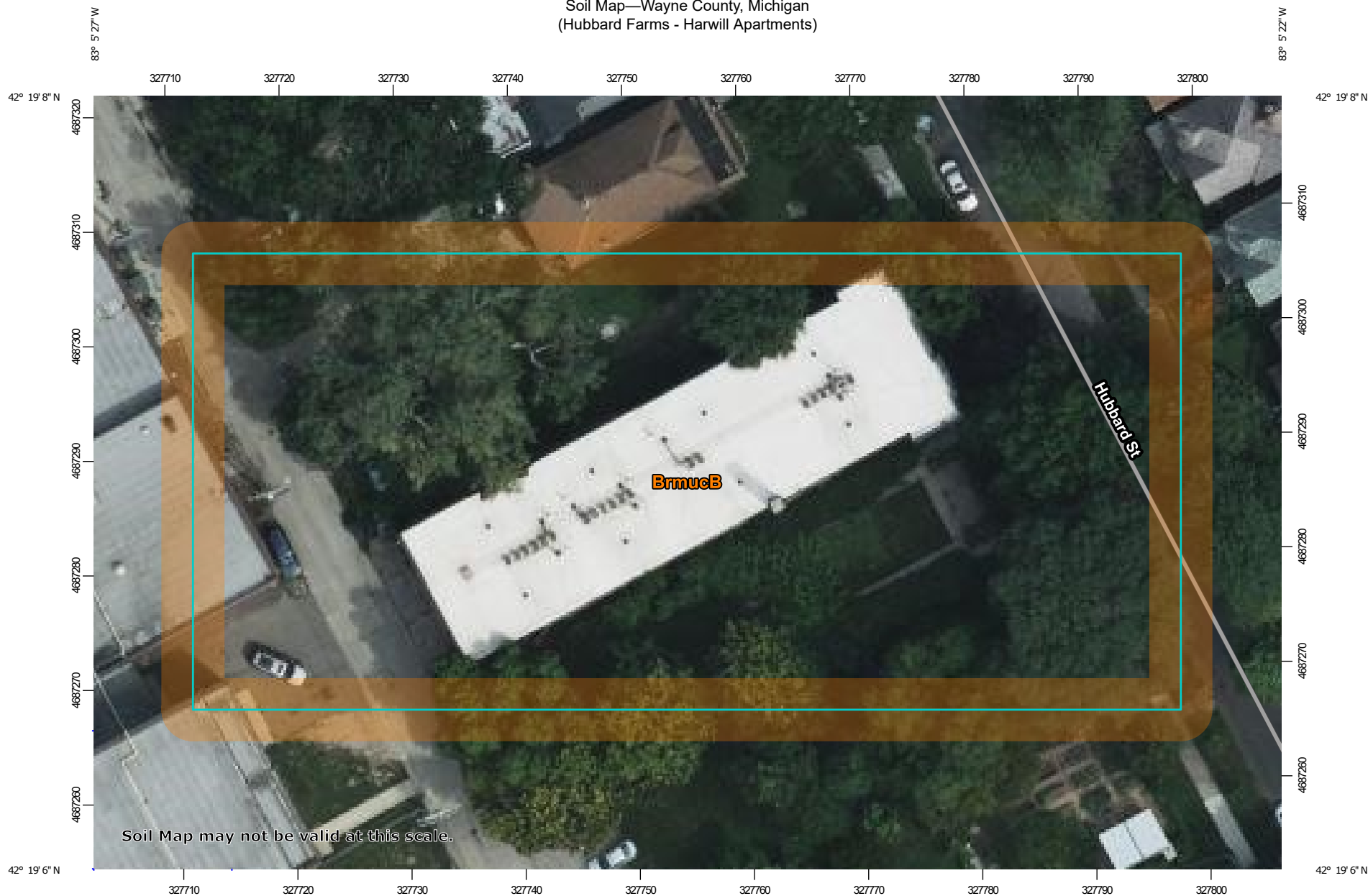
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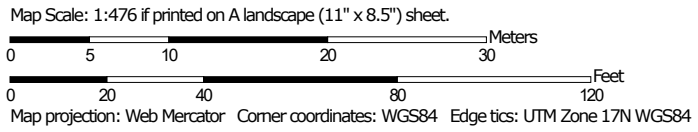
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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrmubB	Brems-Urban land complex, dense substratum, 0 to 4 percent slopes	0.4	100.0%
Totals for Area of Interest		0.4	100.0%

Soil Map—Wayne County, Michigan
(Hubbard Farms - Harwill Apartments)




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BrmucB	Brems-Urban land complex, loamy substratum, 0 to 4 percent slopes	0.9	100.0%
Totals for Area of Interest		0.9	100.0%



Coleman A. Young Municipal Center
2 Woodward Avenue, Suite 908
Detroit, Michigan 48226

Phone: 313.224.6380
Fax: 313.224.1629
www.detroitmi.gov

August 25, 2023

Penny Dwoinen
City of Detroit Housing & Revitalization Department
Coleman A. Young Municipal Center
2 Woodward Avenue, Suite 908
Detroit, MI 48226

RE: Section 106 Review of a CDBG-Funded Project Located 3615 W. Vernor Hwy. (Cole Apartments), 465 W. Grand Blvd. (Harrington Apartments), and 1453 Hubbard St. (Harwill Manor Apartments) in the City of Detroit, Wayne County, Michigan

Dear Mrs. Dwoinen,

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, I am providing a determination of historic eligibility regarding the above-referenced project under the authority of the "Programmatic Agreement between the Michigan State Historic Preservation Office and the City of Detroit, Michigan..." dated December 21, 2022.

The proposed project involves the rehabilitation of three apartment buildings. Rehabilitation activities include enhancement of landscaping, window repair/restoration, brick tuck pointing, repair of limestone details/sculptures, minor roof repairs and gutter replacement, replacement of common area flooring and new paint, upgrades to kitchens, bathrooms, bedrooms, and living spaces, video cameras and other security updates, keyless entries for front and rear doors, and new LED exterior lights in the courtyards and green spaces.

Per Stipulation VI of Programmatic Agreement (PA), the proposed undertaking is exempt from review by SHPO's archaeologist and consultation with Tribes. In the event of an unanticipated discovery, SHPO and Tribal Consultation will be reinitiated under the direction of the unanticipated discoveries plan for this project.

Based on the information submitted to this office on 5/10/2022, we have determined a Historic Property is located within in the Area of Potential Effects (APE) for this project. The buildings at 3615 W. Vernor Hwy. (Cole Apartments), 465 W. Grand Blvd. (Harrington Apartments), and 1453 Hubbard St. (Harwill Manor Apartments) are listed on the National Register of Historic Places as part of Hubbard Farms. The Cole Apartments on W. Vernor also falls within the NRHP eligible Mexicantown Historic District Therefore, per Stipulation V.B of the Programmatic Agreement (PA), the project shall be carried out in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

This project has been given a **Conditional No Adverse Effect** determination (Federal Regulations 36 CFR Part 800.5(b)) on properties that are listed or eligible for listing in the National Register of Historic Places, as long at the following conditions are met:



**Housing and Revitalization
Department**

Coleman A. Young Municipal Center
2 Woodward Avenue, Suite 908
Detroit, Michigan 48226

Phone: 313.224.6380
Fax: 313.224.1629
www.detroitmi.gov

- The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and,
- Photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist

Please note that the Section 106 Review process will not be complete until the above-mentioned conditions are met. If you have any questions, you may contact the Preservation Specialist at Ciavattone@detroitmi.gov.

Sincerely,

Tiffany Ciavattone
Preservation Specialist
City of Detroit
Housing & Revitalization Department

Sound Transmission Classification Assessment Tool (STraCAT)

Overview

The Sound Transmission Classification Assessment Tool (STraCAT) is an electronic version of Figures 17 and 19 in The HUD Noise Guidebook. The purpose of this tool is to document sound attenuation performance of wall systems. Based on wall, window, and door Sound Transmission Classification (STC) values, the STraCAT generates a composite STC value for the wall assembly as a whole. Users can enter the calculated noise level related to a specific Noise Assessment Location in front of a building façade and STraCAT will generate a target required attenuation value for the wall assembly in STC. Based on wall materials, the tool will state whether the composite wall assembly STC meets the required attenuation value.

How to Use This Tool

Location, Noise Level and Wall Configuration to Be Analyzed

STraCAT is designed to calculate the attenuation provided by the wall assembly for one wall of one unit. If unit exterior square footage and window/door configuration is identical around the structure, a single STraCAT may be sufficient. If units vary, at least one STraCAT should be completed for each different exterior unit wall configuration to document that all will achieve the required attenuation. Additionally, if attenuation is not based on a single worst-case NAL, but there are multiple NALs which require different levels of attenuation around the structure, a STraCAT should be completed for each differing exterior wall configuration associated with each NAL.

Exterior wall configurations associated with an NAL include those with parallel (facing) or near-parallel exposure as well as those with perpendicular exposure. When a façade has parallel or perpendicular exposure to two or more NALs, you should base the required attenuation on the NAL with the highest calculated noise level. For corner units where the unit interior receives exterior noise through two facades, the STraCAT calculation should incorporate the area of wall, window and door materials pertaining to the corner unit's total exterior wall area (i.e., from both walls).

Information to Be Entered

Users first enter basic project information and the NAL noise level that will be used as the basis for required attenuation. This noise level must be entered in whole numbers. STraCAT users then enter information on wall, window and door component type and area. Again, as noted above, the wall, window and door entries are based on one unit, and one wall (except for corner units as discussed above). The tool sums total wall square footage based on the combined area of walls, doors and windows for the façade being evaluated.

Users may input STC values for materials in one of two ways. The tool includes a dropdown menu of common construction materials with STC values prefilled. If selected construction materials are not included in this dropdown menu, the user may also enter the STC for a given component manually. Verification of the component STC must be included in the ERR. Documentation includes the architect or construction manager's project plans showing wall material specifications. For new construction or for components that will be newly installed in an existing wall, documentation also includes the manufacturer's product specification sheet (cut sheet) documenting the STC rating of selected doors and windows.

Required STC Rating and Determination of Compliance

Finally, based on project information entered the tool will indicate the required STC rating for the wall assembly being evaluated and whether or not the materials specified will produce a combined rating that meets this requirement. Note that for noise levels above 75 dB DNL, either HUD (for 24 CFR Part 50 reviews) or the Responsible Entity (for 24 CFR Part 58 reviews) must approve the level and type of attenuation, among other processing requirements. Required attenuation values generated by STraCAT for NALs above 75 dB DNL should therefore be considered tentative pending approval by HUD or the RE.

Part I - Description

Project

The Cole

Sponsor/Developer

Hubbard Farms Apartments

Location

3615 Vernor Hwy., Detroit, MI 48216

Prepared by

Shelter Design Studio LLC

Noise Level

73

Date

7/13/2022



Primary Source(s)

Major Roads

Part II - Wall Components

Part II - Wall Components

Wall Construction Detail

Area

STC

Common brick; 3/4" mortar-filled cavity; 1/2" gypsum on 1" wood furring strips

8914

53

Add new wall

8,914 Sq. Feet

53

Window Construction Detail

Quantity

**Sq
Ft/Unit**

STC

3'x5' wood-framed double hung window each sash has one 7/16" glass panel

90

15

26

6'x5' wood-framed picture window single panel glazed double strength

37

30

29

Add new window

Door Construction Detail

Quantity

Sq Ft/Unit

STC

3'x7' hollow-core wood door 1 3/4" thick 30% glazed with 1/8" glass

3

21

19

Add new door

Wall Statistics

Stat	Value
Area:	8914 ft ²
Wall STC:	53

Aperture Statistics

Aperture	Count	Area	% of wall
Windows:	127	ft ²	27.6%
Doors:	3	63 ft ²	0.71%

Evaluation Criteria

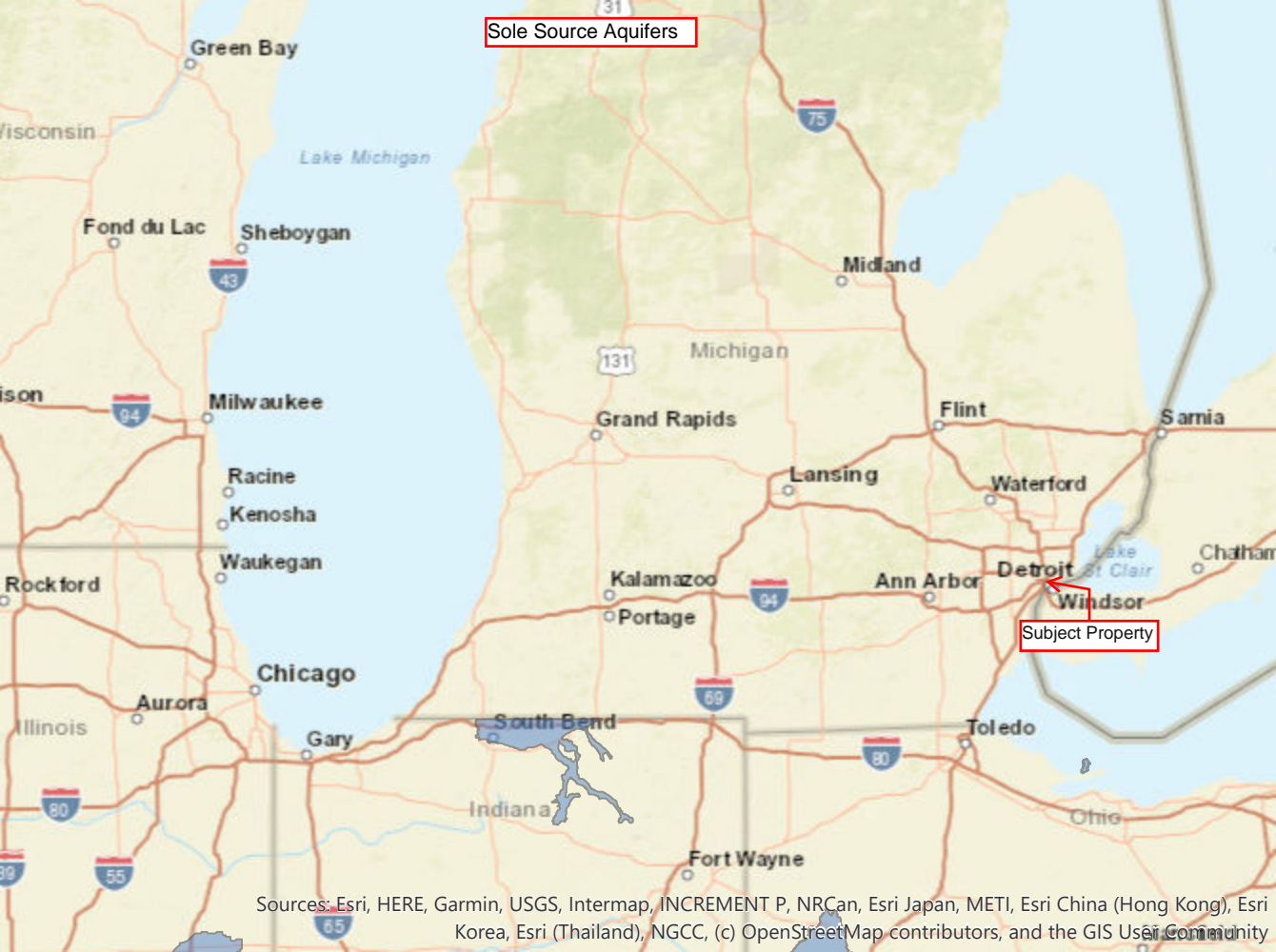
Criteria	Value
Noise source sound level (dB):	73
Combined STC for wall assembly:	32.01
Required STC rating:	31
Does wall assembly meet requirements?	Yes

[Print](#)

What do you do if the preferred wall design is not sufficient to achieve the required attenuation? Another wall design with more substantial materials will work, but may not be the most cost-effective solution. Try adding some other elements for just a little more attenuation.

For example:

- Staggering the studs in a wall offers approximately 4dB of additional protection.
- Increasing the stud spacing from 16" on center to 24" can increase the STC from 2-5dB.
- Adding a 2" air space can provide 3dB more attenuation.
- Increasing a wall's air space from 3" to 6" can reduce noise levels by an additional 5dB.
- Adding a layer of ½" gypsum board on "Z" furring channels adds 2dB of attenuation.
- Using resilient channels and clips between wall panels and studs can improve the STC from 2-5dB.
- Adding a layer of ½" gypsum board on resilient channels adds 5dB of attenuation.
- Adding acoustical or isolation blankets to a wall's airspace can add 4-10dB of attenuation.
- A 1" rockwool acoustical blanket adds 3dB to the wall's STC.
- Filling the cells of lightweight concrete masonry units with expanded mineral loose-fill insulation adds 2dB to the STC.



Sole Source Aquifers

Subject Property

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



March 16, 2022

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



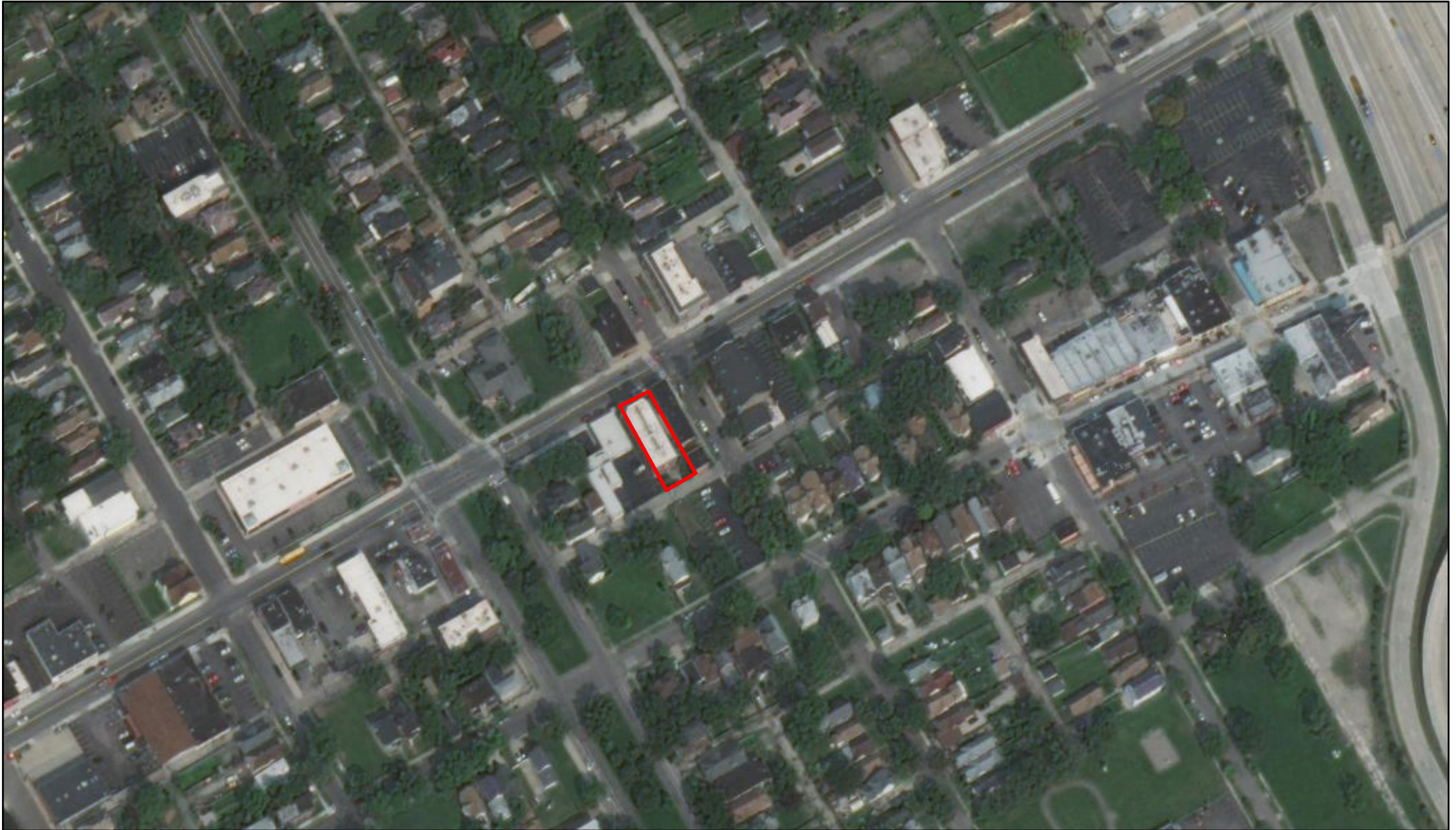
March 16, 2022

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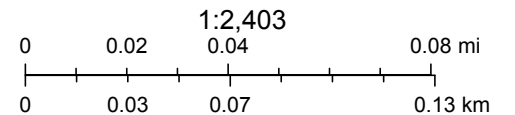
Wetlands Map Viewer Cole



October 21, 2022

Part 303 Final Wetlands Inventory

-  Wetlands as identified on NWI and MIRIS maps
-  Soil areas which include wetland soils
-  Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community. Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community




Disclaimer: This map is not intended to be used to determine the specific

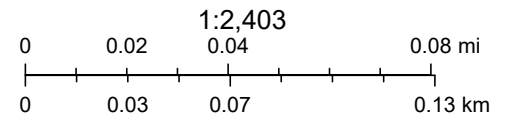
Wetlands Map Viewer Harrington



July 25, 2023

Part 303 Final Wetlands Inventory

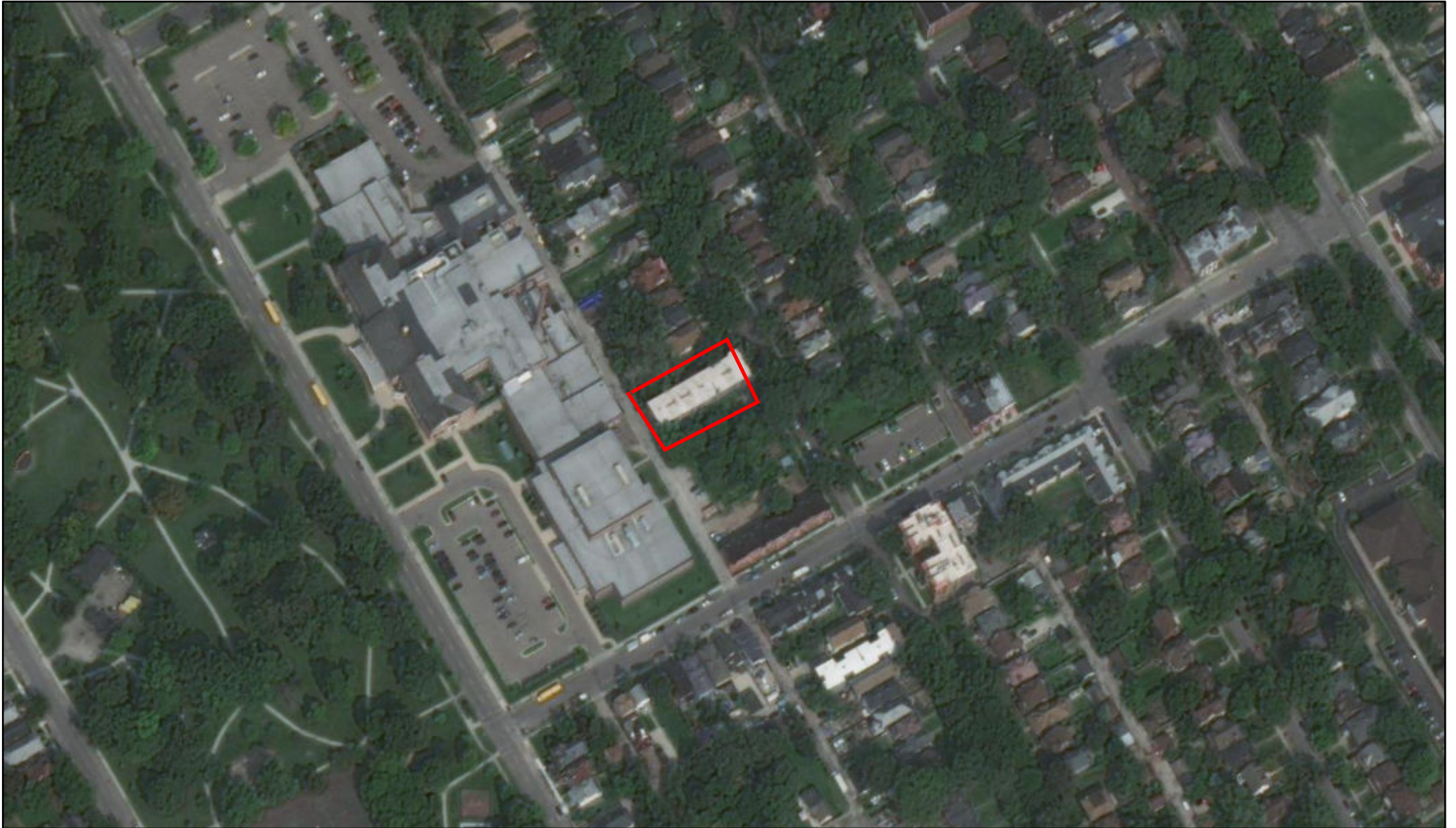
-  Wetlands as identified on NWI and MIRIS maps
-  Soil areas which include wetland soils
-  Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community




Disclaimer: This map is not intended to be used to determine the specific

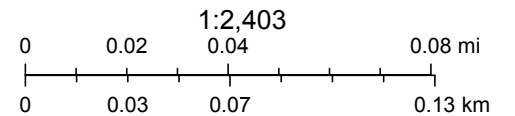
Wetlands Map Viewer Harwill Manor



October 21, 2022

Part 303 Final Wetlands Inventory

-  Wetlands as identified on NWI and MIRIS maps
-  Soil areas which include wetland soils
-  Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community. Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

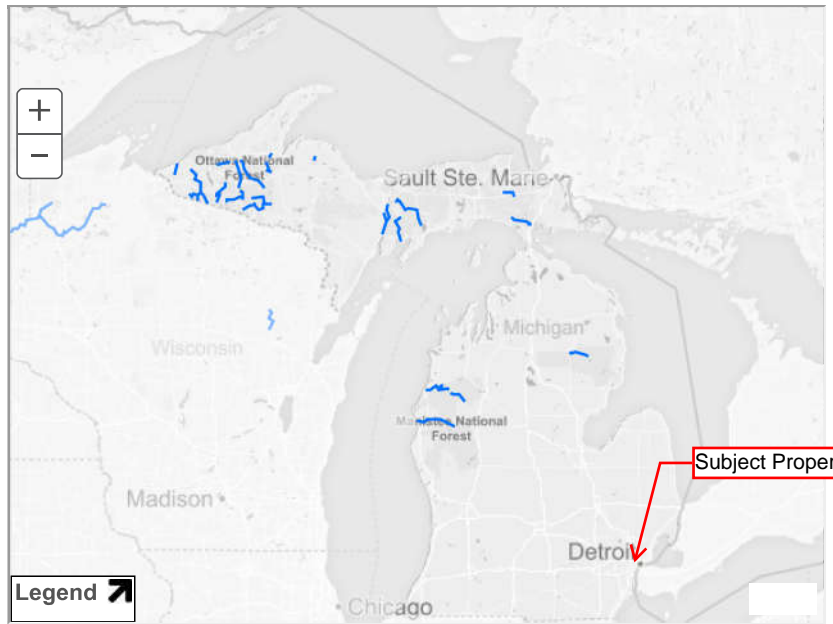
Disclaimer: This map is not intended to be used to determine the specific



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MICHIGAN

Michigan has approximately 51,438 miles of river, of which 656.4 miles are designated as wild & scenic—just a bit more than 1% of the state's river miles.



Choose A State ▼ Go
Choose A River ▼ Go

Nourished by the fertile soils of the region, rivers of the Midwest explode with life, from great avian migrations to ancient fishes.

[+ View larger map](#)

- AuSable River
- Bear Creek
- Black River
- Carp River
- Indian River
- Manistee River
- Ontonagon River
- Paint River
- Pere Marquette River
- Pine River
- Presque Isle River
- Sturgeon River (Hiawatha National Forest)
- Sturgeon River (Ottawa National Forest)
- Tahquamenon River (East Branch)
- Whitefish River
- Yellow Dog River

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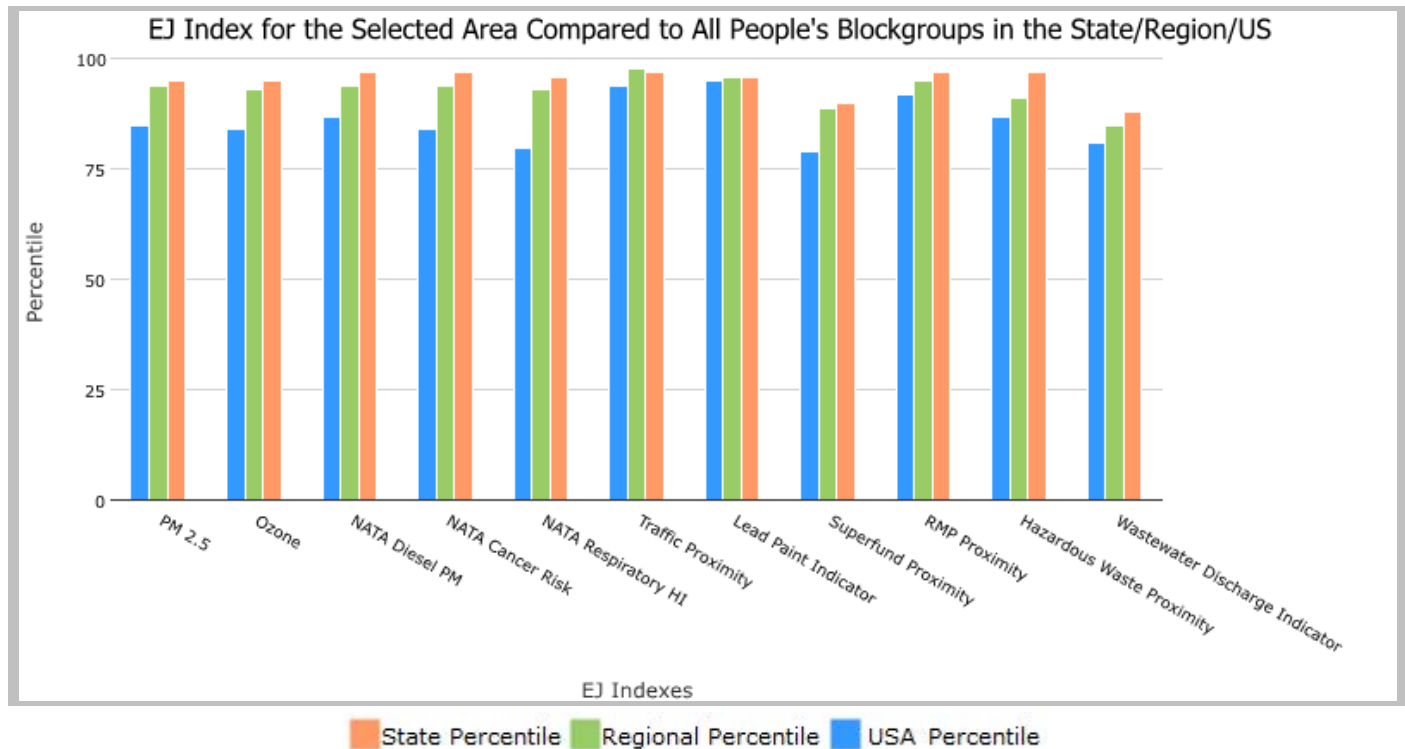
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1 mile Ring Centered at 42.322993,-83.088183, MICHIGAN, EPA Region 5

Approximate Population: 12,434

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	95	94	85
EJ Index for Ozone	95	93	84
EJ Index for NATA* Diesel PM	97	94	87
EJ Index for NATA* Air Toxics Cancer Risk	97	94	84
EJ Index for NATA* Respiratory Hazard Index	96	93	80
EJ Index for Traffic Proximity and Volume	97	98	94
EJ Index for Lead Paint Indicator	96	96	95
EJ Index for Superfund Proximity	90	89	79
EJ Index for RMP Proximity	97	95	92
EJ Index for Hazardous Waste Proximity	97	91	87
EJ Index for Wastewater Discharge Indicator	88	85	81

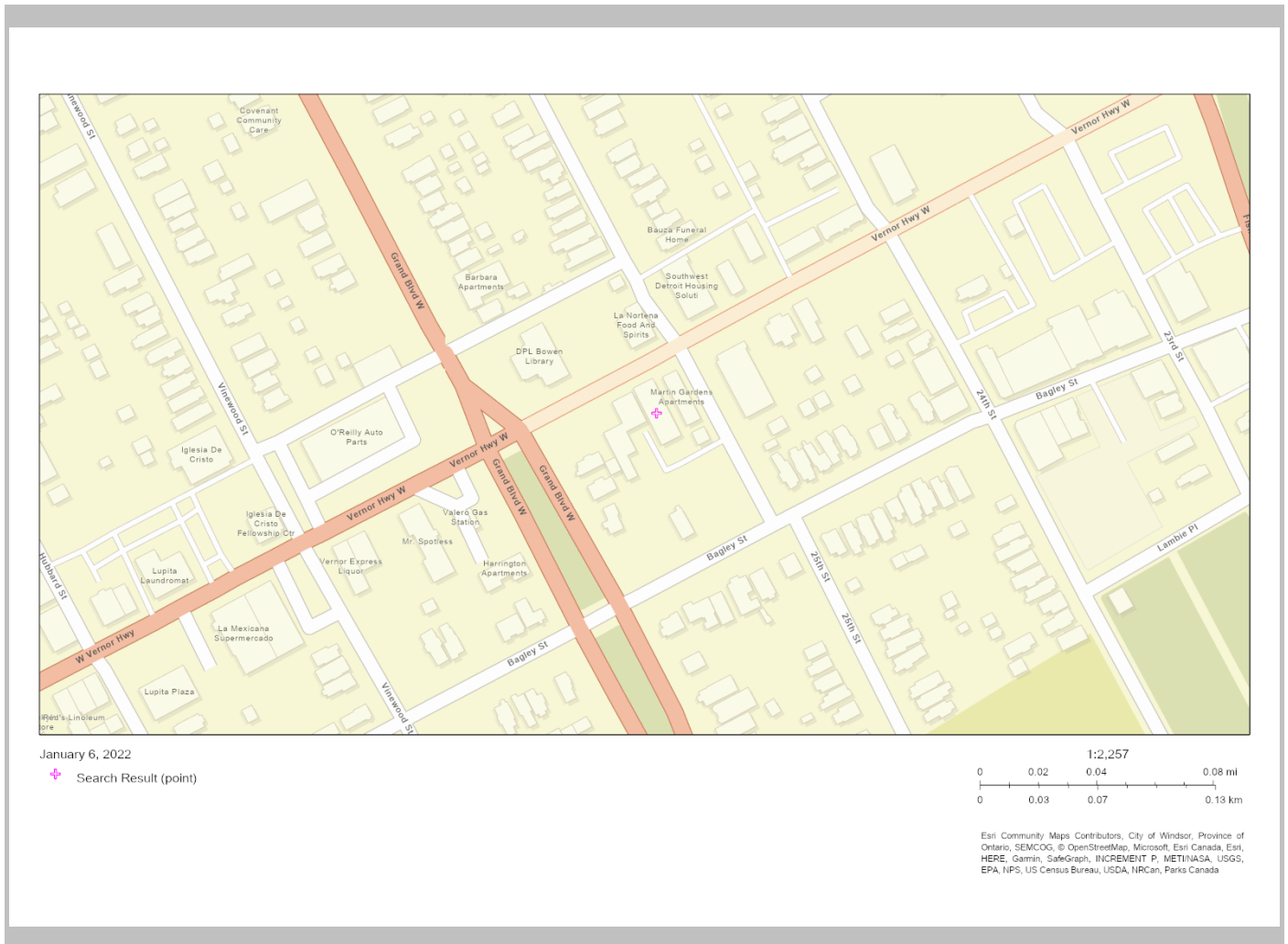


This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

1 mile Ring Centered at 42.322993,-83.088183, MICHIGAN, EPA Region 5

Approximate Population: 12,434

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2020)



1 mile Ring Centered at 42.322993,-83.088183, MICHIGAN, EPA Region 5

Approximate Population: 12,434

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.6	8.11	97	8.4	94	8.55	84
Ozone (ppb)	43.5	43.1	49	43.8	32	42.9	56
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	0.711	0.338	96	0.446	80-90th	0.478	80-90th
NATA* Cancer Risk (lifetime risk per million)	34	24	98	26	90-95th	32	60-70th
NATA* Respiratory Hazard Index	0.38	0.29	97	0.34	70-80th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	2500	650	94	530	96	750	92
Lead Paint Indicator (% Pre-1960 Housing)	0.79	0.38	86	0.38	87	0.28	92
Superfund Proximity (site count/km distance)	0.053	0.15	41	0.13	44	0.13	44
RMP Proximity (facility count/km distance)	1.8	0.53	92	0.83	86	0.74	88
Hazardous Waste Proximity (facility count/km distance)	3.1	1.2	90	2.4	75	5	76
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	7E-05	1.7	53	2.4	42	9.4	52
Demographic Indicators							
Demographic Index	73%	29%	93	28%	94	36%	91
People of Color Population	84%	25%	92	25%	92	39%	86
Low Income Population	62%	33%	88	30%	91	33%	90
Linguistically Isolated Population	13%	2%	96	2%	94	4%	88
Population With Less Than High School Education	35%	9%	97	10%	97	13%	93
Population Under 5 years of age	8%	6%	80	6%	77	6%	74
Population over 64 years of age	8%	16%	14	16%	17	15%	20

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

**Hubbard Farms
PM Environmental
August 24, 2023**

Response Activity or Continuing Obligation	Required Activities	Party Responsible for Completing Activity	Timing of Activity	Required Follow-up or Reporting
<p>Site Evaluation Summary and Construction Management Practices Work Plan (Harrington Building)</p>	<ol style="list-style-type: none"> 1- Install permanent groundwater monitoring wells and multi-increment/depth in-boring soil gas monitoring points within the adjacent public alleyway, which is between the source and the subject property. 2- PM will collect additional soil, groundwater (if encountered), and soil gas analytical data during the approximately one-year long renovation of the subject building that will be used to demonstrate that either 1) the VIAP is not complete or 2) to evaluate additional measures to mitigate vapors to prevent future exposure risks via the vapor intrusion pathway. This will involve monthly soil gas sample collection for a total of five (5) months/events along with four (4) quarterly groundwater monitoring events, if groundwater is encountered. 3- Site workers will adhere to their company issued site-specific health and safety plan in accordance with the Occupational Safety and Health Organization (OSHA) 29 Code of Federal Regulations (CFR) 1910.120 Worker Protection Regulations and will practice appropriate awareness and management for gasoline contaminated soil, groundwater, and/or vapors, if detected, on the subject property during construction activities 	<p style="text-align: center;">General Contractor, Consultant, EGLE</p>	<p style="text-align: center;">Concurrent with rehabilitation</p>	<p style="text-align: center;">Foundation Repair Approvals – BSEED and Contract Required Reporting to EGLE</p>

**Hubbard Farms
PM Environmental
August 24, 2023**

<p>Vapor Intrusion Mitigation – If Warranted (Harrington Building)</p>	<ol style="list-style-type: none">1- PM will complete a baseline air screening event of the previously approved monitoring locations using a photoionization detector (PID), multi-gas meter with lower explosive limit (LEL) capabilities, and an UltraRae PID equipped with benzene sorbent (SEP) tubes. This data will be logged and shared with EGLE as a baseline of site conditions prior to the collection of air samples for laboratory analysis.2- The baseline screening event was completed by PM on June 12, 2023 and the data was tabulated and disclosed to EGLE on June 15, 2023. All screened locations inside the subject building, and the sewer monitoring points adjacent to the subject property, were non-detect (0.0 ppm) for total VOCs and benzene, and no LEL readings were detected.3- PM will collect air samples from the two (2) apartment floor drains (laundry room and utility closet) along with the sanitary sewer main manhole (MH-1) and the exterior PVC drain cleanout located along the northern exterior wall of the subject building. The analytical results will assist with confirming if there is a lingering source of gasoline vapors.4- PM will contract with a certified plumber to complete a camera inspection of the lateral sanitary sewer lines from the Harrington Apartment building to the municipal sewer main located in the alley. This will determine the integrity of each of the laterals.			
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**Hubbard Farms
PM Environmental
August 24, 2023**

	<p>5- There are three (3) total lateral feeds based on sewer camera inspections that were previously conducted and none of the lateral feeds are equipped with vapor traps. PM will solicit competitive bids from eligible contractors to perform the installation of vapor traps on the lateral service lines.</p> <p>6- Sub-slab soil gas samples may be collected from the existing sample points (SG-4 through SG-8) to determine current concentrations if the conditions are found to be suitable based on screening of each of the pins with a manometer. PM will deploy a manometer to collect pressure readings from each of these locations to determine if there is outside ambient air influence. This data will be shared with EGLE to determine if soil gas samples should be collected.</p>			
<p>Section 106 – Conditional No Adverse Effect Requirements</p>	<p>The work is conducted in accordance with the specifications submitted to the Preservation Specialist on 5/10/2022, and, photos of the completed work and copies of the Historic Tax Credit Certifications are submitted to the Preservation Specialist."</p>	<p>General Contractor, Project Architect</p> <p>General Contractor, Project Architect</p>	<p>Prior to Construction</p> <p>At any time</p>	<p>Photos of the completed work submitted to Preservation Specialist</p>
<p>Noise Analysis – Unacceptable Noise</p>	<p>The Cole is the only building requiring noise mitigation. Existing windows include 3x5 foot wood-framed double hung windows; each sash has one 7/16-inch glass and 6x5 foot window-framed picture windows single panel glazed double strength with STCs of 26 and 29, respectively. Windows will be repaired with a full refurbishment including sash, hardware, and glazing. The current wall</p>	<p>Architect, Construction, Crew, Foremen, Developer,</p>	<p>During rehabilitation</p>	<p>Building specs</p>

**Hubbard Farms
PM Environmental
August 24, 2023**

	<p>construction includes common brick; 3/4-inch mortar-filled cavity; 1/2-inch gypsum 1 inch wood furring with an STC of 53. Doors consists of 3x7 foot hollow-core with 1 3/4-inch thick 30% glazed with 1/8-inch glass and a STC of 19. The combined STC for wall assembly is 32.01 with meets the required STC rating of 31.</p>			
<p>Lead-Based Paint</p>	<p>Abatement of lead-based paint/lead-based paint hazards will be done according to local, state, and federal guidelines. After cleaning/renovation activities are completed, clearance testing will be performed prior to re-occupancy. All records obtained associated with lead-based paint abatement will be maintained as part of the project's environmental records.</p>	<p>General Contractor, Consultant</p>	<p>During rehabilitation</p>	<p>Close Out Report</p>