U.S. Department of Housing and Urban Development
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Washington, DC 20410
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Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: 900-Tuscola-Street

HEROS Number: 900000010435738

Start Date: 10/31/2024

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

RE Preparer: Kim Siegel

State / Local Identifier: Michigan/Detroit

Certifying Officer: Julie Schneider

Grant Recipient (if different than Responsible Entity):

Point of Contact:

Consultant (if applicable): ASTI Environmental

Point of Contact: Christopher Yelonek

40 CFR 1506.5(b)(4): The lead agency or, where appropriate, a cooperating agency shall prepare a disclosure statement for the contractor's execution specifying that the contractor has no financial or other interest in the outcome of the action. Such statement need not include privileged or confidential trade secrets or other confidential business information.

- ✓ By checking this box, I attest that as a preparer, I have no financial or other interest in the outcome of the undertaking assessed in this environmental review.

Project Location: 900 Tuscola Street, Detroit, MI 48201

Additional Location Information:
900 Tuscola Street, Detroit, Wayne County, Michigan 48201

Direct Comments to: Penny Dwoinen, Environmental Review Officer, City of Detroit
E-mail: dwoinenp@detroitmi.gov

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:
The proposed project seeks to construct a five-story, 94,314 square foot, mixed income, mixed use, ell-shaped development featuring 67 apartment units and 1,000 square feet of retail space at 900 Tuscola Street, Detroit, Wayne County, Michigan 48201 (Subject Property). The Subject Property is currently a vacant lot in the Cass Corridor neighborhood of the City of Detroit that is to be acquired as part of the proposed project. The proposed project plans to include various amenities into the new construction which include a resident lounge with kitchenette, a bike room, laundry room, an elevator, gym facility, a playground, and a landscaped courtyard with seating. All apartment units are to be affordable housing units. The proposed project is to be divided into two sections, the 4 percent apartment units which is to include 34 apartment units and the 9 percent apartments featuring 33 apartment units. The overall new construction is to include 63 parking spaces divided into an enclosed parking garage and a surface parking lot. This review is for the $1,530,000.00 in HOME 2023 funding. This review is valid for five years.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
The proposed project seeks to construct a five-story, mixed use apartment building on a vacant lot. The Subject Property has remained as a vacant lot since circa 1956, in an area where demand for housing, particularly affordable housing, remains in high demand in the Cass Corridor neighborhood. There has been a small increase in population in the Cass Corridor neighborhood, which is anticipated to lead to an increase in demand for housing. The Cass Corridor and Midtown neighborhoods are known for their diverse amenities in a mixed-use urban setting that is considered to be very walkable, which is anticipated to increase the demand for housing in the area. The proposed project is designed to help address the high demand for affordable housing in the Cass Corridor neighborhood.

Existing Conditions and Trends [24 CFR 58.40(a)]:
Based on the market study (Tab Attachment 1) prepared in 2023, the Project Market Area (PMA) had decreased since 2000. However, a slight increase in population is anticipated to emerge by 2027. The demand for housing, particularly affordable

housing in the PMA, remains high. Most of the affordable housing properties surveyed in the market study maintain high occupancy rates and waiting lists. Affordable housing occupancy rates range from 0 to 8.1 percent, with an average rate of 1.8 percent. The market value occupancy rates range from 0 to 15.1 percent, with an average rate of 5.7 percent. An increase of 67 affordable housing units is not anticipated to have an adverse impact on affordable housing rental properties, due to the high demand and limited supply. The Subject Property currently consists of a grassy vacant lot surrounded by other vacant lots in an urbanized area near the John C. Lodge Freeway/M-10. The Subject Property has been a vacant lot for several years, being an underused area of the Cass Corridor Neighborhood.

Maps, photographs, and other documentation of project location and description:
B2-116_Building_Permit_20241106_104057.pdf
B-Permit Set - Floor PlansElevations.pdf
T1-900 Tuscola Street-Ex 05-Mrkt Data.pdf
A2-Site Features Map.pdf
A1-Site Location Map.pdf

Determination:

✓	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
	Finding of Significant Impact

Approval Documents:
ER Sig Page - 900 Tuscola.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	Funding Amount
M23MC260202	Community Planning and Development (CPD)	HOME Program	$1,530,000.00

Estimated Total HUD Funded, Assisted or Insured Amount: $1,530,000.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: $36,253,247.00

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	☐ Yes ☑ No	There are two airports within 15 miles of the Subject Property. Coleman A. Young International Airport is approximately 4.77 miles and Windsor International Airport is approximately 7.05 miles from the Subject Property. The Subject Property is outside of all airport runway protection, clear, and accident potential zones. The Subject Property is not anticipated to be adversely impacted by airports. The proposed project is in compliance with this regulation. See Appendix P for an airport location map.
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	☐ Yes ☑ No	The Subject Property is located in Detroit, Wayne County, Michigan. There is one coastal barrier resource, known as MI-04 in Southeastern Wayne County. The Subject Property is located in an inland portion of Detroit, which is located in Northeastern Wayne County. The proposed project is not anticipated to have an adverse impact on coastal barrier resources and the proposed project is in compliance with this statute. See Appendix Q for the John H. Chafee Coastal Barrier Resources System map of Michigan.
Flood Insurance Flood Disaster Protection Act of	☐ Yes ☑ No	The Subject Property is located in Zone X, the area of minimal flood hazard, as

1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		seen in FEMA flood map 26163C0280E, effective February 2, 2012. The Subject Property is not anticipated to be adversely impacted by flooding and does not require flood insurance. The proposed project is in compliance with this statute. See Appendix D for the FIRMette map of the Subject Property.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5		
Air Quality Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	☐ Yes ☑ No	The Subject Property is located in Detroit, Wayne County, Michigan. The Subject Property is located within the ozone maintenance zone of Southeast Michigan. The proposed project is anticipated to begin construction in late in the first quarter 2025 and is expected to last into the fourth quarter 2026. Due to the new construction, the proposed project was submitted to Environment, Great Lakes, and Energy (EGLE): Air Quality Division for review. EGLE has reviewed the proposed project, determining that the project is not anticipated to exceed the de minimis levels for ozone, and no further analysis for air quality is required. The proposed project is not anticipated to have an adverse impact on the air quality and is in compliance with this statute. See Appendix J.
Coastal Zone Management Act Coastal Zone Management Act, sections 307(c) & (d)	☐ Yes ☑ No	The Subject Property is located in Detroit, Wayne County, which has coastal zone management areas. The Subject Property is an inland property and is located outside of the coastal zone management area of Detroit, Wayne County. The proposed project is not anticipated to have an adverse impact on coastal zone management areas and is in compliance with this statute. See Appendix F for the coastal zone management map of Northern Wayne County.

Contamination and Toxic Substances 24 CFR 50.3(i) & 58.5(i)(2)]	☑ Yes ☐ No	BEA October 29, 2021 On September 26, 2018, ASTI conducted a Limited Subsurface Investigation (LSI) of the Subject Property to evaluate the fill soil. Based on the analytical results obtained during the subsurface investigation at the Subject Property, the affected media at the Subject Property is soil. Based on the concentrations of the metals arsenic and mercury in soil at the Subject Property exceeding the GRCC, it is ASTI's opinion that the Subject Property is a ''facility'' as defined in Part 201. Phase I ESA March 22, 2023 ASTI was retained to conduct a Phase I ESA (Tab Attachment 3) of the Subject Property. This assessment has revealed no evidence of RECs in connection with the Subject Property except for the following: * Fill material has been concluded to be the cause of environmental impact at the Subject Property. Impacts were identified in the fill material during subsurface investigations completed on September 26, 2018, and November 13, 2019. The metals arsenic and mercury were identified in the soil at GP-1, GP-3, and SB-16 above Part 201 GRCC. ASTI has prepared a Due Care Plan to mitigate exposure risk. Limited Subsurface Investigation May 30, 2023 ASTI was retained to conduct an LSI (Tab Attachment 4) of the Subject Property. Based on the laboratory analytical results, the metals lead, mercury, and selenium are present in the soil at concentrations exceeding the GRCC. Therefore, ASTI opines that the Subject Property is still a ''facility'' as defined in Part 201. Soil Gas and Subsurface Investigation April 24, 2024 ASTI was retained to conduct a soil gas and subsurface investigation (Tab Attachment 5) of the Subject Property. The laboratory analytical results for the

		soil gas samples collected at the Subject Property reported no exceedances of the SSVIAC for mercury, PNAs, or VOCs. Therefore, at the time of sampling, no vapor risk was identified for the proposed building. ResAP September 6, 2024 ASTI completed a Response Activity Plan (ResAP) (Tab Attachment 6) for the Subject Property. Due to the arsenic and lead in shallow soils at concentrations exceeding the GRCC for direct contact, direct contact exposure barriers will be installed, along with maintenance to mitigate the unacceptable exposure. The direct contact exposure barriers will comprise of the following: the building floor slab, exterior concrete/asphalt pavement, and green space barriers. For the green space barrier, a high-visibility fabric demarcation layer will be placed underlying a minimum of 12 inches of clean soil.
Endangered Species Act Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	☐ Yes ☑ No	The Indiana Bat, Northern Long-eared Bat, Rufa Red Knot, Eastern Massasauga Rattlesnake, Northern Riffleshell Mussel, and the Eastern Prairie Fringed Orchard are all species listed on the Threatened and Endangered Species of Michigan, known to have critical habitats in Wayne County. The Subject Property is located in Detroit, Wayne County, Michigan. Specifically, the Subject Property is a vacant lot with a maintained lawn in a highly urbanized area of the City of Detroit. Additionally, there are no water resources present on or near the Subject Property. The proposed project is not anticipated to have an adverse impact on threatened and endangered species. The proposed project is in compliance with this statute. See Appendix H for the Michigan Threatened and Endangered Species list.

Explosive and Flammable Hazards Above-Ground Tanks)[24 CFR Part 51 Subpart C	☐ Yes ☑ No	There are 11 sites within a one-mile radius of the Subject Property with an Above-ground Storage Tank (AST), based on the EDR Radius Map Report of the Subject Property, dated February 28, 2023. An AST of unknown capacity at 2950 Rosa Parks Boulevard was removed as of September 14, 1994. The 13,500-gallon AST at 3200 Hobson Street has been removed from the premises as of May 9, 2014. At 666 Selden Street is a 1,000-gallon AST, storing a substance listed as ''other'' that has been closed, but remains on site. The AST at 666 Selden Street has an Acceptable Separation Distance for Blast Over Pressure (ASDBOP) is 219.03 feet, with an Acceptable Separation Distance for Thermal Radiation for People (ASDPPU) of 276.57 feet, and the 666 Selden Street property is approximately 570 feet from the Subject Property. The 2,000-gallon diesel AST at 100 Mack Avenue has an ASDPPU of 369.16 feet and the Subject Property is approximately 3,213 feet away. At 1351 Spruce Street is an 8,000-gallon diesel AST with an ASDPPU of 657.70 feet and is approximately 3,155 feet from the Subject Property. The property at 3990 John R Street contains a 20,000-gallon diesel AST with an ASDPPU of 963.41 feet and is approximately 3,194 feet from the Subject Property. At 2950 Rosa Parks Boulevard is a 1,000-gallon AST storing a combustible liquid with an ASDBOP of 219.03 feet and an ASDPPU of 276.57 feet, which is approximately 3,176 feet from the Subject Property. At 2000 2nd Avenue, there are three 1,650-gallon diesel ASTs. The ASTs have an ASDPPU of 340.72 feet each and the Subject Property is approximately 4,719 feet from the 2000 2nd Avenue property. There are two 6,500-gallon

		diesel ASTs at 1777 3rd Avenue, which both have an ASDPPU of 603.20 feet, and the Subject Property is approximately 4,182 feet away. At 1 Energy Plaza is a 6,000-gallon diesel AST, which has an ASDPPU of 583.42 feet, and the Subject Property is approximately 4,985 feet away. At 5454 Cass Avenue are six non-registered ASTs present at the property. Two of the ASTs at 5454 Cass Avenue are 1,100-gallon ASTs, storing an unreported substance, which have an ASDBOP of 226.04 feet, an ASDPPU of 287.77 feet, and is approximately 5,129 feet from the Subject Property. The remaining four ASTs at 5454 Cass Avenue are 1,000-gallon ASTs storing an unreported substance, has an ASDBOP of 219.03 feet, an ASDPPU of 276.57 feet, and is approximately 5,129 feet from the Subject Property. The Subject Property is located at distances greater than the minimum acceptable separation distance from all known ASTs within a one-mile radius. The Subject Property is not anticipated to be adversely impacted by explosive and flammable hazards. The proposed project is in compliance with this regulation. See Appendix O.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	☐ Yes ☑ No	The soils present at the Subject Property are Midtown gravelly-artifactual sandy loam and Urban land-Riverfront complex. Both soils are classified as not prime farmland. The proposed project is not anticipated to adversely impact prime farmland and is in compliance with this statute. See Appendix K for the USDA soil survey on the Subject Property.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	☐ Yes ☑ No	The Subject Property is located in Zone X, the area of minimal flood hazard, as seen in FEMA flood map 26163C0280E, effective February 2, 2012. The Subject Property is not anticipated to be

		adversely impacted by flooding. The proposed project is in compliance with this executive order. See Appendix D for the FIRMette map of the Subject Property.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	☑ Yes ☐ No	The proposed project is a new construction project, which is anticipated to alter the cultural landscape of the Cass Corridor neighborhood. The proposed project underwent a Section 106 review through the City of Detroit: Housing and Redevelopment Department under the City's programmatic agreement with the Michigan State Historic Preservation Office (SHPO). The City of Detroit with the concurrence of SHPO have determined that ''no historic properties are affected'' by the proposed project since it follows the Secretary of the Interior's Standards for Rehabilitation, 9 and 10. The proposed project will construct a building that will be differentiated from existing cultural resources, compatible with nearby massing and scale of the surrounding built environment. If the proposed new construction is removed in the future, the nearby historic properties will be unimpaired. In the event of an unanticipated discovery during construction, the unanticipated discoveries plan will be followed as authored by the City of Detroit. See Appendix C for the Section 106 determination letter.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	☑ Yes ☐ No	ASTI conducted a noise assessment on the new construction of the proposed project. Two airports and ten busy roads were found to be noise generators near the Subject Property. Due to the locations of the noise generators surrounding the Subject Property, three Noise Assessment Locations (NALs) were selected. The analysis found the noise levels for NAL #1 to be at the

		normally unacceptable level at 68 decibels (dB). The noise levels for NALs #2 and #3 were found to be at the normally unacceptable level at 74 dB each. Since the noise levels were found to be in the normally unacceptable level, the proposed project was required to undergo a Sound Transmission Classification Assessment Tool (STraCAT) assessment. The STraCAT calculations revealed that the minimum Sound Transmission Class (STC) rating of 30 for the 74 dB noise levels. The wall sections of the proposed building are nearly identical to one another and the minimum STC rating was applied to each wall section. The combined wall assembly for each wall of the proposed building has a range of 38 to 40 STC rating, which exceeds the minimum STC rating of 30. See Appendix M for the noise assessment and STraCAT calculations.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	☐ Yes ☑ No	The Subject Property is located in Detroit, Wayne County, Michigan. There are no designated sole source aquifers within the State of Michigan. The proposed project is not anticipated to have an adverse impact on sole source aquifers and is in compliance with this statute. See Appendix G for the Designated Sole Source Aquifers in Region 5 map.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	☐ Yes ☑ No	Based on the National Wetlands Inventory database, there are no wetlands on or near the Subject Property. The proposed project is not anticipated to adversely impact wetlands and is in compliance with this executive order. See Appendix E for the National Wetlands Inventory map.
Wild and Scenic Rivers Act Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	☐ Yes ☑ No	The Subject Property is located in Detroit, Wayne County, Michigan. The City of Detroit is located in the State of Michigan's Southeast Region. There are no designated Wild and Scenic Rivers in

		the Southeast Region of Michigan. Based on the National Park Service database, there are no designated Inventory Rivers on or near the Subject Property. The proposed project is not anticipated to have an adverse impact on Wild and Scenic Rivers. The proposed project is in compliance with this statute. See Appendix I.
HUD HOUSING ENVIRONMENTAL STANDARDS		
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	☐ Yes ☑ No	Within a one-mile radius of the Subject Property, the selected variables for pollution levels by the EPA, are above the State of Michigan average except for diesel particulate matter and superfund proximity, which are below the state average. The population surrounding the Subject Property consists of * 69 percent are people of color * 62 percent are low income * 10 percent are unemployed * 2 percent are limited English speaking households * 15 percent hold less than a high school education * 4 percent are under the age of 5 years * 13 percent are over 64 years of age * 17 percent have a low life expectancy * 20.8 percent are disabled 1 * 9 percent lack broadband internet access * 6 percent lack health insurance * 16 percent of households are owner occupied. A housing burden and a transportation access gap are known to exist in the area surrounding the Subject Property. Out of the limited English-speaking households, the most spoken languages are other Indo-European languages. The local population has a life expectancy of 57 years and per capita income is $31,806.00 for the local population. The Subject Property consists of a vacant lot and the proposed project is a new affordable housing construction project. The proposed project is not anticipated

		to displace any persons. Nor is the proposed project anticipated to adversely impact housing costs. The proposed project is anticipated to remove contaminated soils from the Subject Property, that will improve the overall public health of low-income communities. Additionally, the proposed project is anticipated to increase the number of affordable housing units in a growing high-rent area of the City of Detroit. See Appendix L for the EPA EJScreen report.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

Impact Codes: An impact code from the following list has been used to make the determination of impact for each factor.
(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement.

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
LAND DEVELOPMENT			
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	1	The Subject Property is zoned as SD2 - Special Development District - Mixed Use. As part of the City of Detroit's Master Plan, the city seeks to create more mixed-use developments, to encourage more walkable neighborhoods, redevelop vacant lots throughout the city, and to help create more housing stock, particularly affordable housing stock. The proposed project is a new construction project to construct an affordable housing building on a vacant lot. The urban scale and design of the proposed project is similar to existing newly constructed building nearby. Additionally, the proposed project will contrast with extant buildings of the nearby Willis-Selden Historic District. The proposed project may help the City of Detroit's goals for the	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		redevelopment of a vacant lot into an affordable housing development in a mixed-use district.	
Soil Suitability / Slope/ Erosion / Drainage and Storm Water Runoff	2	The soils present at the Subject Property are Midtown gravelly-artifactual sandy loam with 0 to 2 percent slopes and Urban land-Riverfront complex with 0 to 4 percent slopes. The Midtown soil has a somewhat poorly-drained drainage class and a very low runoff class. The Urban land soil has a well-drained drainage class and a low runoff class. The Subject Property was previously developed and is located in a highly urbanized area of the City of Detroit. Erosion is not anticipated to adversely impact the proposed project.	
Hazards and Nuisances including Site Safety and Site-Generated Noise	2	There are no known hazards present on the Subject Property, nor are there any known nuisances. The safety features the proposed project plans to install are security cameras, on site lighting, control access points, building-wide fire sprinkler system, and perimeter fencing. Additionally, the street frontage is to have lighting to be installed by the City of Detroit. The proposed project is an affordable housing project and is not anticipated to be a noise generator.	
SOCIOECONOMIC			
Employment and Income Patterns	2	The proposed project is anticipated to create several construction jobs during the construction period of the project, which may be beneficial for local businesses. Once the proposed project construction is completed a permanent office manager and maintenance positions are anticipated to be created to manage the proposed new building. The proposed project is anticipated to bring in potential future residents with more diverse income levels than the current population of the Cass Corridor neighborhood. However, since the proposed project was designed to help meet demand for affordable housing in the Cass Corridor neighborhood, the increase in potential	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		future residents with more diverse income backgrounds is not anticipated to be significant.	
Demographic Character Changes / Displacement	2	The proposed project is an affordable housing construction project, which is anticipated to increase urban density of the Cass Corridor neighborhood. The proposed project may bring in more residents with more diverse demographics and income levels. However, the changes in demographics are not anticipated to be significant since the proposed project is designed for meeting the demand for affordable housing in the Cass Corridor neighborhood. The Subject Property is currently a vacant lot, and the proposed project is not anticipated to displace any persons.	
Environmental Justice EA Factor	2	Within a one-mile radius of the Subject Property, the selected variables for pollution levels by the EPA, are above the State of Michigan average except for diesel particulate matter and superfund proximity, which are below the state average. The population surrounding the Subject Property consists of * 69 percent are people of color * 62 percent are low income * 10 percent are unemployed * 2 percent are limited English speaking households * 15 percent hold less than a high school education * 4 percent are under the age of 5 years * 13 percent are over 64 years of age * 17 percent have a low life expectancy * 20.8 percent are disabled 1 * 9 percent lack broadband internet access * 6 percent lack health insurance * 16 percent of households are owner occupied. A housing burden and a transportation access gap are known to exist in the area surrounding the Subject Property. Out of the limited English-speaking households, the most spoken languages are other Indo-European languages. The local population has a life	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		expectancy of 57 years and per capita income is $31,806.00 for the local population. The Subject Property consists of a vacant lot and the proposed project is a new affordable housing construction project. The proposed project is not anticipated to displace any persons. Nor is the proposed project anticipated to adversely impact housing costs. The proposed project is anticipated to remove contaminated soils from the Subject Property, that will improve the overall public health of low-income communities. Additionally, the proposed project is anticipated to increase the number of affordable housing units in a growing high-rent area of the City of Detroit. See Appendix L for the EPA EJScreen report.	
COMMUNITY FACILITIES AND SERVICES			
Educational and Cultural Facilities (Access and Capacity)	2	Public Education services are provided by Detroit Public Schools Community District. The nearest elementary and middle school to the Subject Property is Burton International Academy at 2001 Martin Luther King Junior Boulevard, educating grades Kindergarten to the Eighth Grade, which is approximately 3,168 feet away. The nearest high school to the Subject Property is Northwestern High School at 2200 West Grand Boulevard, educating grades Ninth to Twelfth Grade, which is approximately 1.90 miles away. Students in grades Kindergarten to the Eighth Grade who live at least 3/4 mile are provided bus services through the Detroit Public Schools Community District. High school students are provided free Detroit Department of Transportation monthly bus passes. The nearest community college to the Subject Property is Wayne County Community College District: Curtis L. Ivery Central Educational Complex at 1001 West Fort Street, offers post-education services to Wayne County residents, which is approximately 1.43 miles away. The	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		proposed project is not anticipated to have an adverse impact on education services. See Appendix R. There are multiple opportunities for potential future residents to engage in cultural engagement. The nearest cultural facilities to the Subject Property are: * The Detroit Public Theatre at 3960 3rd Avenue, is approximately 550 feet away * Cinema Detroit at 4126 3rd Avenue is approximately 874 feet from the Subject Property * The Old Miami is the nearest live music venue to the Subject Property, located at 3930 Cass Avenue is approximately 1,698 feet away * The Majestic Theatre at 4140 Woodward Avenue, is approximately 2,718 feet from the Subject Property * The Detroit Public Library: Main Library at 5201 Woodward Avenue, is approximately 4,217 feet from the Subject Property The proposed project is not anticipated to have an adverse impact on cultural facilities. See Appendix R.	
Commercial Facilities (Access and Proximity)	1	The nearest commercial corridor to the Subject Property is the Selden/3rd Avenue commercial corridor from 4th Street to 3rd Avenue and Selden Street to Brainard Street. The Selden/3rd Avenue is small, featuring a dance center, hardware store, and a restaurant. The Selden/3rd Avenue commercial corridor is approximately 301 feet from the Subject Property. The next nearest commercial corridor to the Subject Property is on Selden Street, from 3rd Avenue to Cass, featuring several restaurants. The Selden Commercial corridor is approximately 375 feet from the Subject Property. The most comprehensive commercial corridor near the Subject Property is the Mack Avenue/Woodward Avenue corridor, from Parsons Street to Charlotte Street and from Davenport Street to John R Street. The Mack Avenue/Woodward Avenue commercial corridor features a Whole Foods grocery	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		store, a wellness center, retail, restaurants, and a bank. The Mack Avenue/Woodward Avenue commercial corridor is approximately 2,624 feet from the Subject Property. The proposed project is an affordable housing construction project, which is anticipated to increase the urban density of the Cass Corridor neighborhood. The increase in urban density may be beneficial to local businesses. See Appendix R.	
Health Care / Social Services (Access and Capacity)	2	The nearest health provider to the Subject Property is Detroit Health Connection at 611 Martin Luther King Junior Boulevard. The Detroit Health Connection provides primary care and dental services. The Detroit Health Connection is approximately 1,064 feet from the Subject Property. The nearest hospital to the Subject Property is the Detroit Medical Center Central Campus at 4201 Saint Antoine, which is approximately 3,231 feet away. The nearest pharmacy to the Subject Property is PharMor Pharmacy - Midtown at 40 East Alexandrine Street, which is approximately 2,927 feet away. The nearest social services organization to the Subject Property is the Wayne Metropolitan Community Action Agency at 7310 Woodward Avenue, which is approximately 1.72 miles. The proposed project with its anticipated increase in urban density is not anticipated to have an adverse impact health care and social services. An increase in affordable housing may help reduce the demand for social services. See Appendix R.	
Solid Waste Disposal and Recycling (Feasibility and Capacity)	2	Solid waste disposal for the proposed project is to be serviced by a private contractor. The City of Detroit: Department of Public Works offers a commercial/multi-family recycling program based on the application completed by the property management. Additionally, the City of Detroit offers free drop off recycling services to residents at Recycle Here located	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		at 5960 Lincoln Street, which is approximately 1.32 miles from the Subject Property. The proposed project is not anticipated to have an adverse impact on solid waste disposal and recycling services.	
Waste Water and Sanitary Sewers (Feasibility and Capacity)	2	The waste water and sanitary sewers services at the Subject Property are provided by the City of Detroit: Water and Sewerage Department. The Subject Property is surrounded by existing commercial and residential developments, which are connected to the water and sewer system. The proposed project does plan to install new service lines for waste water and sanitary sewer connections. The proposed project is not anticipated to have an adverse impact on waste water and sanitary sewers services.	
Water Supply (Feasibility and Capacity)	2	The water supply services at the Subject Property are provided by the City of Detroit: Water and Sewerage Department. The Subject Property is surrounded by existing commercial and residential developments, which are connected to the water and sewer system. The proposed project does plan to install new service lines for water system connections. The proposed project is not anticipated to have an adverse impact on water supply services.	
Public Safety - Police, Fire and Emergency Medical	2	Public safety services near the Subject Property are provided by the Detroit Police Department: Third Precinct at 2875 West Grand Boulevard. The Third Precinct station is approximately 1.64 miles from the Subject Property. The Detroit Fire Department provides fire protection and emergency medical services to Detroit residents. The nearest fire station to the Subject Property is Ladder 20, Squad 2, Medic 6 at 477 West Alexandrine Street, which is approximately 1,422 feet away. The proposed project is anticipated to increase urban density but is not anticipated to adverse impact public safety services. See Appendix R.	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
Parks, Open Space and Recreation (Access and Capacity)	2	There are numerous opportunities for recreation nearby the Subject Property. The nearest park to the Subject Property is Scripps Park at 3666 West Grand River Avenue, featuring a dog park, walking path, play area, and a picnic area, which is approximately 1,597 feet away. The 4th-Charlotte Park at 3008 4th Street, featuring a basketball court, is approximately 1,769 feet from the Subject Property. Nagel Park at 3100 Wabash Street, featuring a basketball court, football field, picnic area, soccer field, softball field, play area, and walking path, which is approximately 3,142 feet from the Subject Property. Peck Park at 451 Frederick Street, featuring a walking path and play area, which is approximately 1.08 miles from the Subject Property. Finally, Forest Park at 1614 Canfield Street East, featuring basketball court, fitness equipment, a football field, picnic shelters, a play area, and a softball field, is approximately 1.27 miles. The proposed project is not anticipated to have an adverse impact on parks and recreation. See Appendix R.	
Transportation and Accessibility (Access and Capacity)	2	Public transportation services around the Subject Property are provided by the Detroit Department of Transportation (DDOT). The nearest DDOT route to the Subject Property is route 23. The nearest bus stop to the Subject Property for route 23 northbound is stop #10376 at Selden Street and 3rd Avenue, which is approximately 388 feet from the Subject Property. The nearest bus stop for route 23 southbound is stop #1430 at Selden Street and 3rd Avenue, which is approximately 266 feet from the Subject Property. Route 23 does intersect with the SMART bus routes 415, 450, 462, 420, 460, 494, 445, 461, and 495 at the State Fair Transit Center, where Woodward Avenue intersects with 8 Mile Road. Through the State Fair Transit Center, potential future	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		residents are able to access the SMART bus network to connect with the Metro Detroit area. The Subject Property borders the M-10/John C. Lodge Freeway, which connects to I-94 and I-75, which connect the Subject Property to the rest of the State of Michigan. The proposed project is not anticipated to have an adverse impact on transportation and transportation services. See Appendix R.	
NATURAL FEATURES			
Unique Natural Features /Water Resources	2	The Subject Property currently consists of a grass lawn in an urban environment. There are no unique natural features or water resources on the Subject Property. Nor are there any unique natural features or water resources on the Subject Property. The proposed project is not anticipated to have an adverse impact on unique natural features or water resources.	
Vegetation / Wildlife (Introduction, Modification, Removal, Disruption, etc.)	2	The Subject Property currently consists of a grass lawn in an urban environment. The grass lawn is the only vegetation present on the Subject Property. Due to its highly urbanized surroundings, the Subject Property is not a high-quality habitat for wildlife and is not anticipated to have wildlife habitats present on the Subject Property. The proposed project is not anticipated to have an adverse impact on vegetation and wildlife.	
Other Factors 1			
Other Factors 2			
CLIMATE AND ENERGY			
Climate Change	2	The Subject Property is located in Detroit, Wayne County, Michigan. Wayne County has been classified with a relatively high-risk index by FEMA. The expected annual loss for Wayne County is classified as relatively high, a very high social vulnerability, and a relatively moderate community resilience. The climate related disasters with a high-risk index are cold wave, heat wave, lightning,	

Environmental Assessment Factor	Impact Code	Impact Evaluation	Mitigation
		riverine flooding, strong wind, tornado, and winter weather. The proposed project's new construction is designed to protect potential future residents from the adverse impacts of climate related disasters. By 2054, the daily average temperature for the City of Detroit is predicted to be 65.1 degrees Fahrenheit with higher emissions or 63.8 degrees with lower emissions, when compared to 58.6 degrees of the 1961-1990 observed range. In the event of a sea level rise of 10 feet, the Subject Property is predicted to not be adversely impacted by rising sea levels. The proposed new construction is designed to protect potential future residents from most climate related disasters likely to occur in Wayne County. The Subject Property is not anticipated to be adversely impacted by climate change impacts. See Appendix R.	
Energy Efficiency	1	The proposed project is anticipated to create an increase in urban density. However, the proposed project plans to offset the increase in energy usage by incorporating building standards and designs to meet the National Green Building Standard (NGBS) Silver certification. The features the proposed building is to include to meet the NGBS Silver are high-efficacy lighting, electric water heaters, electrical vehicle charging station, energy star appliances, water-efficient fixtures, drip irrigation sprinklers, and heat pumps. The proposed project is anticipated to help mitigate the increase in energy demand.	

Supporting documentation

R9-NOAA_Sea_Level_Rise.pdf
R8-Climate_Map.pdf
R7-Climate_Graph.pdf
R6-Community Report - Wayne County_Michigan _ National Risk Index.pdf
R5-MI_Detroit_20230706_TM_geo.pdf
R4-SMART_Map.pdf
R3-DDOT-SystemMap.pdf

R2-12-10595_EA_Factors.pdf
R1-zmap 3 mlk cochrane.pdf
L-EJScreen Community Report(1).pdf
K-Soil_Report(1).pdf

Additional Studies Performed:

1. Baseline Environmental Assessment Conducted Pursuant to Section 20126(1) (c) of 1994 PA 451, Part 201, as Amended: 3701 Fourth Avenue, Detroit, Michigan. Prepared for PDH Parcel 1, LLC. ASTI Environmental. October 29, 2021. 2. Noise Assessment: Parcel 1 South, 900 Tuscola Street, Detroit, Michigan. Prepared for PDH Parcel 1, LLC. ASTI Environmental. March 1, 2023. 3. Phase I Environmental Site Assessment: Parcel 1 South: 900 Tuscola Street, Detroit, Michigan. Prepared for PDH Parcel 1, LLC. ASTI Environmental. March 22, 2023. 4. Market Feasibility Study of 900 Tuscola at Midtown West: 900 Tuscola Street, Detroit, Wayne County, Michigan 48201. Prepared for Michigan State Housing Development Authority. Novogradac. March 31, 2023. 5. Limited Subsurface Investigation: 900 Tuscola Street, Detroit, Michigan. Prepared for PDH Parcel 1, LLC. ASTI Environmental. May 30, 2023. 6. Soil Gas and Subsurface Investigation: 900 Tuscola Street, Detroit, Michigan. Prepared for PDH Parcel 1, LLC. ASTI Environmental. April 24, 2024. 7. Response Activity Plan: 900 Tuscola Street, Detroit, Michigan. Prepared for PDH Parcel 1, LLC, 900 Tuscola 9 Percent Owner Limited Dividend Housing Association LLC, and 900 Tuscola 4 Percent Owner Limited Dividend Housing Association LLC. ASTI Environmental. September 6, 2024.

Field Inspection [Optional]: Date and completed by:

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

See attachment for a list of sources.

List of Sources.pdf

List of Permits Obtained:

Public Outreach [24 CFR 58.43]:

A Community Building Agreement (CBA) was completed with the City of Detroit, which included community outreach for the development of the proposed project.

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed project is anticipated to provide more affordable housing in the Cass Corridor Neighborhood, in an area of the neighborhood that has fallen into disuse as vacant lots. The Cass Corridor Neighborhood has experienced population growth and is expected to continue its population growth into 2027. The population growth in the Cass Corridor Neighborhood has created an affordable housing shortage in the neighborhood and there are several vacant lots surrounding the Subject Property. The proposed project is anticipated to allow current Detroit residents the ability to reside in the Cass Corridor Neighborhood and encourage further development in a portion of the neighborhood that has fallen into disuse.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Only the no action alternative was considered.

No Action Alternative [24 CFR 58.40(e)]

The no action alternative is not a desirable outcome for the Cass Corridor Neighborhood and housing options in the City of Detroit. By not pursuing the proposed project, the Subject Property will remain as a vacant lot, free of useful development. The City of Detroit has been working to create more housing options for its residents, to help keep housing costs affordable within the city. The Cass Corridor Neighborhood has experienced population growth in recent years and is expected to continue to grow into 2027. The increase in population in the Cass Corridor Neighborhood has placed a strain on housing availability and housing costs. Additionally, the City of Detroit has sought to persuade developers to consider more infill development in portions of the city where there is a concentration of vacant lots.

Summary of Findings and Conclusions:

The proposed project seeks to construct a new multi-family apartment building with mixed use spaces. Overall, the proposed project plans to provide more affordable housing in an area of the Cass Corridor Neighborhood that had fallen into disuse, consisting of several vacant lots. Affordable housing is in high demand in the PMA, where it is limited and experiences high occupancy rates. The noise levels along with the contamination and toxic substances were found to be non-compliant. However, the non-compliance can be mitigated through noise attenuation measures in the building construction and remediation actions for installing direct contact barriers on the Subject Property. The proposed project is anticipated to help meet the demand for affordable housing in the Cass Corridor Neighborhood of Detroit.

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	Mitigation Plan	Complete
Contamination and Toxic Substances	Response Activity Plan September 6, 2024 Due to the arsenic and lead in shallow soils at concentrations exceeding the GRCC for direct contact, direct contact exposure barriers will be installed, along with maintenance to mitigate the unacceptable exposure. Completion of a Documentation of Due Care Compliance (DDCC) report.	N/A		
Noise Abatement and Control	Incorporation of EIFS with reinforcing mesh, 3 inch rigid EPS insulation, WRB, 5/8 inch plywood sheathing, 2x6 inch wood studs at 16 inches oc, 5 1/2 inch fiberglass insulation, 5/8 inch gyp., 3 5/8 inch brick, 2 inch airspace, and 3 inch mineral wool board insulation into the wall construction of the proposed building.	N/A		
Historic Preservation	In the event an unanticipated discovery is made, the unanticipated discoveries plan will be followed.	N/A	See mitigation plan.	

Project Mitigation Plan

Submission of building specs, analytical results, DDCC, and inspection reports with photographs to the City of Detroit: Housing and Revitalization Department.

Detroit_City_of_HRD Model Mitigation Plan-900_Tuscola_St_Update.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

There are two airports within 15 miles of the Subject Property. Coleman A. Young International Airport is approximately 4.77 miles and Windsor International Airport is approximately 7.05 miles from the Subject Property. The Subject Property is outside of all airport runway protection, clear, and accident potential zones. The Subject Property is not anticipated to be adversely impacted by airports. The proposed project is in compliance with this regulation. See Appendix P for an airport location map.

Supporting documentation

P-12-10595_ALM.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

Compliance Determination

The Subject Property is located in Detroit, Wayne County, Michigan. There is one coastal barrier resource, known as MI-04 in Southeastern Wayne County. The Subject Property is located in an inland portion of Detroit, which is located in Northeastern Wayne County. The proposed project is not anticipated to have an adverse impact on coastal barrier resources and the proposed project is in compliance with this statute. See Appendix Q for the John H. Chafee Coastal Barrier Resources System map of Michigan.

Supporting documentation

Q-Coastal Barrier Resource Map.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:

D-FIRMETTE_.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

The Subject Property is located in Zone X, the area of minimal flood hazard, as seen in FEMA flood map 26163C0280E, effective February 2, 2012. The Subject Property is not anticipated to be adversely impacted by flooding and does not require flood insurance. The proposed project is in compliance with this statute. See Appendix D for the FIRMette map of the Subject Property.

Supporting documentation

D-FIRMETTE_(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

Air Quality Attainment Status of Project's County or Air Quality Management District

2. Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?

No, project's county or air quality management district is in attainment status for all criteria pollutants.

✓ Yes, project's management district or county is in non-attainment or maintenance status for the following criteria pollutants (check all that apply):

Carbon Monoxide

Lead

Nitrogen dioxide

Sulfur dioxide

✓ Ozone

Particulate Matter, <2.5 microns

Particulate Matter, <10 microns

3. What are the *de minimis* emissions levels (40 CFR 93.153) or screening levels for the non-attainment or maintenance level pollutants indicated above

Ozone 0.70 ppb (parts per million)

Provide your source used to determine levels here:
EPA. "EPA Finalizes 2015 Ozone Standard Resignation to Attainment for the Detroit Area." May 7, 2024. https://www.epa.gov/mi/epa-finalizes-2015-ozone-standard-redesignation-attainment-detroit-area.

4. **Determine the estimated emissions levels of your project. Will your project exceed any of the de minimis or threshold emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?**

✓ No, the project will not exceed *de minimis* or threshold emissions levels or screening levels.

Enter the estimate emission levels:

Ozone 0.70 ppb (parts per million)

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

Yes, the project exceeds *de minimis* emissions levels or screening levels.

Screen Summary
Compliance Determination
The Subject Property is located in Detroit, Wayne County, Michigan. The Subject Property is located within the ozone maintenance zone of Southeast Michigan. The proposed project is anticipated to begin construction in late in the first quarter 2025 and is expected to last into the fourth quarter 2026. Due to the new construction, the proposed project was submitted to Environment, Great Lakes, and Energy (EGLE): Air

Quality Division for review. EGLE has reviewed the proposed project, determining that the project is not anticipated to exceed the de minimis levels for ozone, and no further analysis for air quality is required. The proposed project is not anticipated to have an adverse impact on the air quality and is in compliance with this statute. See Appendix J.

Supporting documentation

J2-Gen Conformity Letter_900 Tuscola Street_Oct2024.pdf
J1-2023_naaqs-ambient-status-map.pdf

Are formal compliance steps or mitigation required?

Yes

✓ 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

The Subject Property is located in Detroit, Wayne County, which has coastal zone management areas. The Subject Property is an inland property and is located outside of the coastal zone management area of Detroit, Wayne County. The proposed project is not anticipated to have an adverse impact on coastal zone management areas and is in compliance with this statute. See Appendix F for the coastal zone management map of Northern Wayne County.

Supporting documentation

F-2020_Wayne_County-Grosse_Point_Coastal_Management_Zone.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)
Reference		
https://www.onecpd.info/environmental-review/site-contamination		

1. How was site contamination evaluated?* Select all that apply.

- ✓ ASTM Phase I ESA
- ✓ ASTM Phase II ESA
- ✓ Remediation or clean-up plan

ASTM Vapor Encroachment Screening.

None of the above

* HUD regulations at 24 CFR § 58.5(i)(2)(ii) require that the environmental review for multifamily housing with five or more dwelling units or non-residential property include the evaluation of previous uses of the site or other evidence of contamination on or near the site.
For acquisition and new construction of multifamily and nonresidential properties HUD strongly advises the review include an ASTM Phase I Environmental Site Assessment (ESA) to meet real estate transaction standards of due diligence and to help ensure compliance with HUD's toxic policy at 24 CFR §58.5(i) and 24 CFR §50.3(i). Also note that some HUD programs require an ASTM Phase I ESA.

2. Were any on-site or nearby toxic, hazardous, or radioactive substances* (excluding radon) 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?)

Provide a map or other documentation of absence or presence of contamination** and explain evaluation of site contamination in the Screen Summary at the bottom of this screen.

No

Explain:

✓ Yes

* This question covers the presence of radioactive substances excluding radon. Radon is addressed in the Radon Exempt Question.
** Utilize EPA's Enviromapper, NEPAssist, or state/tribal databases to identify nearby dumps, junk yards, landfills, hazardous waste sites, and industrial sites, including EPA National Priorities List Sites (Superfund sites), CERCLA or state-equivalent sites, RCRA Corrective Action sites with release(s) or suspected release(s) requiring clean-up action and/or further investigation. Additional supporting documentation may include other inspections and reports.

3. Evaluate the building(s) for radon. Do all buildings meet any of the exemptions* from having to consider radon in the contamination analysis listed in CPD Notice CPD-23-103?

Yes

Explain:

✓ No

* Notes:
- Buildings with no enclosed areas having ground contact.
- Buildings containing crawlspaces, utility tunnels, or parking garages would not be exempt, however buildings built on piers would be exempt, provided that there is open air between the lowest floor of the building and the ground.
- Buildings that are not residential and will not be occupied for more than 4 hours per day.
- Buildings with existing radon mitigation systems - document radon levels are below 4 pCi/L with test results dated within two years of submitting the application for HUD assistance and document the system includes an ongoing maintenance plan that includes periodic testing to ensure the system continues to meet the current EPA recommended levels. If the project does not require an application, document test results dated within two years of the date the environmental review is certified. Refer to program office guidance to ensure compliance with program requirements.
- Buildings tested within five years of the submission of application for HUD assistance: test results document indoor radon levels are below current the EPA's recommended action levels of 4.0 pCi/L. For buildings with test data older than five years, any new environmental review must include a consideration of radon using one of the methods in Section A below.

4. Is the proposed project new construction or substantial rehabilitation where testing will be conducted but cannot yet occur because building construction has not been completed?

Yes

Compliance with this section is conditioned on post-construction testing being conducted, followed by mitigation, if needed. Radon test results, along with any needed mitigation plan, must be uploaded to the mitigation section within this screen.

✓ No

5. Was radon testing or a scientific data review conducted that provided a radon concentration level in pCi/L?

✓ Yes

No

If no testing was conducted and a review of science-based data offered a lack of science-based data for the project site, then document and upload the steps taken to look for documented test results and science-based data as well as the basis for the conclusion that testing would be infeasible or impracticable.

Explain:

File Upload:

Based on the response, the review is in compliance with this section. Continue to the Screen Summary at the bottom of this screen.

Non-radon contamination was found in a previous question.

6. How was radon data collected?

All buildings involved were tested for radon

✓ A review of science-based data was conducted

Enter the Radon concentration value, in pCi/L, derived from the review of science-based data:

0.74

Provide the documentation* used to derive this value:

Per the HUD CPD-23-103 Policy for Addressing Radon, the City of Detroit has elected to follow Consideration III A ii. 3) Scientific Data Review to determine whether the project site is located in an area that has average documented radon levels at or above 4 pCi/L. The Housing and Revitalization Department (HRD) has collected radon samples throughout the City of Detroit. According to the HRD Indoor Radon Map, the City is in a geographic area with radon under the levels suggested for mitigation. Since November 2023, fifty-nine (59) tests were taken throughout the City. The average results of the tests are 0.74 pCi/L. Based on the samples taken in the City and the results averaging under 4 pCi/L, no additional testing is required.

File Upload:

N2-Detroit-HRD Indoor Radon Map 04-18-24(1).pdf
N1-2022_Michigan_Radon_Maps_Combined(1).pdf

Based on the response, the review is in compliance with this section. Continue to the Screen Summary at the bottom of this screen.

Radon concentration value is greater than or equal to 4.0 pCi/L and/or non-radon contamination was found in a previous question. Continue to Mitigation.

* For example, if you conducted radon testing then provide a testing report (such as an ANSI/AARST report or DIY test) if applicable (note: DIY tests are not eligible for use in multifamily buildings), or documentation of the test results. If you conducted a scientific data review, then describe and cite the maps and data used and include copies of all supporting documentation. Ensure that the best available data is utilized, if conducting a scientific data review.

8. Mitigation

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

For instances where radon mitigation is required (i.e. where test results demonstrated radon levels at 4.0 pCi/L and above), then you must include a radon mitigation plan*.

Can all adverse environmental impacts be mitigated?

No, all adverse environmental impacts cannot feasibly be mitigated. Project cannot proceed at this location.

✓ Yes, all adverse environmental impacts can be eliminated through mitigation, and/or consideration of radon and radon mitigation, if needed, will occur following construction.
Provide all mitigation requirements** and documents in the Screen Summary at the bottom of this screen.

* Refer to CPD Notice CPD-23-103 for additional information on radon mitigation plans.
** Mitigation requirements include all clean-up requirements required by applicable federal, state, tribal, or local law. Additionally, please upload, as applicable, the long-term operations and maintenance plan, Remedial Action Work Plan, and other equivalent documents.

9. Describe how compliance was achieved. 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.**

Response Activity Plan September 6, 2024 Due to the arsenic and lead in shallow soils at concentrations exceeding the GRCC for direct contact, direct contact exposure barriers will be installed, along with maintenance to mitigate the unacceptable exposure. Completion of a Documentation of Due Care Compliance (DDCC) report.

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

Complete removal

✓ Risk-based corrective action (RBCA)

Other

* Engineering controls are any physical mechanism used to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls may include, caps, covers, dikes, trenches, leachate collection systems, radon mitigation systems, signs, fences, physical access controls, ground water monitoring systems and ground water containment systems including, slurry walls and ground water pumping systems.

** Institutional controls are mechanisms used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site at levels above the applicable remediation standard which would allow for unrestricted use of the property. Institutional controls may include structure, land, and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions.

Screen Summary

Compliance Determination

BEA October 29, 2021 On September 26, 2018, ASTI conducted a Limited Subsurface Investigation (LSI) of the Subject Property to evaluate the fill soil. Based on the analytical results obtained during the subsurface investigation at the Subject Property, the affected media at the Subject Property is soil. Based on the concentrations of the metals arsenic and mercury in soil at the Subject Property exceeding the GRCC, it is ASTI's opinion that the Subject Property is a ''facility'' as defined in Part 201. Phase I ESA March 22, 2023 ASTI was retained to conduct a Phase I ESA (Tab Attachment 3) of the Subject Property. This assessment has revealed no evidence of RECs in connection with the Subject Property except for the following: * Fill material has been concluded to be the cause of environmental impact at the Subject Property. Impacts were identified in the fill material during subsurface investigations completed on September 26, 2018, and November 13, 2019. The metals arsenic and mercury were identified in the soil at GP-1, GP-3, and SB-16 above Part 201 GRCC. ASTI has prepared a Due Care Plan to mitigate exposure risk. Limited Subsurface Investigation May 30, 2023 ASTI was retained to conduct an LSI (Tab Attachment 4) of the Subject Property. Based on the laboratory analytical results, the metals lead, mercury, and selenium are present in the soil at concentrations exceeding the GRCC. Therefore, ASTI opines that the Subject Property is still a ''facility'' as defined in Part 201. Soil Gas and Subsurface Investigation April 24, 2024 ASTI was retained to conduct a soil gas and subsurface investigation (Tab Attachment 5) of the Subject Property. The laboratory analytical results for the soil gas samples collected at the Subject Property reported no exceedances of the SSVIAC for mercury, PNAs, or VOCs. Therefore, at the time of sampling, no vapor risk was identified for the proposed building. ResAP September 6, 2024 ASTI completed a Response Activity Plan (ResAP) (Tab Attachment 6) for the Subject Property. Due to the arsenic and lead in shallow soils at concentrations exceeding the GRCC for direct contact, direct contact exposure barriers will be installed, along with maintenance to mitigate the unacceptable exposure. The direct contact exposure barriers will comprise of the following: the building floor slab, exterior concrete/asphalt pavement, and green space barriers. For the green space barrier, a high-visibility fabric demarcation layer will be placed underlying a minimum of 12 inches of clean soil.

Supporting documentation

T6-A23-059511 RespAP FINAL REPORT 10-22-2024.pdf
T5-11-10595 Soil Gas - FINAL REPORT.pdf
T4-11-10595 Lim Subsurf InvFINAL.pdf
T3-10-10595 Phase I MSDHA Final.pdf
T2-ASTI 3701 Fourth Detroit BEA FINAL.pdf
N3-900 Tuscola Detroit_ResAP 7a1b Approval Letter.pdf
N2-Detroit-HRD Indoor Radon Map 04-18-24.pdf
N1-2022_Michigan_Radon_Maps_Combined.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 *et seq*.); particularly section 7 (16 USC 1536).	50 CFR Part 402

1. Does the project involve any activities that have the potential to affect specifies 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

The Indiana Bat, Northern Long-eared Bat, Rufa Red Knot, Eastern Massasauga Rattlesnake, Northern Riffleshell Mussel, and the Eastern Prairie Fringed Orchard are all species listed on the Threatened and Endangered Species of Michigan, known to have critical habitats in Wayne County. The Subject Property is located in Detroit, Wayne County, Michigan. Specifically, the Subject Property is a vacant lot with a

maintained lawn in a highly urbanized area of the City of Detroit. Additionally, there are no water resources present on or near the Subject Property. The proposed project is not anticipated to have an adverse impact on threatened and endangered species. The proposed project is in compliance with this statute. See Appendix H for the Michigan Threatened and Endangered Species list.

Supporting documentation

H-2024_Listed_Endangered_Species.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

✓ Yes

3. Within 1 mile of the project site, are there any current or planned stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are NOT covered under the regulation include:

- **Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR**
- **Containers of liquified petroleum gas (LPG) or propane with a water volume capacity of 1,000 gallons or less that meet the requirements of the 2017 or later version of National Fire Protection Association (NFPA) Code 58.**

If all containers within the search area fit the above criteria, answer "No." For any other type of aboveground storage container within the search area that holds one of the flammable or explosive materials listed in Appendix I of 24 CFR part 51 subpart C, answer "Yes."

No

✓ Yes

4. Based on the analysis, is the proposed HUD-assisted project located at or beyond the required separation distance from all covered tanks?

✓ Yes

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

No

Screen Summary

Compliance Determination

There are 11 sites within a one-mile radius of the Subject Property with an Above-ground Storage Tank (AST), based on the EDR Radius Map Report of the Subject Property, dated February 28, 2023. An AST of unknown capacity at 2950 Rosa Parks Boulevard was removed as of September 14, 1994. The 13,500-gallon AST at 3200 Hobson Street has been removed from the premises as of May 9, 2014. At 666 Selden Street is a 1,000-gallon AST, storing a substance listed as ''other'' that has been closed, but remains on site. The AST at 666 Selden Street has an Acceptable Separation Distance for Blast Over Pressure (ASDBOP) is 219.03 feet, with an Acceptable Separation Distance for Thermal Radiation for People (ASDPPU) of 276.57 feet, and the 666 Selden Street property is approximately 570 feet from the Subject Property. The 2,000-gallon diesel AST at 100 Mack Avenue has an ASDPPU of 369.16 feet and the Subject Property is approximately 3,213 feet away. At 1351 Spruce Street is an 8,000-gallon diesel AST with an ASDPPU of 657.70 feet and is approximately 3,155 feet from the Subject Property. The property at 3990 John R Street contains a 20,000-gallon diesel AST with an ASDPPU of 963.41 feet and is approximately 3,194 feet from the Subject Property. At 2950 Rosa Parks Boulevard is a 1,000-gallon AST storing a combustible liquid with an ASDBOP of 219.03 feet and an ASDPPU of 276.57 feet, which is approximately 3,176 feet from the Subject Property. At 2000 2nd Avenue, there are three 1,650-gallon diesel ASTs. The ASTs have an ASDPPU of 340.72 feet each and the Subject Property is approximately 4,719 feet from the 2000 2nd Avenue property. There are two 6,500-gallon diesel ASTs at 1777 3rd Avenue, which both have an ASDPPU of 603.20 feet, and the Subject Property is approximately 4,182 feet away. At 1 Energy Plaza is a 6,000-gallon diesel AST, which has an ASDPPU of 583.42 feet, and the Subject Property is approximately 4,985 feet away. At 5454 Cass Avenue are six non-registered ASTs present at the property. Two of the ASTs at 5454 Cass Avenue are 1,100-gallon ASTs, storing an unreported substance, which have an ASDBOP of 226.04 feet, an ASDPPU of 287.77 feet, and is approximately 5,129 feet from the Subject Property. The remaining four

ASTs at 5454 Cass Avenue are 1,000-gallon ASTs storing an unreported substance, has an ASDBOP of 219.03 feet, an ASDPPU of 276.57 feet, and is approximately 5,129 feet from the Subject Property. The Subject Property is located at distances greater than the minimum acceptable separation distance from all known ASTs within a one-mile radius. The Subject Property is not anticipated to be adversely impacted by explosive and flammable hazards. The proposed project is in compliance with this regulation. See Appendix O.

Supporting documentation

O13-5454_Cass_Ave_1000G_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O12-5454_Cass_Ave_1100G_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O11-1_Energy_Plaza_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O9-2000_2nd_Ave_Acceptable Separation Distance (ASD) Electronic Assessment Tool - HUD Exchange.pdf
O10-1777_3rd_Ave_Acceptable Separation Distance (ASD) Electronic Assessment Tool - HUD Exchange.pdf
O8-2950_Rosa_Parks_Blvd_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O7-3990_John_R_St_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O6-1351_Spruce_St_Acceptable Separation Distance (ASD) Electronic Assessment Tool - HUD Exchange.pdf
O5-100_Mack_Ave_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O4-666_Selden_St_Acceptable Separation Distance (ASD) Electronic Assessment Tool.pdf
O3-2950_Rosa_Parks_Blvd_1994AST.pdf
O2-3200_Hobson_St_EDR.pdf
O1-12-10595_ASD.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

2. Does your project meet one of the following exemptions?

- Construction limited to on-farm structures needed for farm operations.
- Construction limited to new minor secondary (accessory) structures such as a garage or storage shed
- Project on land already in or committed to urban development or used for water storage. (7 CFR 658.2(a))

Yes

✓ No

3. Does "important farmland," including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?

- Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm
- Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)
- Contact NRCS at the local USDA service center http://offices.sc.egov.usda.gov/locator/app?agency=nrcs or your NRCS state soil scientist https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/ for assistance

✓ No

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

Yes

Screen Summary

Compliance Determination

The soils present at the Subject Property are Midtown gravelly-artifactual sandy loam and Urban land-Riverfront complex. Both soils are classified as not prime farmland. The proposed project is not anticipated to adversely impact prime farmland and is in compliance with this statute. See Appendix K for the USDA soil survey on the Subject Property.

Supporting documentation

K-Soil_Report.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 * Executive Order 13690 * 42 USC 4001-4128 * 42 USC 5154a * only applies to screen 2047 and not 2046	24 CFR 55

1. Does this project meet an exemption at 24 CFR 55.12 from compliance with HUD's floodplain management regulations in Part 55?

Yes

(a) HUD-assisted activities described in 24 CFR 58.34 and 58.35(b).

(b) HUD-assisted activities described in 24 CFR 50.19, except as otherwise indicated in § 50.19.

(c) The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property, where a permanent covenant or comparable restriction is place on the property's continued use for flood control, wetland projection, open space, or park land, but only if:
(1) The property is cleared of all existing buildings and walled structures; and
(2) The property is cleared of related improvements except those which:
(i) Are directly related to flood control, wetland protection, open space, or park land (including playgrounds and recreation areas);
(ii) Do not modify existing wetland areas or involve fill, paving, or other ground disturbance beyond minimal trails or paths; and
(iii) Are designed to be compatible with the beneficial floodplain or wetland function of the property.

(d) An action involving a repossession, receivership, foreclosure, or similar acquisition of property to protect or enforce HUD's financial interests under previously approved loans, grants, mortgage insurance,

or other HUD assistance.

(e) Policy-level actions described at 24 CFR 50.16 that do not involve site-based decisions.

(f) A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland.

(g) HUD's or the responsible entity's approval of a project site, an incidental portion of which is situated in the FFRMS floodplain (not including the floodway, LiMWA, or coastal high hazard area) but only if: (1) The proposed project site does not include any existing or proposed buildings or improvements that modify or occupy the FFRMS floodplain except de minimis improvements such as recreation areas and trails; and (2) the proposed project will not result in any new construction in or modifications of a wetland .

(h) Issuance or use of Housing Vouchers, or other forms of rental subsidy where HUD, the awarding community, or the public housing agency that administers the contract awards rental subsidies that are not project-based (i.e., do not involve site-specific subsidies).

(i) Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

Describe:

✓ No

2. Does the project include a Critical Action? Examples of Critical Actions include projects involving hospitals, fire and police stations, nursing homes, hazardous chemical storage, storage of valuable records, and utility plants.

Yes

Describe:

✓ No

3. Determine the extent of the FFRMS floodplain and provide mapping documentation in support of that determination

The extent of the FFRMS floodplain can be determined using a Climate Informed Science Approach (CISA), 0.2 percent flood approach (0.2 PFA), or freeboard value approach (FVA). For projects in areas without available CISA data or without FEMA Flood Insurance Rate Maps (FIRMs), Flood Insurance Studies (FISs) or Advisory Base Flood Elevations (ABFEs), use the best available information[1] to determine flood elevation. Include documentation and an explanation of why this is the best available information[2] for the site. Note that newly constructed and substantially improved[3] structures must be elevated to the FFRMS floodplain regardless of the approach chosen to determine the floodplain.

Select one of the following three options:

CISA for non-critical actions. If using a local tool , data, or resources, ensure that the FFRMS elevation is higher than would have been determined using the 0.2 PFA or the FVA.

✓ 0.2-PFA. Where FEMA has defined the 0.2-percent-annual-chance floodplain, the FFRMS floodplain is the area that FEMA has designated as within the 0.2-percent-annual-chance floodplain.

FVA. If neither CISA nor 0.2-PFA is available, for non-critical actions, the FFRMS floodplain is the area that results from adding two feet to the base flood elevation as established by the effective FIRM or FIS or — if available — a FEMA-provided preliminary or pending FIRM or FIS or advisory base flood elevations, whether regulatory or informational in nature. However, an interim or preliminary FEMA map cannot be used if it is lower than the current FIRM or FIS.

[1] Sources which merit investigation include the files and studies of other federal agencies, such as the U. S. Army Corps of Engineers, the Tennessee Valley Authority, the Soil Conservation Service and the U. S. Geological Survey. These agencies have prepared flood hazard studies for several thousand localities and, through their technical assistance programs, hydrologic studies, soil surveys, and other investigations have collected or developed other floodplain information for numerous sites and areas. States and communities are also sources of information on past flood 'experiences within their boundaries and are particularly knowledgeable about areas subject to high-risk flood hazards such as alluvial fans, high velocity flows, mudflows and mudslides, ice jams, subsidence and liquefaction.

[2] If you are using best available information, select the FVA option below and provide supporting documentation in the screen summary. Contact your local environmental officer with additional compliance questions.

[3] Substantial improvement means any repair or improvement of a structure which costs at least 50 percent of the market value of the structure before repair or improvement or results in an increase of more than 20 percent of the number of dwelling units. The full definition can be found at 24 CFR 55.2(b)(12).

5. Does your project occur in the FFRMS floodplain?

Yes

✓ No

Screen Summary

Compliance Determination

The Subject Property is located in Zone X, the area of minimal flood hazard, as seen in FEMA flood map 26163C0280E, effective February 2, 2012. The Subject Property is not anticipated to be adversely impacted by flooding. The proposed project is in compliance with this executive order. See Appendix D for the FIRMette map of the Subject Property.

Supporting documentation

D-FIRMETTE_(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):

✓ State Historic Preservation Offer (SHPO) Completed

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

✓ Bay Mills Indian Community Completed
✓ Forest County Potawatomi Community of Wisconsin Completed

✓ Grand Traverse Band of Ottawa & Chippewa Indians	Completed
✓ Hannahville Indian Community of Michigan	Completed
✓ Keweenaw Bay Indian Community	Completed
✓ Lac du Flambeau Band of Lake Superior Chippewa	Completed
✓ Lac Vieux Desert Band of Lake Superior Chippewa	Completed
✓ Little River Band of Ottawa Indians	Completed
✓ Little Traverse Bay Bands of Odawa	Completed
✓ Match-E-Be-Nash-She-Wish Band of Pottawatomi	Completed
✓ Menominee Indian Tribe of Wisconsin	Completed
✓ Miami Tribe of Oklahoma	Completed
✓ Michigan Anishinaabek Cultural Alliance	Completed
✓ Nottawaseppi Huron Band of the Potawatomi	Completed
✓ Pokagon Band of Potawatomi	Completed
✓ Saginaw Chippewa Indian Tribe	Completed
✓ Sault Saint Marie Tribe of Chippewa	Completed
✓ Seneca-Cayuga Nation	Completed

Other Consulting Parties

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

Consultation parties were selected through the TDAT system.

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 direct APE of the proposed project consists solely of the 1.1 acres of the Subject Property itself. The approximate 40.05 acres of the indirect APE features the properties located at 686, 677, 950, 1103-1159, and 1102-1176 Seldon Street; 3668-3730, 3912, 3920, 3930, and 3940 4th Street; 3520, 3535, 3540, 3560, 3600, 3607, 3645, 3700, 3736, 3939, and 3940 3rd Avenue; 830 Peterboro Street; 860 and 816 Brainard Street; 3521 and 3550 John C. Lodge Service Drive; 3400 Gibson Street; 909-957, 1009-1057, and 1200 Martin Luther King Junior Boulevard; 3800 Miracles Boulevard; 503 and 3610 Marvin Gaye Drive; along with 1102-1110 and 1103-1107 Martha Reeves Drive.

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
3550 John C. Lodge Service Drive	Eligible	Yes	✓ Not Sensitive
677 Selden Street	Eligible	Yes	✓ Not Sensitive
686 Selden Street	Eligible	Yes	✓ Not Sensitive
950 Selden Street	Eligible	Yes	✓ Not Sensitive

Additional Notes:

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:

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:

There will be No Adverse Effect on historic properties by the proposed undertaking. The new construction is in line with the Secretary of the Interior's Standards for Rehabilitation, specifically Standards 9 and 10. The new construction will be differentiated from the old and is compatible with the massing and scale of the adjacent historic resources. If removed in the future the historic properties will be unimpaired.

Does the No Adverse Effect finding contain conditions?

Yes (check all that apply)

✓ No

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

concurrence(s) or objection(s) below.

Adverse Effect

Screen Summary

Compliance Determination

The proposed project is a new construction project, which is anticipated to alter the cultural landscape of the Cass Corridor neighborhood. The proposed project underwent a Section 106 review through the City of Detroit: Housing and Redevelopment Department under the City's programmatic agreement with the Michigan State Historic Preservation Office (SHPO). The City of Detroit with the concurrence of SHPO have determined that ''no historic properties are affected'' by the proposed project since it follows the Secretary of the Interior's Standards for Rehabilitation, 9 and 10. The proposed project will construct a building that will be differentiated from existing cultural resources, compatible with nearby massing and scale of the surrounding built environment. If the proposed new construction is removed in the future, the nearby historic properties will be unimpaired. In the event of an unanticipated discovery during construction, the unanticipated discoveries plan will be followed as authored by the City of Detroit. See Appendix C for the Section 106 determination letter.

Supporting documentation

C5-900 Tuscola Unanticipated Discoveries Plan.pdf
C2-Redacted_opt_idis_heros_upload_900000010435738_C2-Consultation_Letters_1.pdf
C4-96-1_24_900_Tuscola.pdf
C3-900 Tuscola_TC NAE Sec106 Review Letter582024.pdf
C1-900_Tuscola_St_Detroit Section 106_Application-Redacted.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

NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details.

Rehabilitation of an existing residential property

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

4**. Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport).**

Indicate the findings of the Preliminary Screening below:

There are no noise generators found within the threshold distances above.

✓ Noise generators were found within the threshold distances.

5. **Complete the Preliminary Screening to identify potential noise generators in the**

Acceptable: (65 decibels or less; the ceiling may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))

✓ Normally Unacceptable: (Above 65 decibels but not exceeding 75 decibels; the floor may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))

Is your project in a largely undeveloped area?

✓ No

Document and upload noise analysis, including noise level and data used to complete the analysis below.

Yes

Unacceptable: (Above 75 decibels)

HUD strongly encourages conversion of noise-exposed sites to land uses compatible with high noise levels.

Check here to affirm that you have considered converting this property to a non-residential use compatible with high noise levels.

Document and upload noise analysis, including noise level and data used to complete the analysis below.

6. **HUD strongly encourages mitigation be used to eliminate adverse noise impacts. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation. This information will be automatically included in the Mitigation summary for the environmental review.**

✓ Mitigation as follows will be implemented:

Incorporation of EIFS with reinforcing mesh, 3 inch rigid EPS insulation, WRB, 5/8 inch plywood sheathing, 2x6 inch wood studs at 16 inches oc, 5 1/2 inch fiberglass insulation, 5/8 inch gyp., 3 5/8 inch brick, 2 inch airspace, and 3 inch mineral wool board insulation into the wall construction of the proposed building.

Based on the response, the review is in compliance with this section. Document and upload drawings, specifications, and other materials as needed to describe the project's noise mitigation measures below.

No mitigation is necessary.

Screen Summary

Compliance Determination

ASTI conducted a noise assessment on the new construction of the proposed project. Two airports and ten busy roads were found to be noise generators near the Subject Property. Due to the locations of the noise generators surrounding the Subject Property, three Noise Assessment Locations (NALs) were selected. The analysis found the noise levels for NAL #1 to be at the normally unacceptable level at 68 decibels (dB). The noise levels for NALs #2 and #3 were found to be at the normally unacceptable level at 74 dB each. Since the noise levels were found to be in the normally unacceptable level, the proposed project was required to undergo a Sound Transmission Classification Assessment Tool (STraCAT) assessment. The STraCAT calculations revealed that the minimum Sound Transmission Class (STC) rating of 30 for the 74 dB noise levels. The wall sections of the proposed building are nearly identical to one another and the minimum STC rating was applied to each wall section. The combined wall assembly for each wall of the proposed building has a range of 38 to 40 STC rating, which exceeds the minimum STC rating of 30. See Appendix M for the noise assessment and STraCAT calculations.

Supporting documentation

M3-241104_MTW Parcel 1- Exterior STC_Attachments.pdf
M2-241104_MTW Parcel 1- Figure 19.pdf
M1-Noise Assessment - Final.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

✓ No

2. Is the project located on a sole source aquifer (SSA)?

A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

✓ No

Based on the response, the review is in compliance with this section. Document and upload documentation used to make your determination, such as a map of your project (or jurisdiction, if appropriate) in relation to the nearest SSA and its source area, below.

Yes

Screen Summary

Compliance Determination

The Subject Property is located in Detroit, Wayne County, Michigan. There are no designated sole source aquifers within the State of Michigan. The proposed project is not anticipated to have an adverse impact on sole source aquifers and is in

compliance with this statute. See Appendix G for the Designated Sole Source Aquifers in Region 5 map.

Supporting documentation

G-Sole Source Aquifers Map.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

✓ Yes

2. Will the new construction or other ground disturbance impact an on- or off-site wetland? The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

"Wetlands under E.O. 11990 include isolated and non-jurisdictional wetlands."

✓ No, a wetland will not be impacted in terms of E.O. 11990's definition of new construction.

Based on the response, the review is in compliance with this section. Document and upload a map or any other relevant documentation below which explains your determination

Yes, there is a wetland that be impacted in terms of E.O. 11990's definition of new construction.

Screen Summary
Compliance Determination

Based on the National Wetlands Inventory database, there are no wetlands on or near the Subject Property. The proposed project is not anticipated to adversely impact wetlands and is in compliance with this executive order. See Appendix E for the National Wetlands Inventory map.

Supporting documentation

E2-EGLE_Wetlands_Map.pdf
E1-NWI.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 Subject Property is located in Detroit, Wayne County, Michigan. The City of Detroit is located in the State of Michigan's Southeast Region. There are no designated Wild and Scenic Rivers in the Southeast Region of Michigan. Based on the National Park Service database, there are no designated Inventory Rivers on or near the Subject Property. The proposed project is not anticipated to have an adverse impact on Wild and Scenic Rivers. The proposed project is in compliance with this statute. See Appendix I.

Supporting documentation

I2-Inventory_Rivers.pdf
I1-2022_Wild_and_Scenic_Rivers_MI_Combined_Maps.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

2. Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?

Yes

✓ No

Explain:

High noise levels to be mitigated through noise attenuation measures. Direct contact concerns on the Subject Property to be mitigated through the removal of the top 12 inches of soil and the installation of direct contact barriers.

Based on the response, the review is in compliance with this section. Document and upload any supporting documentation below.

Screen Summary

Compliance Determination

Within a one-mile radius of the Subject Property, the selected variables for pollution levels by the EPA, are above the State of Michigan average except for diesel particulate matter and superfund proximity, which are below the state average. The

population surrounding the Subject Property consists of * 69 percent are people of color * 62 percent are low income * 10 percent are unemployed * 2 percent are limited English speaking households * 15 percent hold less than a high school education * 4 percent are under the age of 5 years * 13 percent are over 64 years of age * 17 percent have a low life expectancy * 20.8 percent are disabled 1 * 9 percent lack broadband internet access * 6 percent lack health insurance * 16 percent of households are owner occupied. A housing burden and a transportation access gap are known to exist in the area surrounding the Subject Property. Out of the limited English-speaking households, the most spoken languages are other Indo-European languages. The local population has a life expectancy of 57 years and per capita income is $31,806.00 for the local population. The Subject Property consists of a vacant lot and the proposed project is a new affordable housing construction project. The proposed project is not anticipated to displace any persons. Nor is the proposed project anticipated to adversely impact housing costs. The proposed project is anticipated to remove contaminated soils from the Subject Property, that will improve the overall public health of low-income communities. Additionally, the proposed project is anticipated to increase the number of affordable housing units in a growing high-rent area of the City of Detroit. See Appendix L for the EPA EJScreen report.

Supporting documentation

L-EJScreen Community Report.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

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

Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: 900-Tuscola-Street

HEROS Number: 900000010435738

Start Date: 10/31/2024

Project Location: 900 Tuscola Street, Detroit, MI 48201

Additional Location Information:
900 Tuscola Street, Detroit, Wayne County, Michigan 48201

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:
The proposed project seeks to construct a five-story, 94,314 square foot, mixed income, mixed use, ell-shaped development featuring 67 apartment units and 1,000 square feet of retail space at 900 Tuscola Street, Detroit, Wayne County, Michigan 48201 (Subject Property). The Subject Property is currently a vacant lot in the Cass Corridor neighborhood of the City of Detroit that is to be acquired as part of the proposed project. The proposed project plans to include various amenities into the new construction which include a resident lounge with kitchenette, a bike room, laundry room, an elevator, gym facility, a playground, and a landscaped courtyard with seating. All apartment units are to be affordable housing units. The proposed project is to be divided into two sections, the 4 percent apartment units which is to include 34 apartment units and the 9 percent apartments featuring 33 apartment units. The overall new construction is to include 63 parking spaces divided into an enclosed parking garage and a surface parking lot. This review is for the $1,530,000.00 in HOME 2023 funding. This review is valid for five years.

Funding Information

Grant Number	HUD Program	Program Name	
M23MC260202	Community Planning and Development (CPD)	HOME Program	$1,530,000.00

Estimated Total HUD Funded Amount: $1,530,000.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: $36,253,247.00

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
Contamination and Toxic Substances	Response Activity Plan September 6, 2024 Due to the arsenic and lead in shallow soils at concentrations exceeding the GRCC for direct contact, direct contact exposure barriers will be installed, along with maintenance to mitigate the unacceptable exposure. Completion of a Documentation of Due Care Compliance (DDCC) report.
Noise Abatement and Control	Incorporation of EIFS with reinforcing mesh, 3 inch rigid EPS insulation, WRB, 5/8 inch plywood sheathing, 2x6 inch wood studs at 16 inches oc, 5 1/2 inch fiberglass insulation, 5/8 inch gyp., 3 5/8 inch brick, 2 inch airspace, and 3 inch mineral wool board insulation into the wall construction of the proposed building.
Historic Preservation	In the event an unanticipated discovery is made, the unanticipated discoveries plan will be followed.

Project Mitigation Plan

Submission of building specs, analytical results, DDCC, and inspection reports with photographs to the City of Detroit: Housing and Revitalization Department.

Detroit_City_of_HRD Model Mitigation Plan-900_Tuscola_St_Update.pdf

Determination:

☒	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
☐	Finding of Significant Impact

Preparer Signature: DocuSigned by: Kim Siegel 9390B097C5434FC... **Date:** 6/3/2025

Name / Title/ Organization: Kim Siegel / / DETROIT

Certifying Officer Signature: DocuSigned by: E17650515DAF4C9... **Date:** 6/4/2025

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).

APPENDIX A

Figures
Site Location Map
Area of Potential Effects Map

900 Tuscola Street

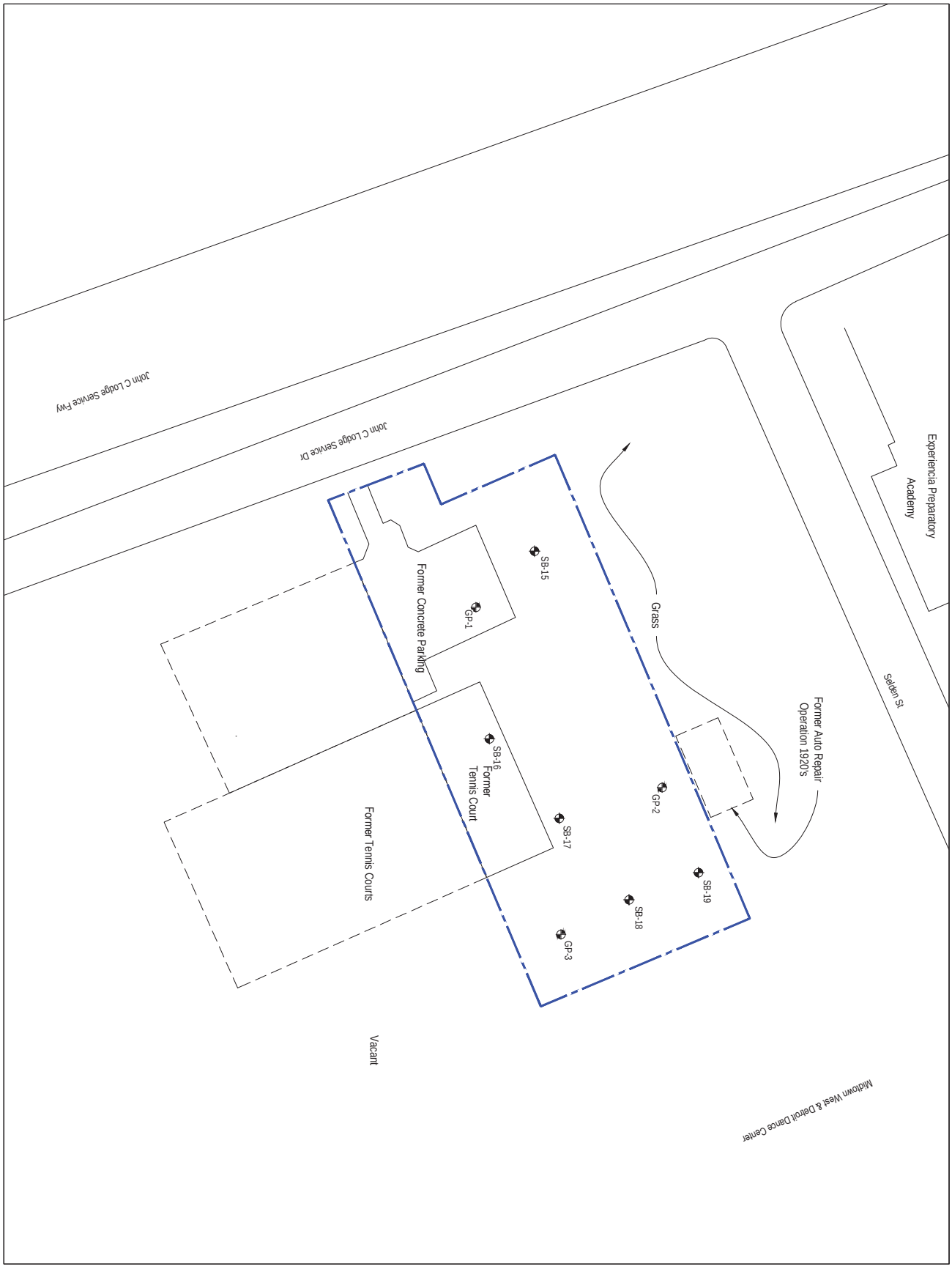
Detroit, MI

ASTI Environmental

Created for: PDH Development Group, LLC
Created by: KAY, March 20, 2023, ASTI Project 12-10595

Site Location Map

Y:\Project Files\Current and Closed\10000-10999\10500-10599\10595 901 Selden Detroit\5-10595 Ph II Parcel 1 South\CAD\5-10595.dwg; 10/6/2021 2:20 PM;



GRAPHIC SCALE
0 30 60 120
1 inch = 60ft.
Paper Size = (11x17)

LEGEND
Property Line
Soil Boring Location

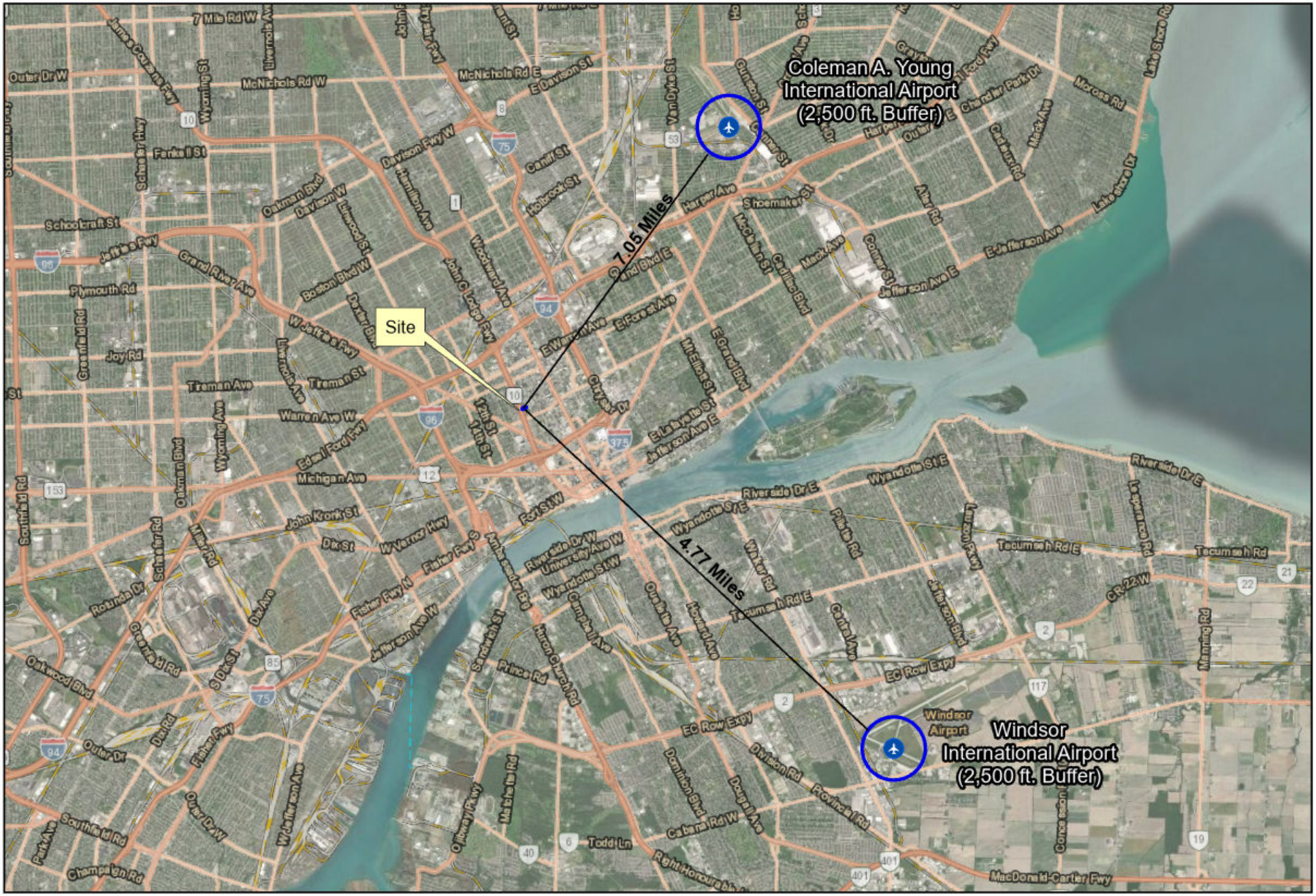
900 Tuscola Street

Detroit, MI

Created for: PDH Parcel 1 LLC

ASTI Project 12-10595, KAY, March 20, 2023

ASTI Environmental



900 Tuscola Street

Detroit, MI

0 1 2 4 Miles

N

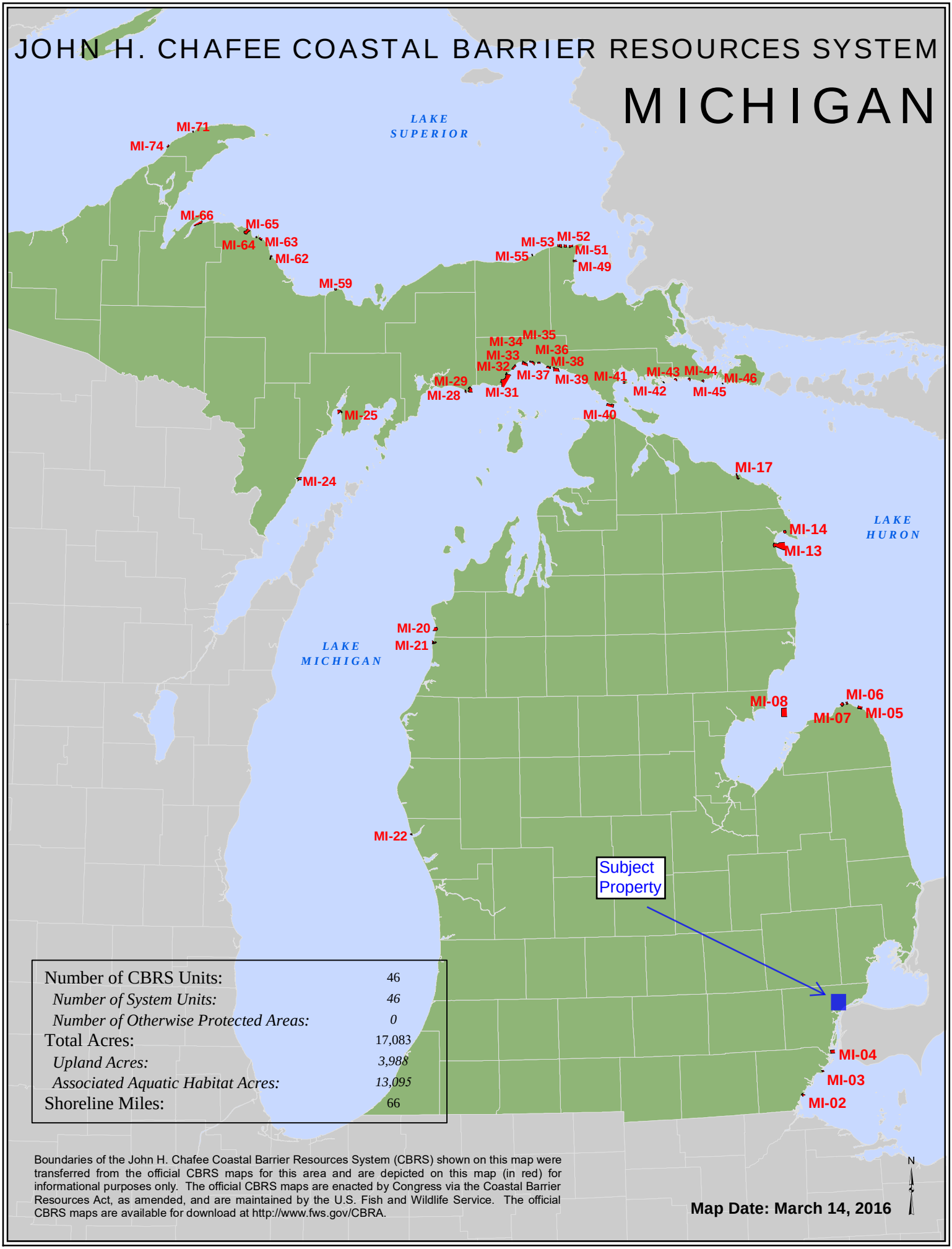
ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 16, 2023, ASTI Project 12-10595

Airport Location Map

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

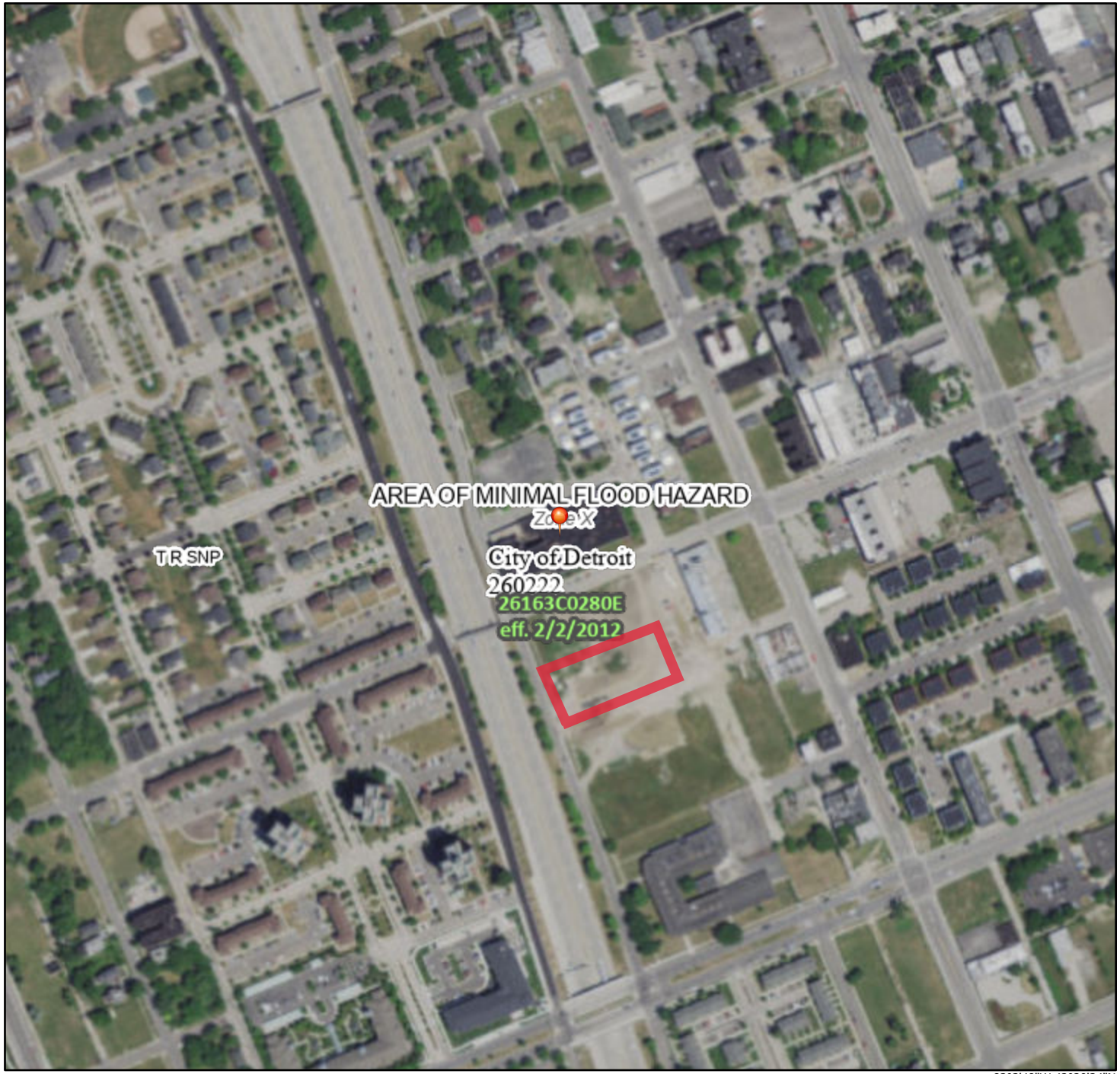
Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this map were transferred from the official CBRS maps for this area and are depicted on this map (in red) for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources 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.

Map Date: March 14, 2016

National Flood Hazard Layer FIRMette

FEMA

83°4'25"W 42°21'1"N



83°3'48"W 42°20'34"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

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
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 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

N

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 2/2/2024 at 2:37 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.

Attainment Status for the National Ambient Air Quality Standards

EGLE
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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

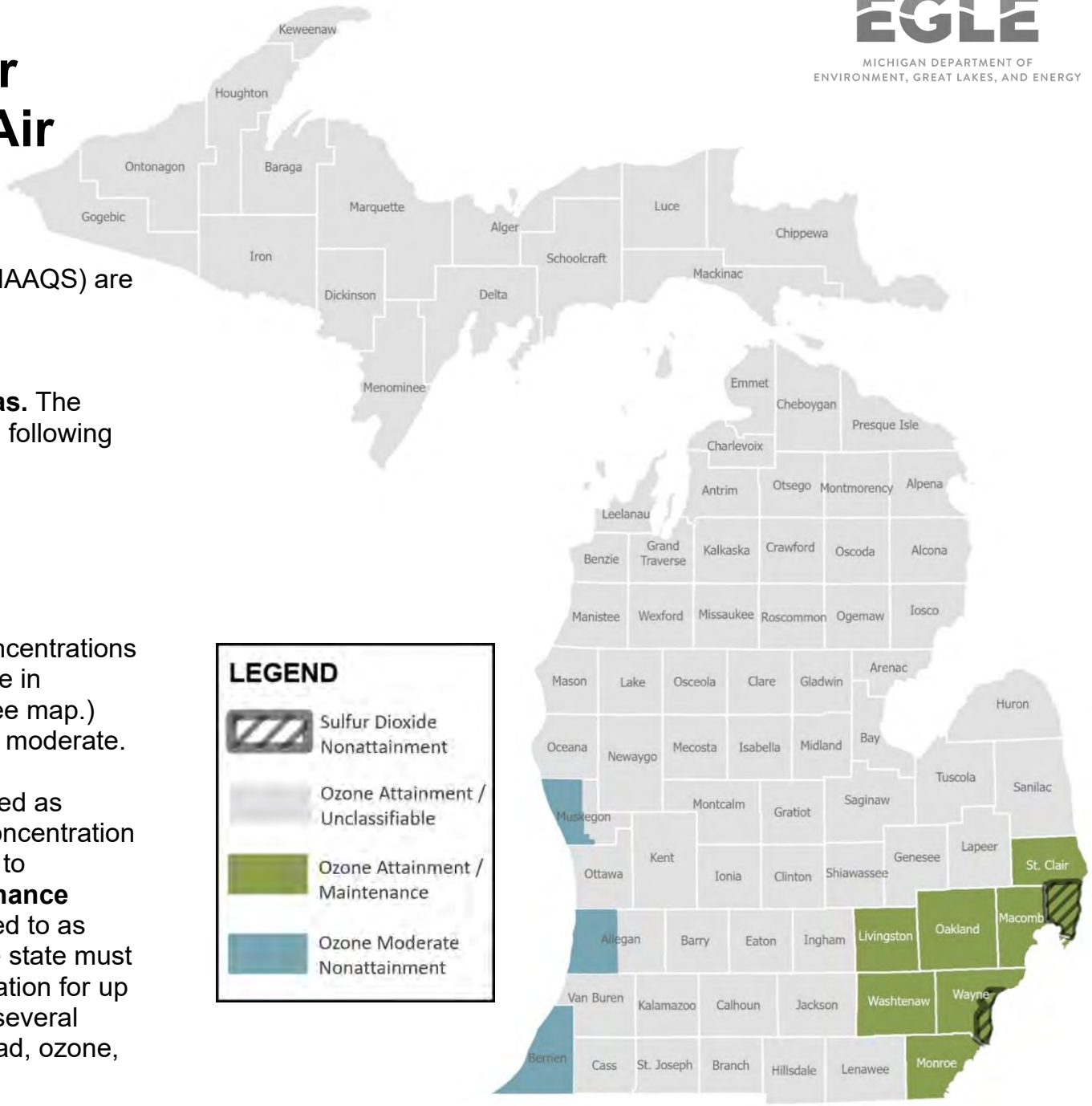
Areas of the state that are below the NAAQS concentration level are called **attainment areas.** The entire state of Michigan is in attainment for the following pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO2)
- Particulate Matter (PM10 & PM2.5)

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.*

Updated July 2023

Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas

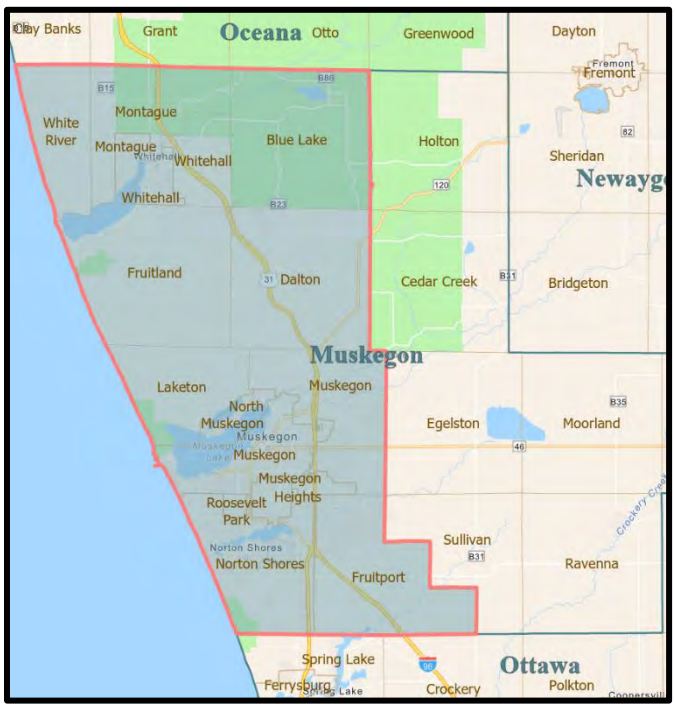
St. Clair County

Wayne County

Ozone Moderate Nonattainment Areas

Allegan County

Muskegon County



EGLE

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Updated July 2023

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

GRETCHEN WHITMER
GOVERNOR

PHILLIP D. ROOS
DIRECTOR

October 29, 2024

Amy Hovey, Executive Director
Michigan State Housing Development Authority
735 East Michigan Avenue
Lansing, Michigan 48912-1474

Via Email Only

Dear Amy Hovey:

Subject: 900 Tuscola Street 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 ozone standard; and thus, general conformity must be evaluated when completing construction projects of a given size and scope. EGLE has completed the required SIP submittals for this area and on May 19, 2023, the United States Environmental Protection Agency (USEPA) redesignated the seven-county southeast Michigan area (including Wayne County) from nonattainment to attainment/maintenance. General conformity does, however, still require an evaluation during the maintenance period. For this evaluation, EGLE considered the following information from the 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 900 Tuscola Street Project proposed to be completed with federal grant monies, including the construction of a five-story, 94,314 square foot, mixed income, mixed use development featuring 67 condo units and 1,000 square feet of retail space. The property is currently a vacant lot in the Cass Corridor neighborhood of the city of Detroit. The proposed project plans to include various amenities including a resident lounge with kitchenette, a bike room, laundry room, gym facility, a playground, and a landscaped courtyard with seating. The new construction is to include 63 parking spaces divided in an enclosed parking garage and a surface parking lot. The project is anticipated to begin construction late in the first quarter 2025, and last into the fourth quarter of 2026.

In reviewing the *"Air Quality and Greenhouse Gas Study: Uptown Orange Apartments in Orange, California,"* dated December 2012, prepared for KTGY 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 900 Tuscola Street Project proposed for completion in Detroit Michigan 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,

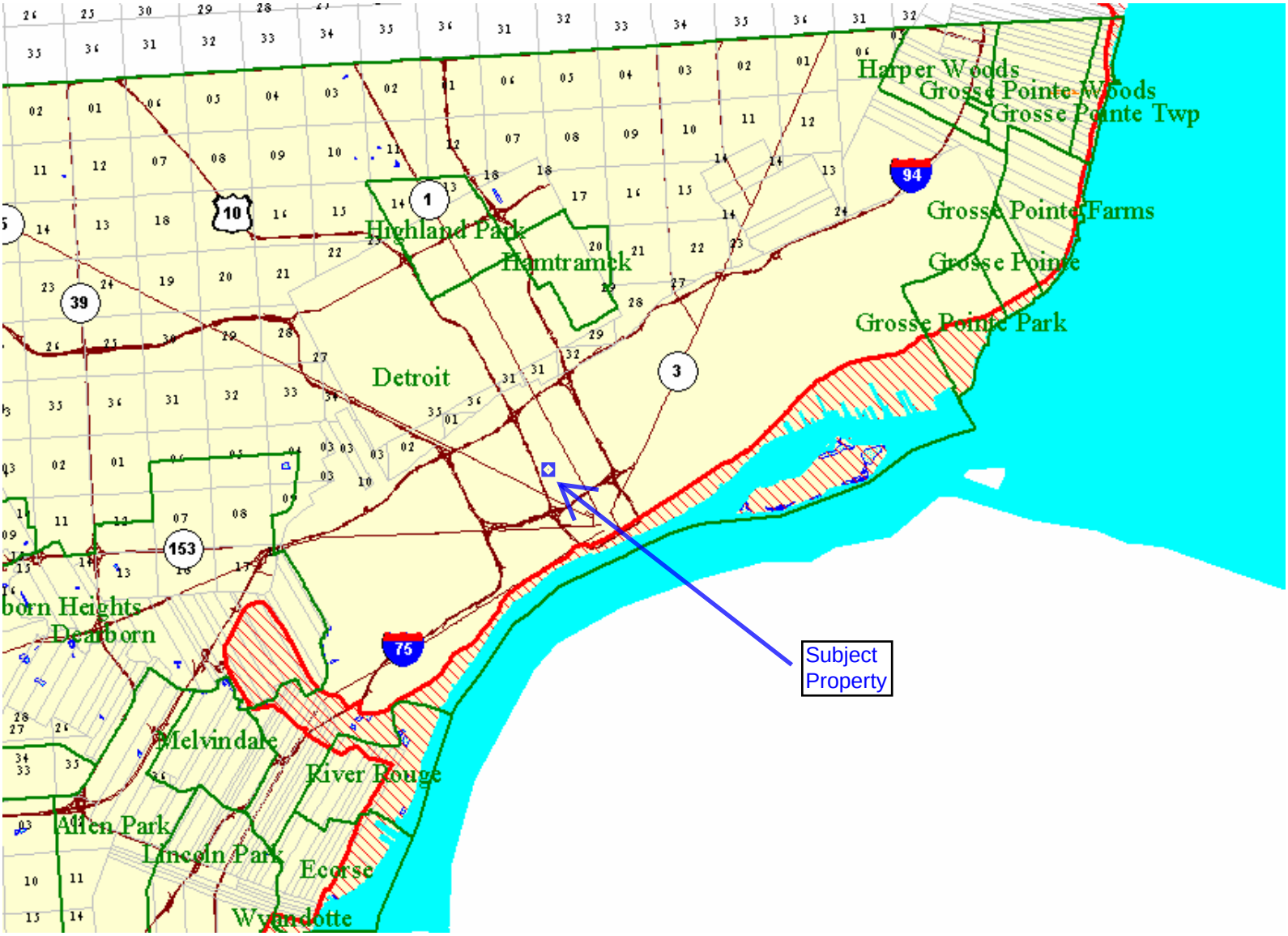
Breanna Bukowski

Breanna Bukowski
Environmental Quality Analyst
Air Quality Division

cc: Michael Leslie, USEPA Region 5
Penny Dwoinen, City of Detroit Housing and Revitalization Department
Kim Siegel, City of Detroit Housing and Revitalization Department
Peter Procida, PDH Parcel 1, LLC.
Daniel Lince, Michigan State Housing Development Authority
Christopher Yelonek, ASTI Environmental

Wayne County
Grosse Point Township, Grosse Point Woods, Grosse Point Farms
Grosse Point, Grosse Point Park, and Detroit, T1S R14E
Detroit, T1S R14E, T2S R13E, andT2S 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***.



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

GRETCHEN WHITMER
GOVERNOR

PHILLIP D. ROOS
DIRECTOR

October 23, 2024

VIA EMAIL

Peter Procida, Managing Member
PDH Parcel 1 LLC
900 Tuscola 9% Owner Limited Dividend Housing Association LLC
900 Tuscola 4% Owner Limited Dividend Housing Association LLC
456 East 173rd Street
Bronx, New York 10457

Dear Peter Procida:

SUBJECT: Notice of Approval of the Response Activity Plan to Comply with 7a(1)(b)
900 Tuscola Street, Detroit, Wayne County, Michigan
Parcel ID Number: 04000760.002
Facility ID Number: 82008928

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD) has reviewed the Response Activity Plan (ResAP) to Comply with Section 20107a(1)(b) of Part 201 Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) for the above-referenced property. The ResAP outlines the response activities to be undertaken at the above-referenced address and was submitted on your behalf pursuant to Section 20114b of the NREPA on September 10, 2024, by Jeremy Efros of ASTI Environmental. The final revised version was received by EGLE on October 22, 2024.

Based upon the representations and information contained in the submittal, the ResAP is approved. EGLE expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed in the plan. If environmental contamination is found to exist that is not addressed by the ResAP and you are otherwise liable for the contamination, additional response activities may be necessary.

The owner and operator of this property may also have responsibility under applicable state and federal laws, including but not limited to, Part 201, Environmental Remediation; Part 111, Hazardous Waste Management; Part 211, Underground Storage Tank Regulations; Part 213, Leaking Underground Storage Tanks; Part 615, Supervisor of Wells, of the NREPA; and the Michigan Fire Prevention Code, 1941 PA 207, as amended.

This approval is pursuant to the applicable requirements of the NREPA. The Michigan State Housing Development Authority may have additional site selection requirements beyond the NREPA statutory obligations for site characterization and remedial actions or response activities necessary to prevent, minimize, or mitigate injury to public health, safety, or welfare, or to the environment.

If you should have further questions or concerns, please contact April Hehir, RRD, Brownfield Assessment and Redevelopment Section, at 517-290-8614, or by email at HehirA@Michigan.gov.

Sincerely,

Carrie A. Geyer

Carrier Geyer, Manager
Brownfield Assessment and Redevelopment Section
Remediation and Redevelopment Division
GeyerC1@Michigan.gov

cc: Jeremy Efros, ASTI
Paul Owens, EGLE
April Hehir, EGLE
Jarrett McFeters, EGLE

U.S. Fish & Wildlife Service

ECOS

Listed species with spatial current range believed to or known to occur in Michigan

Notes:

- This report includes species only if they have a **Spatial Current Range** in ECOS.
- **As of 02/13/2015 the data in this report has been updated to use a different set of information.** Results are based on where the species is believed to or known to occur. The FWS feels utilizing this data set is a better representation of species occurrence. Note: there may be other federally listed species that are not currently known or expected to occur in this state but are covered by the ESA wherever they are found; Thus if new surveys detected them in this state they are still covered by the ESA. The FWS is using the best information available on this date to generate this list.
- This report shows listed species or populations believed to or known to occur in MI
- This list does not include experimental populations and similarity of appearance listings.
- Click on the highlighted scientific names below to view a Species Profile.

Listed Species

Sort by group: ☑

CSV

Show All entries Search:

26 Species Listings

Scientific Name	Common Name	Where Listed	Region	ESA Listing Status
Birds				
Charadrius melodus	Piping Plover	[Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.)	3	Endangered
Calidris canutus rufa	rufa red knot	Wherever found	5	Threatened
Grus americana	Whooping crane	U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY)	2	Experimental Population, Non-Essential
Clams				
Pleurobema clava	Clubshell	Wherever found; Except where listed as Experimental Populations	5	Endangered
Epioblasma rangiana	Northern riffleshell	Wherever found	5	Endangered
Villosa fabalis	Rayed Bean	Wherever found	3	Endangered
Obovaria subrotunda	Round hickorynut	Wherever found	3	Threatened

Scientific Name	Common Name	Where Listed	Region	ESA Listing Status
Epioblasma triquetra	Snuffbox mussel	Wherever found	3	Endangered
Ferns and Allies				
Asplenium scolopendrium var. americanum	American hart's-tongue fern	Wherever found	5	Threatened
Flowering Plants				
Iris lacustris	Dwarf lake iris	Wherever found	3	Threatened
Platanthera leucophaea	Eastern prairie fringed orchid	Wherever found	3	Threatened
Solidago houghtonii	Houghton's goldenrod	Wherever found	3	Threatened
Hymenoxys herbacea	Lakeside daisy	Wherever found	3	Threatened
Mimulus michiganensis	Michigan monkey-flower	Wherever found	3	Endangered
Cirsium pitcheri	Pitcher's thistle	Wherever found	3	Threatened
Insects				
Somatochlora hineana	Hine's emerald dragonfly	Wherever found	3	Endangered
Brychius hungerfordi	Hungerford's crawling water Beetle	Wherever found	3	Endangered
Lycaeides melissa samuelis	Karner blue butterfly	Wherever found	3	Endangered
Neonympha mitchellii mitchellii	Mitchell's satyr Butterfly	Wherever found	3	Endangered
Oarisma poweshiek	Poweshiek skipperling	Wherever found	3	Endangered
Mammals				
Lynx canadensis	Canada Lynx	Wherever Found in Contiguous U.S.	6	Threatened
Canis lupus	Gray wolf	U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.	6	Endangered
Myotis sodalis	Indiana bat	Wherever found	3	Endangered

Scientific Name	Common Name	Where Listed	Region	ESA Listing Status
Myotis septentrionalis	Northern Long-Eared Bat	Wherever found	3	Endangered
Reptiles				
Nerodia erythrogaster neglecta	Copperbelly water snake	Indiana north of 40 degrees north latitude, Michigan, Ohio	3	Threatened
Sistrurus catenatus	Eastern Massasauga (=rattlesnake)	Wherever found	3	Threatened

Showing 1 to 26 of 26 entries

Previous 1 Next

U.S. Fish & Wildlife Service

ECOS

Listed species with spatial current range believed to or known to occur in Michigan

Notes:

- This report includes species only if they have a **Spatial Current Range** in ECOS.
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Calidris canutus rufa	rufa red knot	Wherever found	5	Threatened
Grus americana	Whooping crane	U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY)	2	Experimental Population, Non-Essential
Clams				
Pleurobema clava	Clubshell	Wherever found; Except where listed as Experimental Populations	5	Endangered
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Flowering Plants				
Iris lacustris	Dwarf lake iris	Wherever found	3	Threatened
Platanthera leucophaea	Eastern prairie fringed orchid	Wherever found	3	Threatened
Solidago houghtonii	Houghton's goldenrod	Wherever found	3	Threatened
Hymenoxys herbacea	Lakeside daisy	Wherever found	3	Threatened
Mimulus michiganensis	Michigan monkey-flower	Wherever found	3	Endangered
Cirsium pitcheri	Pitcher's thistle	Wherever found	3	Threatened
Insects				
Somatochlora hineana	Hine's emerald dragonfly	Wherever found	3	Endangered
Brychius hungerfordi	Hungerford's crawling water Beetle	Wherever found	3	Endangered
Lycaeides melissa samuelis	Karner blue butterfly	Wherever found	3	Endangered
Neonympha mitchellii mitchellii	Mitchell's satyr Butterfly	Wherever found	3	Endangered
Oarisma poweshiek	Poweshiek skipperling	Wherever found	3	Endangered
Mammals				
Lynx canadensis	Canada Lynx	Wherever Found in Contiguous U.S.	6	Threatened
Canis lupus	Gray wolf	U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.	6	Endangered
Myotis sodalis	Indiana bat	Wherever found	3	Endangered

900 Tuscola Street

Detroit, MI

0 500 1,000 2,000 Feet

N

ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 16, 2023, ASTI Project 12-10595

Acceptable Separation Distance Map

Scientific Name	Common Name	Where Listed	Region	ESA Listing Status
Myotis septentrionalis	Northern Long-Eared Bat	Wherever found	3	Endangered
Reptiles				
Nerodia erythrogaster neglecta	Copperbelly water snake	Indiana north of 40 degrees north latitude, Michigan, Ohio	3	Threatened
Sistrurus catenatus	Eastern Massasauga (=rattlesnake)	Wherever found	3	Threatened

Showing 1 to 26 of 26 entries

Previous 1 Next

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Wayne County, Michigan

900 Tuscola Street

February 2, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Wayne County, Michigan.....13
MidaaA—Midtown gravelly-artifactual sandy loam, 0 to 2 percent slopes..13
UrbarB—Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes.....14
References.....17

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:811 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 35 70 140 210

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 9, Aug 25, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 8, 2022—Oct 4, 2022

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
MidaaA	Midtown gravelly-artifactual sandy loam, 0 to 2 percent slopes	1.1	68.4%
UrbarB	Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes	0.5	31.6%
Totals for Area of Interest		**1.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Wayne County, Michigan

MidaaA—Midtown gravelly-artifactual sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tx7g
Elevation: 570 to 680 feet
Mean annual precipitation: 28 to 38 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 135 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Midtown and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Midtown

Setting

Landform: Wave-worked till plains, water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, concave, linear
Parent material: Loamy human-transported material over loamy lodgment till

Typical profile

^Au - 0 to 8 inches: gravelly-artifactual sandy loam
^Cu - 8 to 37 inches: very gravelly-artifactual clay loam
BCgb - 37 to 45 inches: clay loam
C - 45 to 55 inches: clay loam
Cd - 55 to 80 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 38 to 79 inches to densic material
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 20 to 61 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.5 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Ecological site: F099XY007MI - Lake Plain Flats
Hydric soil rating: No

Minor Components

Urban land
Percent of map unit: 5 percent
Hydric soil rating: No

Avoca, human transported surface
Percent of map unit: 4 percent
Landform: Wave-worked till plains, water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, concave, linear
Ecological site: F099XY003MI - Warm Moist Sandy Depression
Hydric soil rating: No

Parkhill, human transported surface
Percent of map unit: 3 percent
Landform: Wave-worked till plains, water-lain moraines
Microfeatures of landform position: Open depressions
Down-slope shape: Linear, concave
Across-slope shape: Convex, concave, linear
Ecological site: F099XY013MI - Wet Lake Plain Flats
Hydric soil rating: No

Riverfront
Percent of map unit: 3 percent
Landform: Wave-worked till plains, water-lain moraines
Down-slope shape: Linear
Across-slope shape: Convex, linear, concave
Ecological site: F099XY007MI - Lake Plain Flats
Hydric soil rating: No

UrbarB—Urban land-Riverfront complex, dense substratum, 0 to 4 percent slopes

Map Unit Setting
National map unit symbol: 2whsx
Elevation: 560 to 720 feet
Mean annual precipitation: 28 to 38 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 135 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 80 percent
Riverfront, dense substratum, and similar soils: 19 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Riverfront, Dense Substratum

Setting

Landform: Deltas, water-lain moraines, wave-worked till plains
Down-slope shape: Linear
Across-slope shape: Convex, linear
Parent material: Loamy human-transported material over clayey lodgment till

Typical profile

^Au - 0 to 6 inches: sandy loam
^Cu1 - 6 to 16 inches: very artifactual sandy loam
^Cu2 - 16 to 46 inches: gravelly-artifactual loam
^Cu3 - 46 to 68 inches: very artifactual loam
2Cd - 68 to 80 inches: clay

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: 56 to 78 inches to densic material
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 28 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.5 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: B
Ecological site: F099XY007MI - Lake Plain Flats
Hydric soil rating: No

Minor Components

Riverfront, dense substratum, steep

Percent of map unit: 1 percent
Landform: Deltas, water-lain moraines, wave-worked till plains

Down-slope shape: Linear
Across-slope shape: Convex, linear
Ecological site: F099XY007MI - Lake Plain Flats
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Housing and Revitalization Department

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May 8, 2024

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 HUD Funded 900 Tuscola Project Located at 900 Tuscola St 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 seeks to construct a five story, 94,314 square foot structure at 900 Tuscola Street. The Subject Property is currently a vacant lot in the Cass Corridor neighborhood. The project will also include 63 parking spaces divided in an enclosed parking garage and a surface parking lot.

Based on historic research, we have determined a Historic Property is located within in the Area of Potential Effects (APE) for this project. The following resources are listed on the National Register of Historic Places: Wills-Selden Local Historic District, The Jefferson Intermediate School, and James Couzins School.

Per Stipulation VI of Programmatic Agreement (PA), the proposed undertaking qualified for review by SHPO's archaeologist and consultation with Tribes. A technical report, completed by Commonwealth Heritage Group concluded the area was surveyed in 2018, and the 16 archaeological sites assessed as part of the previous survey were determined not eligible for listing on the National Register of Historic Places. Commonwealth recommended no further archaeological work in relation to the 900 Tuscola Project. In a letter dated 5/7/2024, SHPO concurred with Commonwealth's recommendation of no historic properties affected within the area of potential effects of this undertaking.

On 4/4/2024, a request for Tribal Consultation was submitted to the following Tribes:

Bay Mills Indian Community
Forest County Potawatomi Community of Wisconsin
Grand Traverse Band of Ottawa & Chippewa Indians
Hannahville Indian Community
Ketegitigaaning Ojibwe Nation/Lac Vieux Desert Band of Lake Superior Chippewa Indians

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Keweenaw Bay Indian Community of the Lake Superior Band of Chippewa Indians
Lac du Flambeau Band of Lake Superior Chippewa Indians
Little River Band of Ottawa Indians
Little Traverse Bay Bands of Odawa Indians
Menominee Indian Tribe of Wisconsin
Match-E-Be-Nash-She-Wish (Gun Lake) Band of Pottawatomi Indians
Miami Tribe of Oklahoma
Michigan Anishinaabek Cultural Preservation and Repatriation Alliance
Nottawaseppi Huron Band of the Potawatomi
Pokagon Band of Potawatomi Indians, Michigan and Indiana
Saginaw Chippewa Indian Tribe of Michigan
Sault Ste. Marie Tribe of Chippewa Indians
Seneca Cayuga Nation

This consultaiton concluded with no objections to the proposed activities related to this undertaking. In the event of an unanticipated discovery, Tribal Consultaiton will be reinitiated under the direction of the unanticipated discoveries plan for this project.

I have determined that within in the Area of Potential Effects (APE), there will be **No Adverse Effect on historic properties** by the proposed undertaking and are in line with the Secretary of the Interior's Standards for Rehabilitation, specifically Standards 9 and 10. The new construction will be differentiated from the old and is compatible with the massing and scale of the adjacent historic resources. If removed in the future the historic properties will be unimpaired.

This project may proceed without further coordination with the Preservation Specialist unless the scope of work changes or artifacts are uncovered during the course of construction. If you have any questions regarding this finding, please direct them to Tiffany Ciavattone at CiavattoneT@detroitmi.gov.

Sincerely,

Tiffany Ciavattone

Tiffany Ciavattone
Preservation Specialist
City of Detroit
Housing & Revitalization Department

Figure 19
Description of Noise Attenuation Measures
(Acoustical Construction)

Part I

Project Name: Midtown West Parcel 1

Location: Detroit, MI

Sponsor/Developer: Procida Development Group, LLC

Noise Level (From NAG): 74dB Attenuation Required: 32dB

Primary Noise Source(s): nearby roadways

Part II

1. For Walls (s) facing and parallel to the noise source(s) (or closest to parallel):
   a. Descripton of wall construction*: Wall 1: EIFS with reinforcing mesh, 3" rigid EPS insulation, WRB, 5/8" plywood sheathing, 2x6 wood studs @ 16" o.c., 5 1/2" fiberglass insulation, 5/8" gyp.
   Wall 1: 3 5/8" brick, 2" airspace, 3" mineral wool board insulation, WRB, 5/8" plywood sheathing, 2x6 wood studs @ 16" o.c., 5 1/2" fiberglass insulation, 5/8" gyp
   Wall 2: WRB, 5/8" exterior gyp, 2x6 wood studs @ 16" o.c., 5 1/2" fiberglass insulation, 5/8" gyp. (at VTAC units)
   b. STC rating for wall (rated for no windows or doors): Wall 1: 48, Wall 2: 38
   c. Description of Windows: Polymer frame, double pane windows
   d. STC rating for window type: 30
   e. Description of doors: n/a
   f. STC rating for doors: n/a
   g. Percentage of wall (per wall, per dwelling unit) composed of windows: See attached diagram for calculations for each unit type and doors:
   h. Combined STC rating for wall component: 38-40 (see attached)

2. For walls perpendicular to noise source(s):
   a. Description of wall construction*: Walls are of the same construction as 1. (see above)
   b. STC rating for wall (rated for no windows or doors):
   c. Description of windows: Windows are the same as 1. (see above)
   d. STC rating for windows:
   e. Description of doors: n/a

f. STC rating for doors _____

g. Percentage of wall (per wall, per dwelling unit) composed of windows _____ and doors _____ See attached diagram for calculations for each unit type

h. Combined STC rating for wall component _____

3. Roofing component (if overhead attenuation is required due to aircraft noise):
   a. Description of roof construction _____
   n/a

   b. STC rating (rated as if no skylights or other openings) _____

   c. Descripton of skylights or overhead windows _____
   n/a

   d. STC rating for skylights or overhead windows _____

   e. Percentage of roof composed of skylights or windows (per dwelling unit) _____

   f. Percentage of roof composed of large uncapped openings such as chimneys _____

   g. Combined STC rating for roof component _____

4. Description of type of mechanical ventilation provided VTAC units

Prepared by Jessica Dovletian, McIntosh Poris Architects

Date: 11.4.24

*If walls contain vents or similar openings, attach a description of duct arrangement and insulation and a statement of how much the wall STC is reduced by the presence of the vent.

Noise Assessment
Parcel 1 South
900 Tuscola Street
Detroit, Michigan

March 1, 2023

Report Prepared For:

PDH Parcel 1, LLC
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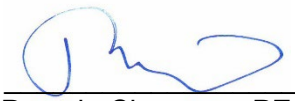
Architectural Historian/Env. Technician

Report Reviewed by:



Pamela Chapman, PE, EP
Phase I Group Leader

ASTI ENVIRONMENTAL

TABLE OF CONTENTS

Section			Page
Title Page			i
Table of Contents			ii
1.0	Introduction		1
2.0	Evaluation of Noise Sources		4
	2.1	Airports	4
	2.2	Busy Roadways	4
	2.3	Railroads	6
	2.4	Non-Transportation Sources	6
3.0	Calculations		8
4.0	Conclusions		9
5.0	References		10

ATTACHMENTS

- **A** NAL Location Map
- **B** Airport Noise Contour Map
- **C** AADT Information
- **D** Day-Night Level Electronic Assessment

1.0 INTRODUCTION

PDH Parcel 1, LLC proposes the new construction utilizing funding provided from the Michigan State Housing Development Authority of Parcel 1 South located at 900 Tuscola Street, Detroit, Michigan, referred to herein as “Subject Property”.

This assessment was conducted to provide the noise level and associated noise category at each designated Noise Assessment Location (NAL) at the Subject Property. This assessment does not include an evaluation of noise attenuation but general guidance is provided at the end of this assessment.

This evaluation was conducted per guidelines set forth in 24 CFR 51B. This noise analysis evaluates the Subject Property’s exposure to three major sources of noise: aircraft, roadways, and railways. If identified, additional non-transportation noise sources such as loud impulse sounds from nearby industry are also evaluated.

The following three sources of transportation noise and their applicable search distances are outlined below when evaluating noise at a site.

1. Aircraft - All military and FAA-regulated civil airfields within 15 miles of the Subject Property.
2. Roadways - Major roadways and limited access highways/freeways within 1,000 feet of the Subject Property utilizing a 10-year projection. Roadways considered are generally based on number of lanes, speed limit, presence of stop signs or lights, overall traffic counts, and/or number of medium or heavy trucks.
3. Railroad - All active railroads within 3,000 feet of the Subject Property.

The noise level calculated at a NAL is known as the day-night average sound level or DNL. A calculated DNL can fall within three categories as follow.

1. Acceptable - DNL not exceeding 65 decibels (dB)
2. Normally Unacceptable - DNL above the 65 dB threshold but not exceeding 75 dB
3. Unacceptable - DNL above 75 dB

Three NALs (NAL #1, NAL #2, and NAL#3) were selected on the Subject Property for this analysis based on proximity to noise sources. A map with the Subject Property boundaries and NAL location is included as Attachment A.

The following is a summary of the applicable noise sources identified at the NAL.

NAL #1

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A. Young International Airport	4.73 Miles
	Windsor International Airport	7.05 Miles
Busy Road(s)	Selden Street	145 Feet
	3rd Avenue	316 Feet
	John C. Lodge Service Drive East	368 Feet
	John C. Lodge Freeway (M-10)	469 Feet
	John C. Lodge Service Drive West	561 Feet
	Seldon Street, West of M-10	603 Feet
	Martin Luther King Junior Boulevard	868 Feet
	Contours Lane	869 Feet
	2nd Avenue	969 Feet
Railroad(s)	None	NA
Non-Transportation	None	NA

NAL #2

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A. Young International Airport	4.79 Miles
	Windsor International Airport	7.05 Miles
Busy Road(s)	John C. Lodge Service Drive East	73 Feet
	John C. Lodge Freeway	177 Feet
	John C. Lodge Service Drive West	271 Feet
	Selden Street	278 Feet
	Selden Street, West of M-10	396 Feet
	3rd Avenue	617 Feet
	Martin Luther King Junior Boulevard	735 Feet
	Contours Lane	834 Feet
	John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue	940 Feet
Railroad(s)	None	NA
Non-Transportation	None	NA

NAL #3

Noise Source with Applicable Distance	Name	Distance to NAL
Airport(s)	Coleman A. Young International Airport	4.79 Miles
	Windsor International Airport	7.06 Miles
Busy Road(s)	John C. Lodge Service Drive East	66 Feet
	John C. Lodge Freeway	168 Feet
	John C. Lodge Service Drive West	261 Feet
	Selden Street	227 Feet
	Selden Street, West of M-10	359 Feet
	3rd Avenue	621 Feet
	Contours Lane	785 Feet
	Martin Luther King Junior Boulevard	787 Feet
	John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue	992 Feet
Railroad(s)	None	NA
Non-Transportation	None	NA

2.0 EVALUATION OF NOISE SOURCES

2.1 Airports

Coleman A. Young International Airport is approximately 4.77 miles distant. Based on the Noise Contour Map for the airport, (Attachment B), the site is not within a distance of concern.

Windsor International Airport is approximately 7.05 miles distant. Based on the Noise Contour Map for the airport, (Attachment B), the site is not within a distance of concern.

2.2 Busy Roadways

The major roadways are:

- Selden Street
- 3rd Avenue
- John C. Lodge Service Drive East
- John C. Lodge Freeway
- John C. Lodge Service Drive West
- Seldon Street West
- Martin Luther King Junior Boulevard
- Contours Lane
- 2nd Avenue
- John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue

Selden Street is a 2-lane road. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 145 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 278 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 227 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

3rd Avenue is a 2-lane road with a center median/turn lane and two bike lanes. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 316 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The

roadway is an approximate effective distance of 617 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 621 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

John C. Lodge Service Drive East is a 3-lane, one way road. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 368 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 73 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 66 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

John C. Lodge Freeway (M-10) is a 6-lane freeway. The speed limit is 55 mph near the Subject Property. The roadway is an approximate effective distance of 469 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 177 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 168 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

John C. Lodge Service Drive West is a 3-lane, one way road. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 561 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 271 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 261 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

Selden Street, West of M-10 is a 2-lane road. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 603 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 396 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 359 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

Martin Luther King Junior Boulevard is a 6-lane divided boulevard. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 868 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 735 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 787 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

Contours Lane is a 2-lane road. The speed limit is 25 mph near the Subject Property. The roadway is an approximate effective distance of 869 feet from the northeastern corner of the building ell along 4th Street (NAL #1). The roadway is an approximate effective distance of 834 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 785 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

2nd Avenue is a 2-lane road with a center median/turn lane, with two bike lanes, and two parking lanes. The speed limit is 30 mph near the Subject Property. The roadway is an approximate effective distance of 969 feet from the northeastern corner of the building ell along 4th Street (NAL #1).

John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue is a 1-lane freeway off-ramp. The speed limit is 55 mph near the Subject Property. The roadway is an approximate effective distance of 940 feet from the southwestern corner of the building ell along Tuscola Avenue (NAL #2). The roadway is an approximate effective distance of 992 feet from the northwestern corner of the building ell along Tuscola Avenue (NAL #3).

Traffic counts were obtained through MDOT. Projections were done through 2031. After review of the traffic count information of each street, a growth rate of 1% per year compounded was judged appropriate as traffic levels are expected to remain relatively stable or increase slightly. Traffic projections are included in Attachment C.

2.3 Railroads

Not applicable.

2.4 Non-Transportation Sources

Not applicable.

3.0 CALCULATIONS

Noise DNL calculator worksheets for the NALs are provided in Attachment D.

Using the HUD DNL calculator, the noise level at NAL #1, as predicted in 2033, is calculated to be 68 dB and within the Normally Unacceptable range.

Using the HUD DNL calculator, the noise level at NAL #2, as predicted in 2033, is calculated to be 74 dB and within the Normally Unacceptable range.

Using the HUD DNL calculator, the noise level at NAL #3, as predicted in 2033, is calculated to be 74 dB and within the Normally Unacceptable range.

4.0 CONCLUSIONS

The following is a summary of the findings of this assessment.

NAL #	Combined Source DNL (dB)	Category
1	68	Normally Unacceptable
2	74	Normally Unacceptable
3	74	Normally Unacceptable

5.0 REFERENCES

- 24 CFR Part 51 Subpart B
- The Noise Guidebook, U.S. Department of Housing and Urban Development,
- U.S. DOT
- https://mdot.ms2soft.com/
- https://fragis.fra.dot.gov/GISFRASafety/
- https://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx
- https://www.hudexchange.info/programs/environmental-review/dnl-calculator/

HUD ATTENUATION GUIDANCE

https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/

All sites whose environmental or community noise exposure exceeds the day night average sound level (DNL) of 65 decibels (dB) are considered noise-impacted areas. For new construction that is proposed in high noise areas, grantees shall incorporate noise attenuation features to the extent required by HUD environmental criteria and standards contained in Subpart B (Noise Abatement and Control) of 24 CFR Part 51. The interior standard is 45 dB.

The "Normally Unacceptable" noise zone includes community noise levels from above 65 dB to 75 dB. Approvals in this noise zone require a minimum of 5 dB additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 dB but does not exceed 70 dB, or a minimum of 10 dB of additional sound attenuation if the day-night average sound level is greater than 70 dB but does not exceed 75 dB.

Locations with day-night average noise levels above 75 dB have “Unacceptable” noise exposure. For new construction, noise attenuation measures in these locations require the approval of the Assistant Secretary for Community Planning and Development (for projects reviewed under Part 50) or the Responsible Entity’s Certifying Officer (for projects reviewed under Part 58). The acceptance of such locations normally requires an environmental impact statement.

The environmental review record should contain **one** of the following:

- Documentation the proposed action is not within 1000 feet of a major roadway, 3,000 feet of a railroad, or 15 miles of a military or FAA-regulated civil airfield.
- If within those distances, documentation showing the noise level is *Acceptable* (at or below 65 DNL).
- If within those distances, documentation showing that there’s an effective noise barrier (i.e., that provides sufficient protection).

- Documentation showing the noise generated by the noise source(s) is *Normally Unacceptable (66 – 75 DNL)* and identifying noise attenuation requirements that will bring the interior noise level to 45 DNL and/or exterior noise level to 65 DNL.

ATTACHMENT A

NAL Location Map

GRAPHIC SCALE

0 35 70 150

1 inch = 70 ft.

Paper Size = (8.5x11)

LEGEND

Property Line

NAL 1 Noise Analysis Location

N

ASTI Environmental

900 Tuscola Avenue

Detroit, MI

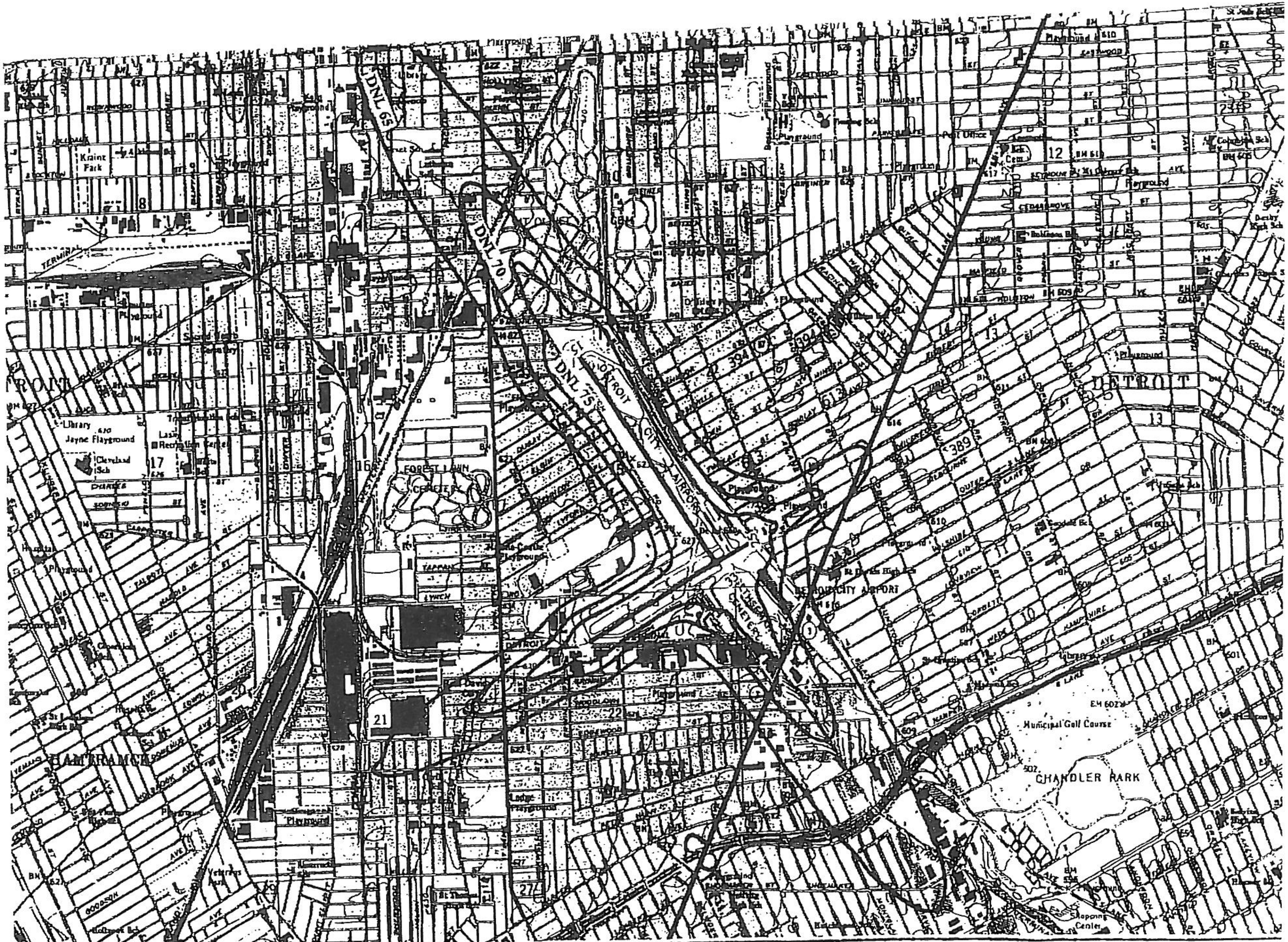
Created for: PDH Parcel 1, LLC

Noise Analysis Location Map

ASTI Project 10-10595, JRN, March 3, 2023

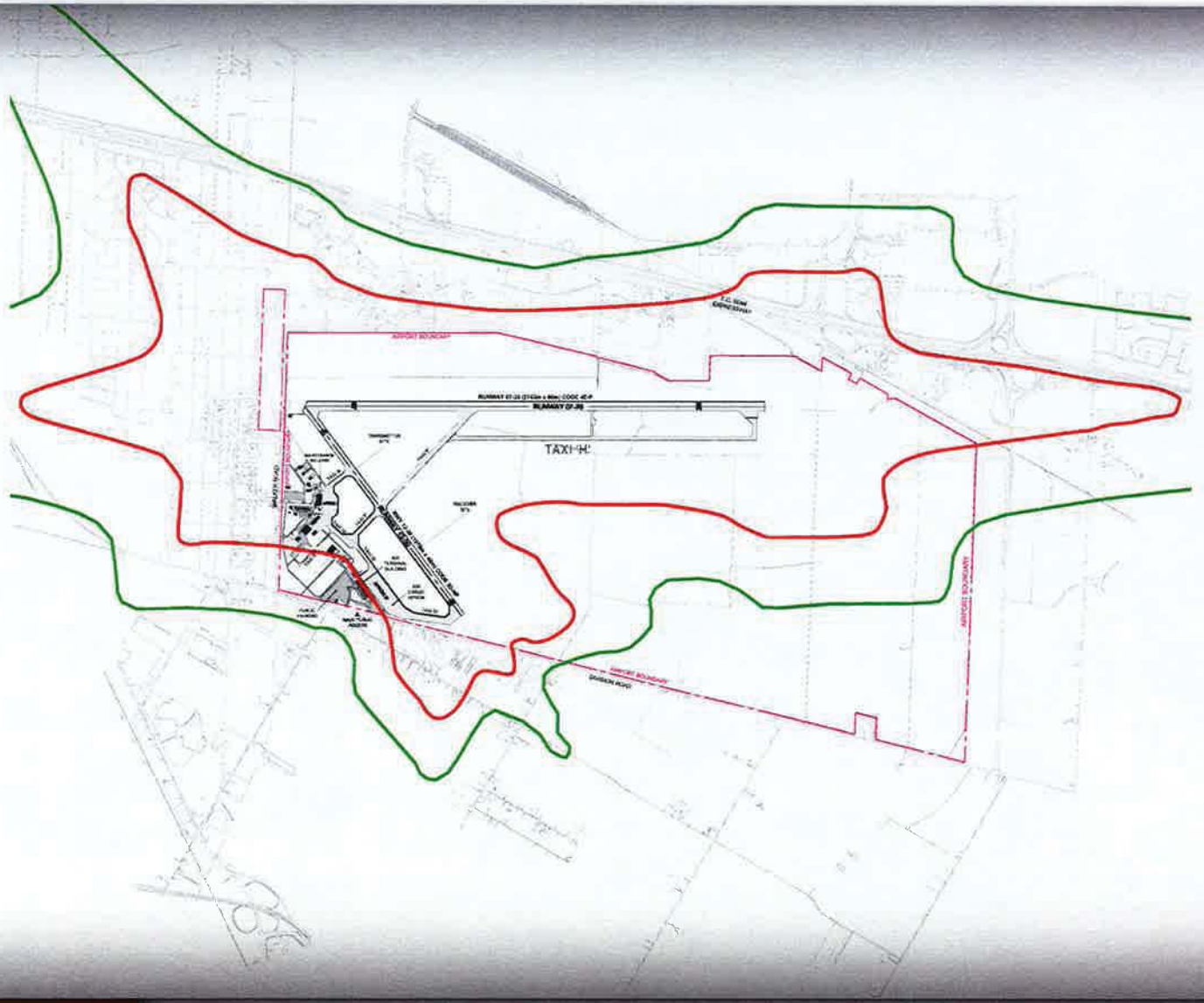
ATTACHMENT B

Airport Noise Contour Maps



CITY OF DETROIT
AIRPORT DEPARTMENT

1996 BASE
NOISE EXPOSURE CONTOURS



WINDSOR AIRPORT
MASTER PLAN

FIGURE 3-4 - AIRPORT NOISE EXPOSURE FORECAST CONTOURS

30 NEF (NOISE EXPOSURE FORECAST)

25 NEF

Notes

1. Conceptual Layout
2. All dimensions approximate
3. Noise Exposure Forecast provided by Windsor Airport Management

YQG YOUR QUICK GATEWAY
WINDSOR INTERNATIONAL AIRPORT

DILLON CONSULTING

Base data provided by City of Windsor Official Plan
Map created by EDH
Map checked by EGL

File Location: \\20dillon.dillon.ca\toronto data\PROJECTS\DRAFT\09\092665 Windsor Airport Master Plan

Map Projection: n/aTAXI 'H'

Project #: 09-2665
Status: n/a
Date: December 2010

N E W S

ATTACHMENT C

AADT Information

Auto and Heavy Truck 10-year ADT Projections

Selden Street

	Cars	% Change	Trucks	% Change
2016	1200		0	
2017	1189	-0.9	60	1.0
2018	1217	2.4	32	-46.7
2019	1194	-1.9	49	53.1
2020	989	-17.2	73	49.0
2021	1137	15.0	73	0.0
2022	1353	19.0	117.68	61.2
	Avg % change:	2.7	Avg % change:	19.61
	Avg % change (Last 5-yr Trend):	19.0	Avg % change (Last 5-yr Trend):	61.21
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2022	1353	118
2023	1367	119
2024	1381	120
2025	1394	121
2026	1408	122
2027	1422	124
2028	1437	125
2029	1451	126
2030	1465	127
2031	1480	129
2032	1495	130
2033	1510	131

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
1510	131

Auto and Heavy Truck 10-year ADT Projections

3rd Avenue

	Cars	% Change	Trucks	% Change
2016	10608		922.4	
2017	11691	10.2	312	-66.2
2018	11679	-0.1	324	3.8
2019	11476	-1.7	467	44.1
2020	9709	-15.4	490	4.9
2021	1449	-85.1	74	-84.9
	Avg % change:	-18.4	Avg % change:	-19.63
	Avg % change (Last 5-yr Trend):	-85.1	Avg % change (Last 5-yr Trend):	-84.90
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	1449	74
2022	1463	75
2023	1478	75
2024	1493	76
2025	1508	77
2026	1523	78
2027	1538	79
2028	1554	79
2029	1569	80
2030	1585	81
2031	1601	82
2032	1617	83
2033	1633	83

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
1633	83

Auto and Heavy Truck 10-year ADT Projections

John C Lodge Service Drive, East

	Cars	% Change	Trucks	% Change
2016	9637		838	
2017	10652	10.5	252	-69.9
2018	10619	-0.3	285	13.1
2019	10414	-1.9	435	52.6
2020	8616	-17.3	649	49.2
2021	4373	-49.2	285	-56.1
	Avg % change:	-11.6	Avg % change:	-2.22
	Avg % change (Last 5-yr Trend):	-49.2	Avg % change (Last 5-yr Trend):	-56.09
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	4373	285
2022	4417	288
2023	4461	291
2024	4506	294
2025	4551	297
2026	4596	300
2027	4642	303
2028	4688	306
2029	4735	309
2030	4783	312
2031	4831	315
2032	4879	318
2033	4928	321

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
4928	321

ENTER DATA HERE	
Year	**AADT**
2016	10475
2017	10904
2018	10904
2019	10849
2020	9265
2021	4658
% auto	92
% truck	8

2016

2017

2018

2019

2020

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Auto and Heavy Truck 10-year ADT Projections

John C Lodge Freeway (M-10)

	Cars	% Change	Trucks	% Change
2016	90124		1494	
2017	81153	-10.0	1064	-28.8
2018	77804	-4.1	1024	-3.8
2019	73980	-4.9	975	-4.8
2020	40155	-45.7	1499	53.7
2021	59413	48.0	2218	48.0
	Avg % change:	-3.4	Avg % change:	12.88
	Avg % change (Last 5-yr Trend):	48.0	Avg % change (Last 5-yr Trend):	47.97
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	59413	2218
2022	60007	2240
2023	60607	2263
2024	61213	2285
2025	61825	2308
2026	62444	2331
2027	63068	2354
2028	63699	2378
2029	64336	2402
2030	64979	2426
2031	65629	2450
2032	66285	2475
2033	66948	2499

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
66948	2499

ENTER DATA HERE	
Year	**AADT**
2016	91300
2017	82217
2018	78828
2019	74955
2020	41654
2021	61631
% auto	92
% truck	8

2016

2017

2018

2019

2020

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#REF!	#REF!	#REF!	#REF!

Auto and Heavy Truck 10-year ADT Projections

John C Lodge Service Drive, West

	Cars	% Change	Trucks	% Change
2016	11068		962.4	
2017	12232	10.5	291	-69.8
2018	12194	-0.3	329	13.1
2019	11964	-1.9	496	50.8
2020	9897	-17.3	744	50.0
2021	1833	-81.5	120	-83.9
	Avg % change:	-18.1	Avg % change:	-7.96
	Avg % change (Last 5-yr Trend):	-81.5	Avg % change (Last 5-yr Trend):	-83.87
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	1833	120
2022	1851	121
2023	1870	122
2024	1889	124
2025	1907	125
2026	1927	126
2027	1946	127
2028	1965	129
2029	1985	130
2030	2005	131
2031	2025	133
2032	2045	134
2033	2065	135

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
2065	135

ENTER DATA HERE	
Year	**AADT**
2016	12030
2017	12523
2018	12523
2019	12460
2020	10641
2021	1953
% auto	92
% truck	8

2016

2017

2018

2019

2020

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#REF!	#REF!	#REF!	#REF!

Auto and Heavy Truck 10-year ADT Projections

Selden Street, West of M-10

	Cars	% Change	Trucks	% Change
2021	953		173	
	Avg % change:	#DIV/0!	Avg % change:	#DIV/0!
	Avg % change (Last 5-yr Trend):	#DIV/0!	Avg % change (Last 5-yr Trend):	#DIV/0!
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	953	173
2022	963	175
2023	972	176
2024	982	178
2025	992	180
2026	1002	182
2027	1012	184
2028	1022	185
2029	1032	187
2030	1042	189
2031	1053	191
2032	1063	193
2033	1074	195

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
1074	195

Auto and Heavy Truck 10-year ADT Projections

Martin Luther King Junior Boulevard

	Cars	% Change	Trucks	% Change
2016	12140		276	
2017	12097	-0.4	828	200.0
2018	12588	4.1	337	-59.3
2019	12371	-1.7	489	45.1
2020	10586	-14.4	396	-19.0
2021	12149	14.8	364	-8.1
	Avg % change:	0.5	Avg % change:	31.74
	Avg % change (Last 5-yr Trend):	14.8	Avg % change (Last 5-yr Trend):	-8.08
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	12149	364
2022	12270	368
2023	12393	371
2024	12517	375
2025	12642	379
2026	12769	383
2027	12896	386
2028	13025	390
2029	13156	394
2030	13287	398
2031	13420	402
2032	13554	406
2033	13690	410

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
13690	410

Auto and Heavy Truck 10-year ADT Projections

West Alexandrine Street and Contours Lane

	Cars	% Change	Trucks	% Change
2021	280		50	
	Avg % change:	NA	Avg % change:	NA
	Avg % change (Last 5-yr Trend):	NA	Avg % change (Last 5-yr Trend):	NA
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	280	50
2022	283	51
2023	286	51
2024	288	52
2025	291	52
2026	294	53
2027	297	53
2028	300	54
2029	303	54
2030	306	55
2031	309	55
2032	312	56
2033	316	56

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
316	56

Auto and Heavy Truck 10-year ADT Projections

2nd Avenue

	Cars	% Change	Trucks	% Change
2016	3976		0	
2017	4019	1.1	120	1.0
2018	4032	0.3	107	-10.8
2019	3954	-1.9	164	53.3
2020	3269	-17.3	248	51.2
2021	3763	15.1	244	-1.6
	Avg % change:	-0.5	Avg % change:	18.61
	Avg % change (Last 5-yr Trend):	15.1	Avg % change (Last 5-yr Trend):	-1.61
	% Change/Year Assumption	1	**%/Year Change Assumption**	1

2033 Projections

	Cars	Trucks
2021	3763	244
2022	3801	246
2023	3839	249
2024	3877	251
2025	3916	254
2026	3955	256
2027	3995	259
2028	4034	262
2029	4075	264
2030	4116	267
2031	4157	270
2032	4198	272
2033	4240	275

Predicted 2033 Auto ADT	Predicted 2033 Truck ADT
4240	275

ATTACHMENT D

Day-Night Level Electronic Assessments

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	900 Tuscola Avenue, NAL #1
Record Date	03/01/2023
User's Name	ASTI Environmental

Road # 1 Name:	**Selden Street**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	145		145
Distance to Stop Sign	371		371
Average Speed	25		25
Average Daily Trips (ADT)	1510		131
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	44	0	61
Calculate Road #1 DNL	61	Reset	

Road # 2 Name:	**3rd Avenue**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	316		316
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	1633		83
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	41	0	51
Calculate Road #2 DNL	52	Reset	

Road # 3 Name: **John C. Lodge Service Drive East**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	368		368
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	4928		321
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	45	0	56
Calculate Road #3 DNL	57	Reset	

Road # 4 Name:	**John C. Lodge Freeway (M-10)**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	469		469
Distance to Stop Sign			
Average Speed	55		55
Average Daily Trips (ADT)	66948		2499
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	61	0	64
Calculate Road #4 DNL	66	Reset	

Road # 5 Name:	**John C. Lodge Service Drive West**

Road #5

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	561		561
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	2065		135
Night Fraction of ADT	15		15
Road Gradient (%)			2

Road Gradient (%)			2
Vehicle DNL	38	0	50
Calculate Road #5 DNL	50	Reset	

Road # 6 Name:	**Selden Street, West of M-10**

Road #6

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	603		603
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	1074		195
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	35	0	51
Calculate Road #6 DNL	51	Reset	

Road # 7 Name:	**Martin Luther King Junior Boulevard**

Road #7

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	868		868
Distance to Stop Sign			
Average Speed	25		25

Average Speed	25		25
Average Daily Trips (ADT)	13690		410
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	44	0	52
Calculate Road #7 DNL	52	Reset	

Road # 8 Name:	**Contours Lane**

Road #8

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	869		869
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	316		56
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	27	0	43
Calculate Road #8 DNL	43	Reset	

Road # 9 Name:	**2nd Avenue**

Road #9

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	969		969
Distance to Stop Sign			
Average Speed	30		30
Average Daily Trips (ADT)	4240		275
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	39	0	49
Calculate Road #9 DNL	50	Reset	

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○Yes ◉No
Combined DNL for all Road and Rail sources	**68**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
  - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
  - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
  - Incorporate natural or man-made barriers. See ***The Noise Guidebook (/resource/313/hud-noise-guidebook/)***
  - Construct noise barrier. See the **Barrier Performance Module (/programs/environmental-review/bpm-calculator/)**

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-level-assessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the **Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/)**.

Guidelines

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- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	900 Tuscola Avenue, NAL#2
Record Date	03/01/2023
User's Name	ASTI Environmental

Road # 1 Name:	**John C. Lodge Service Drive East**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	73		73
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	4928		321
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	55	0	67
Calculate Road #1 DNL	67	Reset	

Road # 2 Name:	**John C. Lodge Freeway (M-10)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	177		177
Distance to Stop Sign			
Average Speed	55		55
Average Daily Trips (ADT)	66948		2499
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	68	0	71
Calculate Road #2 DNL	73	Reset	

Road # 3 Name: **John C. Lodge Service Drive West**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	271		271
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	2065		135
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	43	0	55
Calculate Road #3 DNL	55	Reset	

Road # 4 Name:	**Selden Street**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	278		278
Distance to Stop Sign	303		303
Average Speed	25		25
Average Daily Trips (ADT)	1510		131
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	39	0	57
Calculate Road #4 DNL	57	Reset	

Road # 5 Name:	**Selden Street, West of M-10**

Road #5

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	396		396
Distance to Stop Sign	393		393
Average Speed	25		25
Average Daily Trips (ADT)	1074		195
Night Fraction of ADT	15		15
Road Gradient (%)			2

Road Gradient (%)			2
Vehicle DNL	36	0	56
Calculate Road #5 DNL	56	Reset	

Road # 6 Name:	**3rd Avenue**

Road #6

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	617		617
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	1633		83
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	37	0	47
Calculate Road #6 DNL	47	Reset	

Road # 7 Name:	**Martin Luther King Junior Boulevard**

Road #7

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	735		735
Distance to Stop Sign			
Average Speed	25		25

Average Speed			
Average Daily Trips (ADT)	13960		410
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	45	0	53
Calculate Road #7 DNL	53	Reset	

Road # 8 Name: **Contours Lane**

Road #8

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	834		834
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	316		56
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	28	0	43
Calculate Road #8 DNL	44	Reset	

Road # 9 Name: **John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue**

Road #9

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	940		940
Distance to Stop Sign			
Average Speed	55		55
Average Daily Trips (ADT)	7217		628
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	47	0	54

Calculate Road #9 DNL | 55 | Reset

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○Yes ◉No
Combined DNL for all Road and Rail sources	**74**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- **Other Reasonable Alternatives**: Choose an alternate site
- **Mitigation**
    - **Contact your Field or Regional Environmental Officer (/programs/environmental-review/hud-environmental-staff-contacts/)**
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DNL Calculator

Site ID	900 Tuscola Avenue, NAL #3
Record Date	03/01/2023
User's Name	ASTI Environmental

Road # 1 Name:	**John C. Lodge Service Drive East**

Road #1

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	66		66
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	4928		321
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	56	0	67
Calculate Road #1 DNL	68	Reset	

Road # 2 Name:	**John C. Lodge Freeway (M-10)**

Road #2

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	168		168
Distance to Stop Sign			
Average Speed	55		55
Average Daily Trips (ADT)	66948		2499
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	68	0	71
Calculate Road #2 DNL	73	Reset	

Road # 3 Name: **John C. Lodge Service Drive West**

Road #3

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	261		261
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	2065		135
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	43	0	55
Calculate Road #3 DNL	55	Reset	

Road # 4 Name:	**Selden Street**

Road #4

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	227		227
Distance to Stop Sign	246		246
Average Speed	25		25
Average Daily Trips (ADT)	1510		131
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	40	0	58
Calculate Road #4 DNL	58	Reset	

Road # 5 Name:	**Selden Street, West of M-10**

Road #5

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	359		359
Distance to Stop Sign	359		359
Average Speed	25		25
Average Daily Trips (ADT)	1074		195
Night Fraction of ADT	15		15
Road Gradient (%)			2

Road Gradient (%)			2
Vehicle DNL	36	0	57
Calculate Road #5 DNL	57	Reset	

Road # 6 Name:	**3rd Avenue**

Road #6

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	621		621
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	1633		83
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	37	0	47
Calculate Road #6 DNL	47	Reset	

Road # 7 Name:	**Contours Lane**

Road #7

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	785		785
Distance to Stop Sign			
Average Speed	25		25

Average Daily Trips (ADT)	316		56
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	28	0	44
Calculate Road #7 DNL	44	Reset	

Road # 8 Name:	**Martin Luther King Junior Boulevard**

Road #8

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑
Effective Distance	787		787
Distance to Stop Sign			
Average Speed	25		25
Average Daily Trips (ADT)	13690		410
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	44	0	52
Calculate Road #8 DNL	53	Reset	

Road # 9 Name:	**John C. Lodge Freeway (M-10) Off Ramp to Grand River Avenue**

Road #9

Vehicle Type	**Cars** ☑	**Medium Trucks** ☐	**Heavy Trucks** ☑

Effective Distance	992		992
Distance to Stop Sign			
Average Speed	55		55
Average Daily Trips (ADT)	7217		628
Night Fraction of ADT	15		15
Road Gradient (%)			2
Vehicle DNL	47	0	54
Calculate Road #9 DNL	54	Reset	

Add Road Source | Add Rail Source

Airport Noise Level	
Loud Impulse Sounds?	○Yes ◉No
Combined DNL for all Road and Rail sources	**74**
Combined DNL including Airport	**N/A**
Site DNL with Loud Impulse Sound	

Calculate | Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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- **Mitigation**
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Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-level-assessment-tool-flowcharts/)

ASTI ENVIRONMENTAL

ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.

OUR SERVICES INCLUDE:

- **ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS**
- **BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE**
- **DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT**
- **ECOLOGICAL ASSESSMENTS AND RESTORATION**
- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
- **ENVIRONMENTAL OPPORTUNITIES ASSESSMENT**
- **GIS MAPPING**
- **HAZARD MITIGATION PLANNING**
- **MINING AND RECLAMATION ASSISTANCE**
- **REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE**
- **PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS**
- **REGULATORY COMPLIANCE AND PERMITTING**
- **SOIL AND GROUNDWATER ASSESSMENTS**
- **SOIL AND GROUNDWATER REMEDIATION**
- **STORAGE TANK COMPLIANCE AND CLOSURE**
- **THREATENED AND ENDANGERED SPECIES SURVEYS**
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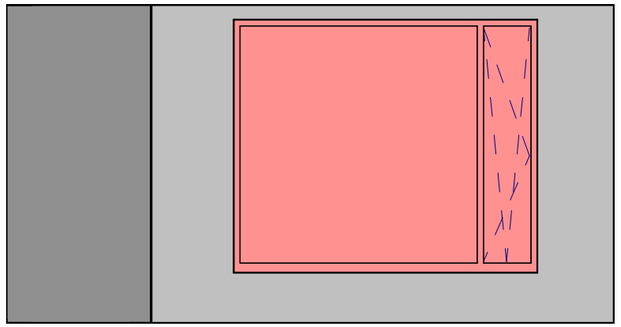
- **WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING**

ASTI ENVIRONMENTAL
Detroit/Grand Rapids/Brighton

Phone: 1-800-395-2784
www.asti-env.com
Email: environmental@asti-env.com

ASTI ENVIRONMENTAL

NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB

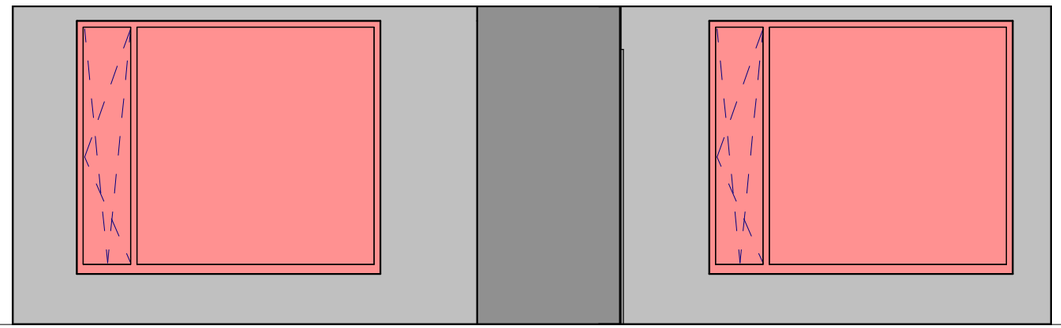


UNIT A1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	49.10 SF	36%	17.28
WALL AREA 2 (STC=38)	32.07 SF	24%	9.12
WINDOW AREA (STC=30)	53.33 SF	40%	12
TOTAL	134.5 SF	100%	38.4

COMBINED STC = **38.4**

LEVEL 3
25' - 8"



UNIT B1

	AREA	%	COMBINED STC
WALL 1 (STC=48)	91.60 SF	40%	19.2
WALL 2 (STC=38)	31.66 SF	14%	5.32
WINDOW (STC=30)	106.67 SF	46%	13.8
TOTAL	229.93 SF	100%	38.32

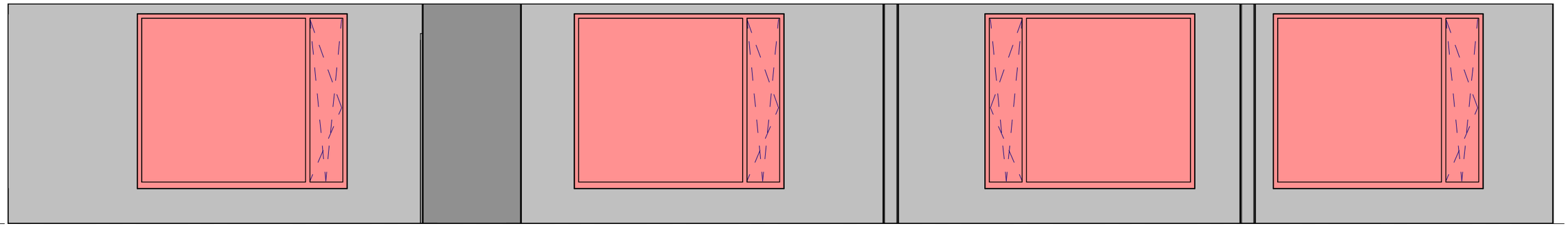
COMBINED STC = **38.32**

LEVEL 3
25' - 8"

UNIT D1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	250.03 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	213.33 SF	43%	12.9
TOTAL	494.84 SF	100%	39.66

COMBINED STC = **39.66**

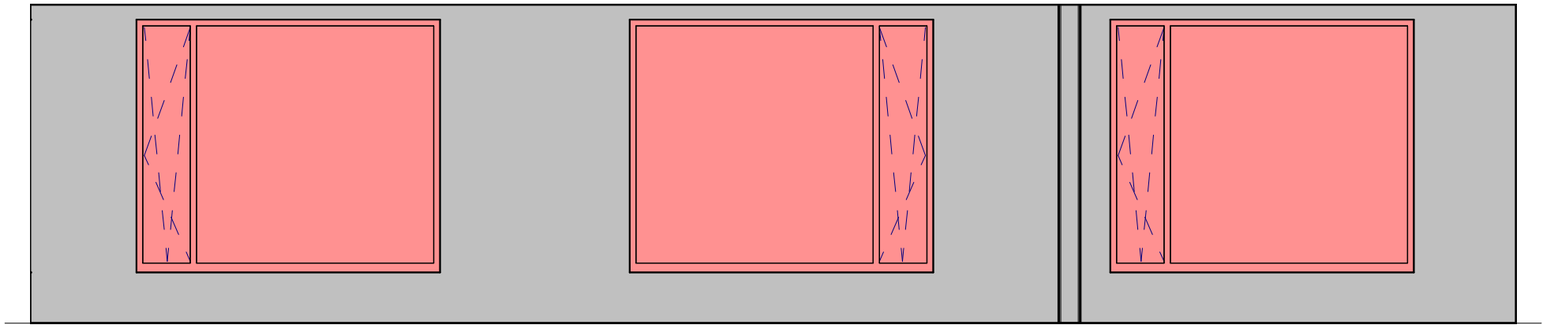


LEVEL 3
25' - 8"

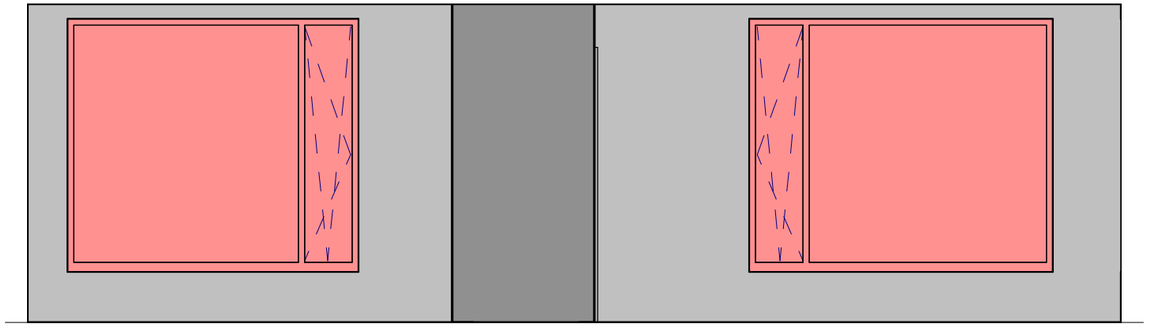
MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



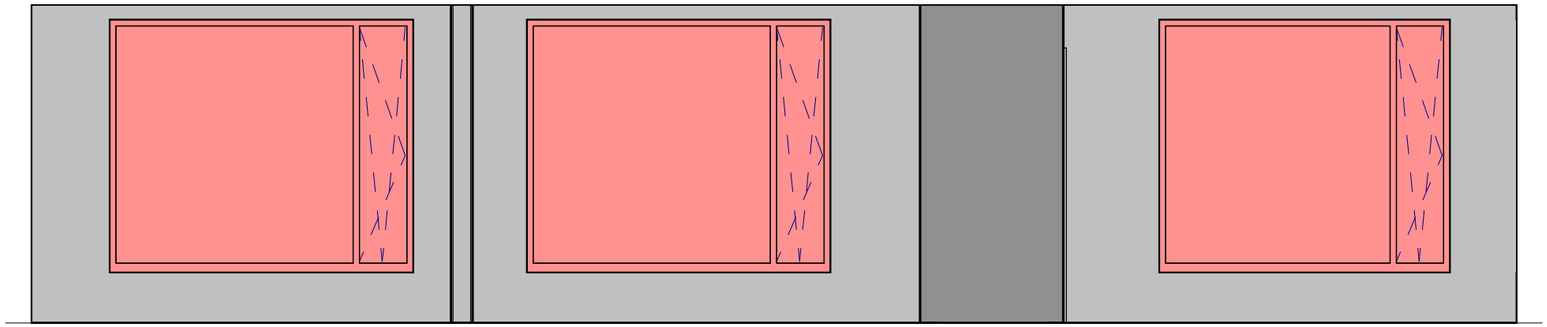
NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB



UNIT C1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	274.96 SF	48%	23.04
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	264.44 SF	46%	13.8
TOTAL	570.88 SF		39.12

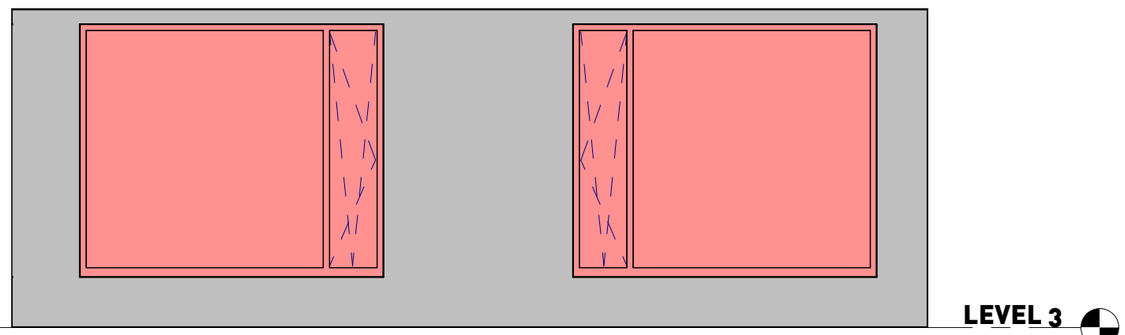
COMBINED STC = **39.12**



UNIT C2

	AREA	%	COMBINED STC
WALL AREA 1 (STC= 48)	235.54 SF	44%	21.12
WALL AREA 2 (STC=38)	31.66 SF	6%	2.28
WINDOW AREA (STC=30)	264.45 SF	50%	15
TOTAL	531.65 SF	100%	38.4

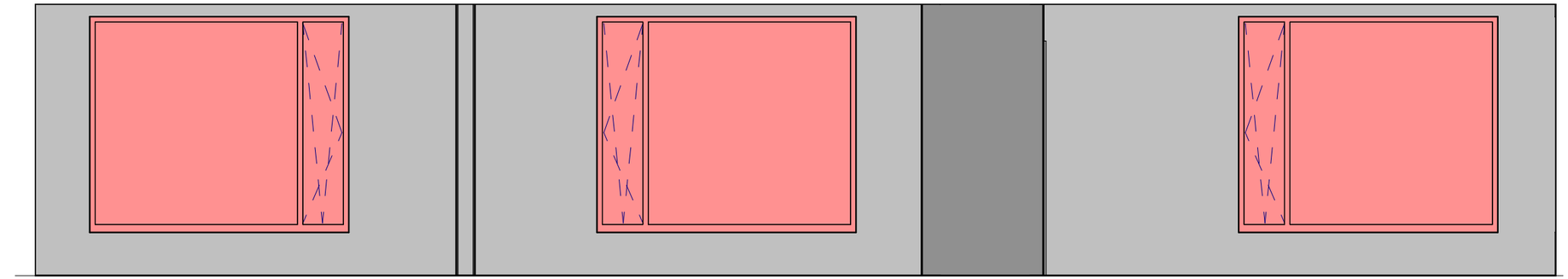
COMBINED STC = **38.4**



MIDTOWN WEST PARCEL 1

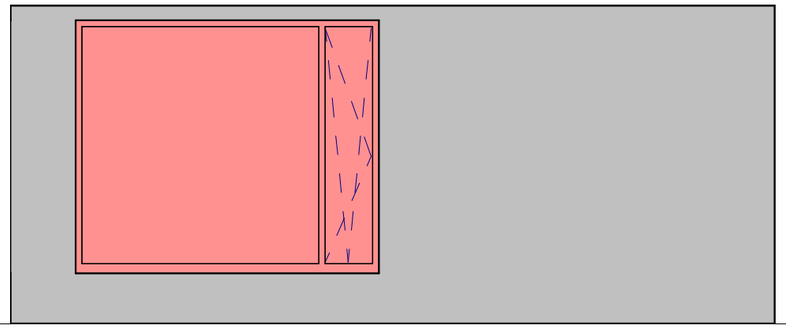
EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



LEVEL 3
25' - 8"

NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB

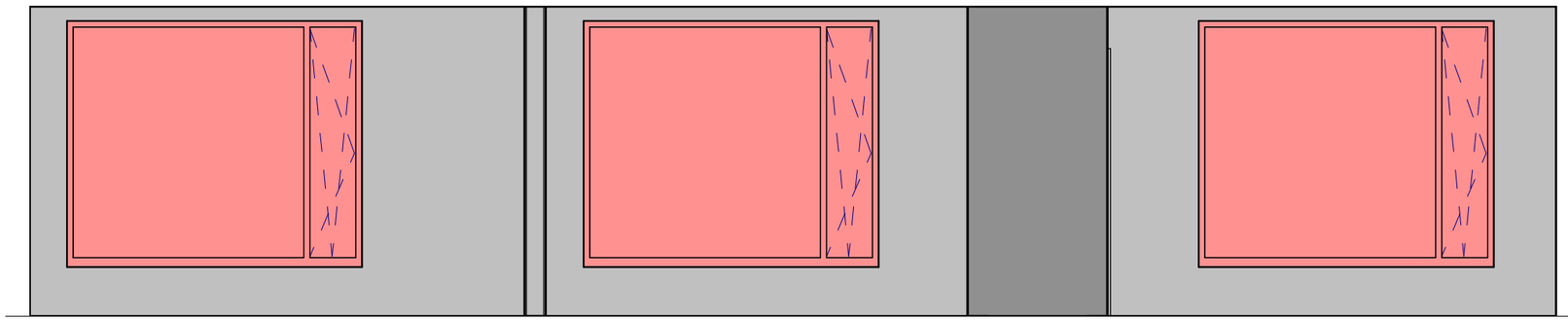


LEVEL 3
25' - 8"

UNIT C3

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	318.69 SF	56%	26.88
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	213.33 SF	38%	11.4
TOTAL	563.5 SF	100%	40.56

COMBINED STC = **40.56**

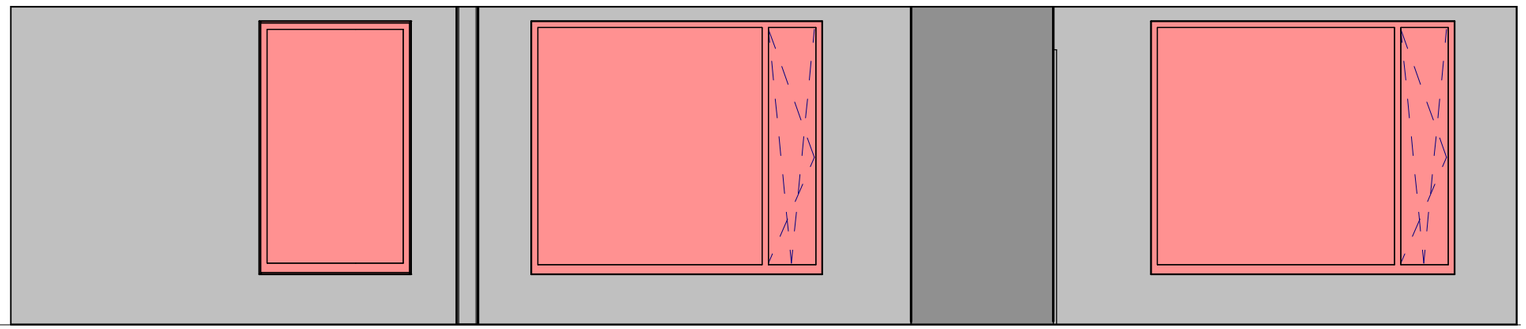


LEVEL 3
25' - 8"

UNIT C4

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	155.46 SF	45%	21.6
WALL AREA 2 (STC=38)	31.83 SF	9%	3.42
WINDOW AREA (STC=30)	160 SF	46%	13.8
TOTAL =	347.29 SF	100%	38.82

COMBINED STC = **38.82**



LEVEL 3
25' - 8"

UNIT C4.1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	172.34 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	9%	3.42
WINDOW AREA (STC=30)	131.11 SF	40%	12
TOTAL	334.93 SF	100%	39.9

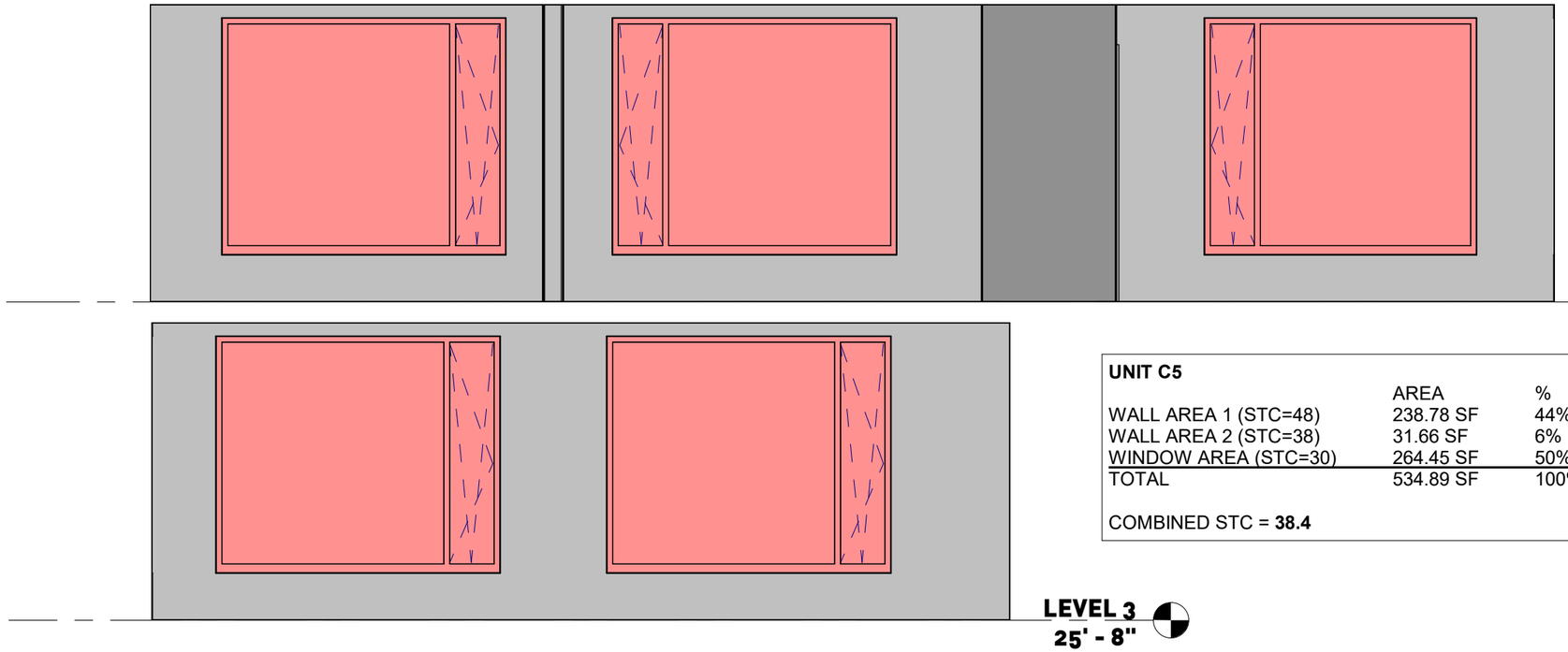
COMBINED STC = **39.9**

MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES

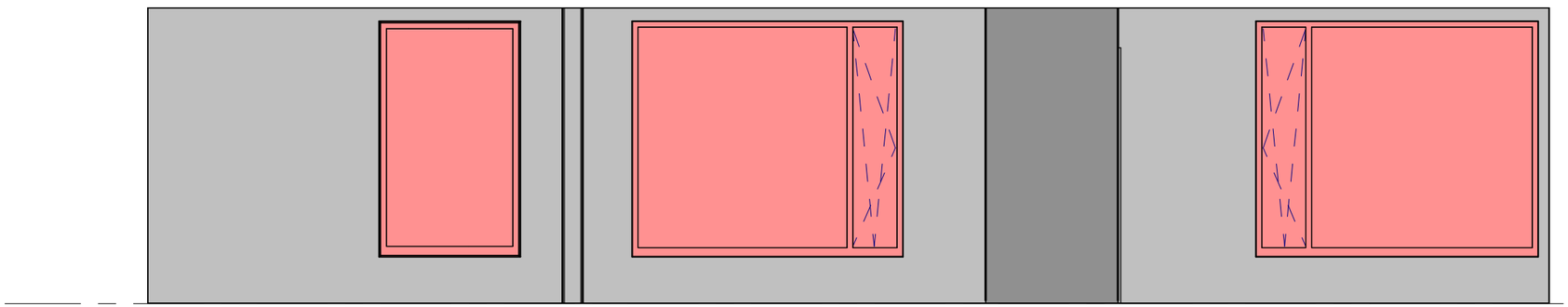
NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB



UNIT C5

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	238.78 SF	44%	21.12
WALL AREA 2 (STC=38)	31.66 SF	6%	2.28
WINDOW AREA (STC=30)	264.45 SF	50%	15
TOTAL	534.89 SF	100%	38.4

COMBINED STC = **38.4**



UNIT C6

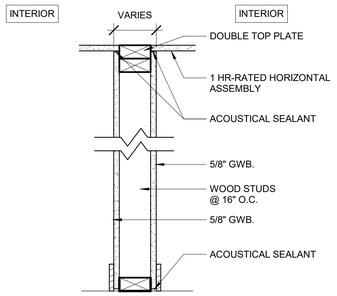
	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	170.85 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	9%	3.42
WINDOW AREA (STC=30)	131.11 SF	39%	11.7
TOTAL	333.44 SF	100%	39.6

COMBINED STC = **39.6**

MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

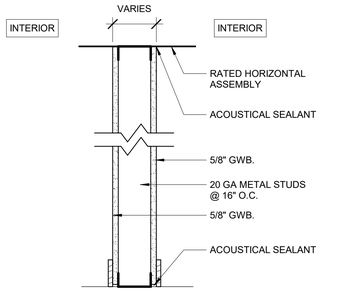
MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
G.1	3 1/2"	4 3/4"	NON-RATED		
G.2	5 1/2"	6 3/4"	NON-RATED		
G.3	5 1/2"	6 3/4"	1 HR	U309	TYPE X GWB BOTH SIDES
G.4	5 1/2"	6 1/8"	NON-RATED		W/O GWB. ON ONE SIDE
G.5	3 1/2"	4 1/8"	NON-RATED		W/O GWB. ON ONE SIDE

CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

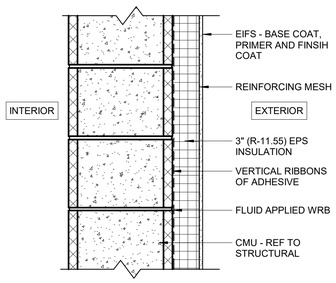
G WALL TYPE G - INTERIOR (STUD WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
I.1	3 5/8"	4 7/8"	NON-RATED		
I.2	6"	7 1/4"	NON-RATED		
I.3	8"	8 5/8"	NON-RATED		W/O GWB. ON ONE SIDE (ADJACENT TO CMU WALL)
I.4	2 1/2"	3 1/8"	NON-RATED		
I.5	3 5/8"	4 7/8"	NON-RATED		W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON ONE SIDE
I.6	6"	7 1/4"	NON-RATED		W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON ONE SIDE

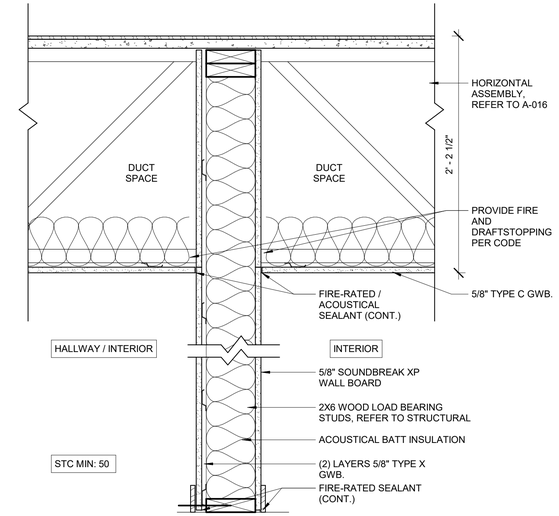
CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

I WALL TYPE I - INTERIOR NON-RATED (STUD WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION		CMU SIZE	PART WIDTH	INSUL.	FIRE RATING	UL LISTING	REMARKS
D.1		8"	11"	3"	1 HR	-	
D.2		12"	1'-3"	3"	2 HR	-	

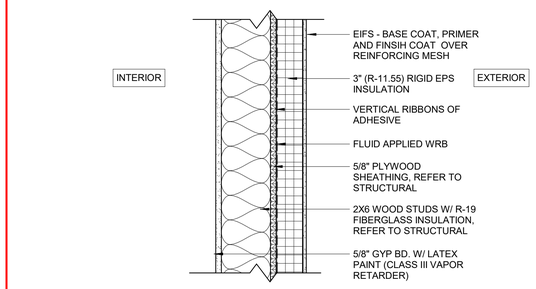
D WALL TYPE D - EXTERIOR (PRECAST AND EFIS)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
F	6"	7 7/8"	1 HR	UL #U473	
F.1	6"	7 1/4"	NON-RATED	-	W/O GWB. ON SHAFT SIDE (L.1 OR L.2 ABUTS WALL)
F.2	3 5/8"	7 1/4"	NON-RATED	-	W/O GWB. ON SHAFT SIDE (L.1 OR L.2 ABUTS WALL)
F.3	6"	7 7/8"	1 HR	UL #U473	W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON CORRIDOR SIDE

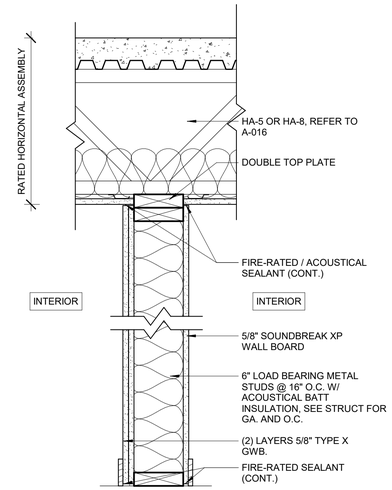
CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

F WALL TYPE F- INTERIOR 1 HR-RATED (HALLWAY/DEMISING STUD WALL)
1 1/2" = 1'-0"



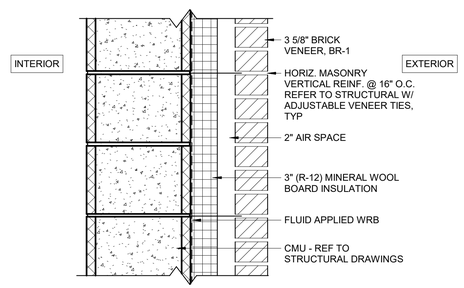
	FLOOR PLAN DESIGNATION	STUD SIZE	RIGID INSUL.	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
Wall 1	C.1	5 1/2"	3"	10 1/8"	NON-RATED		2X4 WD STUDS AT HEAD, SILL AND JAMB, REFER TO A-700 DETAILS
	C.3	5 1/2"	3"	10 1/8"	1 HR	UL-	2X4 WD STUDS AT HEAD, SILL AND JAMB, REFER TO A-700 DETAILS

C WALL TYPE C - EXTERIOR (STUD AND EFIS)
1 1/2" = 1'-0"



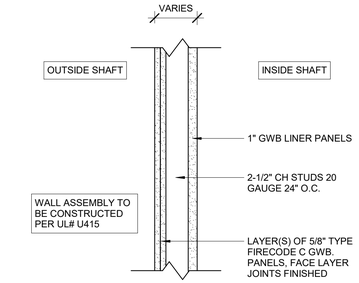
FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
H	6"	7 7/8"	1 HR	UL #U473	
H.2	6"	7 7/8"	1 HR	UL #U473	(EXTERIOR WALL) W/ 5/8" DENSELEMENT BARRIER SYSTEM 1/ INTEGRAL WEATHER RESISTANCE BARRIER IN LIEU OF 5/8" TYPE X GYP, AND R-19 BATT INSULATION IN CAVITY

H WALL TYPE H - INTERIOR 1 HR-RATED (STUD WALL)
1 1/2" = 1'-0"



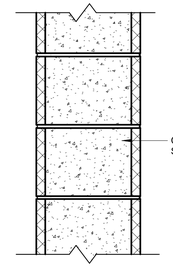
FLOOR PLAN DESIGNATION	CMU SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
B	8"	1' 4 1/4"	-	-	
B.2	12"	1' 8 1/4"	-	-	

B WALL TYPE B - EXTERIOR 2 HR- RATED (BRICK AND PRECAST WALL)
1 1/2" = 1'-0"



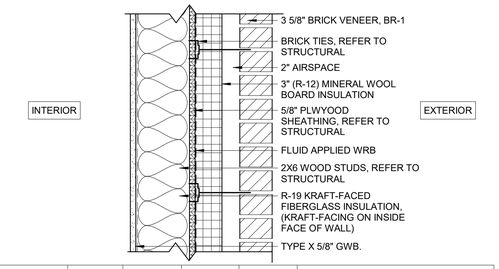
FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
S.1	2 1/2"	4 1/8"	1 HR	UL #415 SYSTEM A	W/ (1) LAYER FIRECODE C GYP
S.2	2 1/2"	4 3/4"	2 HR	UL #415 SYSTEM B	W/ (2) LAYERS FIRECODE C GYP
S.3	6"	8 1/4"	2 HR	UL #415 SYSTEM B	W/ (2) LAYERS FIRECODE C GYP

S WALL TYPE S- INTERIOR FIRE RATED (SHAFT WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	CONC. WIDTH	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
E.1	7 5/8"	7 5/8"	2 HR	-	8" CMU WALL
E.2	11 5/8"	11 5/8"	2 HR	-	12" CMU WALL
E.3	7 5/8"	9 1/8"	2 HR	-	8" CMU WALL, 7/8" FURRING, 5/8" GWB. (ON UNIT SIDE)
E.4	11 5/8"	1'-1 1/8"	2 HR	-	12" CMU WALL, 7/8" FURRING, 5/8" GWB. (ON UNIT SIDE)
E.5	7 5/8"	11 3/4"	2 HR	-	8" CMU WALL, 2X4 WD STUDS, SOUND INSULATION, 5/8" GWB. (ON UNIT SIDE)
E.6	11 5/8"	1'-3 3/4"	2 HR	-	12" CMU WALL, 2X4 WD STUDS, SOUND INSULATION, 5/8" GWB. (ON UNIT SIDE)

E WALL TYPE E - INTERIOR (PRECAST)
1 1/2" = 1'-0"



	FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
Wall 1	A.1	5 1/2"	1' - 3 3/8"	NON-RATED	-	-
Wall 2	A.2	5 1/2"	6 3/4"	NON-RATED	-	W/O MINERAL WOOL BOARD INSULATION AND BRICK
	A.3	5 1/2"	1' - 3 3/8"	1 HR	UL-	
	A.4	6"	1' - 3 7/8"	NON-RATED	-	SAME AS A BUT W/ 6" METAL STUDS IN LIEU OF WOOD STUDS & 5/8" DENSE ELEMENT BARRIER SYSTEM W/ INTEGRAL WRB

A WALL TYPE A - EXTERIOR (BRICK AND STUD WALL)
1 1/2" = 1'-0"

MCINTOSH PORIS ARCHITECTURE ASSOCIATES
INTERIORS
PLANNING

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48009
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ISSUED FOR	DATE
1 PERMIT SET	10.14.22
2 100%CD	11.11.22
3 OWNER REVIEW	7.30.24

PROJECT

MIDTOWN WEST PARCEL 1

900 Tuscola Street
Detroit, MI.

SHEET

WALL TYPES

STAMP

NOT FOR CONSTRUCTION

SCALE

1 1/2" = 1'-0"

PROJECT NUMBER

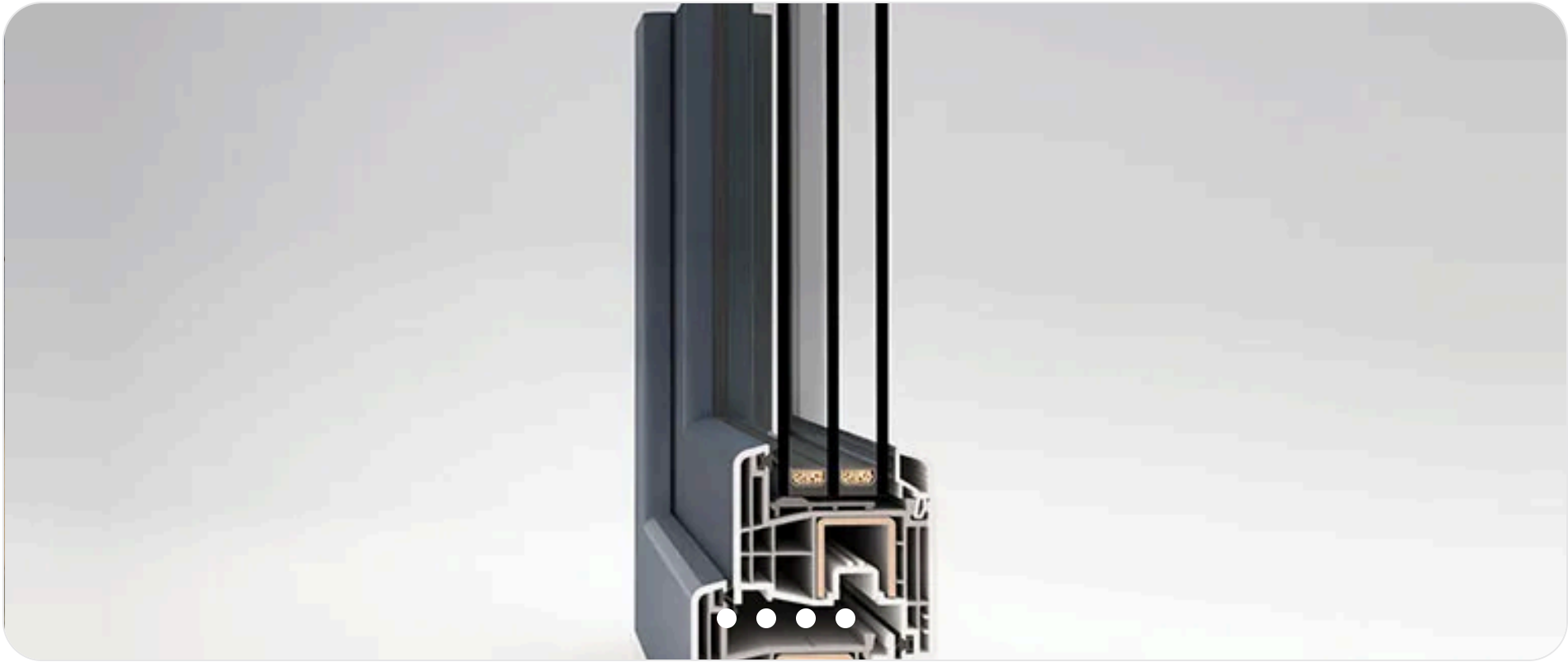
2025.00

SHEET NUMBER

A-015

Supera CW

Windows



- Ideal for Low- to Mid-rise projects
- Suitable for multi-family, hospitality, institutional & retrofit projects
- High-performance, low cost
- Improved insulation, reduced energy consumption, enhanced security

Variety of design options

PERFORMANCE OVERVIEW

Built to be the most energy efficient

Selecting windows with better performance is crucial as they offer improved energy efficiency, noise reduction, and security. This investment leads to lower energy bills, a more comfortable environment, added peace of mind.

Supera CW | Fixed | Casement | Hopper | Tilt & Turn

Performance Grade
CW40, CW50, CW60, CW70

Design Pressure
±40.10 psf – ±70.18 psf

Air Infiltration
0.10 cfm/ft2

Water Penetration
12.11 psf

NFRC Values

PHIUS Values

Sound Abatement

STC	31 – 47
OITC	20 – 37

Maximum Sizes

GET STARTED TODAY

DESIGN & ACCESSORIES

Mix & match as you like

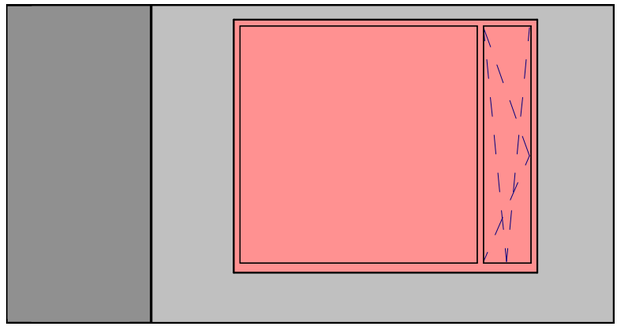
Having a variety of applicable design options and accessories is important in creating a space that is both functional and aesthetically pleasing. With a range of options, you can customize your space to fit its intended purpose and personal preferences. The right accessories can complement the overall design and create a cohesive look, while a variety of design options allows you to create a space that meets your needs.

Colors | Glass | Handles | Grids | Screens | Limiters | Ext Trim | Addtl Accy | Installation

ANODIZED SILVER

WARM STONE

NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB

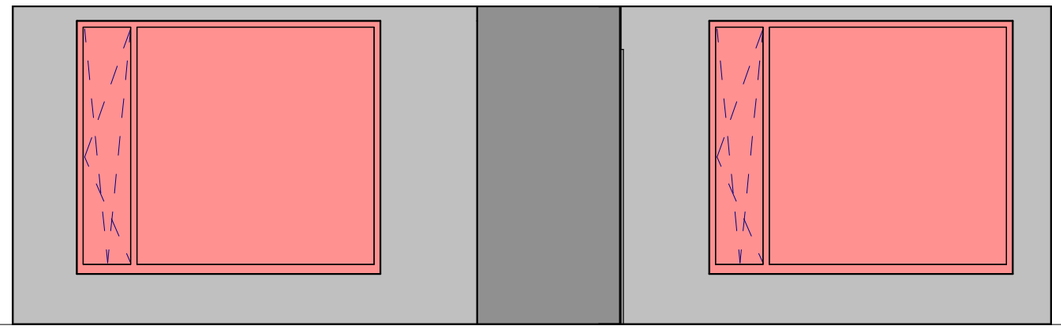


UNIT A1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	49.10 SF	36%	17.28
WALL AREA 2 (STC=38)	32.07 SF	24%	9.12
WINDOW AREA (STC=30)	53.33 SF	40%	12
TOTAL	134.5 SF	100%	38.4

COMBINED STC = **38.4**

LEVEL 3
25' - 8"



UNIT B1

	AREA	%	COMBINED STC
WALL 1 (STC=48)	91.60 SF	40%	19.2
WALL 2 (STC=38)	31.66 SF	14%	5.32
WINDOW (STC=30)	106.67 SF	46%	13.8
TOTAL	229.93 SF	100%	38.32

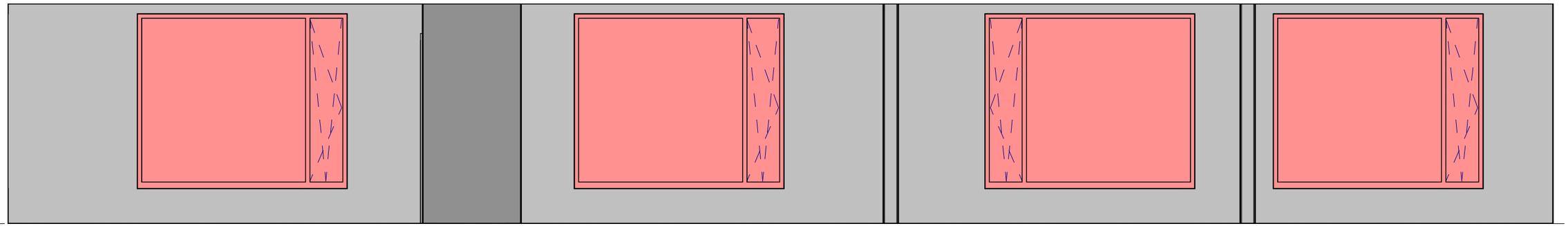
COMBINED STC = **38.32**

LEVEL 3
25' - 8"

UNIT D1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	250.03 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	213.33 SF	43%	12.9
TOTAL	494.84 SF	100%	39.66

COMBINED STC = **39.66**

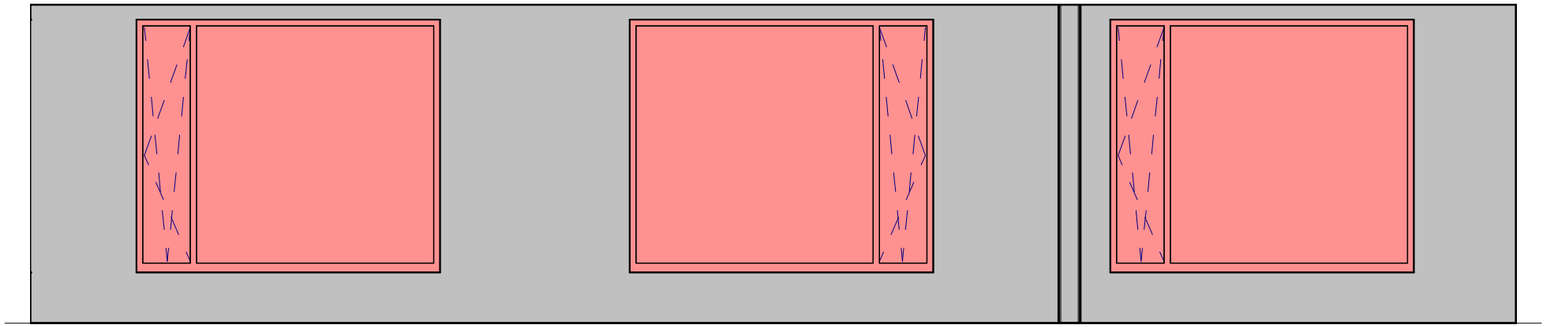


LEVEL 3
25' - 8"

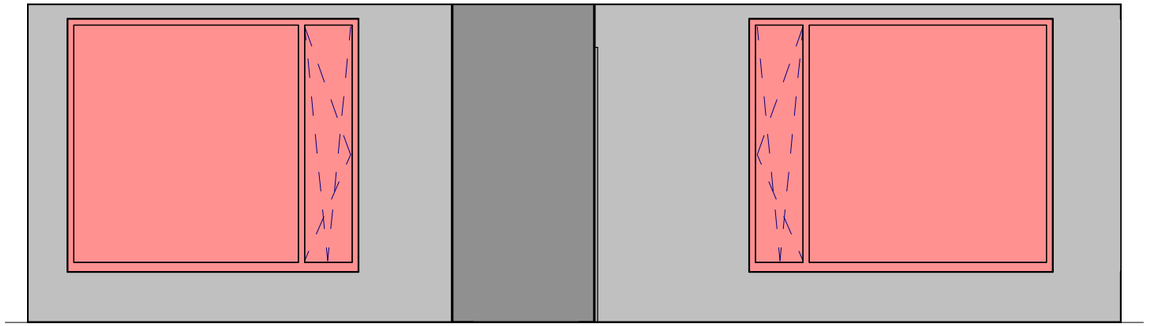
MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



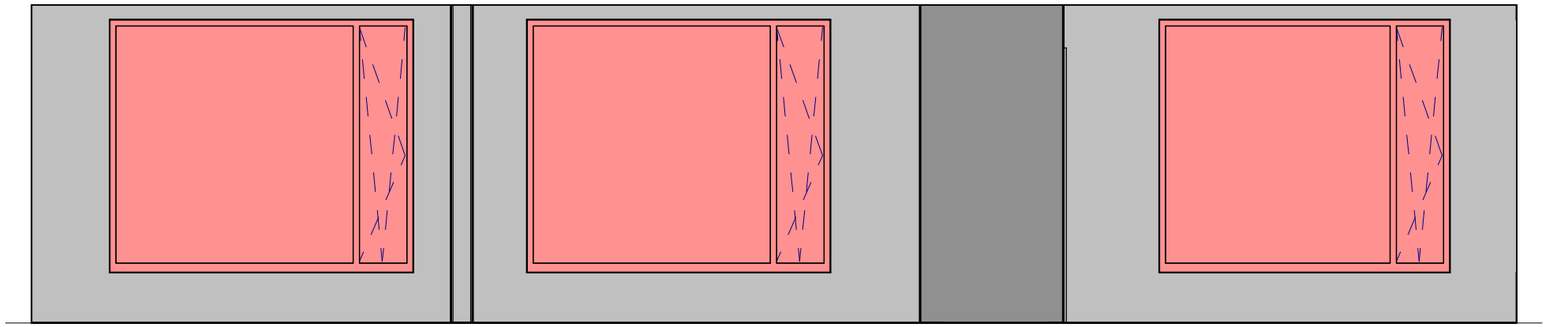
NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB



UNIT C1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	274.96 SF	48%	23.04
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	264.44 SF	46%	13.8
TOTAL	570.88 SF		39.12

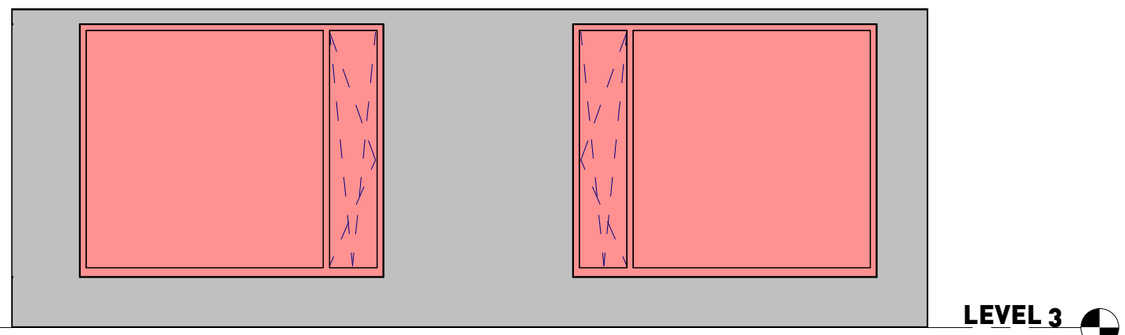
COMBINED STC = **39.12**



UNIT C2

	AREA	%	COMBINED STC
WALL AREA 1 (STC= 48)	235.54 SF	44%	21.12
WALL AREA 2 (STC=38)	31.66 SF	6%	2.28
WINDOW AREA (STC=30)	264.45 SF	50%	15
TOTAL	531.65 SF	100%	38.4

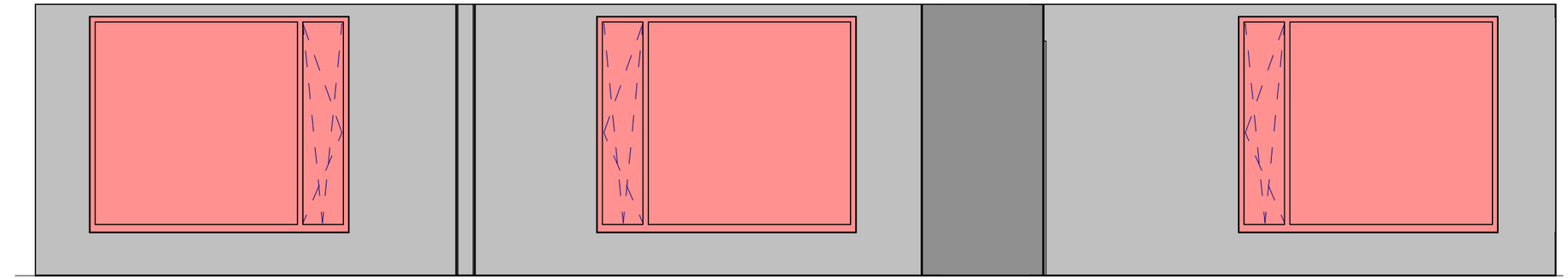
COMBINED STC = **38.4**



MIDTOWN WEST PARCEL 1

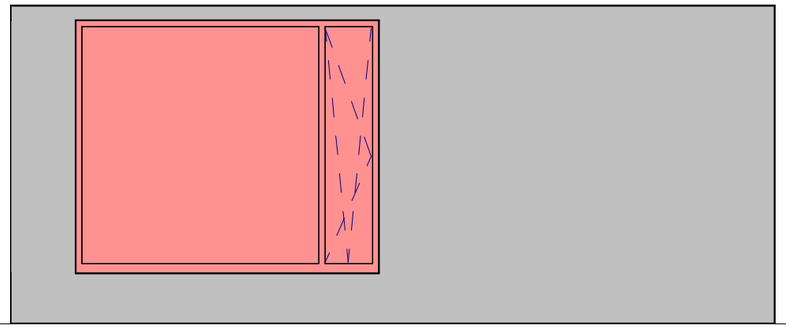
EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



LEVEL 3
25' - 8"

NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB

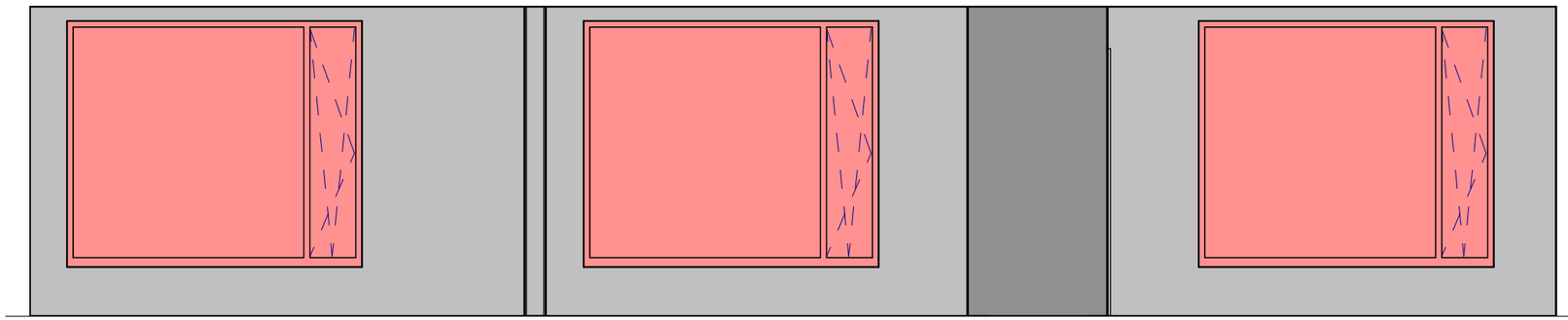


LEVEL 3
25' - 8"

UNIT C3

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	318.69 SF	56%	26.88
WALL AREA 2 (STC=38)	31.48 SF	6%	2.28
WINDOW AREA (STC=30)	213.33 SF	38%	11.4
TOTAL	563.5 SF	100%	40.56

COMBINED STC = **40.56**

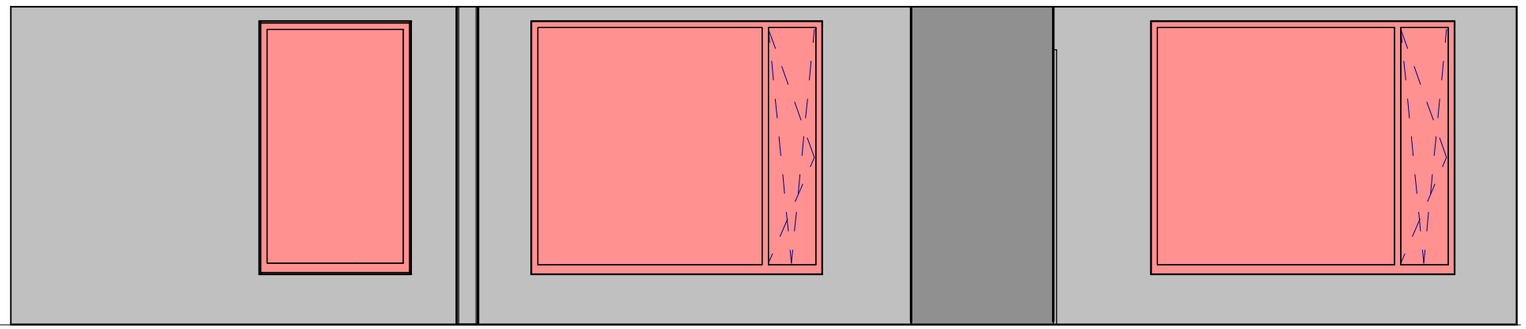


LEVEL 3
25' - 8"

UNIT C4

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	155.46 SF	45%	21.6
WALL AREA 2 (STC=38)	31.83 SF	9%	3.42
WINDOW AREA (STC=30)	160 SF	46%	13.8
TOTAL =	347.29 SF	100%	38.82

COMBINED STC = **38.82**



LEVEL 3
25' - 8"

UNIT C4.1

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	172.34 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	9%	3.42
WINDOW AREA (STC=30)	131.11 SF	40%	12
TOTAL	334.93 SF	100%	39.9

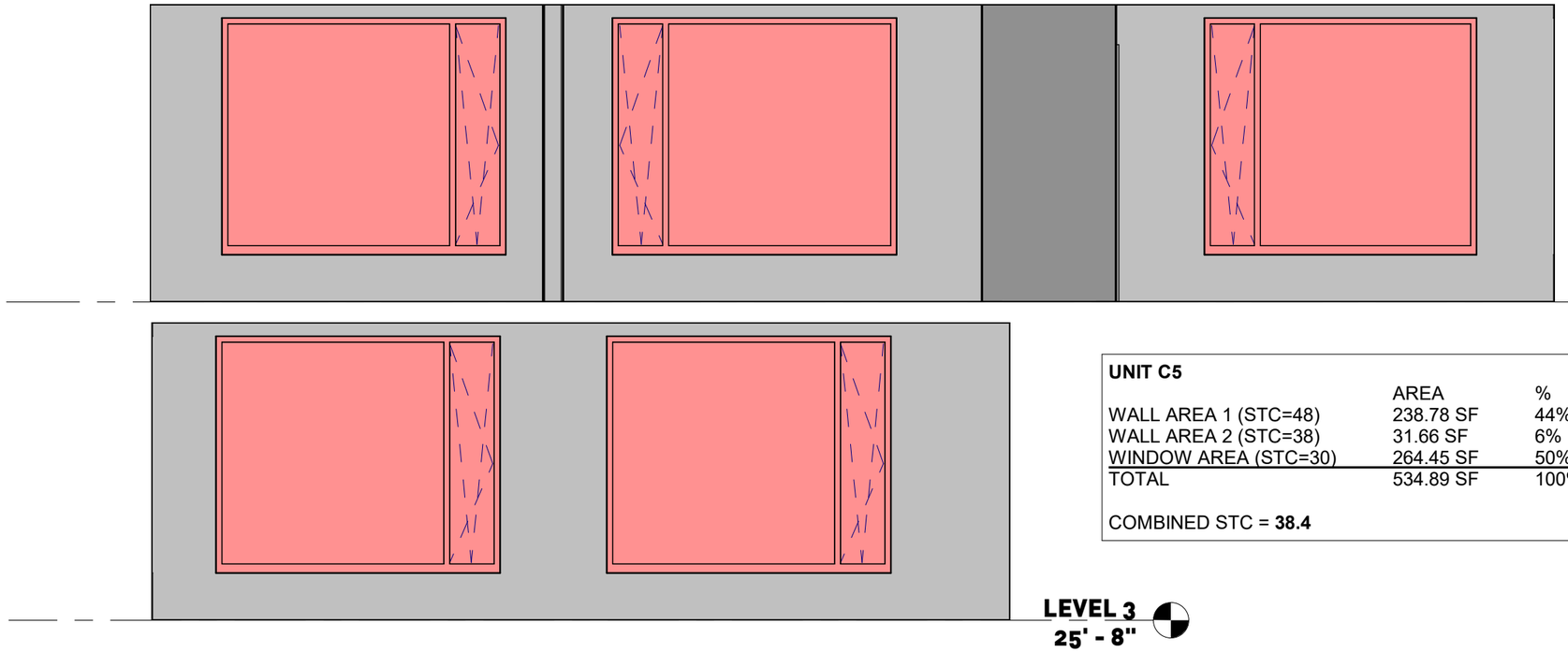
COMBINED STC = **39.9**

MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

MCINTOSH ARCHITECTURE
PORIS ASSOCIATES

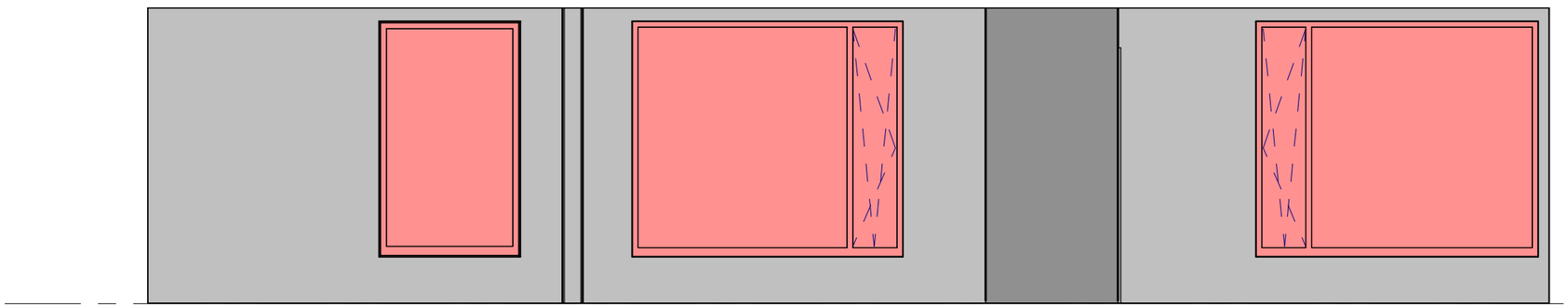
NOISE SOURCE SOUND LEVEL	74dB
REQUIRED STC RATING	32dB



UNIT C5

	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	238.78 SF	44%	21.12
WALL AREA 2 (STC=38)	31.66 SF	6%	2.28
WINDOW AREA (STC=30)	264.45 SF	50%	15
TOTAL	534.89 SF	100%	38.4

COMBINED STC = **38.4**



UNIT C6

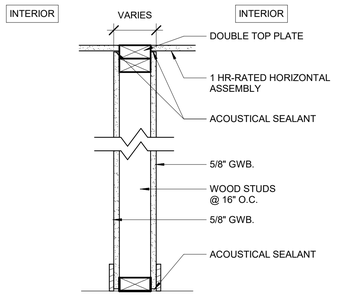
	AREA	%	COMBINED STC
WALL AREA 1 (STC=48)	170.85 SF	51%	24.48
WALL AREA 2 (STC=38)	31.48 SF	9%	3.42
WINDOW AREA (STC=30)	131.11 SF	39%	11.7
TOTAL	333.44 SF	100%	39.6

COMBINED STC = **39.6**

MIDTOWN WEST PARCEL 1

EXTERIOR STC RATINGS | 11/4/24 | 1/4" = 1'-0"

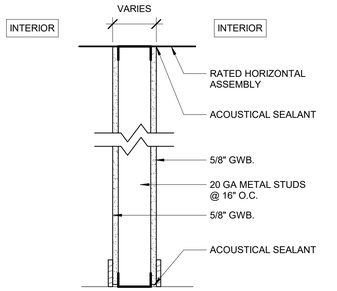
MCINTOSH ARCHITECTURE
PORIS ASSOCIATES



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
G.1	3 1/2"	4 3/4"	NON-RATED		
G.2	5 1/2"	6 3/4"	NON-RATED		
G.3	5 1/2"	6 3/4"	1 HR	U309	TYPE X GWB BOTH SIDES
G.4	5 1/2"	6 1/8"	NON-RATED		W/O GWB. ON ONE SIDE
G.5	3 1/2"	4 1/8"	NON-RATED		W/O GWB. ON ONE SIDE

CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

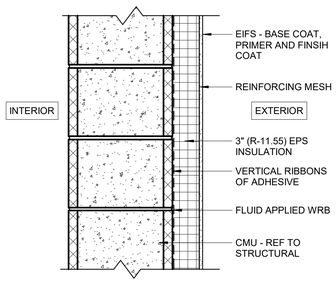
G WALL TYPE G - INTERIOR (STUD WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
I.1	3 5/8"	4 7/8"	NON-RATED		
I.2	6"	7 1/4"	NON-RATED		
I.3	8"	8 5/8"	NON-RATED		W/O GWB. ON ONE SIDE (ADJACENT TO CMU WALL)
I.4	2 1/2"	3 1/8"	NON-RATED		
I.5	3 5/8"	4 7/8"	NON-RATED		W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON ONE SIDE
I.6	6"	7 1/4"	NON-RATED		W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON ONE SIDE

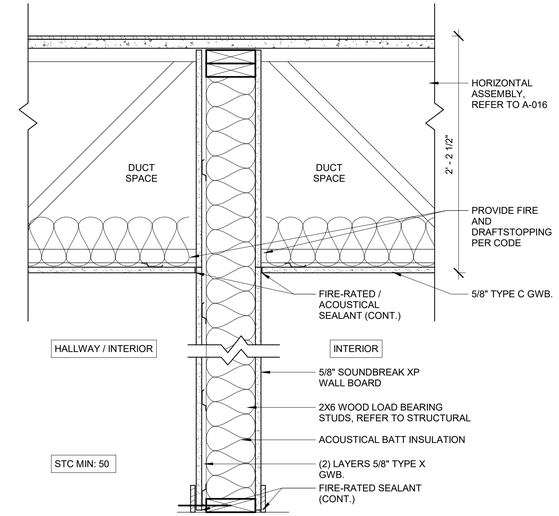
CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

I WALL TYPE I - INTERIOR NON-RATED (STUD WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION		CMU SIZE	PART WIDTH	INSUL.	FIRE RATING	UL LISTING	REMARKS
D.1		8"	11"	3"	1 HR	-	
D.2		12"	1'-3"	3"	2 HR	-	

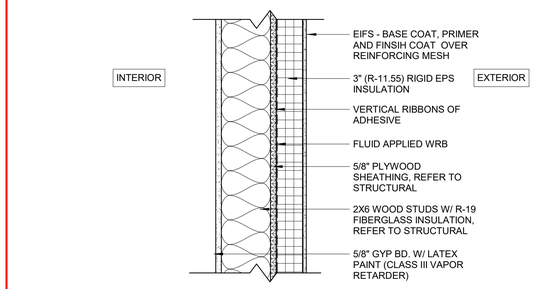
D WALL TYPE D - EXTERIOR (PRECAST AND EFIS)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
F	6"	7 7/8"	1 HR	UL #U473	
F.1	6"	7 1/4"	NON-RATED	-	W/O GWB. ON SHAFT SIDE (L.1 OR L.2 ABUTS WALL)
F.2	3 5/8"	7 1/4"	NON-RATED	-	W/O GWB. ON SHAFT SIDE (L.1 OR L.2 ABUTS WALL)
F.3	6"	7 7/8"	1 HR	UL #U473	W/ TB-01 THIN BRICK ON CEMENT BOARD IN LIEU OF GWB. ON CORRIDOR SIDE

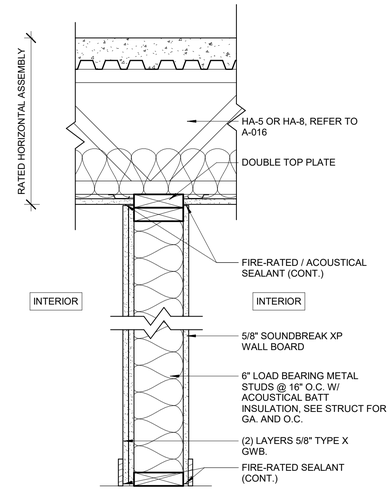
CEMENT BACKER BOARD IN LIEU OF GWB. AT ALL WALLS DESIGNATED TO RECEIVE TILE

F WALL TYPE F- INTERIOR 1 HR-RATED (HALLWAY/DEMISING STUD WALL)
1 1/2" = 1'-0"



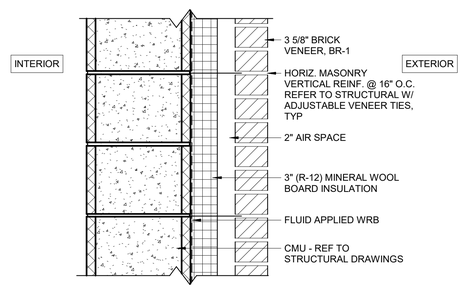
	FLOOR PLAN DESIGNATION	STUD SIZE	RIGID INSUL.	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
Wall 1	C.1	5 1/2"	3"	10 1/8"	NON-RATED		2X4 WD STUDS AT HEAD, SILL AND JAMB, REFER TO A-700 DETAILS
	C.3	5 1/2"	3"	10 1/8"	1 HR	UL-	2X4 WD STUDS AT HEAD, SILL AND JAMB, REFER TO A-700 DETAILS

C WALL TYPE C - EXTERIOR (STUD AND EFIS)
1 1/2" = 1'-0"



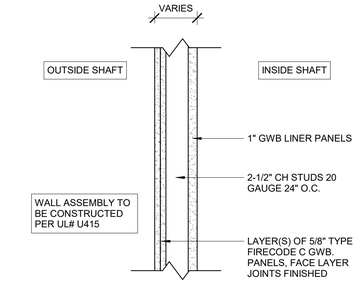
FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
H	6"	7 7/8"	1 HR	UL #U473	
H.2	6"	7 7/8"	1 HR	UL #U473	(EXTERIOR WALL) W/ 5/8" DENSELEMENT BARRIER SYSTEM 1/ INTEGRAL WEATHER RESISTANCE BARRIER IN LIEU OF 5/8" TYPE X GYP, AND R-19 BATT INSULATION IN CAVITY

H WALL TYPE H - INTERIOR 1 HR-RATED (STUD WALL)
1 1/2" = 1'-0"



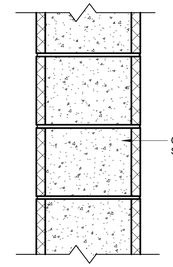
FLOOR PLAN DESIGNATION	CMU SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
B	8"	1' 4 1/4"	-	-	
B.2	12"	1' 8 1/4"	-	-	

B WALL TYPE B - EXTERIOR 2 HR- RATED (BRICK AND PRECAST WALL)
1 1/2" = 1'-0"



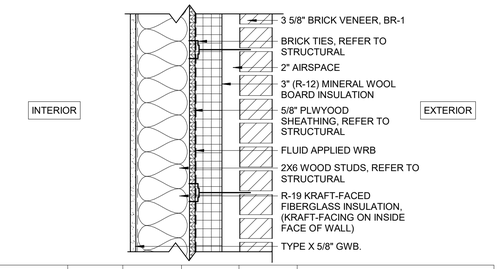
FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
S.1	2 1/2"	4 1/8"	1 HR	UL #415 SYSTEM A	W/ (1) LAYER FIRECODE C GYP
S.2	2 1/2"	4 3/4"	2 HR	UL #415 SYSTEM B	W/ (2) LAYERS FIRECODE C GYP
S.3	6"	8 1/4"	2 HR	UL #415 SYSTEM B	W/ (2) LAYERS FIRECODE C GYP

S WALL TYPE S- INTERIOR FIRE RATED (SHAFT WALL)
1 1/2" = 1'-0"



FLOOR PLAN DESIGNATION	CONC. WIDTH	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
E.1	7 5/8"	7 5/8"	2 HR	-	8" CMU WALL
E.2	11 5/8"	11 5/8"	2 HR	-	12" CMU WALL
E.3	7 5/8"	9 1/8"	2 HR	-	8" CMU WALL, 7/8" FURRING, 5/8" GWB. (ON UNIT SIDE)
E.4	11 5/8"	1'-1 1/8"	2 HR	-	12" CMU WALL, 7/8" FURRING, 5/8" GWB. (ON UNIT SIDE)
E.5	7 5/8"	11 3/4"	2 HR	-	8" CMU WALL, 2X4 WD STUDS, SOUND INSULATION, 5/8" GWB. (ON UNIT SIDE)
E.6	11 5/8"	1'-3 3/4"	2 HR	-	12" CMU WALL, 2X4 WD STUDS, SOUND INSULATION, 5/8" GWB. (ON UNIT SIDE)

E WALL TYPE E - INTERIOR (PRECAST)
1 1/2" = 1'-0"



	FLOOR PLAN DESIGNATION	STUD SIZE	PART WIDTH	FIRE RATING	UL LISTING	REMARKS
Wall 1	A.1	5 1/2"	1' - 3 3/8"	NON-RATED	-	-
Wall 2	A.2	5 1/2"	6 3/4"	NON-RATED	-	W/O MINERAL WOOL BOARD INSULATION AND BRICK
	A.3	5 1/2"	1' - 3 3/8"	1 HR	UL-	
	A.4	6"	1' - 3 7/8"	NON-RATED	-	SAME AS A BUT W/ 6" METAL STUDS IN LIEU OF WOOD STUDS & 5/8" DENSE ELEMENT BARRIER SYSTEM W/ INTEGRAL WRB

A WALL TYPE A - EXTERIOR (BRICK AND STUD WALL)
1 1/2" = 1'-0"

MCINTOSH PORIS ARCHITECTURE ASSOCIATES
INTERIORS
PLANNING

36801 Woodward Avenue
Suite 200
Birmingham, Michigan
48009
T - (248) 258-9346
F - (248) 258-0967
E - mp@mcintoshporis.com

ISSUED FOR	DATE
1 PERMIT SET	10.14.22
2 100%CD	11.11.22
3 OWNER REVIEW	7.30.24

PROJECT

MIDTOWN WEST PARCEL 1

900 Tuscola Street
Detroit, MI.

SHEET

WALL TYPES

STAMP

NOT FOR CONSTRUCTION

SCALE

1 1/2" = 1'-0"

PROJECT NUMBER

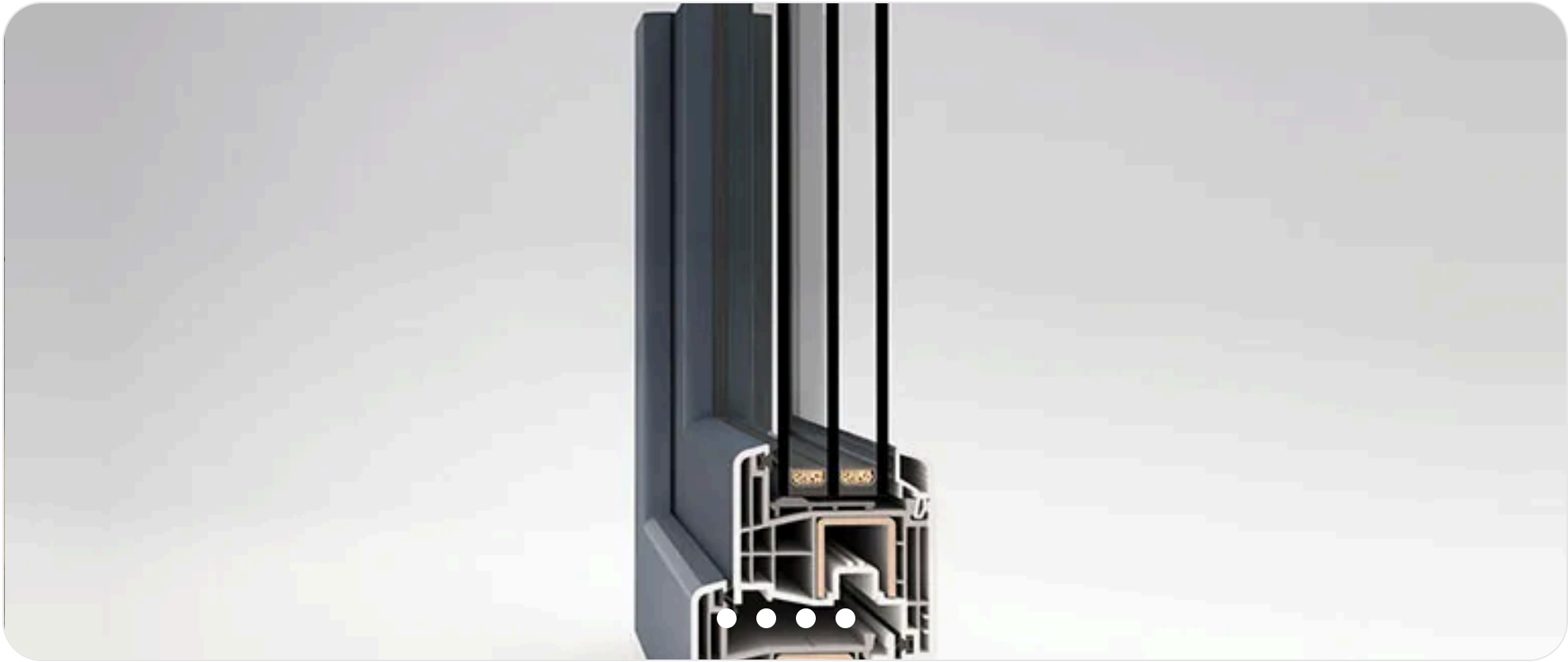
2025.00

SHEET NUMBER

A-015

Supera CW

Windows



- Ideal for Low- to Mid-rise projects
- Suitable for multi-family, hospitality, institutional & retrofit projects
- High-performance, low cost
- Improved insulation, reduced energy consumption, enhanced security

Variety of design options

PERFORMANCE OVERVIEW

Built to be the most energy efficient

Selecting windows with better performance is crucial as they offer improved energy efficiency, noise reduction, and security. This investment leads to lower energy bills, a more comfortable environment, added peace of mind.

Supera CW | Fixed | Casement | Hopper | Tilt & Turn

Performance Grade
CW40, CW50, CW60, CW70

Design Pressure
±40.10 psf – ±70.18 psf

Air Infiltration
0.10 cfm/ft2

Water Penetration
12.11 psf

NFRC Values

PHIUS Values

Sound Abatement

STC	31 – 47
OITC	20 – 37

Maximum Sizes

GET STARTED TODAY

DESIGN & ACCESSORIES

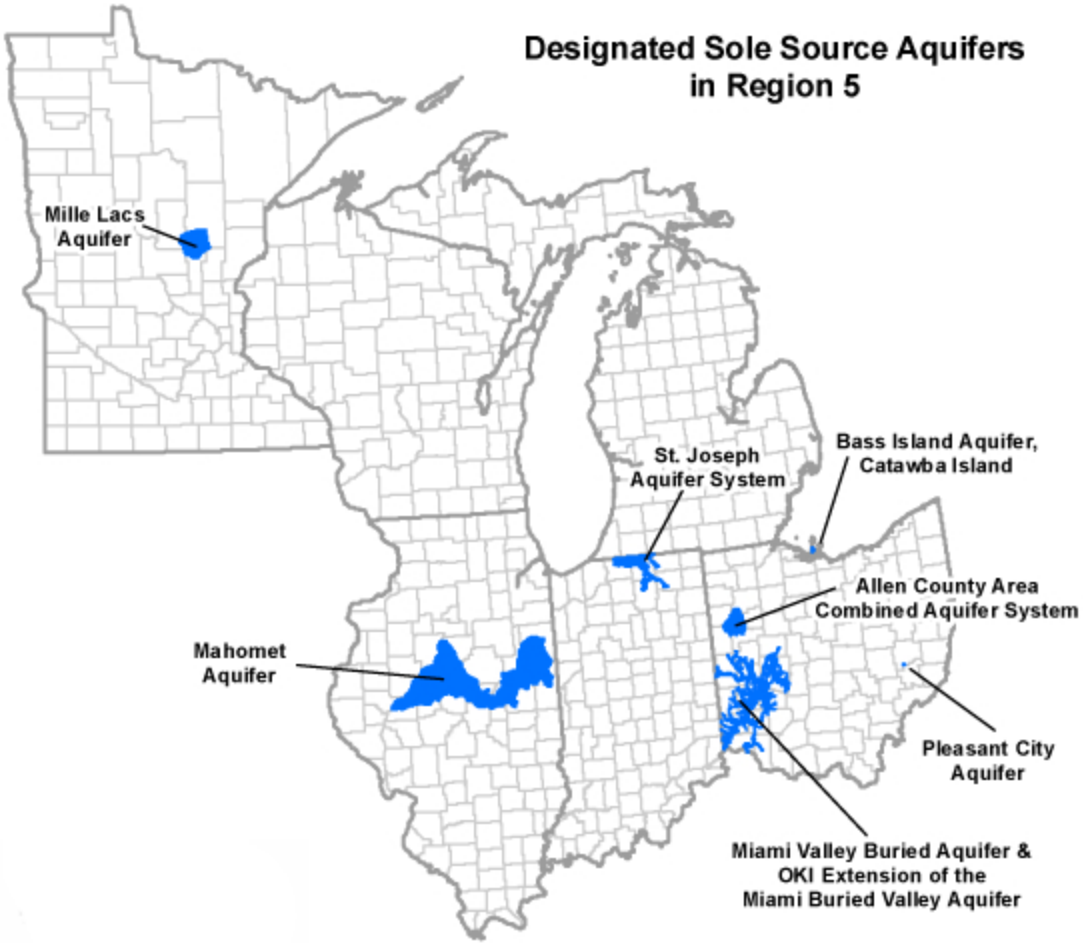
Mix & match as you like

Having a variety of applicable design options and accessories is important in creating a space that is both functional and aesthetically pleasing. With a range of options, you can customize your space to fit its intended purpose and personal preferences. The right accessories can complement the overall design and create a cohesive look, while a variety of design options allows you to create a space that meets your needs.

Colors | Glass | Handles | Grids | Screens | Limiters | Ext Trim | Addtl Accy | Installation

ANODIZED SILVER

WARM STONE


Designated Sole Source Aquifers
in Region 5
Mille Lacs
Aquifer
St. Joseph
Aquifer System
Bass Island Aquifer,
Catawba Island
Allen County Area
Combined Aquifer System
Mahomet
Aquifer
Pleasant City
Aquifer
Miami Valley Buried Aquifer &
OKI Extension of the
Miami Buried Valley Aquifer

U.S. Fish and Wildlife Service

National Wetlands Inventory

900 Tuscola Street

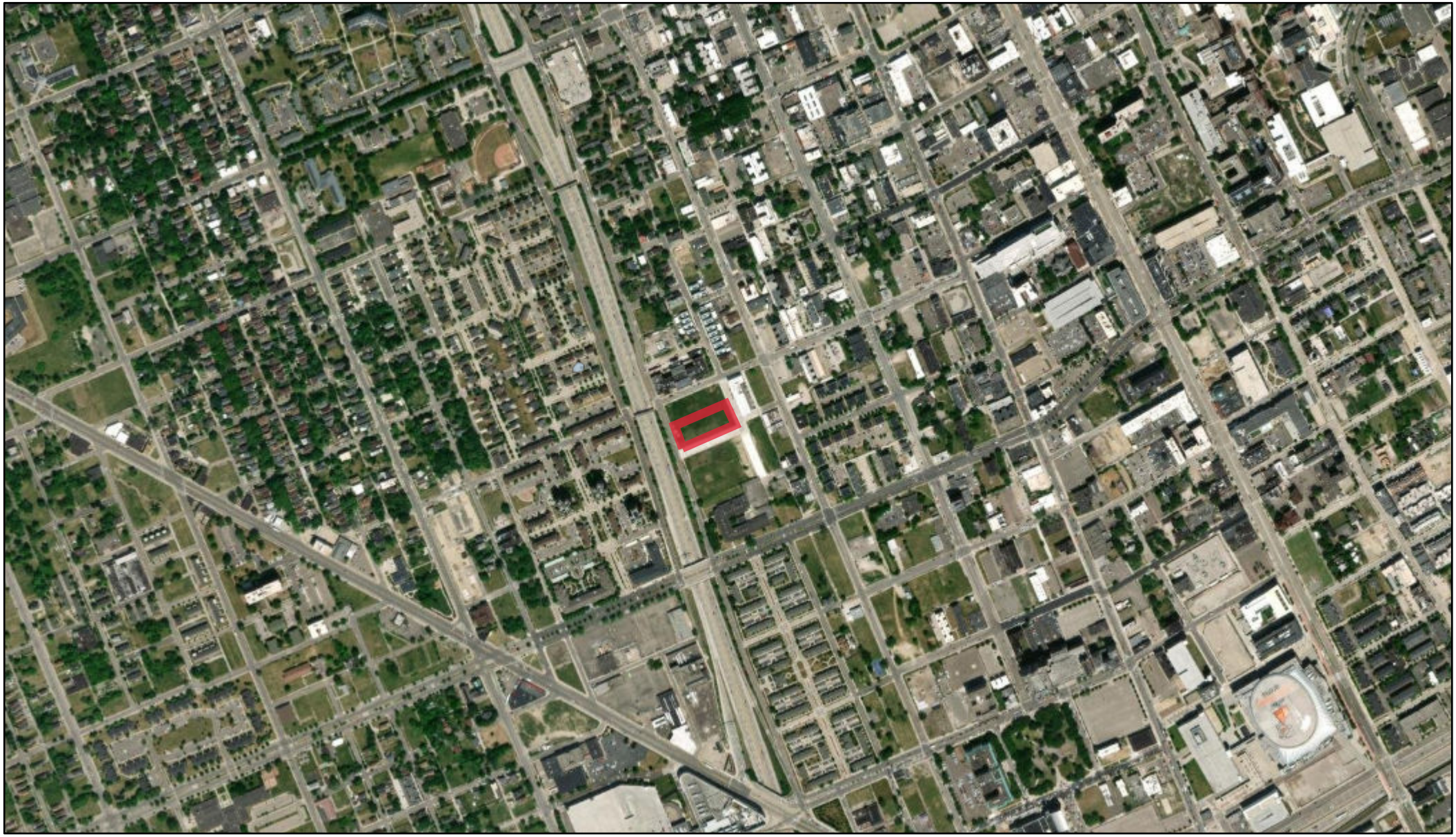
February 2, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- 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.

Wetlands Map Viewer



October 24, 2024

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

Subject Property

1:12,771

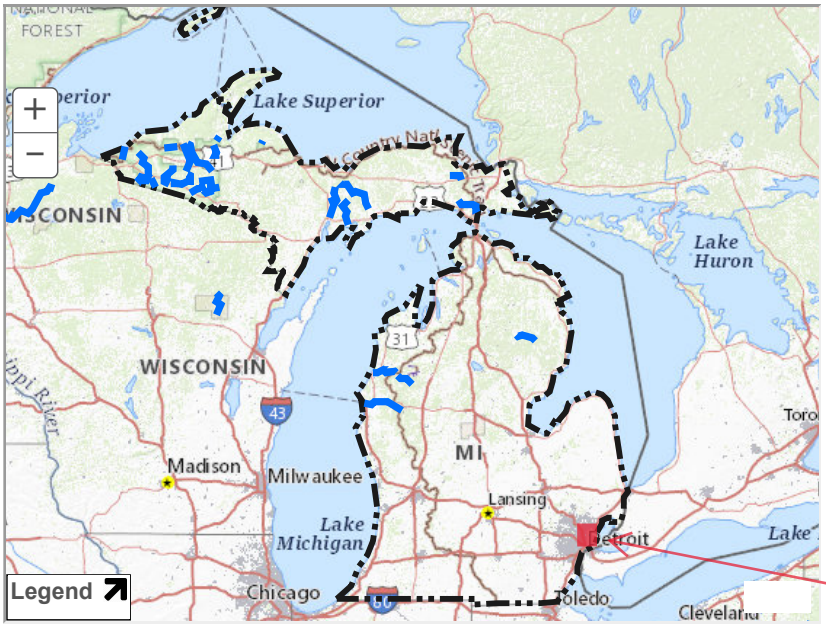
0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

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

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.



+ View larger map

Choose A State Go

Choose A River Go

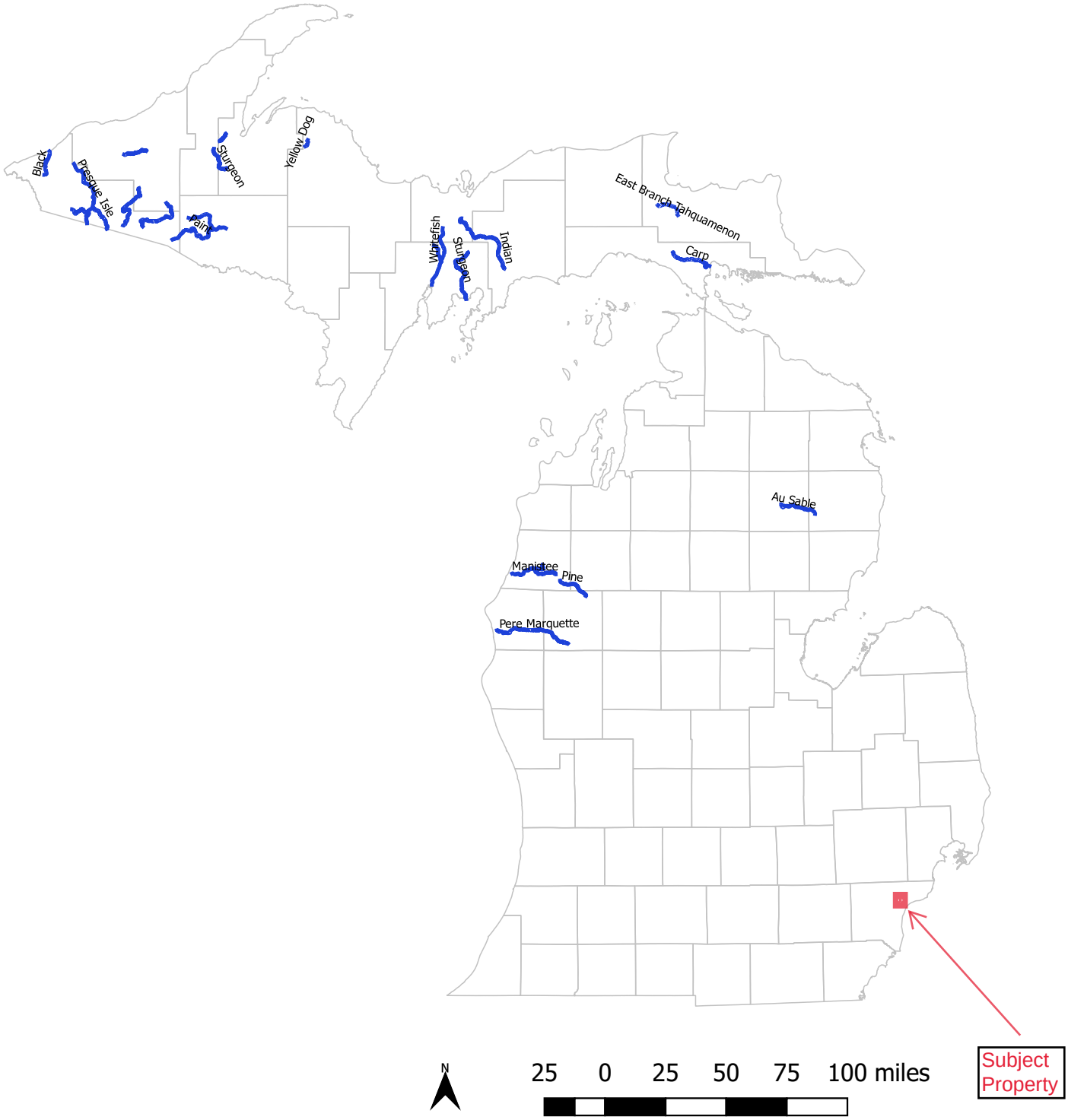
Nourished by the fertile soils of the region, rivers of the Midwest explode with life, from great avian migrations to ancient fishes.

Subject Property

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


Rivers on Flickr

Michigan Wild and Scenic Rivers



Legend

National Wild and Scenic Rivers System

Source: National Wild and Scenic Rivers System Website (https://www.rivers.gov/mapping-gis.php).

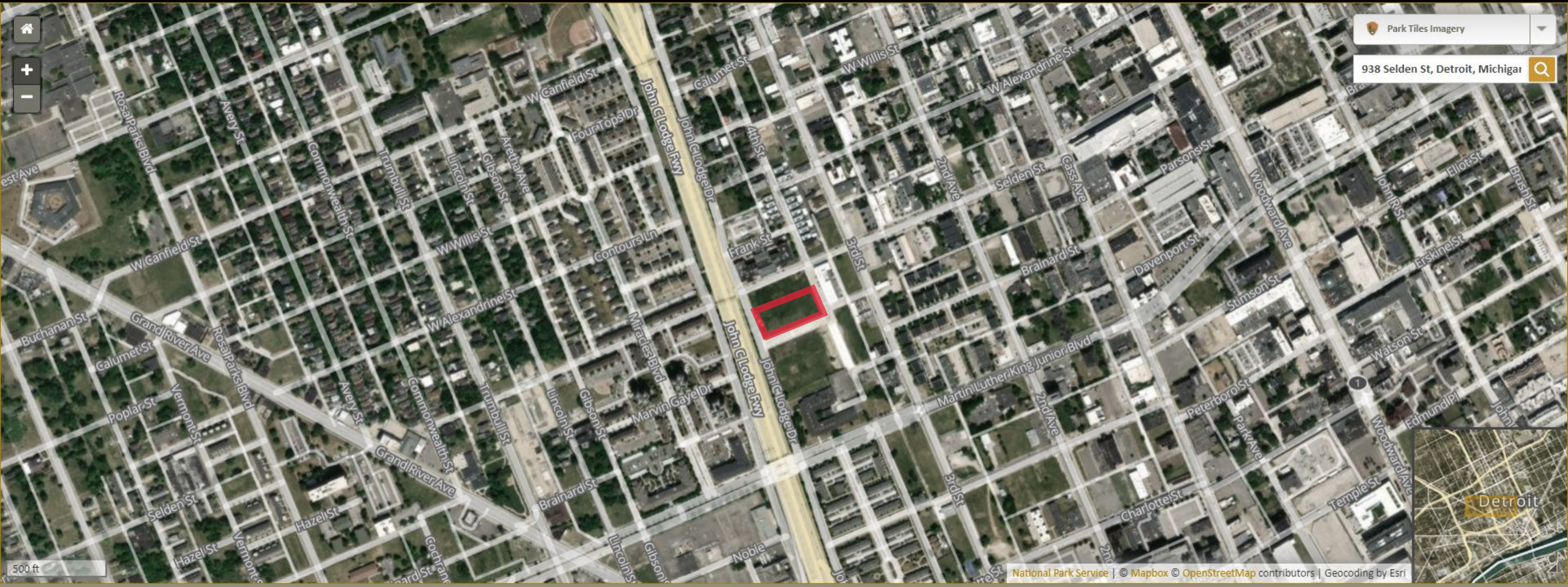
MSHDA
MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY

4/2018

Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

National Park Service
U.S. Department of the Interior



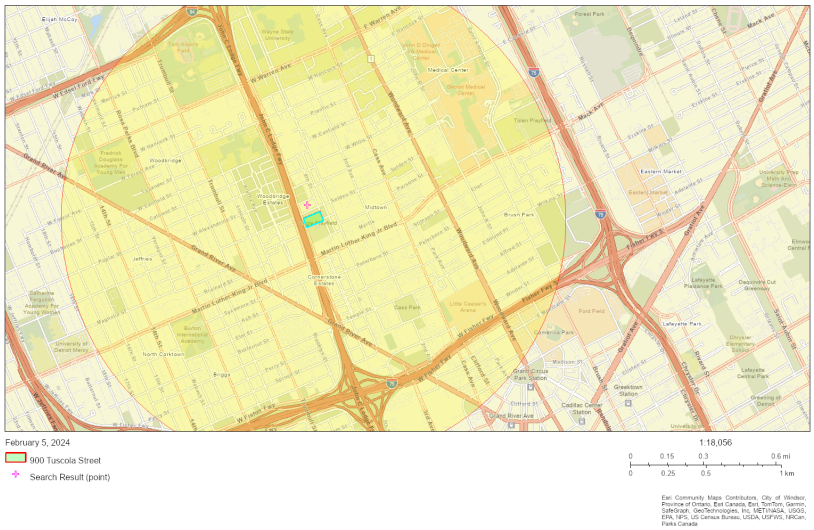
EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Detroit, MI

1 mile Ring around the Area
Population: 20,592
Area in square miles: 3.37

A3 Landscape



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	90%
Spanish	1%
Other Indo-European	3%
Chinese (including Mandarin, Cantonese)	1%
Other Asian and Pacific Island	1%
Arabic	1%
Other and Unspecified	1%
Total Non-English	10%

COMMUNITY INFORMATION

- Low income: 62 percent
- People of color: 69 percent
- Less than high school education: 15 percent
- Limited English households: 2 percent
- Unemployment: 10 percent
- Persons with disabilities: 21 percent
- Male: 51 percent
- Female: 49 percent
- 57 years — Average life expectancy
- $31,806 — Per capita income
- Number of households: 9,858
- Owner occupied: 15 percent

BREAKDOWN BY RACE

- White: 31%
- Black: 55%
- American Indian: 0%
- Asian: 8%
- Hawaiian/Pacific Islander: 0%
- Other race: 0%
- Two or more races: 3%
- Hispanic: 3%

BREAKDOWN BY AGE

From Ages 1 to 4	4%
From Ages 1 to 18	15%
From Ages 18 and up	85%
From Ages 65 and up	13%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	27%
Speak Other Indo-European Languages	21%
Speak Asian-Pacific Island Languages	42%
Speak Other Languages	10%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

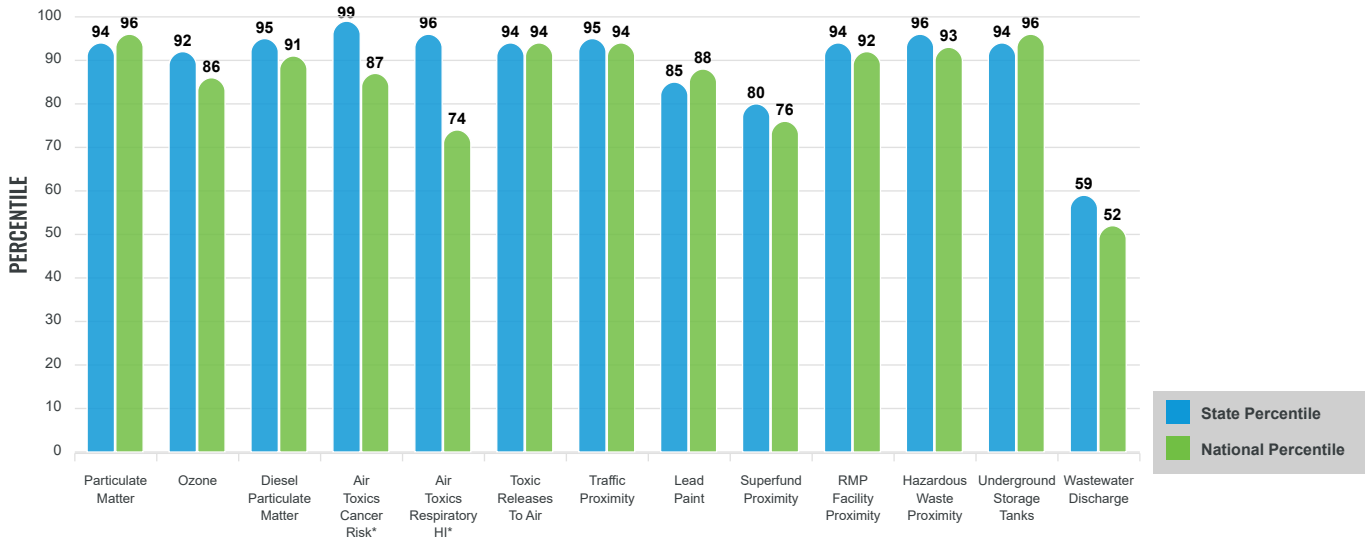
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

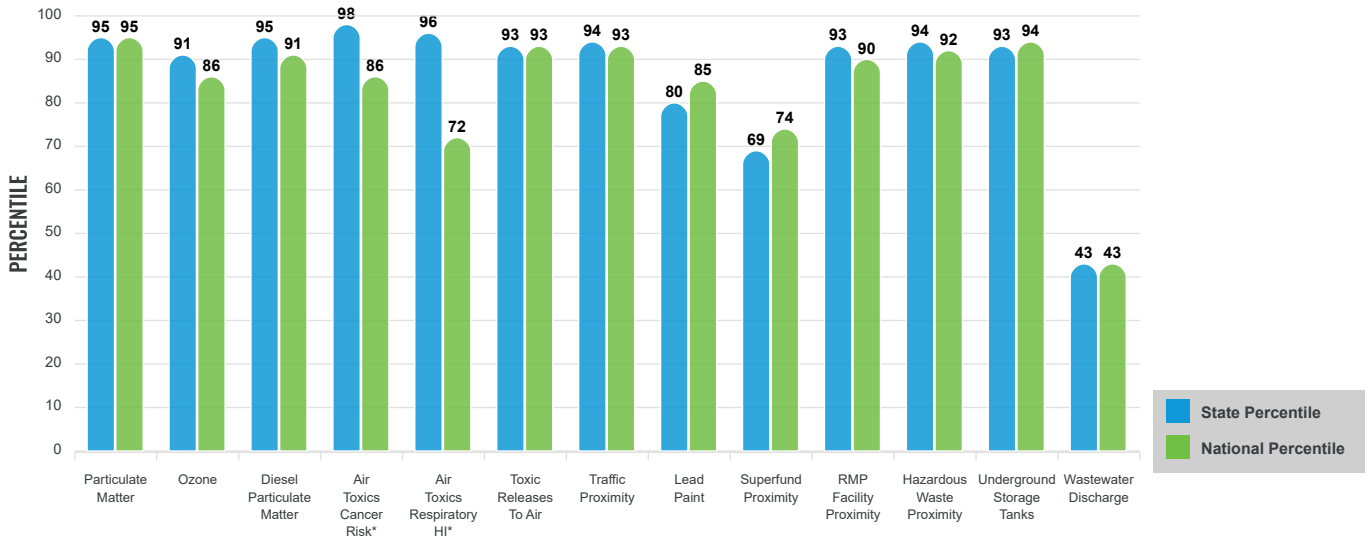
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring around the Area

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m^3)	10.6	8.51	98	8.08	97
Ozone (ppb)	62.7	60	74	61.6	61
Diesel Particulate Matter (µg/m^3)	0.381	0.183	99	0.261	81
Air Toxics Cancer Risk* (lifetime risk per million)	29	19	14	25	5
Air Toxics Respiratory HI*	0.3	0.2	88	0.31	31
Toxic Releases to Air	4,700	2,500	90	4,600	85
Traffic Proximity (daily traffic count/distance to road)	620	120	97	210	92
Lead Paint (% Pre-1960 Housing)	0.48	0.38	65	0.3	72
Superfund Proximity (site count/km distance)	0.049	0.15	37	0.13	42
RMP Facility Proximity (facility count/km distance)	0.71	0.31	87	0.43	82
Hazardous Waste Proximity (facility count/km distance)	4.7	1.1	98	1.9	88
Underground Storage Tanks (count/km^2)	37	8	96	3.9	98
Wastewater Discharge (toxicity-weighted concentration/m distance)	1.9E-05	0.13	20	22	20
SOCIOECONOMIC INDICATORS					
Demographic Index	65%	28%	90	35%	87
Supplemental Demographic Index	23%	14%	88	14%	85
People of Color	69%	26%	88	39%	77
Low Income	62%	31%	89	31%	90
Unemployment Rate	10%	7%	79	6%	82
Limited English Speaking Households	2%	2%	81	5%	63
Less Than High School Education	15%	9%	81	12%	71
Under Age 5	4%	5%	48	6%	46
Over Age 64	13%	18%	33	17%	37
Low Life Expectancy	17%	20%	14	20%	21

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	3
Water Dischargers	3
Air Pollution	4
Brownfields	13
Toxic Release Inventory	2

Other community features within defined area:

Schools	10
Hospitals	10
Places of Worship	11

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	No

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for 1 mile Ring around the Area

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	17%	20%	14	20%	21
Heart Disease	7.4	6.6	68	6.1	74
Asthma	15.3	11.6	92	10	99
Cancer	4.5	6.6	7	6.1	16
Persons with Disabilities	20.8%	14.6%	85	13.4%	88

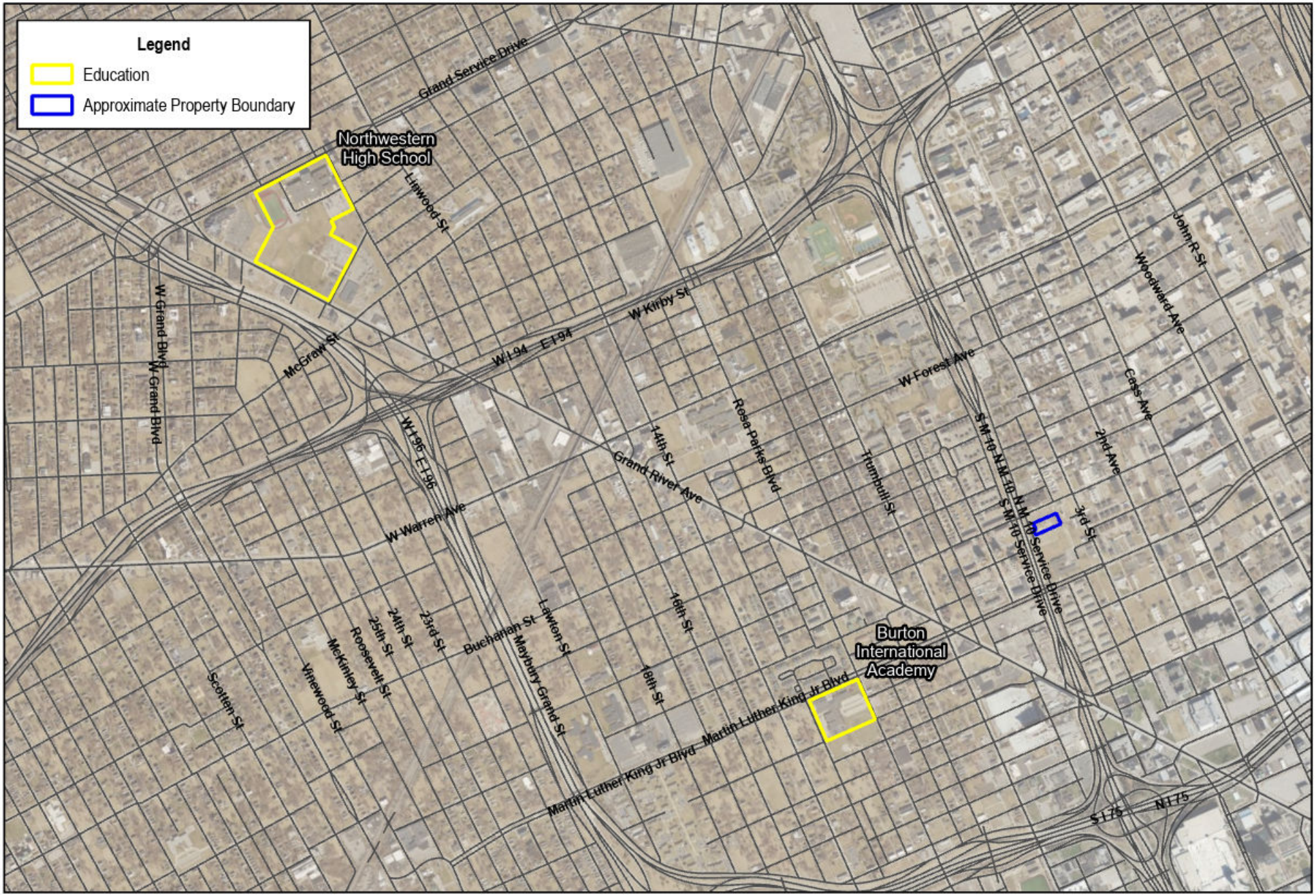
CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	1%	7%	18	12%	17
Wildfire Risk	0%	0%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	19%	14%	72	14%	72
Lack of Health Insurance	6%	5%	64	9%	44
Housing Burden	Yes	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for 1 mile Ring around the Area



Service Layer Credits: Michigan_imagery_public:

900 Tuscola Street

Detroit, MI

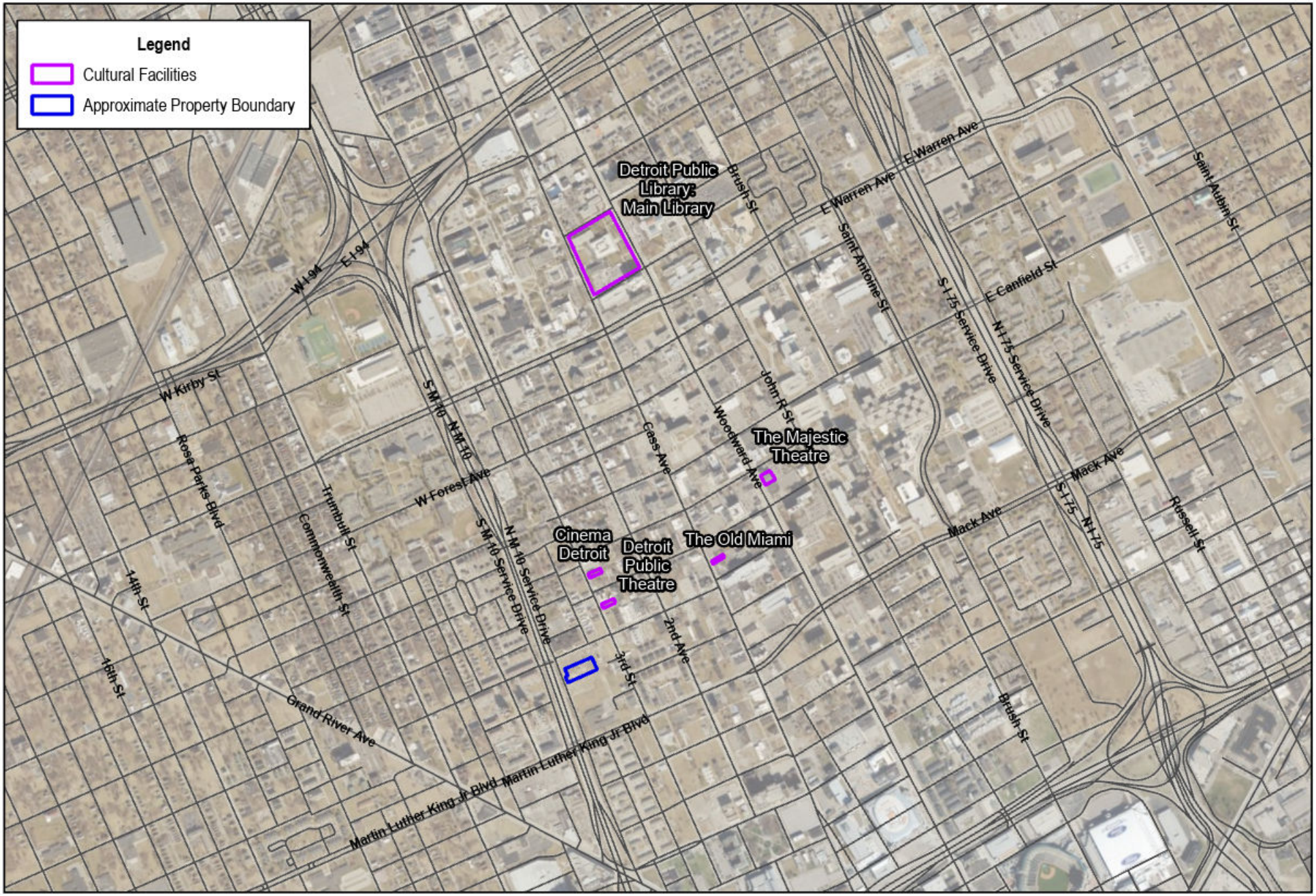
0 0.28 0.55 1.1 Miles

N

ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 19, 2023, ASTI Project 12-10595

EA Factors - Education



Service Layer Credits: Michigan_imagery_public;

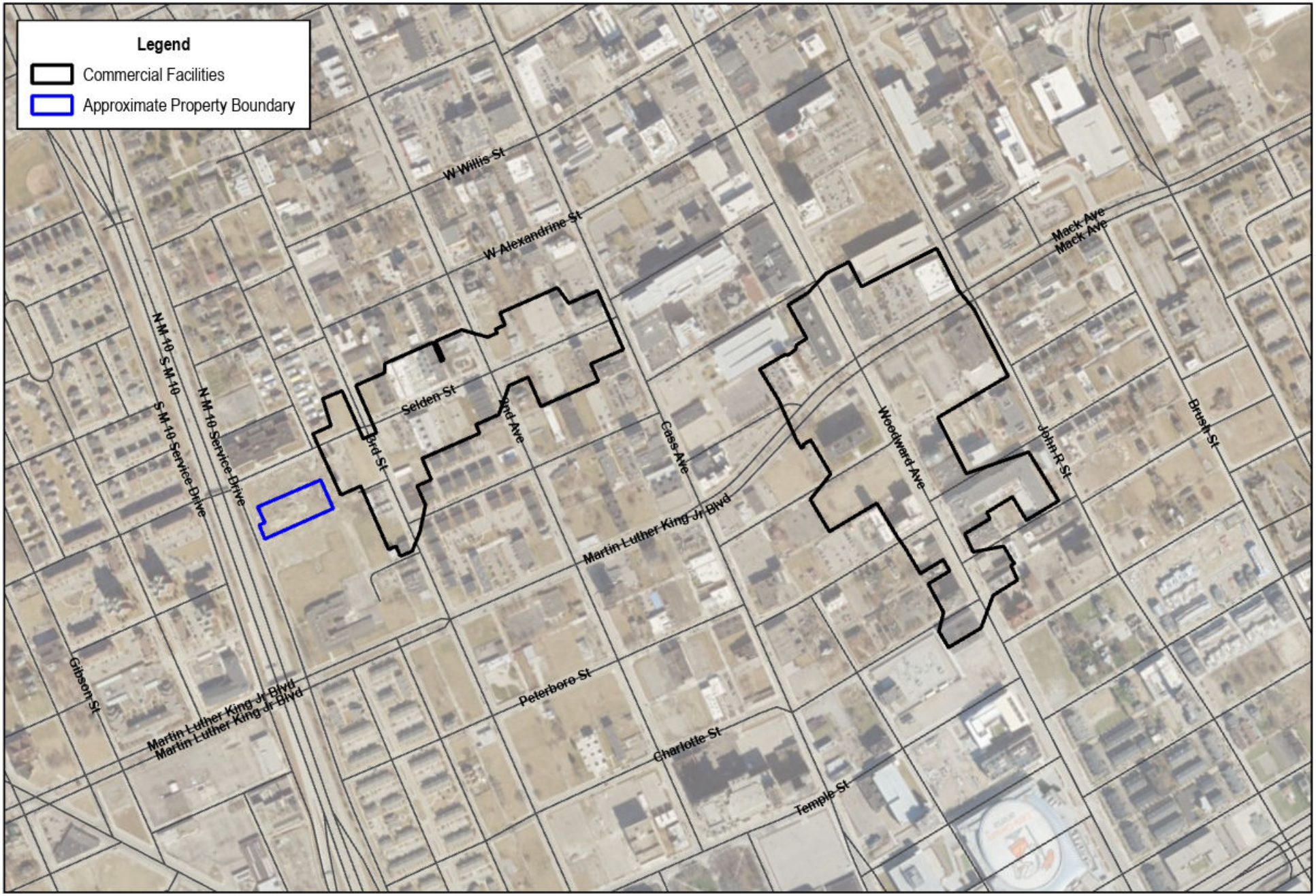
900 Tuscola Street

Detroit, MI

ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 19, 2023, ASTI Project 12-10595

EA Factors - Cultural Facilities



Service Layer Credits: Michigan_imagery_public:

900 Tuscola Street

Detroit, MI

0 0.1 0.2 0.4 Miles

N

ASTI Environmental

Created for: PDH Parcel 1, LLC
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EA Factors - Commercial Facilities

Service Layer Credits: Michigan_imagery_public:

900 Tuscola Street

Detroit, MI

Created for: PDH Parcel 1, LLC
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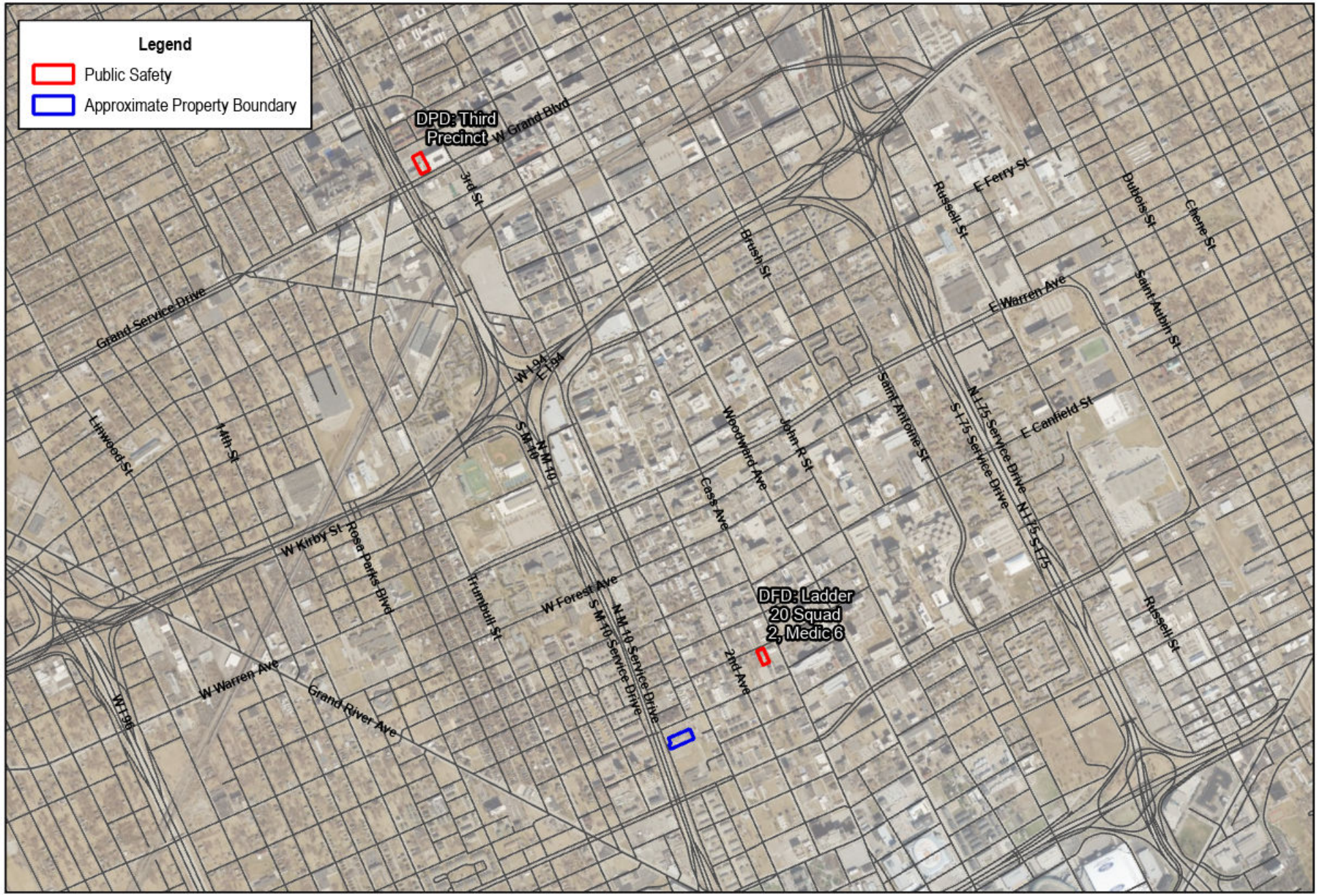
EA Factors - Healthcare and Social Services



900 Tuscola Street

Detroit, MI

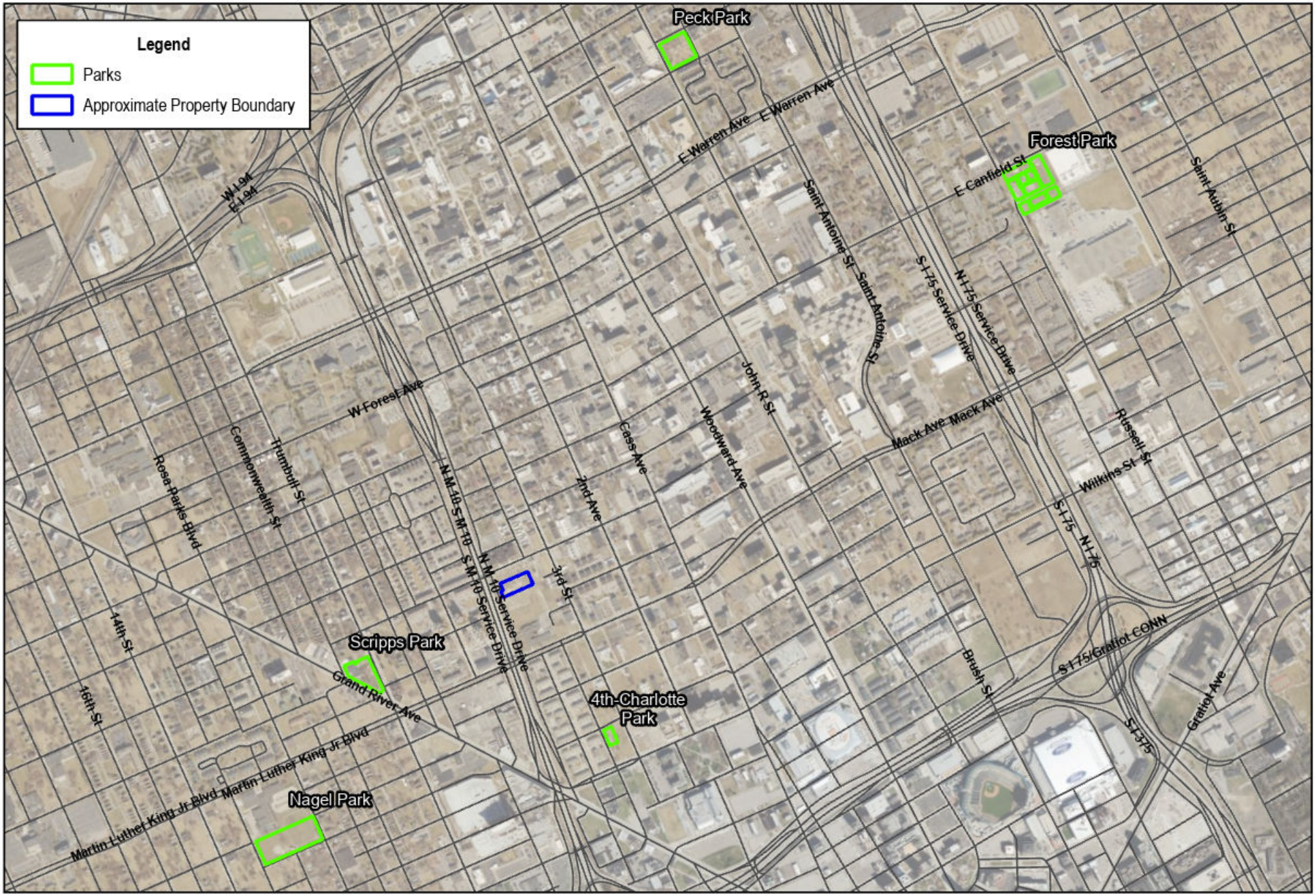
0 0.3 0.6 1.2 Miles

N

ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 19, 2023, ASTI Project 12-10595

EA Factors - Public Safety



Service Layer Credits: Michigan_imagery_public:

900 Tuscola Street

Detroit, MI

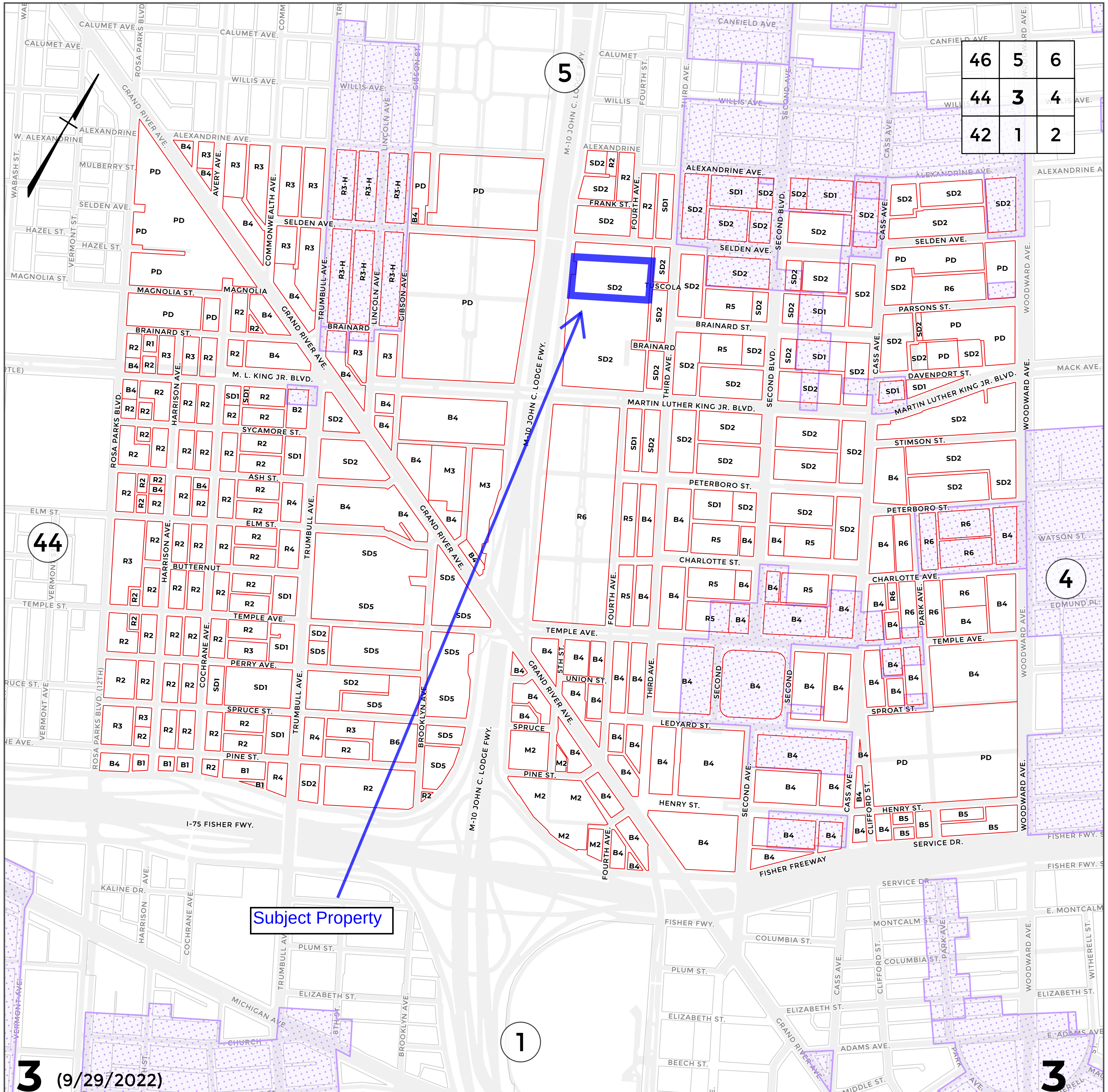
0 0.23 0.45 0.9 Miles

N

ASTI Environmental

Created for: PDH Parcel 1, LLC
Created by: RMH, February 19, 2023, ASTI Project 12-10595

EA Factors - Parks



46 5 6
44 3 4
42 1 2
Subject Property
M-10 JOHN C. LODGE FWY.
MARTIN LUTHER KING JR. BLVD.
GRAND RIVER AVE.
TEMPLE AVE.
I-75 FISHER FWY.
WOODWARD AVE.
3 (9/29/2022)
3

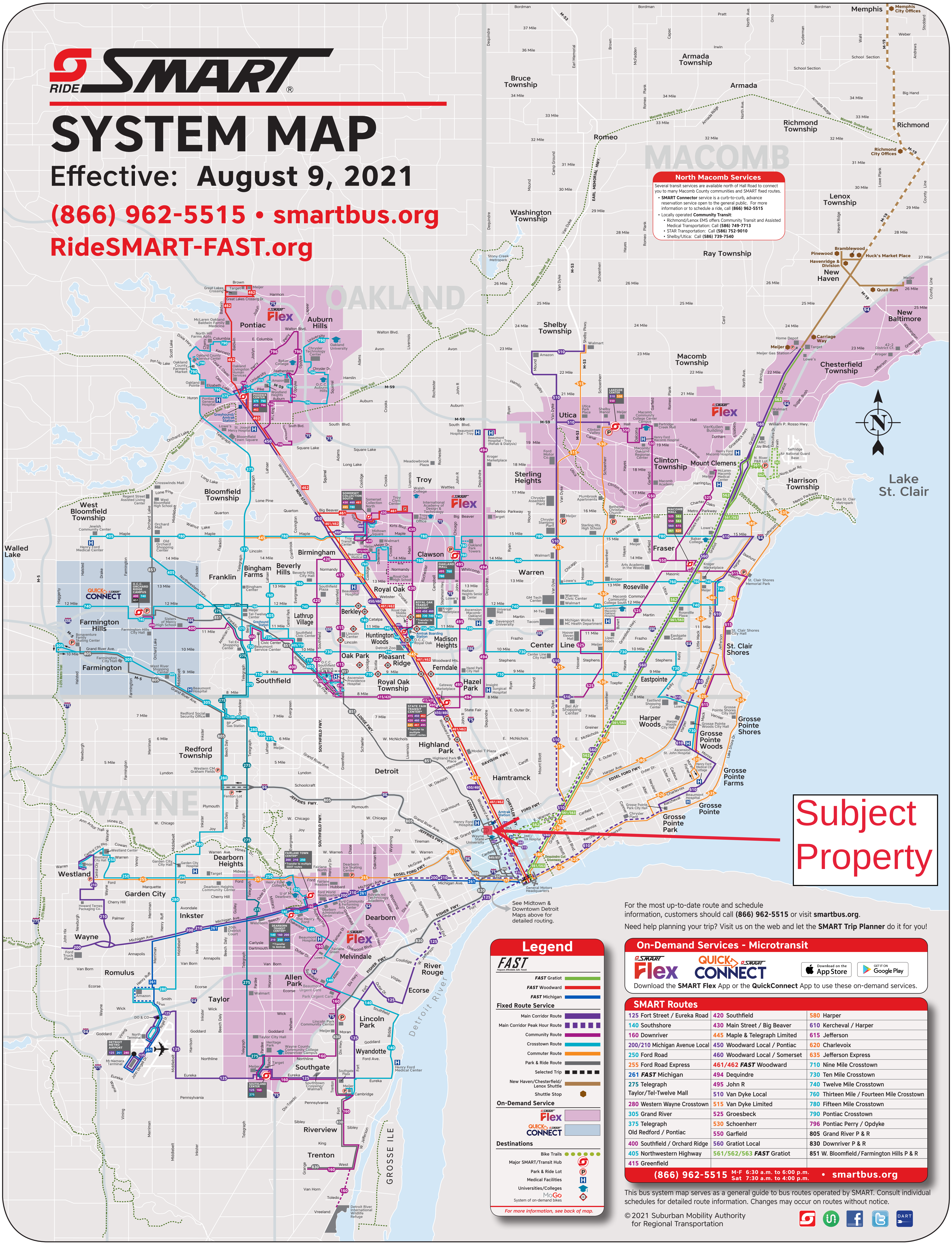
SMART SYSTEM MAP

RIDE SMART®

Effective: August 9, 2021

(866) 962-5515 • smartbus.org

RideSMART-FAST.org



North Macomb Services

Several transit services are available north of Hall Road to connect you to many Macomb County communities and SMART fixed routes.

- **SMART Connector** service is a curb-to-curb, advance reservation service open to the general public. For more information or to schedule a ride, call **(866) 962-5515**
- Locally operated **Community Transit**:
  - Richmond/Lenox EMS offers Community Transit and Assisted Medical Transportation: Call **(586) 749-7713**
  - STAR Transportation: Call **(586) 752-9010**
  - Shelby/Utica: Call **(586) 739-7540**

Subject Property

For the most up-to-date route and schedule information, customers should call **(866) 962-5515** or visit **smartbus.org**.

Need help planning your trip? Visit us on the web and let the **SMART Trip Planner** do it for you!

Legend

FAST — Frequent. Affordable. Safe. Transit.

- *FAST* Gratiot
- *FAST* Woodward
- *FAST* Michigan

Fixed Route Service

- Main Corridor Route
- Main Corridor Peak Hour Route
- Community Route
- Crosstown Route
- Commuter Route
- Park & Ride Route
- Selected Trip
- New Haven/Chesterfield/Lenox Shuttle
- Shuttle Stop

On-Demand Service

- SMART Flex
- QuickConnect SMART

Destinations

- Bike Trails
- Major SMART/Transit Hub
- Park & Ride Lot
- Medical Facilities
- Universities/Colleges
- MoGo System of on-demand bikes

For more information, see back of map.

On-Demand Services - Microtransit

SMART Flex | QuickConnect SMART | Download on the App Store | Get it on Google Play

Download the **SMART Flex** App or the **QuickConnect** App to use these on-demand services.

SMART Routes

125 Fort Street / Eureka Road	420 Southfield	580 Harper
140 Southshore	430 Main Street / Big Beaver	610 Kercheval / Harper
160 Downriver	445 Maple & Telegraph Limited	615 Jefferson
200/210 Michigan Avenue Local	450 Woodward Local / Pontiac	620 Charlevoix
250 Ford Road	460 Woodward Local / Somerset	635 Jefferson Express
255 Ford Road Express	461/462 *FAST* Woodward	710 Nine Mile Crosstown
261 *FAST* Michigan	494 Dequindre	730 Ten Mile Crosstown
275 Telegraph Taylor/Tel-Twelve Mall	495 John R	740 Twelve Mile Crosstown
	510 Van Dyke Local	760 Thirteen Mile / Fourteen Mile Crosstown
280 Western Wayne Crosstown	515 Van Dyke Limited	780 Fifteen Mile Crosstown
305 Grand River	525 Groesbeck	790 Pontiac Crosstown
375 Telegraph Old Redford / Pontiac	530 Schoenherr	796 Pontiac Perry / Opdyke
	550 Garfield	805 Grand River P & R
400 Southfield / Orchard Ridge	560 Gratiot Local	830 Downriver P & R
405 Northwestern Highway	561/562/563 *FAST* Gratiot	851 W. Bloomfield / Farmington Hills P & R
415 Greenfield		

(866) 962-5515 M-F 6:30 a.m. to 6:00 p.m. Sat 7:30 a.m. to 4:00 p.m. • **smartbus.org**

This bus system map serves as a general guide to bus routes operated by SMART. Consult individual schedules for detailed route information. Changes may occur on routes without notice.

RIDE SMART®

SYSTEM MAP

Effective: August 9, 2021

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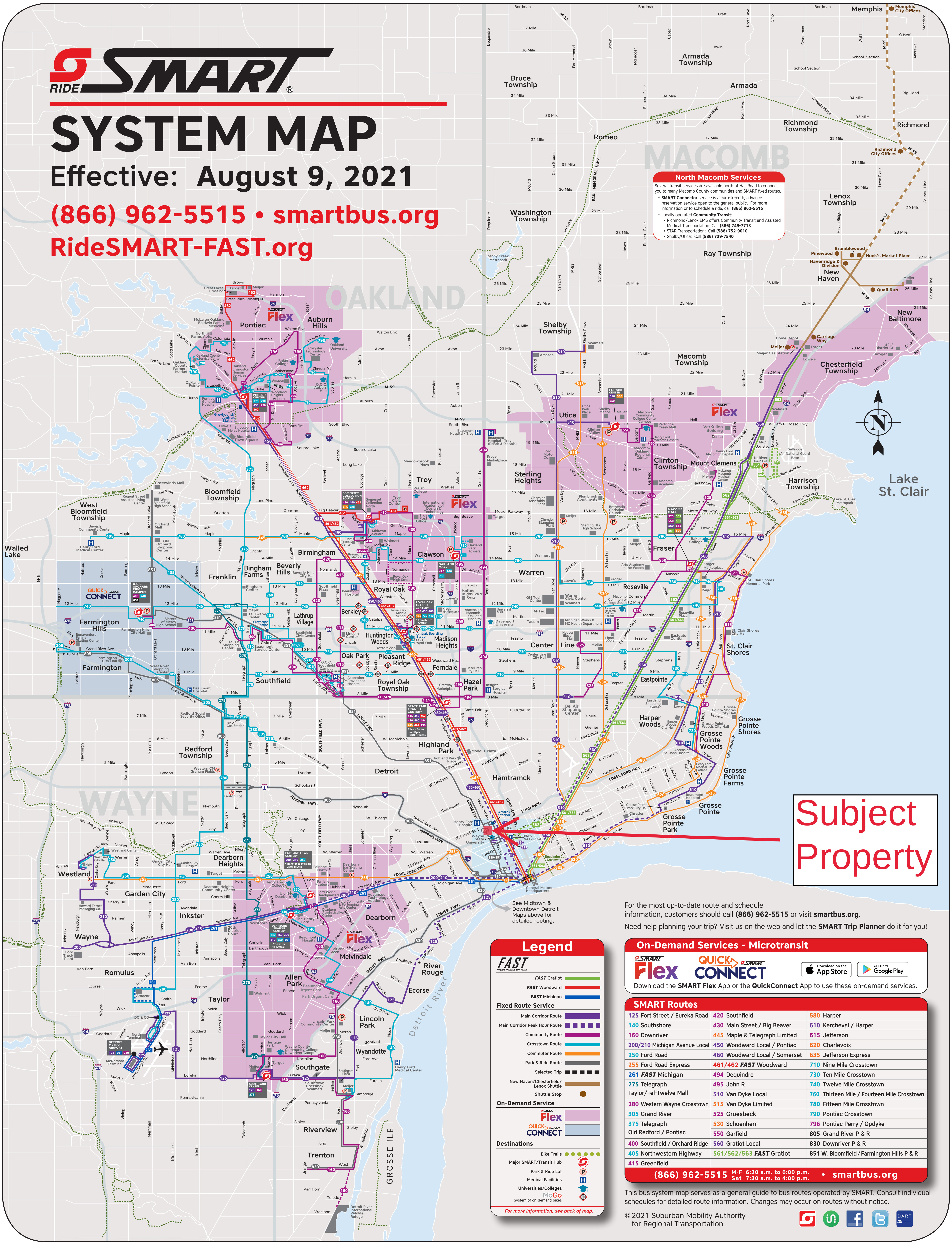
RideSMART-FAST.org



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On-Demand Services - Microtransit

SMART Flex · QUICK CONNECT SMART · Download on the App Store · GET IT ON Google Play

Download the **SMART Flex** App or the **QuickConnect** App to use these on-demand services.

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Detroit, MI

Stations

Wayne County - Average Daily Maximum Temp (°F)

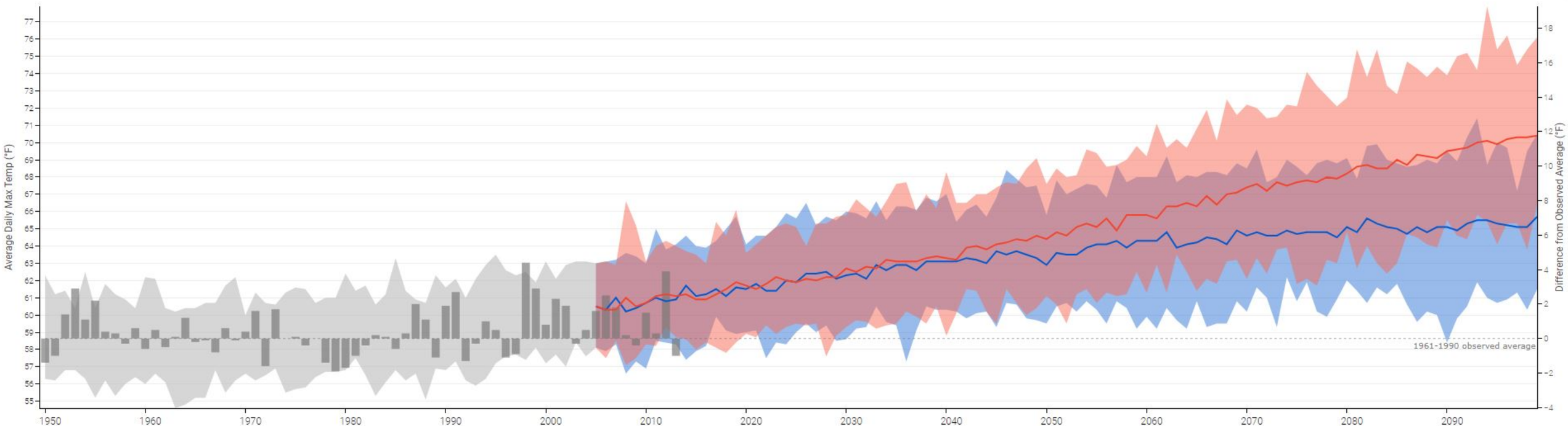
Average Daily Maximum Temperature (°F)

Graph | Map

Annual | Monthly

Downloads

About



Observations | Modeled History | Lower Emissions | Higher Emissions

National Risk Index

February 07, 2024

Wayne County, Michigan

Summary

Risk Index is **Relatively High**

Score **96.7**

Expected Annual Loss is **Relatively High**

Score **96.6**

Social Vulnerability is **Very High**

Score **87.1**

Community Resilience is **Relatively Moderate**

Score **56.6**

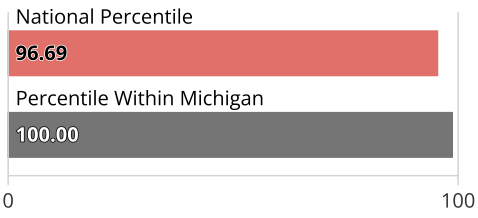
While reviewing this report, keep in mind that low risk is driven by lower loss due to natural hazards, lower social vulnerability, and higher community resilience.

For more information about the National Risk Index, its data, and how to interpret the information it provides, please review the **About the National Risk Index** and **How to Take Action** sections at the end of this report. Or, visit the National Risk Index website at hazards.fema.gov/nri/learn-more to access supporting documentation and links.

Risk Index

The Risk Index rating is **Relatively High** for **Wayne County, MI** when compared to the rest of the U.S.

Score **96.69**



97% of U.S. counties have a lower Risk Index

100% of counties in Michigan have a lower Risk Index

Risk Index Legend

Very High | Relatively High | Relatively Moderate | Relatively Low | Very Low

No Rating | Not Applicable | Insufficient Data

Hazard Type Risk Index

Hazard type Risk Index scores are calculated using data for only a single hazard type, and reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

Hazard Type	Risk Index Rating	Risk Index Score	National Percentile
Avalanche	Not Applicable	--	
Coastal Flooding	Relatively Low	63.9	
Cold Wave	Very High	99.9	
Drought	No Expected Annual Losses	0	
Earthquake	Relatively Low	87.2	
Hail	Relatively Low	53.9	
Heat Wave	Relatively High	99.5	
Hurricane	Relatively Low	62.6	
Ice Storm	Relatively Moderate	82.3	
Landslide	Relatively Moderate	85.2	
Lightning	Very High	98.1	
Riverine Flooding	Very High	99.5	
Strong Wind	Very High	99.8	
Tornado	Very High	99.1	
Tsunami	Insufficient Data	--	
Volcanic Activity	Not Applicable	--	
Wildfire	Relatively Low	66.9	
Winter Weather	Relatively High	86.4	

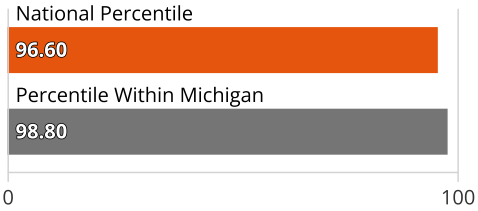
Risk Factor Breakdown

Hazard Type	EAL Value	Social Vulnerability	Community Resilience	CRF	Risk Value	Risk Index Score
Riverine Flooding	$45,776,220	Very High	Relatively Moderate	1.17	$51,213,805	99.5
Tornado	$39,003,027	Very High	Relatively Moderate	1.17	$46,272,409	99.2
Heat Wave	$15,206,700	Very High	Relatively Moderate	1.17	$18,284,942	99.4
Strong Wind	$14,474,540	Very High	Relatively Moderate	1.17	$17,081,580	99.9
Cold Wave	$9,723,972	Very High	Relatively Moderate	1.17	$11,692,544	99.9
Earthquake	$2,336,822	Very High	Relatively Moderate	1.17	$2,808,325	89.1
Lightning	$2,063,005	Very High	Relatively Moderate	1.17	$2,471,431	98.7
Hurricane	$632,187	Very High	Relatively Moderate	1.17	$745,686	64.2
Coastal Flooding	$343,167	Very High	Relatively Moderate	1.17	$389,707	62.2
Ice Storm	$293,182	Very High	Relatively Moderate	1.17	$348,278	82.8
Winter Weather	$255,771	Very High	Relatively Moderate	1.17	$301,900	86.3
Landslide	$122,400	Very High	Relatively Moderate	1.17	$132,535	83.9
Hail	$104,135	Very High	Relatively Moderate	1.17	$124,082	53
Wildfire	$121,792	Very High	Relatively Moderate	1.17	$122,134	65.5
Drought	$0	Very High	Relatively Moderate	1.17	$0	0
Avalanche	--	Very High	Relatively Moderate	1.17	--	--
Tsunami	--	Very High	Relatively Moderate	1.17	--	--
Volcanic Activity	--	Very High	Relatively Moderate	1.17	--	--

Expected Annual Loss

In **Wayne County, MI**, expected loss each year due to natural hazards is **Relatively High** when compared to the rest of the U.S.

Score	**96.6**



97% of U.S. counties have a lower Expected Annual Loss

99% of counties in Michigan have a lower Expected Annual Loss

Expected Annual Loss Legend

Very High | Relatively High | Relatively Moderate | Relatively Low | Very Low

No Expected Annual Losses | Not Applicable | Insufficient Data

Composite Expected Annual Loss	**$130,456,920.37**
Composite Expected Annual Loss Rate National Percentile	**11.5**

Building EAL	**$66,046,737.90**	Population EAL	**5.55** fatalities
Building EAL Rate	**$1 per $4.81K of building value**	Population EAL Rate	**1 per 323.20K people**
Agriculture EAL	**$74,464.71**	Population Equivalence EAL	**$64,335,717.75**
Agriculture EAL Rate	**$1 per $356.28 of agriculture value**		

Expected Annual Loss for Hazard Types

Expected Annual Loss scores for hazard types are calculated using data for only a single hazard type, and reflect a community's relative expected annual loss for only that hazard type.

15 of 18 hazard types contribute to the expected annual loss for **Wayne County, MI**.

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Riverine Flooding	Very High	$45,776,220	99.5
Tornado	Very High	$39,003,027	99.1

Hazard Type	Expected Annual Loss Rating	EAL Value	Score
Heat Wave	Relatively High	$15,206,700	99.5
Strong Wind	Very High	$14,474,540	99.8
Cold Wave	Very High	$9,723,972	99.9
Earthquake	Relatively Low	$2,336,822	87.2
Lightning	Very High	$2,063,005	98.1
Hurricane	Relatively Low	$632,187	62.6
Coastal Flooding	Relatively Low	$343,167	63.9
Ice Storm	Relatively Moderate	$293,182	82.3
Winter Weather	Relatively High	$255,771	86.4
Landslide	Relatively Moderate	$122,400	85.2
Wildfire	Relatively Low	$121,792	66.9
Hail	Relatively Low	$104,135	53.9
Drought	No Expected Annual Losses	$0	0.0
Avalanche	Not Applicable	--	--
Tsunami	Insufficient Data	--	--
Volcanic Activity	Not Applicable	--	--

Expected Annual Loss Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche	--	--	--	--	--
Coastal Flooding	$343,167	$340,886	$2,281	0.00	n/a
Cold Wave	$9,723,972	$917	$9,722,961	0.84	$95
Drought	$0	n/a	n/a	n/a	$0
Earthquake	$2,336,822	$1,822,753	$514,069	0.04	n/a
Hail	$104,135	$630	$103,344	0.01	$161
Heat Wave	$15,206,700	$454	$15,204,614	1.31	$1,633
Hurricane	$632,187	$629,594	$2,213	0.00	$380
Ice Storm	$293,182	$256,725	$36,458	0.00	n/a
Landslide	$122,400	$105,000	$17,400	0.00	n/a
Lightning	$2,063,005	$54,164	$2,008,841	0.17	n/a
Riverine Flooding	$45,776,220	$34,851,340	$10,853,314	0.94	$71,566

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Strong Wind	$14,474,540	$8,702,262	$5,771,920	0.50	$359
Tornado	$39,003,027	$18,941,673	$20,061,161	1.73	$194
Tsunami	n/a	n/a	n/a	n/a	n/a
Volcanic Activity	--	--	--	--	--
Wildfire	$121,792	$111,608	$10,182	0.00	$2
Winter Weather	$255,771	$228,734	$26,961	0.00	$76

Exposure Values

Hazard Type	Total	Building Value	Population Equivalence	Population	Agriculture Value
Avalanche	--	--	--	--	--
Coastal Flooding	$133,082,442,357	$2,381,391,904	$130,701,050,453	11,267.33	n/a
Cold Wave	$21,111,085,227,410	$317,490,691,843	$20,793,568,004,964	1,792,548.97	$26,530,603
Drought	$0	n/a	n/a	n/a	$0
Earthquake	$21,122,792,681,000	$317,485,081,000	$20,805,307,600,000	1,793,561.00	n/a
Hail	$21,111,085,626,233	$317,490,695,630	$20,793,568,400,000	1,792,549.00	$26,530,603
Heat Wave	$21,111,085,227,410	$317,490,691,843	$20,793,568,004,964	1,792,548.97	$26,530,603
Hurricane	$21,082,773,744,465	$317,227,162,061	$20,765,520,051,800	1,790,131.04	$26,530,603
Ice Storm	$21,110,277,410,905	$317,476,534,553	$20,792,800,876,352	1,792,482.83	n/a
Landslide	$473,220,150,895	$12,642,166,181	$460,577,984,714	39,705.00	n/a
Lightning	$21,111,059,095,630	$317,490,695,630	$20,793,568,400,000	1,792,549.00	n/a
Riverine Flooding	$473,310,608,670	$6,116,553,936	$467,191,252,270	40,275.11	$2,802,463
Strong Wind	$21,111,085,626,233	$317,490,695,630	$20,793,568,400,000	1,792,549.00	$26,530,603
Tornado	$21,111,085,626,233	$317,490,695,630	$20,793,568,400,000	1,792,549.00	$26,530,603
Tsunami	n/a	n/a	n/a	n/a	n/a
Volcanic Activity	--	--	--	--	--
Wildfire	$1,712,692,299,570	$27,902,120,261	$1,684,777,294,662	145,239.42	$12,884,647
Winter Weather	$21,111,085,227,410	$317,490,691,843	$20,793,568,004,964	1,792,548.97	$26,530,603

Annualized Frequency Values

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Avalanche	--	--	--

Hazard Type	Annualized Frequency	Events on Record	Period of Record
Coastal Flooding	0 events per year	n/a	Various (see documentation)
Cold Wave	0.6 events per year	9	2005-2021 (16 years)
Drought	0 events per year	0	2000-2021 (22 years)
Earthquake	0.029% chance per year	n/a	2021 dataset
Hail	3.1 events per year	100	1986-2021 (34 years)
Heat Wave	1.1 events per year	18	2005-2021 (16 years)
Hurricane	0 events per year	2	East 1851-2021 (171 years) / West 1949-2021 (73 years)
Ice Storm	1.9 events per year	120	1946-2014 (67 years)
Landslide	0 events per year	0	2010-2021 (12 years)
Lightning	46.1 events per year	943	1991-2012 (22 years)
Riverine Flooding	2.5 events per year	61	1996-2019 (24 years)
Strong Wind	5.4 events per year	171	1986-2021 (34 years)
Tornado	0.2 events per year	23	1950-2021 (72 years)
Tsunami	n/a	n/a	1800-2021 (222 years)
Volcanic Activity	--	--	--
Wildfire	Less than 0.001% chance per year	n/a	2021 dataset
Winter Weather	2.5 events per year	40	2005-2021 (16 years)

Historic Loss Ratios

Hazard Type	Overall Rating
Avalanche	--
Coastal Flooding	Relatively Moderate
Cold Wave	Very Low
Drought	No Rating
Earthquake	Very Low
Hail	Very Low
Heat Wave	Relatively Low
Hurricane	Very Low
Ice Storm	Very Low
Landslide	Very Low
Lightning	Very Low

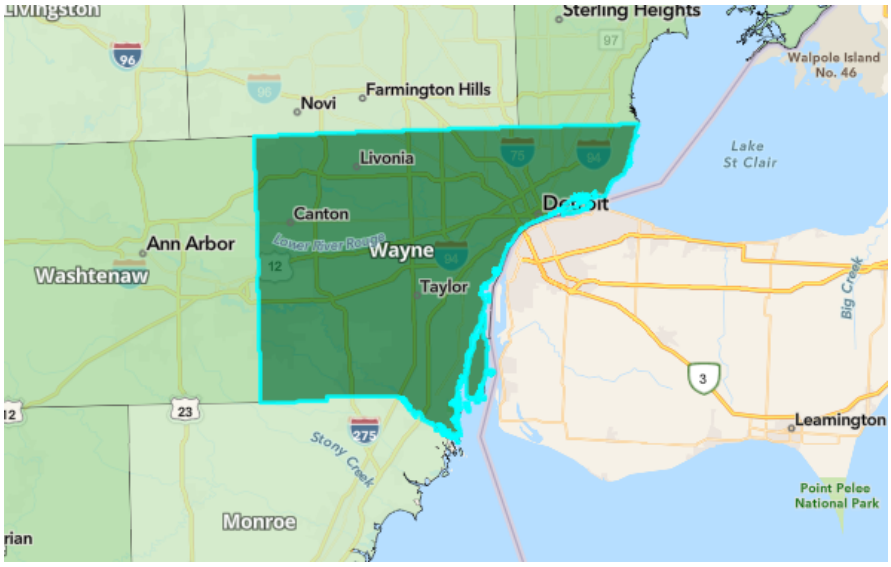
Hazard Type	Overall Rating
Riverine Flooding	Very Low
Strong Wind	Very Low
Tornado	Relatively Low
Tsunami	Insufficient Data
Volcanic Activity	--
Wildfire	Relatively Low
Winter Weather	Very Low

Expected Annual Loss Rate

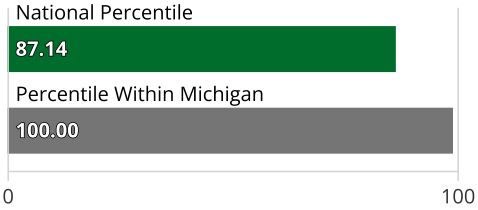
Hazard Type	Building EAL Rate (per building value)	Population EAL Rate (per population)	Agriculture EAL Rate (per agriculture value)
Avalanche	--	--	--
Coastal Flooding	$1 per $931.37K	1 per 9.11B	--
Cold Wave	$1 per $346.39M	1 per 2.14M	$1 per $279.19K
Drought	--	--	--
Earthquake	$1 per $174.18K	1 per 40.45M	--
Hail	$1 per $503.94M	1 per 201.21M	$1 per $164.60K
Heat Wave	$1 per $699.86M	1 per 1.37M	$1 per $16.25K
Hurricane	$1 per $504.28K	1 per 9.40B	$1 per $69.85K
Ice Storm	$1 per $1.24M	1 per 570.35M	--
Landslide	$1 per $3.02M	1 per 1.20B	--
Lightning	$1 per $5.86M	1 per 10.35M	--
Riverine Flooding	$1 per $9.11K	1 per 1.92M	$1 per $370.72
Strong Wind	$1 per $36.48K	1 per 3.60M	$1 per $73.98K
Tornado	$1 per $16.76K	1 per 1.04M	$1 per $137.08K
Tsunami	--	--	--
Volcanic Activity	--	--	--
Wildfire	$1 per $2.84M	1 per 2.04B	$1 per $15.16M
Winter Weather	$1 per $1.39M	1 per 771.26M	$1 per $348.83K

Social Vulnerability

Social groups in **Wayne County, MI** have a **Very High** susceptibility to the adverse impacts of natural hazards when compared to the rest of the U.S.



Score	87.14



87% of U.S. counties have a lower Social Vulnerability

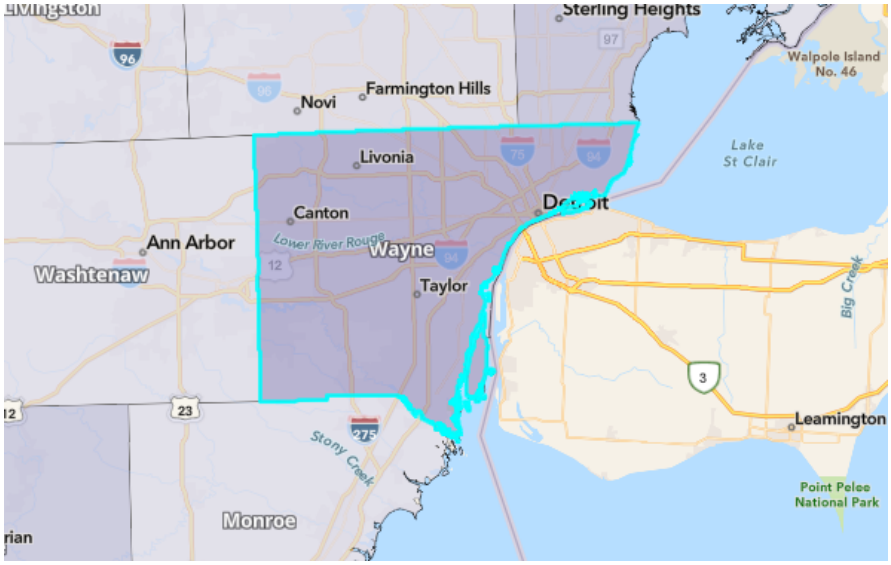
100% of counties in Michigan have a lower Social Vulnerability

Social Vulnerability Legend

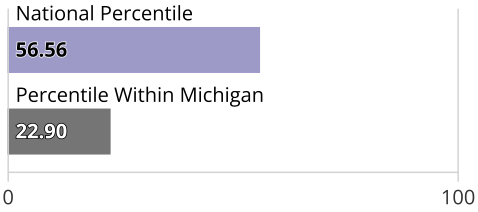
Very High | Relatively High | Relatively Moderate | Relatively Low | Very Low | Data Unavailable

Community Resilience

Communities in **Wayne County, MI** have a **Relatively Moderate** ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.



Score	56.56



44% of U.S. counties have a higher Community Resilience

77% of counties in Michigan have a higher Community Resilience

Community Resilience Legend

Very High | Relatively High | Relatively Moderate | Relatively Low | Very Low | Data Unavailable

About the National Risk Index

The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hail, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather.

The National Risk Index leverages available source data for Expected Annual Loss due to these 18 hazard types, Social Vulnerability, and Community Resilience to develop a baseline relative risk measurement for each United States county and Census tract. These measurements are calculated using average past conditions, but they cannot be used to predict future outcomes for a community. The National Risk Index is intended to fill gaps in available data and analyses to better inform federal, state, local, tribal, and territorial decision makers as they develop risk reduction strategies.

Explore the National Risk Index Map at **hazards.fema.gov/nri/map**.

Visit the National Risk Index website at **hazards.fema.gov/nri/learn-more** to access supporting documentation and links.

Calculating the Risk Index

Risk Index scores are calculated using an equation that combines scores for Expected Annual Loss due to natural hazards, Social Vulnerability and Community Resilience:

Risk Index = Expected Annual Loss × Social Vulnerability ÷ Community Resilience

Risk Index scores are presented as a composite score for all 18 hazard types, as well as individual scores for each hazard type.

For more information, visit **hazards.fema.gov/nri/determining-risk**.

Calculating Expected Annual Loss

Expected Annual Loss scores are calculated using an equation that combines values for exposure, annualized frequency, and historic loss ratios for 18 hazard types:

Expected Annual Loss = Exposure × Annualized Frequency × Historic Loss Ratio

Expected Annual Loss scores are presented as a composite score for all 18 hazard types, as well as individual scores for each hazard type.

For more information, visit **hazards.fema.gov/nri/expected-annual-loss**.

Calculating Social Vulnerability

Social Vulnerability is measured using the Social Vulnerability Index (SVI) published by the Centers for Disease Control and Prevention (CDC).

For more information, visit **hazards.fema.gov/nri/social-vulnerability**.

Calculating Community Resilience

Community Resilience is measured at the County level using the Baseline Resilience Indicators for Communities (HVRI BRIC) published by the University of South Carolina's Hazards and Vulnerability Research Institute (HVRI).

For more information, visit **hazards.fema.gov/nri/community-resilience**.

How to Take Action

There are many ways to reduce natural hazard risk through mitigation. Communities with high National Risk Index scores can take action to reduce risk by decreasing Expected Annual Loss due to natural hazards, decreasing Social Vulnerability, and increasing Community Resilience.

For information about how to take action and reduce your risk, visit **hazards.fema.gov/nri/take-action**.

Disclaimer

The National Risk Index (the Risk Index or the Index) and its associated data are meant for planning purposes only. This tool was created for broad nationwide comparisons and is not a substitute for localized risk assessment analysis. Nationwide datasets used as inputs for the National Risk Index are, in many cases, not as accurate as available local data. Users with access to local data for each National Risk Index risk factor should consider substituting

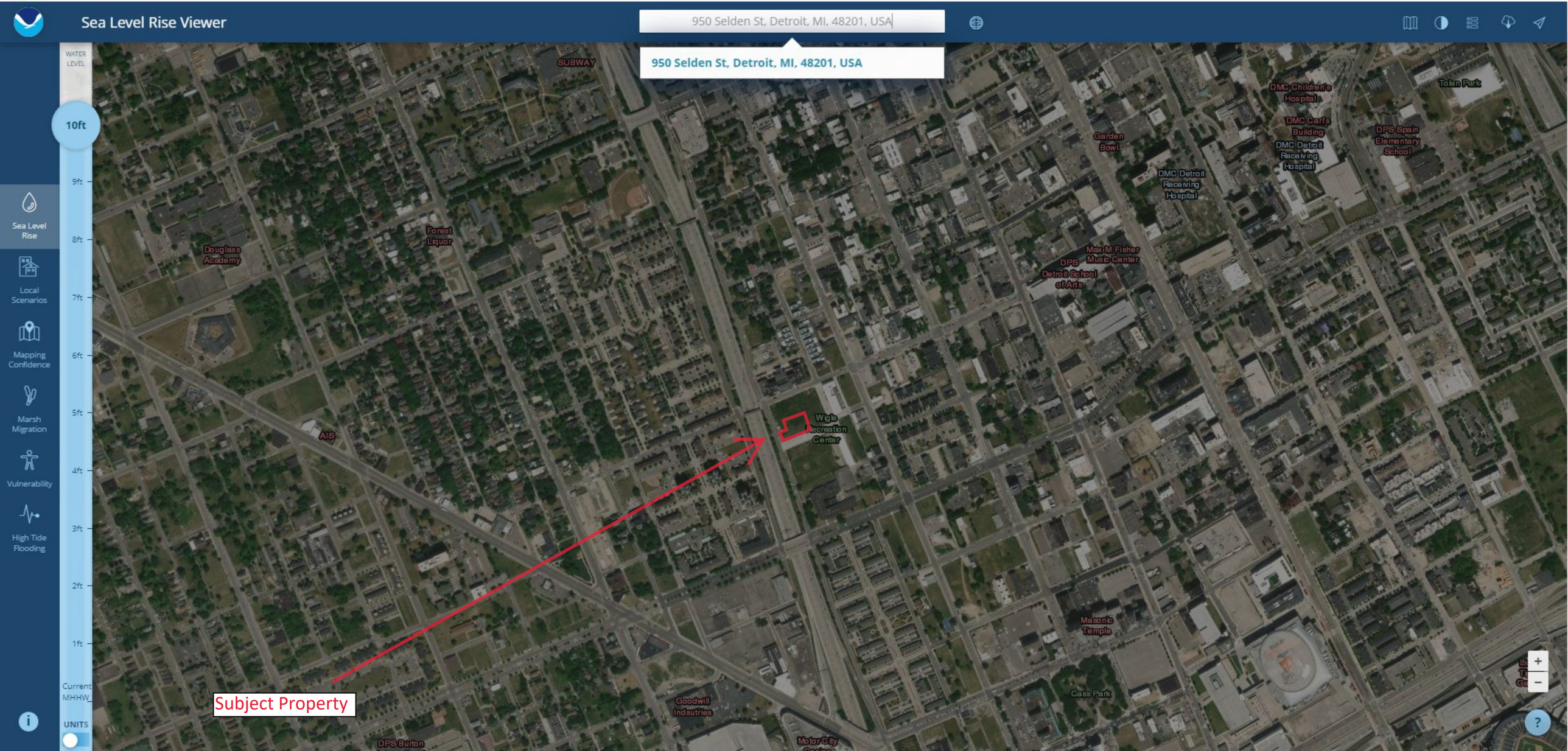
the Risk Index data with local data to recalculate a more accurate risk index. If you decide to download the National Risk Index data and substitute it with local data, you assume responsibility for the accuracy of the data and any resulting data index. Please visit the **Contact Us** page if you would like to discuss this process further.

The methodology used by the National Risk Index has been reviewed by subject matter experts in the fields of natural hazard risk research, risk analysis, mitigation planning, and emergency management. The processing methods used to create the National Risk Index have produced results similar to those from other natural hazard risk analyses conducted on a smaller scale. The breadth and combination of geographic information systems (GIS) and data processing techniques leveraged by the National Risk Index enable it to incorporate multiple hazard types and risk factors, manage its nationwide scope, and capture what might have been missed using other methods.

The National Risk Index does not consider the intricate economic and physical interdependencies that exist across geographic regions. Keep in mind that hazard impacts in surrounding counties or Census tracts can cause indirect losses in your community regardless of your community's risk profile.

Nationwide data available for some risk factors are rudimentary at this time. The National Risk Index will be continuously updated as new data become available and improved methodologies are identified.

The National Risk Index Contact Us page is available at **hazards.fema.gov/nri/contact-us**.


Sea Level Rise Viewer
950 Selden St, Detroit, MI, 48201, USA
950 Selden St, Detroit, MI, 48201, USA
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Current MHHW
UNITS
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding
SUBWAY
Douglass Academy
Forest Liquor
AIS
Wigle Recreation Center
Garden Bowl
DMC Detroit Receiving Hospital
DMC Children's Hospital
DMC Carls Building
DMC Detroit Receiving Hospital
DPS Spain Elementary School
Tolan Park
DPS Detroit School of Arts
Max M Fisher Music Center
Masonic Temple
Cass Park
Goodwill Industries
DPS Burton
Motor City
Subject Property

The Climate Explorer

About the data

Detroit, MI

Stations

Wayne County - Average Daily Maximum Temp (°F)

Average Daily Maximum Temp (°F)

Graph | Map

Annual | Spring | Summer | Fall | Winter

Downloads

WAYNE, MICHIGAN

Avg Daily Max Temp (°F)

2050s projection

Higher Emissions: 64

Lower Emissions: 62.9

1961-1990 observed average

58.7

Population (2017)

1.8M

Switch to graph