
Appendix A – Early Agency and Tribal Coordination

List of Agencies that Received Early Coordination Letters Requesting Information and Comments

Agency & Political Coordination - Master List						
Salutation line	Contact Name	Title	Organization	Address	City, State, Zip	Phone
Mr. Duffiney	Tony Duffiney	State Director	USDA - APHIS Wildlife Services	2803 Jolly Rd., Suite 100,	Okemos, MI 48864	517-336-1928
Mr. Watling	Jim Watling	Supervisor	EGLE, Water Resources Division, Transportation Review Unit	525 W Allegan St	Lansing, MI 48933	517-599-9002
Mr. Simon	Charlie Simon	Chief	U.S. Army Corps of Engineers, Detroit District, Regulatory & Permits	477 Michigan Avenue, Room 603	Detroit, MI 48226-2550	313-226-2218
Mr. Joseph	James K. Joseph	Regional Director	Federal Emergency Management Agency, Region 5	536 South Clark Street, 6th Floor	Chicago, Illinois 60605	312-408-5500
Ms. Gagliardo	Jean Gagliardo	District Conservationist	USDA, Natural Resource Conservation Service, Portage Service Center	5950 Portage Rd	PORTAGE, MI 49002	269-382-5121 ext 3
Mr. Hicks	Scott Hicks	Field Office Supervisor	US Fish and Wildlife - Michigan Field Office	2651 Coolidge Road, Suite 101	East Lansing, Michigan 48823	517-351-6274
Mr. Westlake	Mr. Kenneth Westlake	Chief	EPA Region 5 , NEPA Implementation Section	77 West Jackson Boulevard	Chicago, Illinois 60604	
Ms. Hanna	Shannon Hanna	Natural Resources Deputy	Michigan Department of Natural Resources, Executive Division	525 W Allegan St	Lansing, MI 48933	517-284-5810

Native American Coordination - Master List						
Salutation line	Contact Name	Title	Organization	Address	City, State, Zip	Phone
Chairperson			Bay Mills Indian Community of Michigan	12140 West Lakeshore Drive	Brimley, MI 49175	
Chairperson			Grand Traverse Band of Ottawa and Chippewa Indians of Michigan	2605 NW Bayshore Drive	Suttons Bay, MI 49682	
Chairperson			Hannahville Indian Community of Michigan	N14911 Hannahville B1 Road	Wilson, MI 49896-9728	
Chairperson			Huron Potawatomi, Inc	2221 1-1/2 Mile Road	Fulton, MI 49052	
Chairperson			Keweenaw Bay Indian Community of Michigan	Keweenaw Bay Tribal Center, 107 Beartown Road	Baraga, MI 49908	
Chairperson			Lac Vieux Desert Band of Lake Superior Chippewa of Michigan	4698 US 45	Watersmeet, MI 49969	
Chairperson			Little River Band of Ottawa Indians	2608 Government Center Drive	Manistee, MI 49660	
Chairperson			Little Traverse Bay Bands of Odawa Indians	7500 Odawa Circle	Harbor Springs, MI 49740-9692	
Chairperson			Pokagon Band of Potawatomi Indians of Michigan	58620 Sink Road	Dowagiac, MI 49047	
Chairperson			Saginaw Chippewa Indian Tribe of Michigan	7070 East Broadway	Mt. Pleasant, MI 48858	
Chairperson			Sault-Ste. Marie Tribe of Chippewa Indians of Michigan	523 Ashman Street	Sault Ste. Marie, MI 49783	
Chairperson			Burt Lake Band of Ottawa and Chippewa Indians	6461 Brutus Road, Box 206	Brutus, MI 49716	
Chairperson			Grand River Band of Ottawa Indians	1316 Front Ave NW	Grand Rapids, MI 49504	

Agency Letter Template

October 12, 2020

«Contact_Name»

«Title»

«Organization»

«Address»

«City_State_Zip»

Re: Early Coordination Review of Proposed Improvements
Jerry Tyler Memorial Airport, Niles, Michigan

Dear «Salutation_line»:

The Michigan Department of Transportation Office of Aeronautics (MDOT AERO) has authorized the Jerry Tyler Memorial Airport (Airport) to explore the potential impacts of aviation easements and obstruction clearing in the Runway 33 approach.

Aviation easements and obstruction clearing is proposed for Parcels H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V (Parcel V has been split into two parcels), and Parcel W. Parcel locations are shown on Attachment D – Property Map found at the end of this document.

Federal funding will be utilized for the proposed project; therefore, environmental documentation and analysis sufficient to satisfy the National Environmental Policy Act (NEPA) is required by law. To meet this requirement, the Federal Aviation Administration (FAA) Environmental Evaluation Form C “*Short Form Environmental Assessment*” developed by the FAA’s Eastern Region, will be utilized to define and analyze potential impacts of the proposed action and evaluate any reasonable alternatives.

This Short Form EA will also be developed to further determine whether any potential impacts are significant enough to necessitate an Environmental Impact Statement (EIS). During the Short Form EA project, investigations will be conducted to identify potential Social, Economic, and Environmental (SEE) impacts related to the improvements being proposed. These SEE impacts will be documented and considered as required by the National Environmental Policy Act (NEPA).

MDOT AERO acting on behalf of the FAA is the lead agency and as such, the Short Form EA will be prepared in accordance with NEPA, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B. *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.

«Contact Name»

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It should be noted that MDOT AERO does not necessarily endorse the proposed project, nor have they agreed to a Preferred Alternative. MDOT AERO is requiring the Airport to fully evaluate the Purpose and Need, any prudent and feasible alternatives including the No-Build Alternative, and identify associated impacts leading to the selection of the Preferred Alternative.

Major development actions covered in this Short Form EA include:

- Obtain avigation easements to remove the trees that are obstructions to the approach surface of Runway 33
- Clearing obstructions (mostly trees) which penetrate the Runway 33 FAR Part 77 Surface

As part of our early agency coordination, we are attempting to identify key issues that will need to be addressed during the NEPA process. To accomplish this, your organization's comments are being requested for the above referenced project as it relates to the following:

- Your specific areas of concern / regulatory jurisdiction
- Specific benefits of the project for your organization or to the public
- Any available technical information / data for the project site
- Potential mitigation / permitting requirements for project implementation

For your convenience, several maps and figures are enclosed that illustrate the site location and approximate project area limits. In order to sufficiently address key project issues and maintain the project schedule, your comments are requested by **November 15, 2020**.

Please send your written or email comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
517-321-8334
william.ballard@meadhunt.com

Sincerely,

Steve Houtteman
Aeronautics Environmental Specialist
Michigan Department of Transportation
(616) 299-2654
houttemans@michigan.gov

Enclosures

October 12, 2020

«Contact_Name»

«Title»

«Organization»

«Address»

«City_State_Zip»

Re: Early Coordination Review of Proposed Improvements
Jerry Tyler Memorial Airport, Niles, Michigan

Dear Chairperson:

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«Contact Name»

Page | 2

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Major development actions covered in this Short Form EA include:

- Obtain avigation easements to remove the trees that are obstructions to the approach surface of Runway 33
- Clearing obstructions (mostly trees) which penetrate the Runway 33 FAR Part 77 Surface

MDOT AERO would be pleased to receive your comments regarding this project, any information you wish to share pertaining to archaeological or historical resources located in the project area, or notification that you would like to become an interested party under Section 106 of the National Historic Preservation Act.

For your convenience, several maps and figures are enclosed that illustrate the site location and approximate project area limits. In order to sufficiently address key project issues and maintain the project schedule, your comments are requested by **November 15, 2020**.

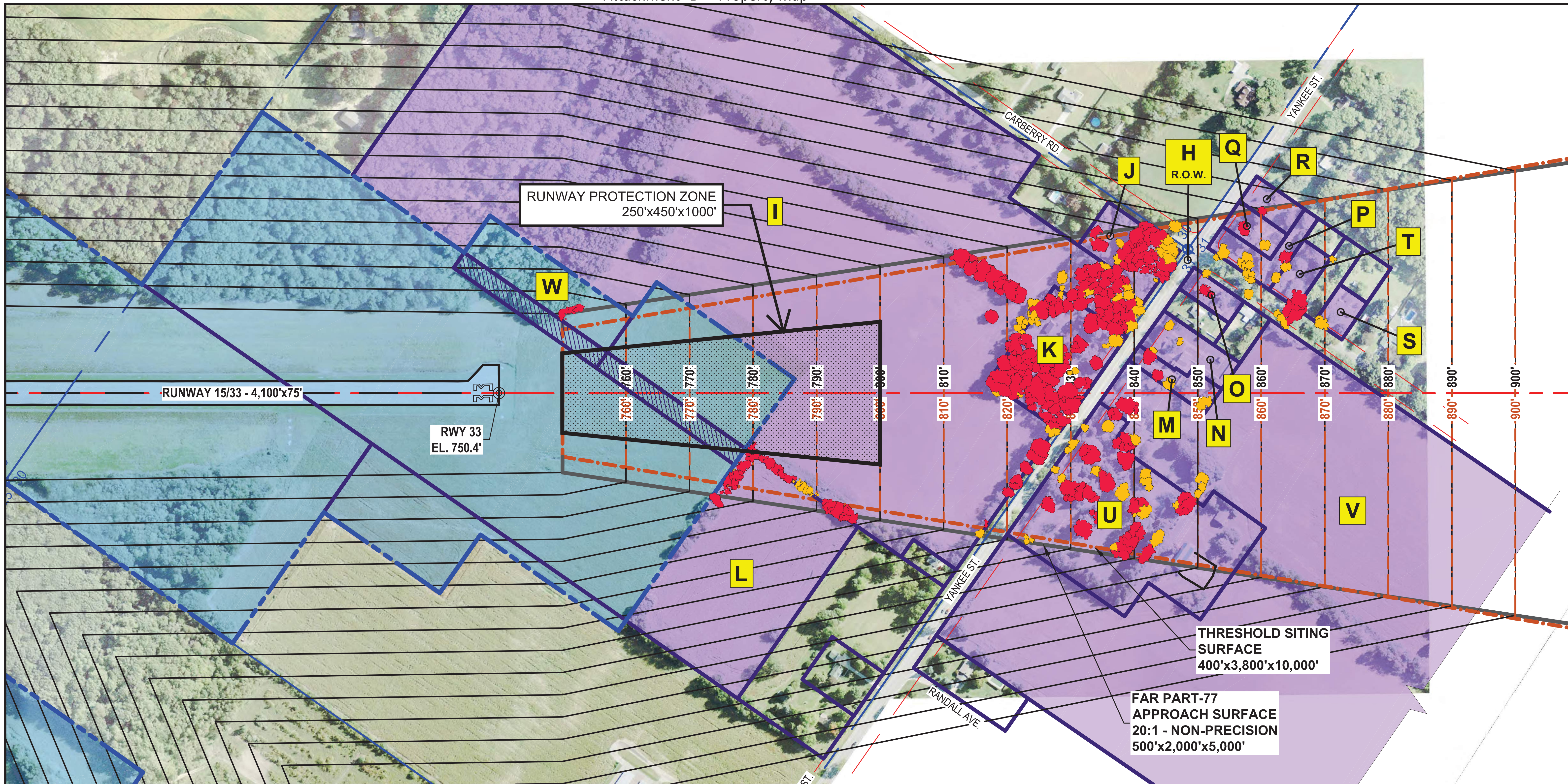
Please send your written or email comments to:

Mr. Steve Houtteman
Michigan Department of Transportation
Office of Aeronautics
2700 Port Lansing Road
Lansing, MI 48906
(616) 299-2654
HouttemanS@michigan.gov

Sincerely,

Steve Houtteman
Aeronautics Environmental Specialist
Michigan Department of Transportation

Enclosures



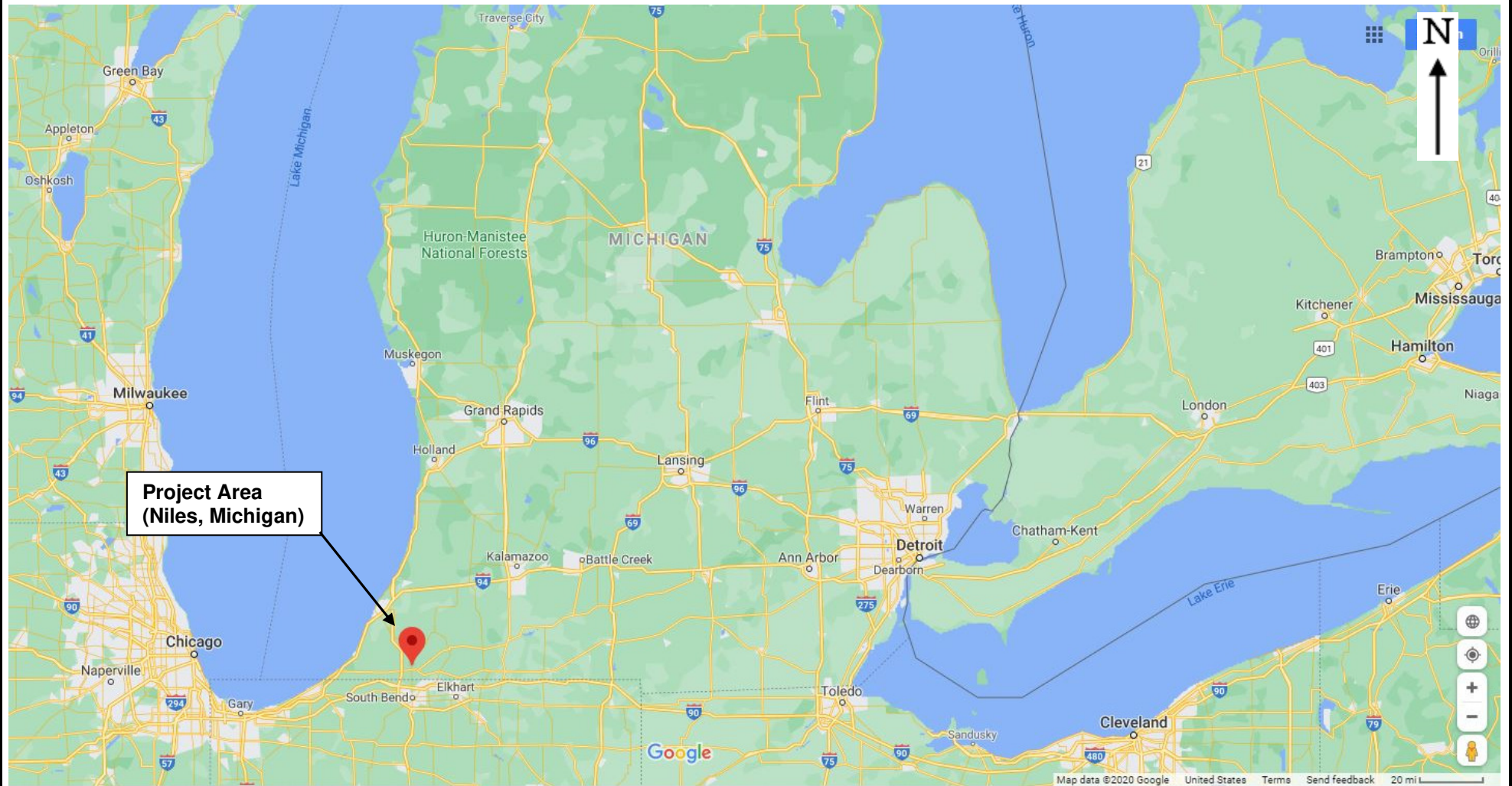
0 150 300 600

DATE: 03/16/17

These documents shall not be used for any purpose or project for which it is not intended. Mead & Hunt shall be indemnified by the client and held harmless from all claims, damages, liabilities, losses, and expenses, including attorneys' fees and costs, arising out of such misuse or reuse of the documents. In addition, unauthorized reproduction of these documents, in part or as a whole, is prohibited.

LEGEND			
	AIRPORT PROPERTY LINE		THRESHOLD SITING SURFACE
	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

RUNWAY 33	
OBSTRUCTION ANALYSIS - PARCEL IDENTIFICATION	
JERRY TYLER MEMORIAL AIRPORT NILES, MICHIGAN	
 2605 Port Lansing Road Lansing, MI 48906 phone: 517-321-8334 meadhunt.com	



Location Map

Early Agency Coordination
Jerry Tyler Memorial Airport
Niles, Michigan



Vicinity Map

Early Agency Coordination
Jerry Tyler Memorial Airport
Niles, Michigan



United States
Department of
Agriculture

Marketing and
Regulatory
Programs

2803 Jolly Road
Suite 100
Okemos, MI 48864

October 28, 2020

Mead & Hunt, Inc.
William Ballard, AICP
2605 Port Lansing Rd.
Lansing, MI 48906

Re: Early Coordination Review of Proposed Improvements
Jerry Tyler Memorial Airport, Niles, Michigan

Dear Mr. Ballard,

Thank you for the opportunity to review your proposed improvements at Jerry Tyler Memorial Airport in Niles, Michigan. This letter is in response to your request dated 10/19/20 for comments on the proposed improvements. Our concern in reviewing such proposals is for the safety of aviation travel and how wildlife may potentially affect aviation safety. Our mission is to not only protect aviation safety, but also to protect the wildlife in the immediate vicinity of the airport.

In reviewing this proposal, our focus is on how the removal of the vegetation (primarily trees) may affect wildlife usage of this area. Upon closer inspection of online aerial imagery, it appears the proposed vegetation for removal is adjacent to residential dwellings, along roads, and within fencerows. In very simplistic terms, when one type of habitat is altered, it will be replaced by another type of habitat. In this situation, with the removal of the trees, it can be assumed that the habitat replacing the trees will consist of grasslands or additional agriculture. Our concern is the establishment of additional grasslands or agriculture may attract wildlife such as raptors (i.e, hawks, owls), sandhill cranes, white-tailed deer, geese, and coyotes.

Our recommendations with this proposal are as follows:

1. Avoid planting any vegetation after the trees are removed that may be attractive to wildlife such as clover, wheat, rye, corn, soybeans, etc. These plantings are known to attract deer and geese at various times of the year which can be hazardous to aviation safety.
2. Once the trees are removed, if the area reverts to native vegetation, the recommended grass height is 7-14". Consider letting it grow longer if geese and starlings appear to be attracted to it, or cutting it shorter if the grass is attracting rodents, coyotes, and raptors.
3. Conduct routine wildlife monitoring of the proposed area to evaluate wildlife usage before and after the project is completed. If an increase in wildlife usage is noted, recommended mitigation techniques would include non-lethal harassment and/or lethal removal.
4. Wildlife Services can perform a site visit to further discuss habitat management techniques to discourage wildlife usage of the

proposed area as well as non-lethal and lethal control strategies to respond to wildlife using the area.

5. Wildlife Services would also be able to conduct a mini-wildlife hazard assessment over the course of several days to better evaluate wildlife hazards and their affect on aviation safety. Ideally visits could be scheduled before and after the tree removal to fully assess wildlife usage in the area. Recommendations could then be developed on wildlife hazard mitigation strategies.

Wildlife Services would like to remain a partner in the development of this project and continue to offer technical expertise in evaluating and mitigating wildlife hazards to aviation.

Thank you again for the opportunity to assist with this project. Feel free to contact me if you have any questions.

Sincerely,

Tim Wilson
District Supervisor
Timothy.s.wilson@usda.gov



Pokégnek Bodéwadmik

POKAGON BAND OF POTAWATOMI
LANGUAGE & CULTURE

11/20/2020

Steve Houtteman
Michigan Department of Transportation
Office of Aeronautics
2700 Port Lansing Road
Lansing, MI 48906
Phone: 616-299-2654
Email: houttemanS@michigan.gov

Michigan Department of Transportation – Jerry Tyler Memorial Airport, Niles, MI

Dear Responsible Party:

Migweth for contacting me regarding these projects. As THPO, I am responsible for handling Section 106 Consultations on behalf of the tribe. I am writing to inform you that after reviewing the details for the project referenced above, I have made the determination that there will be **No Historic Properties in Area of Potential Effects (APE)** significant to the Pokagon Band of Potawatomi Indians. However, if any archaeological resources are uncovered during this undertaking, please stop work and contact me immediately. Should you have any other questions, please don't hesitate to contact me at your earliest convenience.

Sincerely,

Matthew J.N. Bussler
Tribal Historic Preservation Officer
Pokagon Band of Potawatomi Indians
Office: (269) 462-4316
Cell: (269) 519-0838
Matthew.Bussler@Pokagonband-nsn.gov



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, DETROIT DISTRICT
477 MICHIGAN AVENUE
DETROIT, MI 48226-2550

November 24, 2020

REPLY TO
ATTENTION OF:

Engineering & Technical Services
Regulatory Office
File No. LRE-2020-02513-214-A20

William Ballard
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, Michigan 48906

Dear Mr. Ballard:

This is in response to the October 19, 2020 letter regarding the Corps of Engineers' (Corps) jurisdiction on property at 2018 Lake Street located at the Jerry Tyler Memorial Airport in Niles, Michigan.

In 1984 a portion of the Corps' regulatory responsibilities was assumed by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). This project site is within the assumed area. Unless otherwise notified, a separate authorization from the Corps is not required; however, you may need to obtain a permit from the EGLE. Therefore, we recommend that you contact the Michigan EGLE Kalamazoo District Office at (269) 567-3500 for a determination of State permit requirements.

Should you have any questions, please contact me at the above address, by E-Mail at Dominique.R.Blockett@usace.army.mil, or by telephone at (313) 226-1325. In all communications, please refer to File Number LRE-2020-02513-214-A20.

We are interested in your thoughts and opinions concerning your experience with the Detroit District, Corps of Engineers Regulatory Program. If you are interested in letting us know how we are doing, you can complete an electronic Customer Service Survey from our web site at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. Alternatively, you may contact us and request a paper copy of the survey that you may complete and return to us by mail or fax. Thank you for taking the time to complete the survey, we appreciate your feedback.

Sincerely,

Dominique R. Blockett
Project Manager
Regulatory Office

Enclosure

Copy Furnished

MDOT – Office of Aeronautics, Steve Houtteman
EGLE, Kalamazoo District Office
Michiana Branch

William Ballard

From: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Sent: Friday, November 27, 2020 9:07 AM
To: William Ballard
Subject: Jerry Tyler Memorial Airport Improvements - Niles, MI

Thank you for providing early notice on your project proposing improvements to the Jerry Tyler Memorial Airport. It appears that the proposed project site is located outside of FEMA mapped floodplains and for that reason we have no further comments.

Thanks

Duane Castaldi
Regional Environmental Officer | FEMA Region V | Department of Homeland Security
Office: 312.408.5549 | Mobile: 312.576.0067
duane.castaldi@fema.dhs.gov | Pronouns: he / him / his

Federal Emergency Management Agency
fema.gov



FEMA

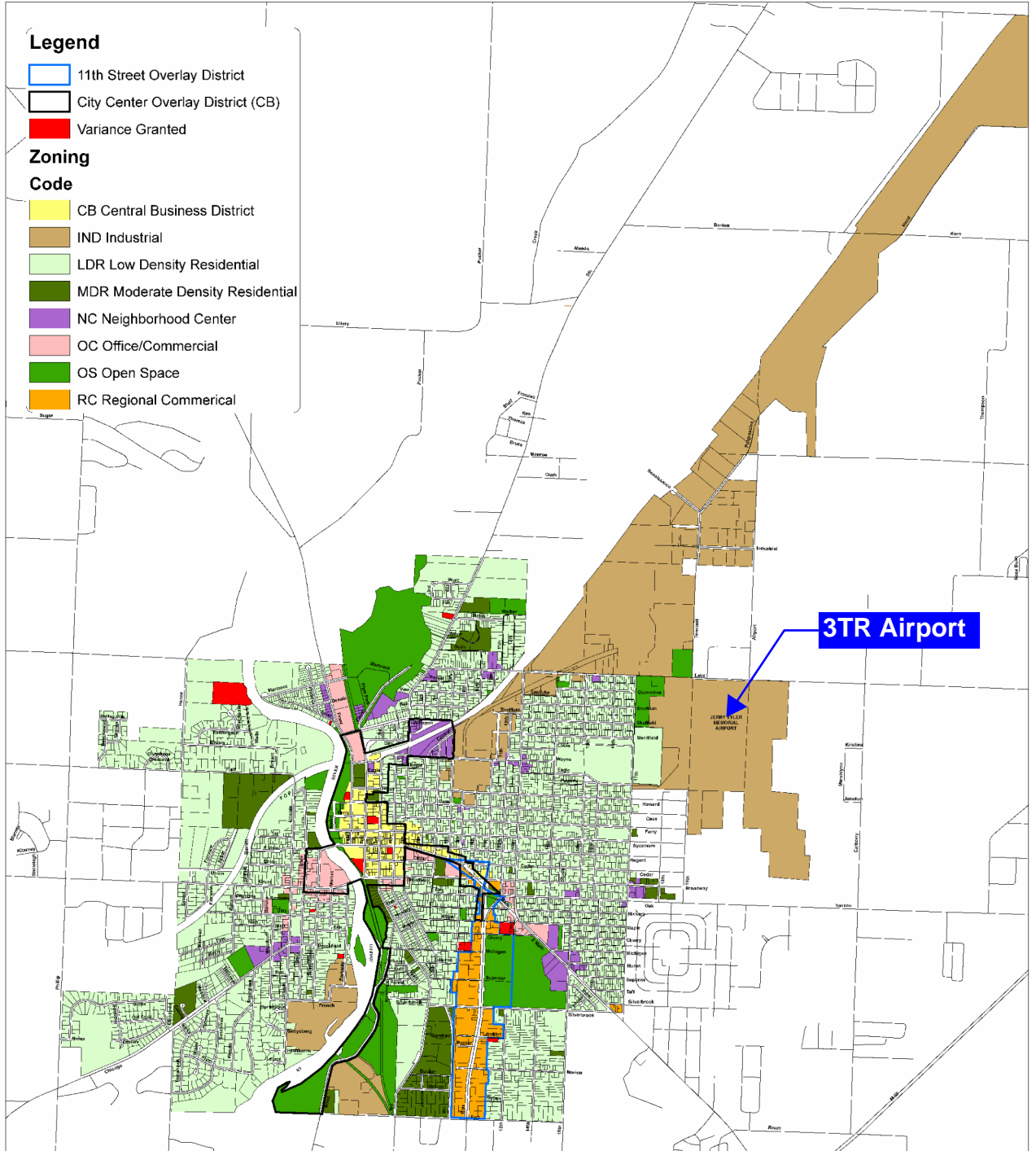
Appendix B – Land Use and Zoning

Legend

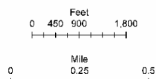
- 11th Street Overlay District
- City Center Overlay District (CB)
- Variance Granted

Zoning Code

- CB Central Business District
- IND Industrial
- LDR Low Density Residential
- MDR Moderate Density Residential
- NC Neighborhood Center
- OC Office/Commercial
- OS Open Space
- RC Regional Commercial

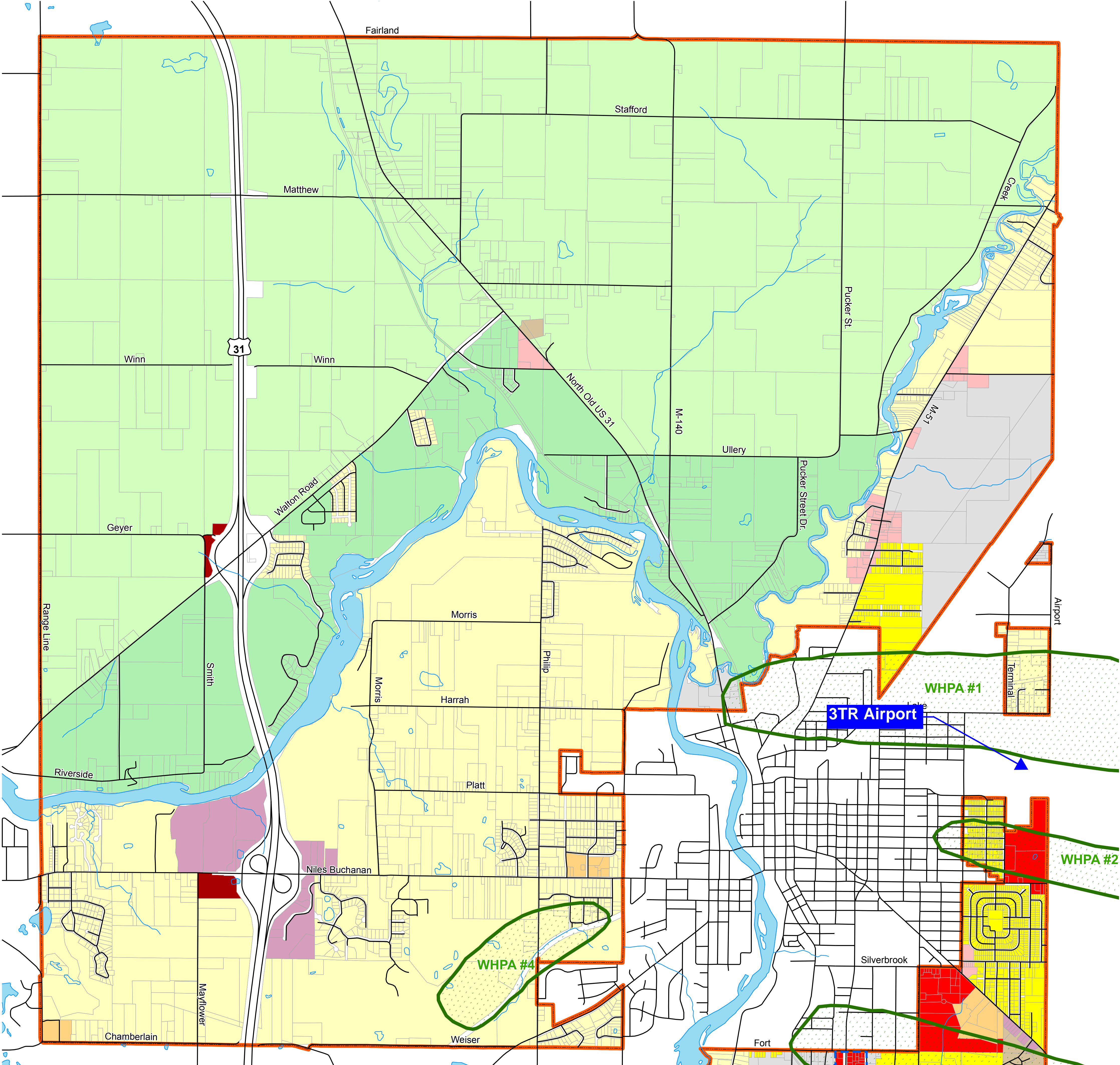


3TR Airport



**CITY OF NILES
ZONING MAP**

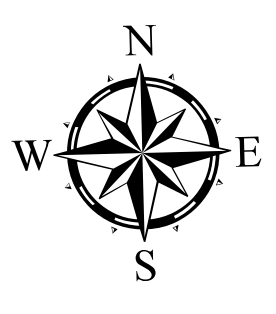




Niles Township

Official Zoning Map

- Legend**
- Township Boundary
 - AP, Agricultural Preserve
 - RP, Rural Preserve
 - R-1A, Low Density Residential
 - R-1B, Medium Density Residential
 - R-2, High Density Residential
 - R-3, Manufactured Housing Community
 - LB, Local Business
 - GB, General Business
 - HB, Highway Business
 - I, Industrial
 - OS, Office Service
 - 11th Street Corridor Overlay
 - City of Niles Wellhead Protection Areas



1 inch = 1,500 feet

0 1,500 3,000 6,000 Feet

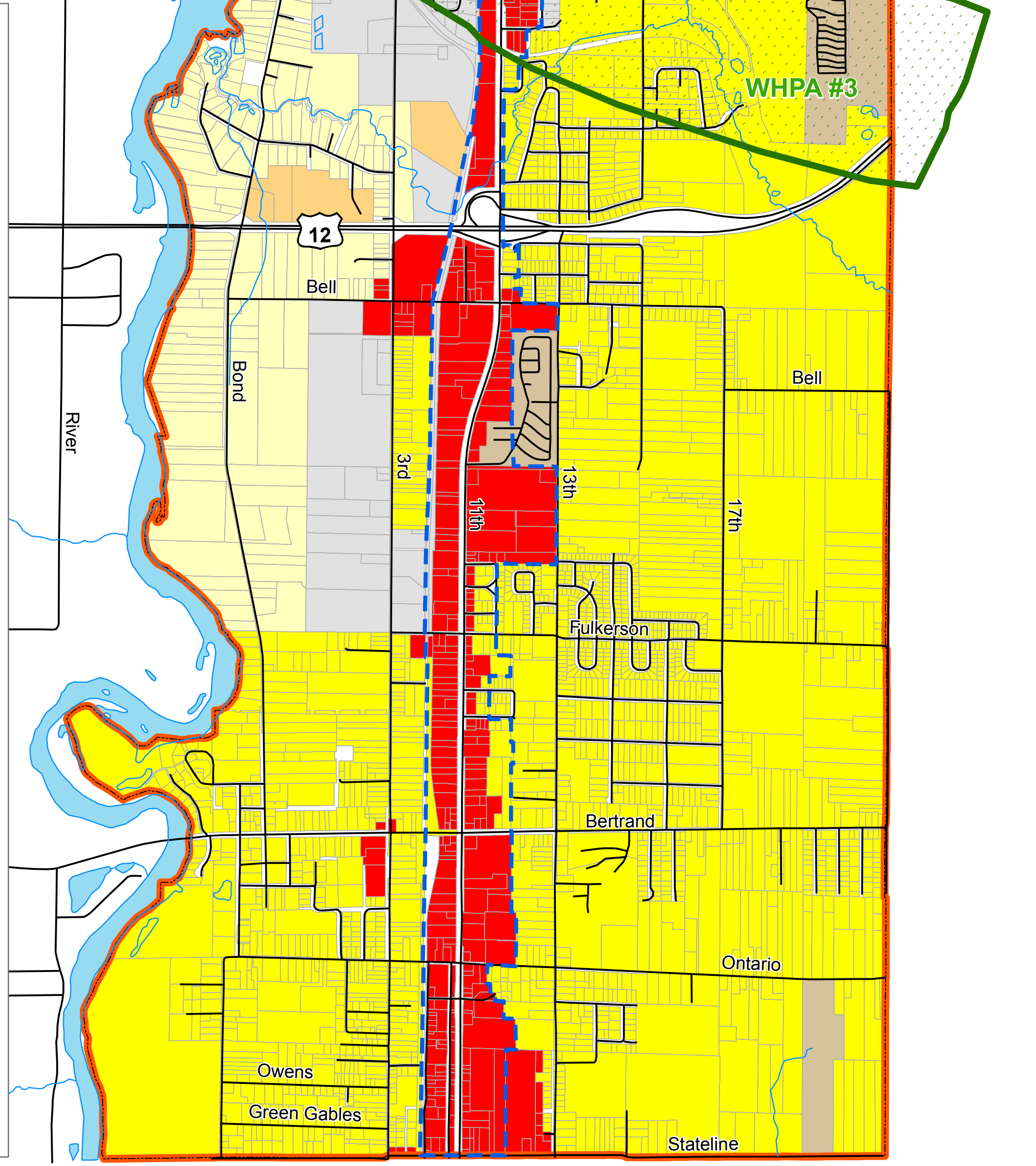
williams&works
engineers | surveyors | planners

The undersigned hereby certify this map as the official adopted zoning map of Niles Charter Township

Peg Hartman
Zoning Administrator

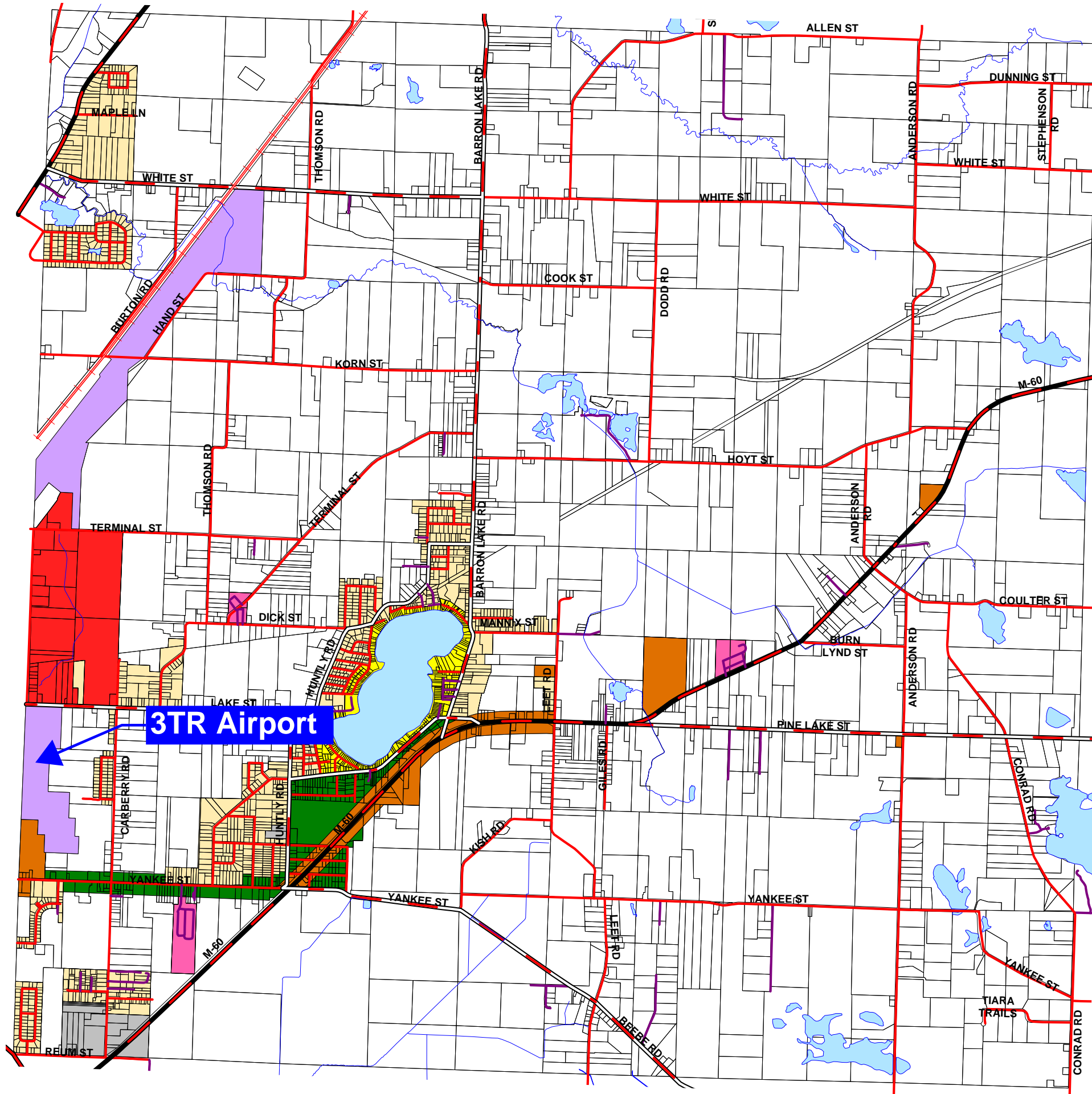
Terry Eull
Township Clerk

Adopted: December 21, 2015
Effective: January 6, 2016



HOWARD TOWNSHIP

ZONING MAP



Zoning Legend

- AR - Agricultural Residential District
- C2 - General Commercial District
- R4 - Lake Residential District
- LI - Light Industrial District
- R1 - Low Density Residential District
- R3 - Manufactured Housing Park District
- M - Manufacturing District
- C1 - Mixed Use District
- City of Niles

Information contained herein is provided for reference purposes only and should be confirmed with the appropriate local agency. Cass County assumes no responsibility for errors and/or omissions.

I, _____, Clerk of Howard Township, do hereby certify that this map is a true copy of the map adopted by the Howard Township Board of Trustees on _____.

I, _____, Supervisor of Howard Township, do hereby certify that this map is a true copy of the map adopted by the Howard Township Board of Trustees on _____.

Howard Township Clerk

Howard Township Supervisor



Scale: 1 inch equals 3,300 feet

Road/Rail Legend

- U.S. Highways
- State Highways
- County Primary Roads
- County Local Roads
- City/Village Major Roads
- City/Village Local Roads
- Not Defined
- Railroads

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Cass County
Information Systems

Kerry Collins, Director
(269) 445-4488

Appendix C – Cultural Resources

December 20, 2023

MEMORANDUM OF AGREEMENT
BETWEEN THE MICHIGAN DEPARTMENT OF TRANSPORTATION
OFFICE OF AERONAUTICS
AND THE
MICHIGAN STATE HISTORIC PRESERVATION OFFICER
REGARDING
JERRY TYLER MEMORIAL AIRPORT RUNWAY 15/33 APPROACH CLEARING
HOWARD TOWNSHIP, CASS COUNTY

WHEREAS, the Michigan Department of Transportation Office of Aeronautics (the “MDOT AERO”) administers projects under the Federal Aviation Administration (the “FAA”) State Block Grant Program, authorized under 49 U.S.C. § 47128, and 14 C.F.R. Part 156, and is acting on behalf of the FAA;

WHEREAS, the MDOT AERO plans to fund Runway 15/33 approach clearing which includes the removal of obstructions (i.e., trees) in the approach to Runway 33 (the “Project”) at the Jerry Tyler Memorial Airport (the “Airport”) in Howard Township, Cass County;

WHEREAS, the MDOT AERO has determined that the Project is an undertaking (the “Undertaking”) since it may have an adverse effect on the Pattengell-Milburn House (the “Property”), which is eligible for listing in the National Register of Historic Places;

WHEREAS, the MDOT AERO consulted with the Michigan State Historic Preservation Officer (the “SHPOfficer”) pursuant to 36 C.F.R. part 800, of the regulations implementing Section 106 of the National Historic Preservation Act (“Section 106”) (54 U.S.C. § 306108);

WHEREAS, the MDOT AERO has defined the Undertaking's area of potential effect (the “APE”) as parcels where select obstructions—primarily trees—penetrate the approach surface and Part 77 Surface (14 C.F.R. Part 77); and

WHEREAS, the SHPOfficer is part of the Michigan State Historic Preservation Office (the “SHPO”); and

WHEREAS, the SHPO was transferred to the Michigan Strategic Fund (the “MSF”) pursuant to Executive Order 2019-13; and

WHEREAS, the MDOT AERO has consulted with the Airport regarding the effects of the undertaking on historic properties and has invited them to sign this Memorandum of Agreement (the “MOA”) as an invited signatory; and

WHEREAS, the MDOT AERO and/or their representative has consulted with David & Connie Dickinson, the owners of the Pattengell-Milburn House (the “Property Owners”),

December 20, 2023

regarding the effects of the Undertaking on historic properties and has invited them to sign this MOA as a consulting party; and

WHEREAS, as used in this MOA, the MDOT AERO, the SHPOfficer, and the Airport are sometimes referred to individually as a “Signatory” and collectively as the “Signatories;” and

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(1), the MDOT AERO has notified the Advisory Council on Historic Preservation (the “ACHP”) of its adverse effect determination with specified documentation and the ACHP has chosen not to participate in the consultation pursuant to 36 C.F.R. § 800.6(a)(1)(iii); and

NOW, THEREFORE, the MDOT AERO and SHPOfficer agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on historic properties.

STIPULATIONS

The MDOT AERO shall ensure that the following measures are carried out:

I. PROPERTY RESEARCH MATERIALS

Within one (1) year of MOA execution, the MDOT AERO or its agent will provide the following to the Niles History Center (the “NHC”) (the “Submittal”):

- A. Digital photographs, in JPEG format, of the Pattengell-Milburn House taken during the initial Section 106 identification survey.
- B. Digital copies of the research materials related to the Pattengell-Milburn House collected during the Section 106 process.

Prior to delivering the Submittal, the MDOT AERO or its agent will coordinate with the NHC regarding the preferred delivery method for the Submittal. The SHPOfficer will be notified when the Submittal is complete and a duplicate set of materials will also be provided to the SHPOfficer.

December 20, 2023

II. TREE REPLANTING AND LANDSCAPE PLAN

- A. The Property Owners will retain a landscape professional to develop a tree replanting and landscaping plan (the “Plan”) that:
 - a. Adheres to the Fernwood Botanical Garden’s Recommendations for Tree Mitigation Plan (the “Mitigation Plan,” see Appendix A) for the property.
 - b. Includes specific details and placement for proposed low-growing trees, shrubs, and landscape vegetation, and may include an irrigation system.
 - c. Specifically quantifies the number and placement of proposed trees and vegetation that are of compatible height for the site and are not considered a wildlife attractant.
 - d. Includes an itemized cost estimate for the materials and installation. It is estimated that the total cost will not exceed \$50,000.
 - e. Includes a schedule for plantings that adheres to the overall project schedule.
 - f. Identifies the Property Owners selected professional landscaper/company that will carry out the Plan and their preferred payment schedule.
- B. Within three (3) months of MOA execution, the Property Owners will provide the Plan to the Airport for review and comment, along with the invoice for the actual cost of Plan development.
- C. The Airport, utilizing the skills of the Fernwood Botanical Garden professionals, will review the Plan within two (2) weeks of receipt from the Property Owners to confirm that the proposed plantings are in accordance with the Mitigation Plan and proposed plantings are compatible in height and are not wildlife attractants.
- D. If the Plan does not adhere to the Mitigation Plan or proposed plantings are determined to be incompatible with the site requirements, the Airport will notify the Property Owners of the requested modifications in writing within two (2) weeks of receipt of the Plan from the Property Owners. The Property Owners will work with the landscape professional to modify the Plan to meet the requirements of the Mitigation Plan and resubmit within two (2) weeks of receipt of the Airport’s comments.
- E. The Airport will reimburse the Property Owners for the actual cost of Plan development, up to \$6,000, within thirty (30) days of its acceptance of the Plan.
- F. The Airport will provide copies of the accepted Plan to the MDOT AERO and the SHPOfficer within thirty (30) days of its acceptance of the Plan for their information.

December 20, 2023

- G. Following completion of the existing tree removal, which is anticipated to occur in Winter 2024, the selected landscape company will commence work in accordance with the Plan. The Plan work is anticipated to be complete by Spring of 2025 (the “Plan Completion”).
- H. The Property Owners will notify the Airport within thirty (30) days of the Plan Completion. Notification will include photos of installed vegetation and a copy of final invoice.
 - a. At their discretion, in lieu of providing photographic documentation, the Property Owners may opt to have the Airport staff complete a site visit to review completed plantings and take photographs to document the Plan Completion.
- I. The Airport will pay the professional landscaper/company in accordance with the payment schedule included in the Plan. At least 10% of the balance will be held until the Plan Completion and shall be paid within thirty (30) days of receipt of final invoice, to ensure compliance with the Plan.
- J. Within thirty (30) day of its payment to the professional landscaper/company, the Airport will provide the MDOT AERO and the SHPOfficer with photos documenting Plan Completion and proof of payment for their information and files.
- K. If the Property Owners fail to provide the Plan, as required in Stipulation II.(A.), to the Airport within three (3) months of MOA execution, this Stipulation II shall be considered null and void and the Property Owners hereby waive all right to any compensation from the Airport for any plantings.

III. DURATION

This MOA will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the MDOT AERO may consult with the other Signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VI below.

IV. MONITORING AND REPORTING

In January of each year following the execution of this MOA until it expires pursuant to Stipulation III or is terminated pursuant to Stipulation VII, the MDOT AERO shall provide all Signatories with a summary report detailing work undertaken pursuant to its terms. The summary report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the MDOT AERO's efforts to carry out the terms of this MOA.

V. DISPUTE RESOLUTION

Should any Signatory to this MOA object (the “Objection”) at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the MDOT AERO shall consult

December 20, 2023

with such Signatory to resolve the Objection. If the MDOT AERO determines that such Objection cannot be resolved, the MDOT AERO will:

- A. Forward all documentation relevant to the Objection, including the MDOT AERO's proposed resolution, to the ACHP. The ACHP shall provide the MDOT AERO with its advice on the resolution of the Objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the Objection, the MDOT AERO shall prepare a written response that takes into account any timely advice or comments regarding the Objection from the ACHP, and the Signatories, and concurring parties, and provide them with a copy of this written response. The MDOT AERO will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the Objection within the thirty (30)-day time period, the MDOT AERO may make a final decision on the Objection and proceed accordingly. Prior to reaching such a final decision, the MDOT AERO shall prepare a written response that takes into account any timely comments regarding the Objection from the Signatories and provide them and the ACHP with a copy of such written response.
- C. The MDOT AERO's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the Objection remain unchanged.

VI. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all of the Signatories is filed with the ACHP.

VII. TERMINATION

If any Signatory to this MOA determines that terms of the MOA will not or cannot be carried out, that Signatory shall immediately consult with the other Signatories to attempt to develop an amendment per Stipulation VI. If within thirty (30) days (or another time period agreed to by all Signatories) an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to the other Signatories.

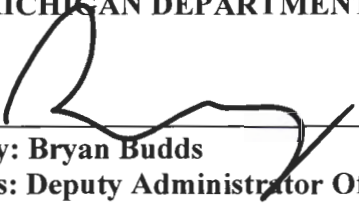
Once the MOA is terminated, and prior to work continuing on the Undertaking, the MDOT AERO must either (a) execute another MOA pursuant to 36 C.F.R. § 800.6 or (b) respond to the ACHP comments in accordance with 36 CFR § 800.7. The MDOT AERO shall notify the Signatories as to the course of action it will pursue.

Execution of this MOA by the MDOT AERO and the SHPOfficer and implementation of its terms evidence that the MDOT AERO has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

December 20, 2023

REQUIRED SIGNATORY:

MICHIGAN DEPARTMENT OF TRANSPORTATION OFFICE OF AERONAUTICS


_____ Date 1/8/2024
By: Bryan Budds
Its: Deputy Administrator Office of Aeronautics

December 20, 2023

REQUIRED SIGNATORY:

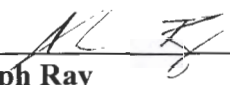
MICHIGAN STATE HISTORIC PRESERVATION OFFICER

DocuSigned by:
Ryan Schumaker Date 2/14/2024
38352B082B2D449...
By: **Ryan Schumaker**
Its: **State Historic Preservation Officer**

December 20, 2023

INVITED SIGNATORY:

JERRY TYLER MUNICIPAL AIRPORT



By: Joseph Ray
Its: Airport Manager & Public Works Director

Date Feb 15th, 2024

December 20, 2023

CONCURRING PARTY:

PROPERTY OWNERS

_____ Date _____
David Dickinson

_____ Date _____
Connie Dickinson

December 20, 2023

APPENDIX A

Fernwood Botanical Garden's Recommendations for Tree Mitigation Plan

FERNWOOD BOTANICAL GARDEN
13988 Range Line Road
Niles Michigan 49120
September 9, 2021

Recommendations for Tree Mitigation Plan
2268 Yankee Street, Niles, Michigan

ANALYSIS and OBSERVATIONS

Staff from the Fernwood Botanical Garden (Carol Line, Executive Director and Steve Bornell, Director of Horticulture) visited the property on July 29, 2021, and found a beautiful property with mature trees. Staff had hoped to find trees that could be saved with selective pruning to the appropriate height. However, the overall canopy was found to be mature and at a height that would make pruning an unlikely option without compromising the look, integrity, and health of the trees.

The predominant tree species is silver maple (*Acer saccharinum*), a faster growing tree that is not considered a tree of high value due to weaker branching and often subsequent loss of limbs in wind and storms. Nevertheless, many are tall, mature trees.

Large, mature trees of particular note included one of each of the following located near the house:

- Sycamore *Platanus occidentalis*
- Sweet Gum *Liquidambar styraciflua*
- Sugar Maple *Acer saccharum*
- Tulip Tree *Liriodendron tulipifera*
- Norway Maple *Acer platanoides*

The information collected from the Stephenson Land Survey (SLS) site inventory provided data on the heights of the trees on the property and the amount of penetration of each into the runway approach surface. The attached graphic illustrates the location and penetrations of the trees on the property. Based upon that data, the possibility of pruning the existing trees to the required height of ten feet below the surface is limited for many of the trees. Once pruning is conducted, to the required height and with appropriate arboriculture standards, there would be minimal viable tree left to continue to grow and provide aesthetic vegetation.

RECOMMENDATIONS

The following are general recommendations, based upon the site visit and SLS survey information:

- Lower the height of the stand of white pines near the southernmost livestock pens to maintain cover for the animals. While not an aesthetic solution, it would be less impactful for the livestock and at the far corner of the property. White pines in nature, after sustaining wind damage, typically regenerate a new leader. The stand could be on an every-three-year maintenance plan to keep height in line.
- Due to the mature nature of the remaining deciduous trees, remove them to ground to remove the penetrations to the allowable surface and the ten-foot buffer and provide new plantings to replace those trees to be removed.
 - Recommended species for replanting may include the following and natives are suggested when possible.

- *Acer miyabei* Miyabe Maple 30' to 60' non-native
- *Amelanchier arborea* Serviceberry 25' to 30' seasonal interest including fall color
- *Carpinus caroliniana* American hornbeam 25' to 30' good fall color
- *Cercis canadensis* Eastern Redbud 20' to 30' spring color
- *Cladrastis kentukea* Yellowwood 30' to 50'
- *Cornus florida* Flowering Dogwood 15' to 30' spring color
- *Cornus alternifolia* Pagoda Dogwood 15' to 30' seasonal color
- *Halesia carolina* Carolina Silverbell 30' to 40' spring color
- *Hamamelis vernalis* Vernal Witch Hazel 6' to 10' good fall color and spring bloom.
- *Hamamelis virginiana* Common Witch Hazel 15' to 20' fall/winter flowering, fall color, birds.
- *Ilex opaca* American Holly 15' to 30' birds
- *Juniperus virginiana* Red Cedar 30' to 65'
- *Magnolia stellata* Star Magnolia 15' to 20' non-native spring color
- *Magnolia x soulangeana* Saucer Magnolia 20' to 25' spring color
- *Ostrya virginiana* Eastern Hop Hornbeam 25' to 40' good fall color
- *Quercus muehlenbergii* Chinkapin Oak 40' to 60'
- *Thuja occidentalis* American Arborvitae 20' to 40'

Of the trees suggested above, the oak and maple will provide the allowable mature height yet the feel of traditional canopy trees, however each of these has a mature height that is approaching a height that would place them near the approach surface in the future. Consequently, use of these should be placed toward the south side of the parcel, farther away from Yankee Street.

The abovementioned holly, juniper, and arborvitae are recommended evergreens for screening/windbreaks. The holly may sustain some occasional winter burn or winter leaf drop but typically recover and flush out new foliage by early summer. Holly would be good for bird habitat.

Although our initial recommendation was to plant trees with as large a caliper as possible for immediate maximum impact, tree experts suggest a trunk diameter caliper range of 2" or 2.5" for more immediate establishment and growth.

To address possible historic elements that may be raised by the State Historic Presentation Office (SHPO), plantings that mimic the gardens that maybe have established during the period of construction of the home may also be considered but are not subject to this recommendation at this time.

Replacement perennials may also be required in some locations since the removal of the taller trees may create more sunlight in areas that are currently shade gardens. As an example, there are a number of hosta planted near the house which may find these sunnier areas less ideal for growing.



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

MARK A. BURTON
PRESIDENT

March 1, 2021

ERNEST P GUBRY
FEDERAL AVIATION ADMINISTRATION
DETROIT AIRPORTS DISTRICT OFFICE
11677 SOUTH WAYNE ROAD SUITE 107
ROMULUS MI 48174

RE: ER20-948 Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project, Sec. 30-31,
T7S, R16W, Howard Township, Cass County (FAA)

Dear Mr. Gubry:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the proposed undertaking at the above-noted location. Based on the information provided for our review, the State Historic Preservation Officer (SHPO) concurs with the determination that the proposed undertaking will have an **adverse effect** on the Pattengill-Milburn House, located at 2268 Yankee Street, which appears to meet the criteria for listing in the National Register of Historic Places.

This undertaking meets the criteria of adverse effect because: *the undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association*, 36 CFR § 800.5(a)(1). Specifically, the undertaking will result in a change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.

More specifically, the undertaking includes the removal of a large number of mature trees which contribute to the historic character within the landscape of this rural farmstead. Removal of these elements will diminish the setting and overall historic integrity of the historic property.

Federal agencies are required to avoid, minimize, or mitigate adverse effects. Please note that if the federal agency and the SHPO concur that the adverse effect cannot be avoided, the Section 106 process will not conclude until the consultation process is complete, an MOA is developed, executed, and implemented, and, if applicable, the formal comments of the Advisory Council have been received, 36 CFR § 800.6. For more information on your responsibilities and obligations for projects that will have an adverse effect on historic properties under 36 CFR § 800.6, please review the enclosed materials.

We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d). The National Historic Preservation Act also requires that federal agencies consult with any Indian tribe and/or Tribal Historic Preservation Officer (THPO) that attach religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii).



The opinion of the SHPO is based on the materials provided for our review. If you believe that there is material that we should consider that might affect our finding, or if you have questions, please contact Brian Grennell, Cultural Resource Management Specialist, at (517) 335-2721 or by email at GrennellB@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.**

Finally, the State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking. Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,



Martha MacFarlane-Faes
Deputy State Historic Preservation Officer

MMF:KAK:BGG

Enclosures

copy: Steve Houtteman, MDOT
Emily Pettis, Mead & Hunt



July 13, 2020

Brian Grennell
Michigan State Historic Preservation Office
300 N. Washington Sq.
Lansing, MI 48913

Subject: Section 106 Consultation
Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project
Niles, Cass County, Michigan

Dear Mr. Grennell:

The attached report is submitted as part of consultation for Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106), for the Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project in Niles, Cass County, Michigan. Mead & Hunt, Inc. (Mead & Hunt) has completed this Section 106 compliance report on behalf of the Michigan Department of Transportation (MDOT) Office of Aeronautics. Lawhon & Associates, Inc. (Lawhon & Associates) was retained by Mead & Hunt to complete the archaeological survey. The Section 106 report and supplemental materials are attached.

The Area of Potential Effects (APE) was defined to include parcels that will be impacted by removal of runway approach obstructions, which consist of trees of a particular height. Mead & Hunt identified two properties within the APE that are recommended as eligible for listing in the National Register of Historic Places (National Register), and qualify as Historic Properties for the purposes of Section 106 – the Pattengell-Milburn House at 2268 Yankee Street and a Colonial Revival-style house at 2302 Yankee Street.

A literature review and visual reconnaissance of the APE was completed as part of the archaeological survey. The literature review did not result in findings of previously identified archaeological sites, and the visual reconnaissance did not identify any surface indications of archaeological sites within the project area. While the presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing, an archaeological survey would likely not be warranted for the undertaking if the individual trees can be felled without significant ground disturbance.

Mr. Grennell
July 13, 2020
Page 2

Project activities were analyzed for the potential to impact Historic Properties under Section 106, and Mead & Hunt determined that the proposed Project activities may cause an Adverse Effect to both Historic Properties within the APE. If your office concurs with the eligibility recommendation and finding of Adverse Effect, MDOT will begin consultation and prepare a Memorandum of Agreement.

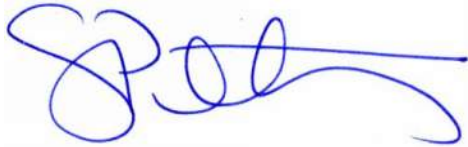
The MDOT Office of Aeronautics is acting as a federal agency for compliance with Section 106, and correspondence related to this project should be directed to:

Steve Houtteman
Aeronautics Environmental Specialist
Project Support Unit - Office of Aeronautics
Michigan Department of Transportation
(616) 299-2654
houttemans@michigan.gov

You may also contact Emily Pettis (Mead & Hunt) with any questions (emily.pettis@meadhunt.com, 608-443-0406), but request that Mr. Houtteman remains in copy on all correspondence.

Sincerely,

MEAD & HUNT, Inc.



Emily Pettis
Cultural Resources Department Manager

STATE HISTORIC PRESERVATION OFFICE Application for Section 106 Review

SHPO Use Only			
<input type="checkbox"/>	IN	Received Date ____ / ____ / ____	Log In Date ____ / ____ / ____
<input type="checkbox"/>	OUT	Response Date ____ / ____ / ____	Log Out Date ____ / ____ / ____
		Sent Date ____ / ____ / ____	

Submit one copy for each project for which review is requested. This application is required. Please type. Applications must be complete for review to begin. Incomplete applications will be sent back to the applicant without comment. Send only the information and attachments requested on this application. Materials submitted for review cannot be returned. Due to limited resources we are unable to accept this application electronically.

I. GENERAL INFORMATION

THIS IS A NEW SUBMITTAL THIS IS MORE INFORMATION RELATING TO ER#

- a. Project Name: Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project
- b. Project Address (if available): 12018 Lake Street, Niles, MI 49015 and nearby parcels
- c. Municipal Unit: City of Niles; Howard Township County: Berrien and Cass
- d. Federal Agency, Contact Name and Mailing Address (*If you do not know the federal agency involved in your project please contact the party requiring you to apply for Section 106 review, not the SHPO, for this information.*): Federal Aviation Administration
- e. State Agency (if applicable), Contact Name and Mailing Address: Michigan Department of Transportation, Office of Aeronautics (MDOT AERO)
- f. Consultant or Applicant Contact Information (if applicable) *including mailing address*: Mead & Hunt, Inc., 2440 Deming Way, Middleton, WI 5356

II. GROUND DISTURBING ACTIVITY (INCLUDING EXCAVATION, GRADING, TREE REMOVALS, UTILITY INSTALLATION, ETC.)

DOES THIS PROJECT INVOLVE GROUND-DISTURBING ACTIVITY? YES NO (If no, proceed to section III.)

Precise project location map (preferably USGS 7.5 min Quad with quad name, date, and location) with previously recorded archaeological sites visible (this site information is available to qualified archaeologists at the SHPO Office) Portions, photocopies of portions, and electronic USGS maps are acceptable as long as the location is clearly marked.

- a. USGS Quad Map Name: Niles East 7.5' Quadrangle
- b. Township: T7S Range: 16W Section: 30-31
- c. Site plan showing limits of proposed excavation. Description of width, length and depth of proposed ground disturbing activity: See archaeology report by Lawhon.
- d. Previous land use and disturbances: See archaeology report by Lawhon.
- e. Current land use and conditions: See archaeology report by Lawhon.
- f. Did you check the State Archaeological Site Files located at the SHPO? YES NO

III. PROJECT WORK DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Note: Every project has an APE.

- a. Provide a detailed written description of the project (plans, specifications, Environmental Impact Statements (EIS), Environmental Assessments (EA), etc. **cannot** be substituted for the written description): See continuation sheet.
- b. Provide a localized map indicating the location of the project; road names must be included and legible.
- c. On the above-mentioned map, identify the APE.
- d. Provide a written description of the APE (physical, visual, auditory, and sociocultural), the steps taken to identify the APE, and the justification for the boundaries chosen. See continuation sheet.

IV. IDENTIFICATION OF HISTORIC PROPERTIES

- a. List and date **all** properties 50 years of age or older located in the APE. **The [Section 106 Above-Ground Resources inventory form](#) is the preferred format for providing this information and a completed form should be included as an attachment to this application.** If the property is located within a National Register eligible, listed or local district it is only necessary to identify the district: See table of surveyed properties and attached inventory forms for all properties over 50 years of age. See attached Determination of Eligibility for the Pattengell-Milburn House.
 - b. Describe the steps taken to identify whether or not any **historic** properties exist in the APE and include the level of effort made to carry out such steps: See continuation sheet.
 - c. Based on the information contained in "b", please choose one:
 - Historic Properties Present in the APE
 - No Historic Properties Present in the APE
 - d. Describe the condition, previous disturbance to, and history of any historic properties located in the APE: See continuation sheet.
-

V. PHOTOGRAPHS

Note: All photographs must be keyed to a localized map.

- a. Provide photographs of the site itself.
 - b. Provide photographs of all properties 50 years of age or older located in the APE (faxed or photocopied photographs are not acceptable).
-

VI. DETERMINATION OF EFFECT

Note: you must provide a statement explaining/justifying your determination. Include statement as an attachment if necessary.

- No historic properties affected based on [36 CFR § 800.4(d)(1)], **please provide the basis for this determination.**
- No Adverse Effect [36 CFR § 800.5(b)] on historic properties, **explain why the criteria of adverse effect, 36 CFR Part 800.5(a)(1), were found not applicable.**
- Adverse Effect [36 CFR § 800.5(d)(2)] on historic properties, **explain why the criteria of adverse effect, [36 CFR Part 800.5(a)(1)], were found applicable.**

***Please print and mail completed form and required information to:
State Historic Preservation Office, Cultural Resources Management Section
Michigan Economic Development Corporation
300 North Washington Square, Lansing, MI 48913***

Section III. Project Work Description and Area of Potential Effects (APE)

- a. The Jerry Tyler Memorial Airport (Airport) and the City of Niles (City) are completing an obstruction analysis to determine which obstructions (trees and vegetation) limit pilot visibility on approach to Runway 15. The project is funded in part by the Federal Aviation Administration (FAA) and Michigan Department of Transportation (MDOT). Project work includes the complete and/or partial removal of obstructions determined to be within the runway approach sightline and will require acquisition of avigation easements from select property owners.

- d. The Area of Potential Effect (APE) was defined to include the parcels with proposed tree removal and avigation easements. The APE was defined as 14 parcels adjacent to the southeast corner of the Airport; these parcels contain identified Runway 15 approach obstructions. The parcels are residential properties located long Carberry Road (Blocks 900-1000) and Yankee Street (Blocks 2200-2300).

Section IV. Identification of Historic Properties

- b. Mead & Hunt, Inc. (Mead & Hunt) architectural historians conducted a reconnaissance-level survey in November 2019. They examined current and historic aerial photographs to identify above-ground resources located within the APE. Based on this information, they determined the threshold for historic survey should include all built environment features constructed prior to 1980. Field survey and photographic documentation of potentially affected resources followed. Affected built resources were inventoried on the Section 106 spreadsheet provided by the Michigan State Historic Preservation Office (SHPO), individual inventory forms were completed for each property.

Mead & Hunt architectural historians visited the Michigan SHPO to confirm whether any built resources within the APE had been previously surveyed. No properties within the project area had been previously surveyed. Research was conducted, which included review of available archival materials from online historical databases and a brief historic context developed. Two preliminary Determinations of Eligibility (DOEs) were performed for those properties that appear to have potential for National Register of Historic Places (National Register) eligibility. One property at 2268 Yankee Street, commonly known as the Pattengell-Milburn House, was evaluated and recommended eligible for listing in the National Register under *Criteria A* and *C*. The house is an early and rare example of brick residential architecture in the southwestern region of Michigan and a representative example of the Second Empire style, with periods of significance of c.1832 and c.1896, respectively. A second property at 2302 Yankee Street was evaluated and recommended eligible for listing in the National Register under *Criterion C*. The house is a representative example of the Colonial Revival style with a high level of design and

craftsmanship, with a period of significance of c.1945. The eligibility evaluations for both properties are included in the submission.

- d. The current condition of the historic property located at 2268 Yankee Street (Pattengell-Milburn House) appears to be good. Some materials have been replaced over time, but the property appears to retain sufficient integrity to convey its significance under *Criteria A* and *C*, including such character-defining features as the expansive rural lot, brick exterior, and wood molding at eaves.

The current condition of the property located at 2302 Yankee Street appears to be good. Available street-side imagery and photographs from a previous real estate listing suggests that the house was recently rehabilitated, with some materials appearing to have been restored or replaced in-kind. While some materials have been replaced with contemporary materials, most notably the sidelight adjacent to the main entry, the house appears to retain integrity to convey the property's significance under *Criterion C*.

Section V.

See photo log attachment.

Section VI. Determination of Effect

Field survey and research efforts undertaken by Mead & Hunt historians determined that historic properties adjacent to the Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project will be impacted by project activities, namely the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival-style house at 2302 Yankee Street, which were both recommended eligible for listing in the National Register as a result of this study. No buildings will be demolished as part of the project scope; however, the proposed removal of a substantial number of trees has the potential to alter the historic setting of each historic property, which may result in an Adverse Effect. The Criteria of Adverse Effects were applied to the proposed project as it relates to the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival-style house at 2302 Yankee Street.

Under Section 106 regulations—36 CFR Part 800.5(a)(1)—Adverse Effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the National Register. 36 CFR Part 800.5(a)(2) provides seven examples of adverse effects on historic properties. The seven examples of adverse effects include:

- (i) Physical destruction of or damage to all or part of the property;

Continuation Sheet
Jerry Tyler Memorial Airport
3TR Runway 15 Approach Clearing Project
Cass and Berrien Counties

- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

The proposed project will not cause a physical change to any buildings or structures on the property; therefore, examples (i) and (ii) do not apply. The proposed project will not remove either house from their respective historic locations; therefore, example (iii) does not apply. The proposed project will result in the removal of several trees on the subject parcels, potentially impacting the historic settings of each property; therefore, example (iv) applies. The proposed project will not result in neglect of the properties or a transfer of ownership; therefore, examples (vi) and (vii) do not apply.

Only example (iv) may apply to the proposed project and is discussed below as it relates to each property.

Pattengell-Milburn House at 2268 Yankee Street

Example (iv) Change of the character of the property's use or physical features within the property's setting that contribute to its historic significance

The proposed project includes the removal of several trees from the parcel, including areas near the Pattengell-Milburn House.

Continuation Sheet
Jerry Tyler Memorial Airport
3TR Runway 15 Approach Clearing Project
Cass and Berrien Counties

Analysis

First settled in 1832, the earliest-built properties along Yankee Street were farmsteads. Changes to the landscape occurred over time as settlers cleared the land to erect houses, sheds, and barns, practice agriculture, and tend livestock. The land was subdivided and new homes constructed into the late twentieth century, though census records classified Cass County and Howard Township as “rural” throughout most of this period.¹ As such, the surrounding natural landscape contributes to a sense of place as much as the built environment.

The Pattengell-Milburn House (2268 Yankee Street), the earliest building within the APE, retains its general agricultural setting and overall feeling of a rural farmstead, with some designed landscape elements added over time. A 1969 historic aerial shows several trees on the property, including a stand of trees planted in two neat rows along the parcel’s western edge.² Only some of these trees remain today. The numerous trees on the property, and adjacent to the Pattengell-Milburn House, contribute to the historic setting of the property as a rural farmstead.

The removal of a large number of mature trees from the property would change the physical features within the property’s setting that contribute to its historic significance, resulting in an Adverse Effect to the historic property.



Figure 1: Pattengell-Milburn House at 2268 Yankee Street north (front) and west elevations, view southeast.

Colonial Revival-style house at 2302 Yankee Street

Example (iv) Change of the character of the property’s use or physical features within the property’s setting that contribute to its historic significance

¹ U.S. Bureau of the Census, “Number of Inhabitants: Michigan,” 1952, <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37779850v2p22ch2.pdf>.

² U.S. Geological Survey, “AR1VCEV00010201, Roll 000001, Frame 201” (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Continuation Sheet
Jerry Tyler Memorial Airport
3TR Runway 15 Approach Clearing Project
Cass and Berrien Counties

The proposed project includes the removal of several trees from the parcel, including areas near the Colonial Revival-style house at 2302 Yankee Street.

Analysis

First settled in 1832, the earliest-built properties along Yankee Street were farmsteads. Changes to the landscape occurred over time as settlers cleared the land to erect houses, sheds, and barns, practice agriculture, and tend livestock. The land was subdivided and new homes constructed into the late twentieth century, though census records classified Cass County and Howard Township as “rural” throughout most of this period.³ As such, the surrounding natural landscape contributes to a sense of place as much as the built environment.

The Colonial Revival-style house at 2302 Yankee Street was not part of the earliest settlement of the Yankee Street area, but rather represented development on larger, subdivided parcels that occurred through the first half of the twentieth century. The property retains its general setting from c.1940, with only some later construction occurring along Carberry Road, south of Yankee Street. This setting of the house is defined by the rural neighborhood’s large wooded parcels, with the subject property exhibiting numerous trees throughout the parcel. The mature size and large number of trees on the parcel contributes to the historic character of the property, and conveys significance related to the relatively rural setting of the house.

The removal of large number of mature trees from the property would change the physical features within the property’s setting that contribute to its historic significance, resulting in an Adverse Effect to the historic property.






In all, the proposed project will result in an Adverse Effect to the two identified historic properties within the APE, as the removal of a large number of trees on each parcel would impact the historic settings of the respective properties.





³ U.S. Bureau of the Census, “Number of Inhabitants: Michigan,” 1952, <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37779850v2p22ch2.pdf>.



Continuation Sheet
Jerry Tyler Memorial Airport
3TR Runway 15 Approach Clearing Project
Cass and Berrien Counties



Figure 2: Colonial Revival-style house at 2302 Yankee Street north (front) elevation, view south.

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
991 Carberry Road, Niles, Cass County	c.1970	Not known	Ranch	Brick, asphalt shingle roof	Vinyl double-hung and casement with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any associations with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under Criterion B. This house is an example of a common Ranch house that lacks distinctive architectural features and exhibits some replacement materials including vinyl windows and asphalt shingle roofing. Therefore, it is not eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
1008 Carberry Road, Niles, Cass County	c.1965	Not known	Ranch	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and sliding sash	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under Criterion B. The house is an altered example of the common Ranch form that lacks distinctive architectural characteristics. Therefore, it is not eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2268 Yankee Street, Niles, Cass County	c.1832; alterations: c.1896, c.1920	Not known	Second Empire	Brick with mansard shingle roof	Double-hung, some with divided lights, fixed	Y	Good	Fair	A, C	Exploration/Settlement; Architecture	c.1832, c.1896	Eligible	The Pattengell-Milburn House was evaluated for significance for representing the early period of settlement in Howard Township at the local level under Criterion A: Exploration/Settlement, for representing early brick residential architecture at the state level under Criterion C: Architecture, and for representing distinctive characteristics of the Second Empire style at the local level under Criterion C: Architecture. The Pattengell-Milburn House is recommended eligible for listing in the National Register under these themes. See the attached Preliminary Eligibility Assessment (September 2019) for additional information.	
2274 Yankee Street, Niles, Cass County	c.1925	Not known	Colonial Revival	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and fixed vinyl windows, some with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of the Colonial Revival architectural style, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2279 Yankee Street, Niles, Cass County	c.1945	Not known	Vernacular	Vinyl siding, vinyl shingle, asphalt shingle roof	Vinyl double-hung with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under Criterion B. Constructed c.1945, the house is an altered example of a common Vernacular form and is lacking distinctive architectural characteristics that might qualify it as eligible under Criterion C. Additionally, the number of outbuildings has changed and those extant have experienced material alterations or are not of historic age. As a result, this property is recommended not eligible for listing in the National Register.	

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
2288 Yankee Street, Niles, Cass County	c.1900	Not known	Front gable	Vinyl siding, shingles, asphalt shingle roof	Vinyl double-hung with faux divided lights	N	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under Criterion B. The house is an altered example of a simple front-gable form and has experienced additions to its simple form, as well as replacement materials such as siding and windows. Additionally, the house does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2290 Yankee Street, Niles, Cass County	c.1920	Not known	Bungalow	Vinyl siding, concrete block foundation, asphalt shingle roof	Vinyl double-hung with faux divided lights in upper sashes	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of a bungalow form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2298 Yankee Street, Niles, Cass County	c.1900	Not known	Front gable	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and sliding sash	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of a turn-of-the-twentieth-century, front-gable form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2302 Yankee Street, Niles, Cass County	c.1940	Not known	Colonial Revival	Wood lap siding, brick chimney, asphalt shingle	Wood double-hung (12-over-12 and 8-over-12) and 4-light casement	N	Good	Good	C	Architecture	c.1945	Potentially eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events within any known context under Criterion A: History. Likewise, no evidence was found to suggest potential for significance under Criterion B: Significant Person. The house is a representative example of the American Colonial Revival style from the style's later period in the twentieth century, and displays the form and features that embody the Late American Colonial Revival style. The design displays a high level of skilled craftsmanship in patterns of punched wood siding, dentil molding, and a corbeled brick chimney, while displaying most of the character-defining features of the style: side-gable roof with wall dormers, horizontal wood siding, and a symmetrical facade. As such, the house appears to exhibit significance for its architectural style under Criterion C: Architecture, and possesses sufficient integrity to be recommended eligible for the National Register.	

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
2306 Yankee Street, Niles, Cass County	c.1920	Not known	Period Revival	Brick, composite siding, asphalt shingle roof	Vinyl double-hung, some with faux divided lights in upper sash, some with semi-lunar transoms	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of Period Revival architecture, and with replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2310 Yankee Street, Niles, Cass County	c.1920	Not known	Bungalow	Brick, composite siding, metal roof	Wood fixed tripartite with divided light, vinyl double-hung with divided light	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is a common example of a Bungalow form and does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	991 Carberry Road				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-240-001-01				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.825721	Long: 86.214380			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1970
Architectural Style	Ranch
Building Form	EII plan
Roof Form	Hip
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Brick
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and casement with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/One-car garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 991 Carberry Road is a one-story, ell-plan Ranch house with white glazed brick exterior cladding and a low-pitch hip roof clad in asphalt shingles. Windows appear to be double-hung vinyl and casement with faux divided lights and false shutters. The front door, located at the corner of the ell, is framed by two sidelights. The ell serves as a two-car garage and an additional entrance along its south elevation. A detached one-car garage is located behind the house to the east and consists of a gambrel roof clad in asphalt shingles and an exterior of vinyl lap siding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aerials suggests the house was constructed in c.1970.² Since construction, this house has served as a private residence and appears to have maintained its original form. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any associations with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under *Criterion B*. This house is an example of a common Ranch house that lacks distinctive architectural features and exhibits some replacement materials including vinyl windows and asphalt shingle roofing. Therefore, it is not eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	1008 Carberry Road				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-030-032-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.827277	Long: 86.215132			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1965
Architectural Style	Ranch
Building Form	Rectangular
Roof Form	Hip
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Poured concrete
Window Materials	Vinyl
Window Type	Double-hung and sliding sash
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/>
Feeling <input type="checkbox"/>	Association <input type="checkbox"/>			
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 1008 Carberry Road is a one-story Ranch house with a rectangular plan and a hip roof clad in asphalt shingles. The exterior is clad in vinyl lap siding and windows appear to be replacements consisting of a combination of vinyl double-hung and vinyl sliding sash. The primary entrance is sheltered by a closed pediment overhang, supported by simple square posts. A one-story addition extends from the south elevation, and exhibits a relatively flat roof and a secondary entry at the east-facing facade. A small shed with a gable roof is located to the southwest of the house.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aerials suggest the house was constructed in c.1965.² Since construction, this house has served as a private residence and has undergone alterations, including replacement exterior siding and windows, and an addition along the primary elevation. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under *Criterion B*. The house is an altered example of the common Ranch form that lacks distinctive architectural characteristics. Therefore, it is not eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "ARB593512212325, Roll 000122, Frame 12325." U.S. Geological Survey, June 8, 1960. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "ARB593512212325, Roll 000122, Frame 12325" (U.S. Geological Survey, June 8, 1960), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2268 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-038-01				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826365	Long: 86.217721			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c. 1832
Architectural Style	Second Empire
Building Form	Three story
Roof Form	Gambrel, Mansard
Roof Materials	Asphalt shingle
Exterior Wall Materials	Brick
Foundation Materials	Masonry
Window Materials	Unknown
Window Type	Double-hung, some with divided lights, and fixed
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	2/Garage; 1/Barn

Eligibility

Individually Eligible	Criterion A <input checked="" type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input checked="" type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input type="checkbox"/>				
Area(s) of Significance	Exploration/Settlement			
Period(s) of Significance	c.1832-c.1896			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input checked="" type="checkbox"/>	Design <input checked="" type="checkbox"/>	Materials <input checked="" type="checkbox"/>	Workmanship <input checked="" type="checkbox"/>	Setting <input checked="" type="checkbox"/>
Feeling <input checked="" type="checkbox"/>	Association <input checked="" type="checkbox"/>			
General Integrity:	Intact <input checked="" type="checkbox"/>	Altered <input type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	Pattengell-Milburn House			
Current/Common Name	N/A			
Historic/Original Owner	Unknown			
Historic Building Use	Residential; Agricultural			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	6/26/2019, 11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #	
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

Please see attached Preliminary Eligibility Assessment.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Please see attached Preliminary Eligibility Assessment.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

Please see attached Preliminary Eligibility Assessment.

References

List references used to research and evaluate the individual property.

Please see attached Preliminary Eligibility Assessment.

Preliminary National Register of Historic Places Eligibility Assessment
Pattengell-Milburn House
2268 Yankee Street
Niles, Howard Township, Cass County, Michigan

Mead & Hunt, Inc.
December 2019

1. Architectural Description

The Pattengell-Milburn House is a three-story residence at 2268 Yankee Street in Niles, Cass County, Michigan. It has an asymmetrical plan comprised of an original c.1832 house and large historic-age additions. The house fronts Yankee Street and is surrounded by mature trees and overgrown shrubs. It is located on a large lot with a tree-lined perimeter. The parcel is surrounded to the west, south, and north (across Yankee Street) by farmland and to the east by residential use (see Figure 1). The property is accessible from the street by a winding, paved driveway to the east of the house.



Figure 1. Aerial view of the parcel at 2268 Yankee Street. Cass County GIS Parcel Report, June 7, 2019.

The house was constructed c.1832 with a large, c.1896, Second Empire-style addition on the side (west) elevation and a rear addition with an unknown construction date (see Figure 2).¹ The original c.1832 house has exterior brick walls of common bond of varied color. It has a gambrel roof with three prominent

¹ This addition is not clearly visible from the public right-of-way; therefore, an estimated construction date was not determined.

gable dormers. Fenestration consists of one-over-one windows with decorative wood sills and brick soldier course lintels (see Figure 3). The north-facing facade of the original c.1832 house features a central entrance situated between four one-over-one windows. The entry door features a boarded transom and a screen door. The side (east) elevation features a wood entry porch with a low-pitch, front-gable roof supported by decorative wood posts and spandrels (see Figure 4). A brick knee wall separates the brick walkway at the side entrance from the driveway.



Figure 2. North-facing facade, view facing south. The original c.1832 house is at left and the c.1896 Second Empire-style addition is at right.



Figure 3. Side (east) elevation and north-facing facade, view facing west/southwest.



Figure 4. Side (east) elevation and north-facing facade of the original c.1832 house, view facing southwest.

The c.1896, three-story addition has a mansard roof clad in asphalt shingles with molded cornices and wide overhanging eaves (see Figure 5). It sits on a masonry foundation with dark-red running bond exterior brick walls. Three chimneys are located on this addition: in the center of the roof, on the east side of the roof, and on the south elevation. Fenestration consists of one-over-one windows and a fixed picture window on the facade, a Queen Anne-style window on the east elevation, and a bay window on the west elevation with decorative corbels and dentils. The windows on the c.1896 addition feature stone sills and lintels. The third story also features gable wall dormers in the mansard roof. The facade features a covered portico with a slightly projecting sloped roof with decorative dentils beneath the eaves. It is supported by four Doric columns flanking the six-light double entry doors.



Figure 5. c.1896 addition, facing southeast, October 2018. Google Street View image.

A large two-story addition is located on the rear (south) elevation; the addition was not visible from public right-of-way during field survey. Based on photographs identified through research efforts, the addition has a side-gable roof and is clad in brick and replacement siding and appears to have been constructed c.1920 (see Figure 6 and Figure 7). An enclosed porch is present near where it meets the c.1896 addition.



Figure 6. South elevation from 2006 real estate advertisement.



Figure 7. South elevation, 1981. Photograph courtesy of Historical Reflection of Cass County.

The property includes at least five outbuildings, and the foundation of one demolished outbuilding is visible from aerial photographs. Outbuildings visible from the right-of-way include a rectangular outbuilding with a side-gable roof, one-over-one windows, and vinyl siding; an elongated rectangular outbuilding with a side-gable roof and fixed, three-over-five windows; a wood barn with a replacement gambrel roof (see Figure 8), and a brick silo.



Figure 8. Outbuildings located on the southwest corner of the lot, June 26, 2019.

2. History and Context

In order to assess the historical significance of the Pattengell-Milburn House, research was conducted at the Niles District Library, Cass District Library Howard Branch, Cass District Library Local History Branch in Cassopolis, and Niles Historical Society. Research was conducted using local history publications, Niles city directories, and the Michigan State Gazetteer Business Directories. A list of sources is provided in the bibliography at the end of this document. Tax assessment records were not available at the Niles City Hall to determine the exact dates of construction for additions to the property. Additional resources were used to research the property owners, including census records, pension requests, historic newspapers, and records on Ancestry.com, Newspapers.com, GenealogyBank.com, and Genealogy.com. The Niles District Library’s digital newspaper archives were also utilized. Research revealed little information on the property owners.

The Pattengell-Milburn House is in the northwest corner of Section 31 of Howard Township within Cass County, Michigan. The house was one of the early residences constructed during the settlement of Howard Township in the late 1820s and 1830s by migrants from the eastern United States. The exact date of construction could not be confirmed but was likely constructed c.1832. While a 1931 newspaper article inaccurately cites the house as “the first brick house erected in Michigan outside of Detroit,” the

Pattengell-Milburn House was nevertheless likely the first brick house constructed in Howard Township and greater southwest Michigan.²

A. History of Howard Township

Howard Township was named by a Niles resident and member of the Michigan Territorial Legislature with the surname of Green, who was pursuing a woman with the name Howard.³ Upon formally organizing on March 7, 1834, the township already had several residents, most of whom had arrived within the previous five years, and who were residing and farming on land granted via patents issued by the United States General Land Office (US General Land Office).⁴

The earliest group of settlers arrived in Howard Township in 1829 and consisted of five individuals who applied to the US General Land Office for land patents in the township. In the following three years there were 35 additional applications for land, with a total of 40 applications granted by 1832.⁵ The first frame barn in the township is said to have been constructed by William Young in 1833, and that same year the first school session was taught in a “discarded log house.”⁶ In 1834—three years before Michigan was admitted to the union—Howard Township organized and held elections for supervisors, treasurers, and town clerks.

By 1882 Howard Township was a community, but not of a size to be considered a “village,” nor did it have a post office. At that time the area had a population of 974 with 152 farms across 17,152 acres. Agricultural land use in 1879 consisted of 3,313 acres of wheat and 2,171 acres of corn, with 519 head of horses, 815 head of cattle, 1,037 hogs, 1,888 wool-producing sheep, and various small fruit production. Niles has since grown and expanded from its center, with the subject property situated approximately 1.75 miles east of the city center, near areas that are residential sprawl.

B. Yankee Street

Yankee Street was referenced by several names over the decades following the incorporation of Howard Township, including the Chicago-Detroit Road, the Barren Lake Road, and later, the M-60 Highway.⁷ The name “Yankee Street” first appears in an 1879 newspaper article, and was derived from the concentrated settlement of “yankee” migrants arriving in Howard Township from their home states on the East Coast.⁸

² “Niles Home Nearly Century Old,” *The South Bend Tribune*, November 5, 1931, sec. 2. Some sources attribute the Pattengell-Milburn House as the first brick residential building in Michigan to be constructed outside of Detroit; however, research has uncovered at least three brick houses in Michigan constructed earlier than the Pattengell-Milburn House: the Edward Loranger House (1825) in Frenchtown Charter Township, the Wing-Allore House (c. 1829) in Monroe, and the Ward-Holland House (1830) in Marine City.

³ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

⁴ Rogers, *History of Cass County, From 1825 to 1875*, 218.

⁵ Rogers, *History of Cass County, From 1825 to 1875*, 218–19.

⁶ Alfred Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers* (Chicago: Waterman, Watkins & Co., 1882), 342.

⁷ “Niles Home Nearly Century Old.”

⁸ Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*, 341.

This claim is substantiated by the 1860 census, which shows the heads of households of families surrounding the Pattengells having mainly been born in New York, Massachusetts, and Pennsylvania.⁹

While Yankee Street had been settled by 1832, the road was primitive and did not yet follow its current alignment westward into present-day Niles.¹⁰ At that time a large impassable swamp to the west hindered a direct route into Niles, and transport into town was limited to a road approximately two miles to the south.¹¹ In the 1840s, permanent buildings of higher quality materials replaced the majority of log structures in the area around Yankee Street, and around the same time, wagon roads were being routed through the township.¹²

C. Owner/occupancy history

The first owners of the subject property were John and Minvera Pattengell. John was originally from Erie County, New York, where he was born in 1793 to Oliver S. Pattengell and Mary Bennet. In 1810 John married Minerva Harding, a New York native born in 1798.¹³ In 1833 John petitioned the US General Land Office for two adjacent public land patents in Howard Township. One of the patent applications was for the southern half of the southwest quarter of Section 30, and another for the adjacent parcel at the western half of the northwest quarter of Section 31.¹⁴ The exact year the Pattengells moved to this property could not be confirmed, but likely coincides with the most-cited date of 1832.¹⁵

While the exact year could not be confirmed, it is likely the Pattengells constructed the original four-room portion of the brick house c.1832.¹⁶ According to John Abbott, a neighbor who was raised on the property to the north of the Pattengells in Section 30 during in the mid-nineteenth century, the materials used for making the bricks were hauled to the subject property, and the family was assisted by neighbors in

⁹ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1860), ancestry.com.

¹⁰ Rogers, *History of Cass County, From 1825 to 1875*, 219.

¹¹ "Niles Home Nearly Century Old."

¹² Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*, 342.

¹³ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

¹⁴ General Land Office: White Pigeon Prairie, "Land Grant To John Pattengell, File 747," October 10, 1833, Federal Land Patents, State Volumes, Bureau of Land Management, General Land Office Records, https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__249&docClass=STA&sid=sInne0wp.iih; General Land Office: White Pigeon Prairie, "Land Grant To John Pattengell, File 748," October 10, 1833, Federal Land Patents, State Volumes, Bureau of Land Management, General Land Office Records, https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__250&docClass=STA&sid=sInne0wp.iih.

¹⁵ The grant of a land patent by the US General Land Office did not necessarily provide immediate ownership of the property but was rather made after legal requirements of governing a land entry were met, including potential proof of residency or improvements on the land. According to this guidance, it is probable that the Pattengells constructed the house before being formally granted the land patent by the US General Land Office. Kenneth Hawkins, *Research in the Land Entry Files of the General Land Office* (National Archives and Records Administration, 2009).

¹⁶ "Niles Home Nearly Century Old."

building the sidewalls with the finished bricks.¹⁷ In the subsequent years the Pattengells farmed the land surrounding the house, and John was considered to be the first farmer in the area to own a threshing machine, suggesting the land was used to grow grain.¹⁸ According to Abbott, John was one of the more prosperous farmers of the area during this early period of the township's history.¹⁹

By 1850 John and Minerva Pattengell continued to live at the subject property and farm the land, with their son William A., his spouse Nancy J., and grandson William W. living at the same property.²⁰ At the time William A. was 29 years old, and is described on the census as a farmer.²¹ By 1859 the Pattengells no longer owned the land in Section 30, but instead owned the entire northwest quarter of Section 31, consisting of 160 acres split between two parcels.²² According to an 1859 plat map, ownership of these two parcels was split between William A. Pattengell for the western half and John Pattengell for the eastern half.²³ The 1860 U.S. Census confirms this split, where John and Minerva are shown as living on one parcel and William A. and Nancy J. are on a nearby parcel.²⁴ According to these census records, John Pattengell continued to work as a farmer, with a property value of \$5,000 and a personal estate valued at \$500.²⁵

John Pattengell traded the house and land for a limestone mill in Niles c.1860, located on the riverbank of the St. Joseph River; however, it is not clear if this meant the entire 160 acres across both parcels, or just the portion that was attributed to John's ownership.²⁶ However, the mill failed after less than one year, and John and Minerva moved to Buchanan, Michigan.²⁷ John passed away in Niles in 1864 and Minerva continued to live in Buchanan at the home of her son and daughter-in-law.²⁸ Minerva's date of death could not be determined.

¹⁷ "Niles Home Nearly Century Old."

¹⁸ "Niles Home Nearly Century Old."

¹⁹ "Niles Home Nearly Century Old."

²⁰ U.S. Census Office, *1850 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1850), ancestry.com.

²¹ U.S. Census Office, *1850 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²² Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan" (Philadelphia: Geil, Harley & Siverd, 1859), Library of Congress.

²³ The eastern of the two parcels contained the subject house. Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan."

²⁴ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²⁵ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²⁶ "Niles Home Nearly Century Old."

²⁷ "Niles Home Nearly Century Old."

²⁸ Janet Personette, "John Pattengell (1793-1864)," *Find-A-Grave*, July 4, 2013, <https://www.findagrave.com/memorial/113330613>.

The next recorded property owners were the Hinchmans, who purchased the property from the Pattengells after their departure c.1860.²⁹ Very little substantive information was uncovered on the lives of the Hinchmans, but it appears Franch Hinchman was a Justice of the Peace and was married to Mary Hinchman. Mary is shown as the owner of the property on an 1872 plat map of the township, but it is not clear if Franch had died before this time, and neither Franch nor Mary are listed in the 1870 census for the area.³⁰ By 1872 the parcel had been split, with the subject property downsized to 65 acres, with the eastern 22 acres of the original property shown as a separate parcel.³¹

The Hinchmans then sold the property to the Milburn family, headed by John Dickinson Milburn, Sr. and Katherine (Kate or Katy) M. Milburn.³² The exact date of ownership transfer could not be determined due to major differences in dates across various sources; however, it appears the Milburns may have taken ownership of the property in 1892.³³ Milburn, Sr. was born in Canada in 1842 and married Katherine May Bronson in 1869 in Berrien County, Michigan. The Milburns moved to Tennessee by 1880 and then returned to Michigan, where they settled in Howard Township in 1892. Newspaper articles from the period suggest that the Milburn family had been travelling to Niles, Michigan, as early as 1889, while still living in Tennessee.³⁴

In the 1890s, the Milburns lived in the house at the subject property with children Martha Louise, Kathyrine R., John D., Jr., and Edith B. The Milburns constructed the house's Second Empire-style addition, which consisted of 10 rooms and was likely completed in 1896.³⁵ At the same time, the Milburns may have altered the roof of the second story of the original portion of the house.³⁶ The Milburns lived at the subject property through at least 1910, though local historian John Ducey claims they lived in the house only during the summers.³⁷ John, Sr. died on August 7, 1915.³⁸

The next available plat map from 1897 shows Sheldon Bronson as the owner of the subject property, though all other sources suggest the Milburns continued to reside at the property through at least 1912. Born in 1815, Bronson was born in New York state and moved to the Niles area in 1869.³⁹ Bronson's obituary as published in the *Detroit Free Press* cited him as a "pioneer hotel man," but an associated

²⁹ "Niles Home Nearly Century Old."

³⁰ "Howard" (N.p.: C.O. Titus, 1872), Historic Map Works Rare Historic Maps Collection; U.S. Census Office, *1870 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1870), ancestry.com.

³¹ "Howard."

³² "Niles Garden Club Tour October 6," *The News-Palladium*, October 1, 1966.

³³ "John D. Milburn Dies," *The South Bend Tribune*, August 9, 1915.

³⁴ "Social and Personal," *The Public Ledger*, July 24, 1889.

³⁵ "Niles Home Nearly Century Old."

³⁶ "Niles Home Nearly Century Old."

³⁷ U.S. Census Office, *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County* (Washington D.C.: National Archives and Records Administration, 1900), ancestry.com; U.S. Census Office, *1910 United States Federal Census, Population Schedule, District 0103, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1910), ancestry.com.

³⁸ "Death Certificate #672: John Dickinson Milburn," August 7, 1915, Death Records, Ancestry.com.

³⁹ "Obituary," *Detroit Free Press*, October 29, 1901.

hotel was not found, and the 1880 census lists hotel employees living with him in the La Grange Township.⁴⁰ By 1900 it appears Bronson was widowed and living with his sister-in-law within the Niles city limits.⁴¹ Bronson died in 1901.⁴² No additional information was found on the life of Bronson, and it is unclear if he was related to Katherine Milburn—whose maiden name was Bronson—or if he ever lived at the subject house.

The next owners were William White and Harriet (Hattie) E. White, who purchased the property in 1912 after moving with their family from Proviso in Cook County, Illinois.⁴³ William was born in Michigan in 1863 and worked as a manufacturer, marrying Harriet E. Trask in 1889. Harriett was born in Michigan in 1868. William and Harriet had three children: Stuart, Virginia, and Genieve. The Whites named the property “Harvirgen Farm,” which was derived from the names Harriet, Virginia, and Genieve, and several newspaper articles through the 1920s refer to the subject property as such.⁴⁴ In 1917 a *South Bend Tribune* newspaper article describes the property’s horse stable having been moved to the rear of the cow stable, and further from the house.⁴⁵ By 1920 Virginia was living at the subject property with her parents, as well as Genieve and her husband John Riley, and their two children John William Riley and Mary Joan Riley.⁴⁶ That same year William died, and shortly thereafter John and Genieve moved to South Bend.⁴⁷ Harriet continued to live at the subject property through at least the early 1940s with her brother Morris P. Trask (see Figure 9).⁴⁸ Harriet died in 1960 while living in Niles.⁴⁹

⁴⁰ “Obituary.”

⁴¹ U.S. Census Office, *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County* (Washington D.C.: National Archives and Records Administration, 1900), ancestry.com.

⁴² “Obituary.”

⁴³ “Niles Home Nearly Century Old”; U.S. Census Office, *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County* (Washington D.C.: National Archives and Records Administration, 1910), ancestry.com.

⁴⁴ “Niles Garden Club Tour October 6.”

⁴⁵ “Why Not Move the Cow Stable Behind the Horse Stable?,” *The South Bend Tribune*, January 26, 1917.

⁴⁶ U.S. Census Office, *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1920), ancestry.com.

⁴⁷ “Goes to Boston,” *The News-Palladium*, May 23, 1925.

⁴⁸ U.S. Census Office, *1940 United States Federal Census, Population Schedule, District 14-5A, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1940), ancestry.com; Lorraine Cronin, “Niles Society,” *The South Bend Tribune*, October 19, 1941, sec. 4.

⁴⁹ “Michigan. Mrs. Harriet E. White,” *The South Bend Tribune*, November 27, 1960.



Figure 9. 1931 photograph of the subject property during ownership by Harriet (Hattie) E. White, from a newspaper article in the South Bend Tribune. Note the differences in fenestration at the east elevation of the rear addition from current appearance.

It is unclear when ownership of the subject property transferred from Harriet E. White to George A. and Mercedes C. Sutherland, but the Sutherlands are listed as the owners of the subject property in the Niles city directory beginning in 1952.⁵⁰ The subject property was locally known as Sutherland Farms, which produced grain as well as prize-winning cattle.⁵¹ George died in 1959 in an automobile accident, and Mercedes died in 2005.⁵² Historic plat maps are provided in Appendix A.

D. Second Empire style

The Second Empire style gained popularity in American residential architecture beginning in the 1850s and continued to be used in residential architecture in some regions of the country through the end of the century.⁵³ Imitating architecture of France following the French Revolution, the Second Empire style is defined by the distinctive mansard roof, which provided an additional upper floor or attic space within the roofline. The mansard roof was named for Francois Mansart, a French architect who practiced in the seventeenth century. It was popularized in England in the mid-nineteenth century and was quickly adopted for American residential architecture for the remainder of the century.⁵⁴ American pattern books provided homeowners with ready-made designs for houses in the Second Empire style, which had a

⁵⁰ Luedders' Directory Service, *Luedders' Historical and Pictorial City Directory of Niles, Michigan* (Coldwater, Mich.: Niles Office Supply Co., 1952), 56.

⁵¹ "Niles Garden Club Tour October 6"; "Niles Brown Swiss Wins State Honor," *The News-Palladium*, September 19, 1958, sec. 2.

⁵² "George Sutherland Dies After Virginia Auto Crash," *The South Bend Tribune*, December 4, 1959, sec. 2; "Mercedes C. Sutherland," *The South Bend Tribune*, July 14, 2005, sec. E.

⁵³ Virginia McAlester and Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf, 2006), 318.

⁵⁴ McAlester and McAlester, *A Field Guide to American Houses*, 318.

modern, fashionable character that struck contrast with the more Picturesque architectural styles of Italianate and Gothic Revival that nodded to a romantic view of the past.⁵⁵

E. Comparative properties

A review of comparative properties within Cass and Berrien Counties around Niles resulted in very few extant brick houses from the first half of the nineteenth century. In the city of Niles a brick house likely constructed in the mid-nineteenth century continues to stand at 714 North 5th Street, and to the southwest of Niles is a three-story, c.1840 brick house located at 2250 West Chicago Road.⁵⁶ While these two houses are likely not the only extant brick houses from this period in the area around the subject property, the dearth of extant brick houses from this period that were uncovered during this review suggests the subject property is one of very few extant brick houses in the Niles area completed prior to Michigan acquiring statehood in 1837.

3. Statement of Significance

A. Significance

The Pattengell-Milburn House was evaluated for National Register of Historic Places (National Register) eligibility under *Criteria A, B, and C*. Evaluation under each of the National Register Criteria and discussion of period and level of significance and historic integrity is provided below.

(1) *Criterion A*

Under *Criterion A*, “Properties can be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history.”

The earliest settlement on the public lands within Howard Township occurred in 1829 and continued over the next several years. The development of this area relied on settlement from individuals who applied for land patents from the US General Land Office. During this time most of the settled land was cultivated for agriculture, and these individuals and their families often improved their respective properties with a residential building and several auxiliary buildings to serve these functions. As settlers gained confidence in successfully cultivating the land, they constructed more permanent structures, one of the earliest being the c.1832 Pattengell-Milburn House. Several sources suggest the subject house was one of the first, or perhaps the first, brick house constructed in Cass County and certainly in Howard Township. The Pattengell-Milburn House is directly associated with this period of early permanent settlement and improvement of land in the area. For this reason, the Pattengell-Milburn House possesses significance for the National Register under *Criterion A* in the area of Exploration/Settlement.

⁵⁵ McAlester and McAlester, *A Field Guide to American Houses*, 318.

⁵⁶ In May 2019 the *South Bend Tribune* reported that the City of Niles was in the process of purchasing the property at 714 5th Street for the purpose of demolishing the house and constructing new housing on the parcel and on adjacent parcels. Mary Beth Spaulding, “City of Niles to Buy Lots for New 5th Street Housing Plan,” *South Bend Tribune*, May 15, 2019, https://www.southbendtribune.com/news/local/city-of-niles-to-buy-lots-for-new-th-street/article_03bc7e45-ccee-5603-a754-04f4ec7a05ad.html.

(2) Criterion B

Under *Criterion B*, “Properties may be eligible for the National Register if they are associated with the lives of persons significant in our past.”

The Pattengell-Milburn House is associated with several families who owned the property, lived in the house, and cultivated the surrounding land since its construction c.1832. The first owners of the property, John and Minerva Pattengell, constructed the original portion of the house as their own residence. While neighbor John Abbott recollected in 1931 about the relative success of the Pattengell’s agricultural activities compared with other farmers in the area, no particular events or contributions related to either John or Minerva appear to have had a substantial influence on the history and development of the area.

While subsequent owners, including the Milburns, seem to have been well known in Cass and Berrien Counties, no particular individual or family associated with the subject property appears to have made significant, identifiable contributions to local, state, or national history. For these reasons the Pattengell-Milburn House does not appear to be associated with the lives of persons significant in our past, and therefore does not possess significance under *Criterion B*.

(3) Criterion C

Under *Criterion C*, “Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”

Several sources suggest the Pattengell-Milburn House was one of the earliest brick houses constructed in Cass County, and certainly in Howard Township. Originally constructed c.1832 as a likely four-room, one-story building with a gambrel roof, the house experienced several alterations over time, including a three-story Second Empire addition to the building’s west elevation c.1896, a c.1920 addition to the south elevation, and subsequent alterations to the fenestration at the south elevation addition. As one of the earliest brick houses in the region, the Pattengell-Milburn House represents two periods and areas of significance related to its architecture. First, the subject house represents an early period of brick residential construction in the state, and second, it is an example of the Second Empire style, conveyed through distinctive characteristics of the period and style. Together the differences in design and form over these two periods represent this shift in architectural trends in America, and specifically in this southwest region of Michigan.

Brick residential construction had been implemented throughout the eastern United States since the seventeenth century; however, its use in Michigan was a turning point in residential architecture. The use of brick and other masonry construction in residential architecture represented the transition from rudimentary building materials and techniques to more permanent materials. The increased permanency of the architecture during this period physically embodies the intent of settling individuals and families to remain for the long-term. Early settlement in this area of Michigan gained permanency through the utilization of masonry and other building materials that were strong enough to withstand weathering. Additionally, a review of comparative properties in the immediate area and adjacent counties did not uncover any examples of brick residential architecture prior to the mid-1850s, suggesting the Pattengell-

Milburn House represents a rare example of a brick house constructed prior to Michigan's 1837 statehood.

The c.1896 Second Empire addition to the Pattengell-Milburn House is an excellent example of the Second Empire style and represents American residential architecture trends of the Victorian era. The addition has a three-story form, separate front entry, and front elevation that is set proud of the original c.1832 portion, giving the appearance of an entirely separate house from the original portion, with which it connects to the east. With its mansard roof, dentiled eaves, and canted bay at the west elevation, the c.1896 addition embodies distinctive characteristics of the Second Empire style.

For these reasons, the Pattengell-Milburn House possess National Register significance under *Criterion C* as an early and rare example of brick residential architecture in the southwestern region of Michigan and as a representative example of the Second Empire style.

(4) Period of significance

The period of significance under National Register *Criterion A* is c.1832, coinciding with the date of initial construction. The periods of significance under *Criterion C* are c.1832, coinciding with the date of initial construction, which represents early and rare brick residential architecture in southwest Michigan; and c.1896, coinciding with the construction of the Second Empire-style addition.

B. Integrity

To be eligible for listing in the National Register, a property must exhibit sufficient historic integrity to convey its significance. The Pattengell-Milburn House was evaluated under the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. The evaluation of integrity considered the two periods of significance: c.1832 and c.1896.

- **Location** – The Pattengell-Milburn House remains in its original location and therefore retains integrity of location.
- **Design** – The Pattengell-Milburn House evokes designs characteristics from various periods. In terms of retaining elements of its design from its c.1832 period of significance, the house continues to display many original design elements of the house, including the distinct, original plan that remains visually distinct from the additions in its overall form and massing. No physical indications of roof form alteration were noted, suggesting that the gambrel roof form was original to the c.1832 construction, with the exception being the potential addition of dormers c.1896. As such, the house retains sufficient design characteristics from c.1832 to convey local significance for early settlement in Howard Township and Cass County under *Criterion A*, and for early residential brick architecture in the southwestern region of Michigan under *Criterion C*.

The Second Empire-style addition to the subject house dates to c.1896 and not only conveys the changing trends in architectural styles over the nineteenth century, but also continues to display those distinctive characteristics of the Second Empire style for which the house is significant, including the mansard roof, dentiled eaves, and canted bay at the west elevation. While some features of the Second Empire style have been removed over time, including the entry porch on

the north elevation, the subject house retains sufficient design characteristics to represent the distinctive characteristics of the Second Empire style under *Criterion C*.

- **Setting** – The Pattengell-Milburn House retains its general setting from the periods of significance—c.1832 and c.1896—as the property continues to retain its rural appearance, despite construction of residential buildings on adjacent parcels. The property located directly to the north, across Yankee Street, retains its wooded, undeveloped natural state when viewed from the subject property. As such, the Pattengell-Milburn House retains integrity of setting.
- **Materials** – Some materials of the Pattengell-Milburn House have changed over time, but the principal materials that convey the property’s significance under *Criterion A* and *Criterion C* remain intact, including the brick exterior and wood molding at the eaves. While some materials have been replaced over time, including windows and roofing material, the Pattengell-Milburn House retains those materials that convey significance under both criteria.
- **Workmanship** – The Pattengell-Milburn House continues to display the original exterior brick used for the original c.1832 construction of the house, as well as the brick lintels that represent craftsmanship from this period. As such, the subject house retains integrity of workmanship to its c.1832 period of significance under both *Criterion A* and *Criterion C*.

The Second Empire-style addition does not appear to have undergone substantial alterations to any features that represent craftsmanship of the period, including the original brick exterior and the dentiled molding at the eaves of both the main mansard roof form and the canted bay at the west elevation. As such, the subject house retains integrity of workmanship to its c.1896 period of significance under *Criterion C*.

- **Feeling** – Due to the size and massing of the c.1896 addition, it does not appear the Pattengell-Milburn House retains a feeling of a c.1832 house representative of early settlement in Howard Township and Cass County nor representative of early brick residential architecture of the region. As such, the subject house does not retain integrity of feeling to its c.1832 period of significance under *Criterion A* or *Criterion C*.

The Second Empire-style addition represents changes to architectural styles and materials over time and conveys the intent of the late-nineteenth century property owners to upgrade the subject house to one of the most fashionable styles of the time. As such, the Pattengell-Milburn House retains a feeling of a c.1832 house that was modernized in c.1896 with a Second Empire-style addition and continues to convey this aspect of integrity under *Criterion C* for the period of significance of c.1896.

- **Association** – The Pattengell-Milburn House retains association with the early settlement period of Howard Township and Cass County that occurred in the second quarter of the nineteenth century, prior to Michigan statehood. The property retains its large acreage, agricultural use, and original c.1832 brick house, despite the two major additions to this original portion of the house

that occurred c.1896 and c.1920. As such, the Pattengell-Milburn House retains association to the period of significance of c.1832.

The Pattengell-Milburn House retains integrity of association for changes in architectural trends, with the introduction of the Second Empire style addition to the original c.1832 house. In this respect, the subject house retains those physical characteristics from both periods that convey this area of significance, including the original gambrel roof form of the original c.1832 portion of the house, as well as the mansard roof, brick exterior, dentiled molding, and canted bay at the west elevation from the c.1896 addition. As such, the Pattengell-Milburn House retains association to the period of significance of c.1896.

With regard to significance under *Criterion A* with the period of significance of c.1832, the Pattengell-Milburn house retains six of seven aspects of integrity and continues to convey significance of an early permanent settlement in the Howard Township. With regard to eligibility under *Criterion C* for both periods of significance, the Pattengell-Milburn house retains all seven aspects of integrity and continues to convey significance as an example of early brick architecture in southwest Michigan (c.1832) and as an example of the Second Empire style (c.1896). As such, the Pattengell-Milburn House retains sufficient integrity under *Criterion A* and *Criterion C* for all periods of significance.

C. Eligibility

The Pattengell-Milburn House possesses significance under National Register *Criterion A: Exploration/Settlement* and *Criterion C: Architecture* and retains sufficient integrity to convey significance under both criteria during both periods of significance. Therefore, the Pattengell-Milburn House is recommended eligible for listing in the National Register.

Bibliography

Cronin, Lorraine. "Niles Society." *The South Bend Tribune*. October 19, 1941, sec. 4.

"Death Certificate #672: John Dickinson Milburn," August 7, 1915. Death Records. Ancestry.com.

Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith. "Map of the Counties of Cass, Van Buren, and Berrien Michigan." Philadelphia: Geil, Harley & Siverd, 1859. Library of Congress.

General Land Office: White Pigeon Prairie. "Land Grant To John Pattengell, File 747," October 10, 1833. Federal Land Patents, State Volumes. Bureau of Land Management, General Land Office Records.

https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__.249&docClass=STA&sid=sInne0wp.iih.

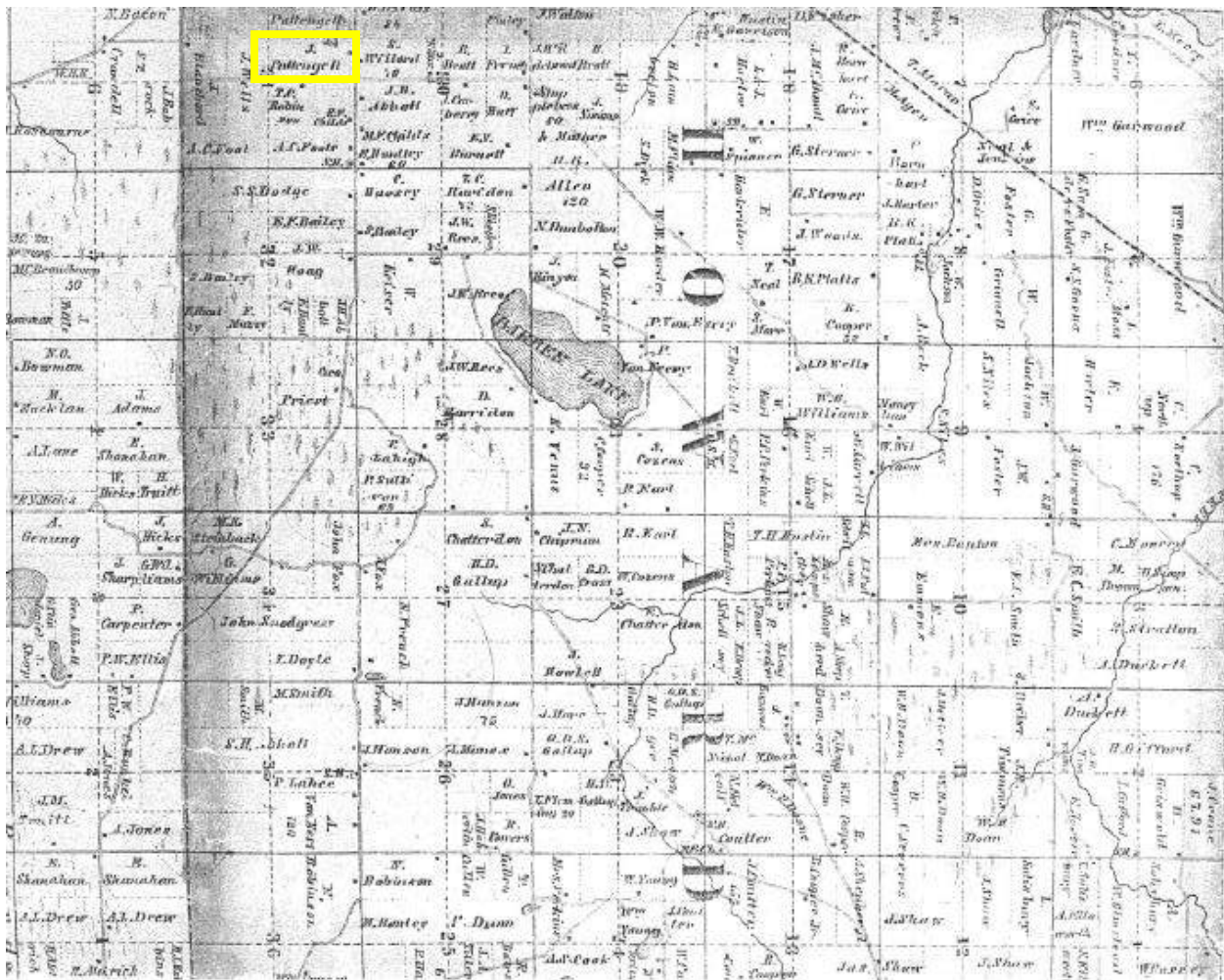
———. "Land Grant To John Pattengell, File 748," October 10, 1833. Federal Land Patents, State Volumes. Bureau of Land Management, General Land Office Records.

https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__.250&docClass=STA&sid=sInne0wp.iih.

- "George Sutherland Dies After Virginia Auto Crash." *The South Bend Tribune*. December 4, 1959, sec. 2.
- "Goes to Boston." *The News-Palladium*. May 23, 1925.
- Harmon, Chas. O. "Map of Cass County, Michigan." Battle Creek, Michigan: Home Publishing Co., 1897. Library of Congress.
- Hawkins, Kenneth. *Research in the Land Entry Files of the General Land Office*. National Archives and Records Administration, 2009.
- "Howard." N.p.: C.O. Titus, 1872. Historic Map Works Rare Historic Maps Collection.
- "John D. Milburn Dies." *The South Bend Tribune*. August 9, 1915.
- Luedders' Directory Service. *Luedders' Historical and Pictorial City Directory of Niles, Michigan*. Coldwater, Mich.: Niles Office Supply Co., 1952.
- "Map of Howard Township." George A. Ogle & Co., 1914. Historic Map Works Rare Historic Maps Collection.
- Mathews, Alfred. *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*. Chicago: Waterman, Watkins & Co., 1882.
- McAlester, Virginia, and Lee McAlester. *A Field Guide to American Houses*. New York: Alfred A. Knopf, 2006.
- "Mercedes C. Sutherland." *The South Bend Tribune*. July 14, 2005, sec. E.
- "Michigan. Mrs. Harriet E. White." *The South Bend Tribune*. November 27, 1960.
- "Niles Brown Swiss Wins State Honor." *The News-Palladium*. September 19, 1958, sec. 2.
- "Niles Garden Club Tour October 6." *The News-Palladium*. October 1, 1966.
- "Niles Home Nearly Century Old." *The South Bend Tribune*. November 5, 1931, sec. 2.
- "Obituary." *Detroit Free Press*. October 29, 1901.
- Personette, Janet. "John Pattengell (1793-1864)." *Find-A-Grave*, July 4, 2013. <https://www.findagrave.com/memorial/113330613>.
- Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.
- "Social and Personal." *The Public Ledger*. July 24, 1889.
- Spaulding, Mary Beth. "City of Niles to Buy Lots for New 5th Street Housing Plan." *South Bend Tribune*. May 15, 2019. https://www.southbendtribune.com/news/local/city-of-niles-to-buy-lots-for-new-5th-street/article_03bc7e45-ccee-5603-a754-04f4ec7a05ad.html.
- U.S. Census Office. *1850 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1850. [ancestry.com](https://www.ancestry.com).

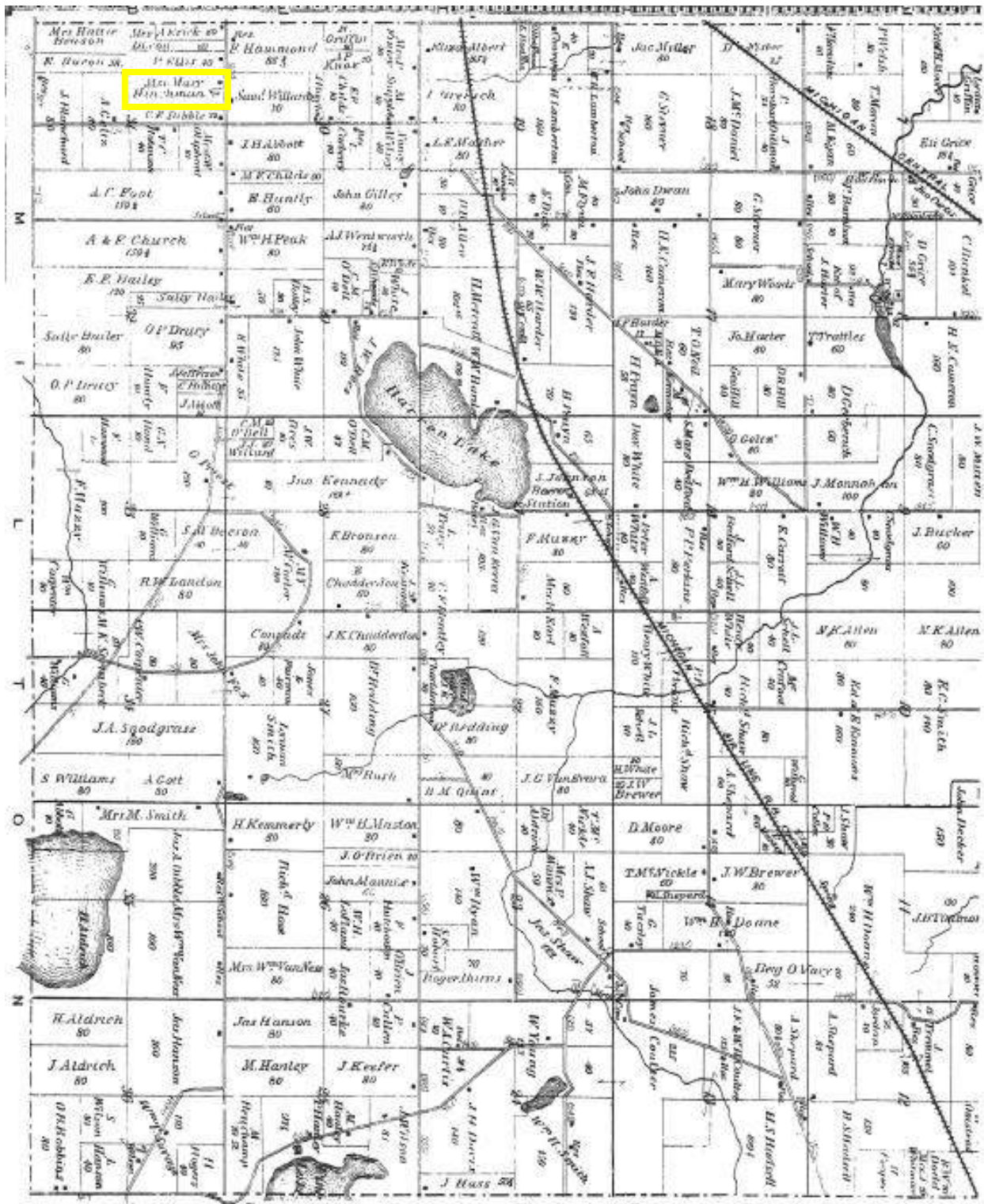
- . *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1860. [ancestry.com](#).
 - . *1870 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1870. [ancestry.com](#).
 - . *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](#).
 - . *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](#).
 - . *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](#).
 - . *1910 United States Federal Census, Population Schedule, District 0103, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](#).
 - . *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1920. [ancestry.com](#).
 - . *1940 United States Federal Census, Population Schedule, District 14-5A, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1940. [ancestry.com](#).
- “Why Not Move the Cow Stable Behind the Horse Stable?” *The South Bend Tribune*. January 26, 1917.

Appendix A. Historic Plat Maps



1860 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁷

⁵⁷ Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan."



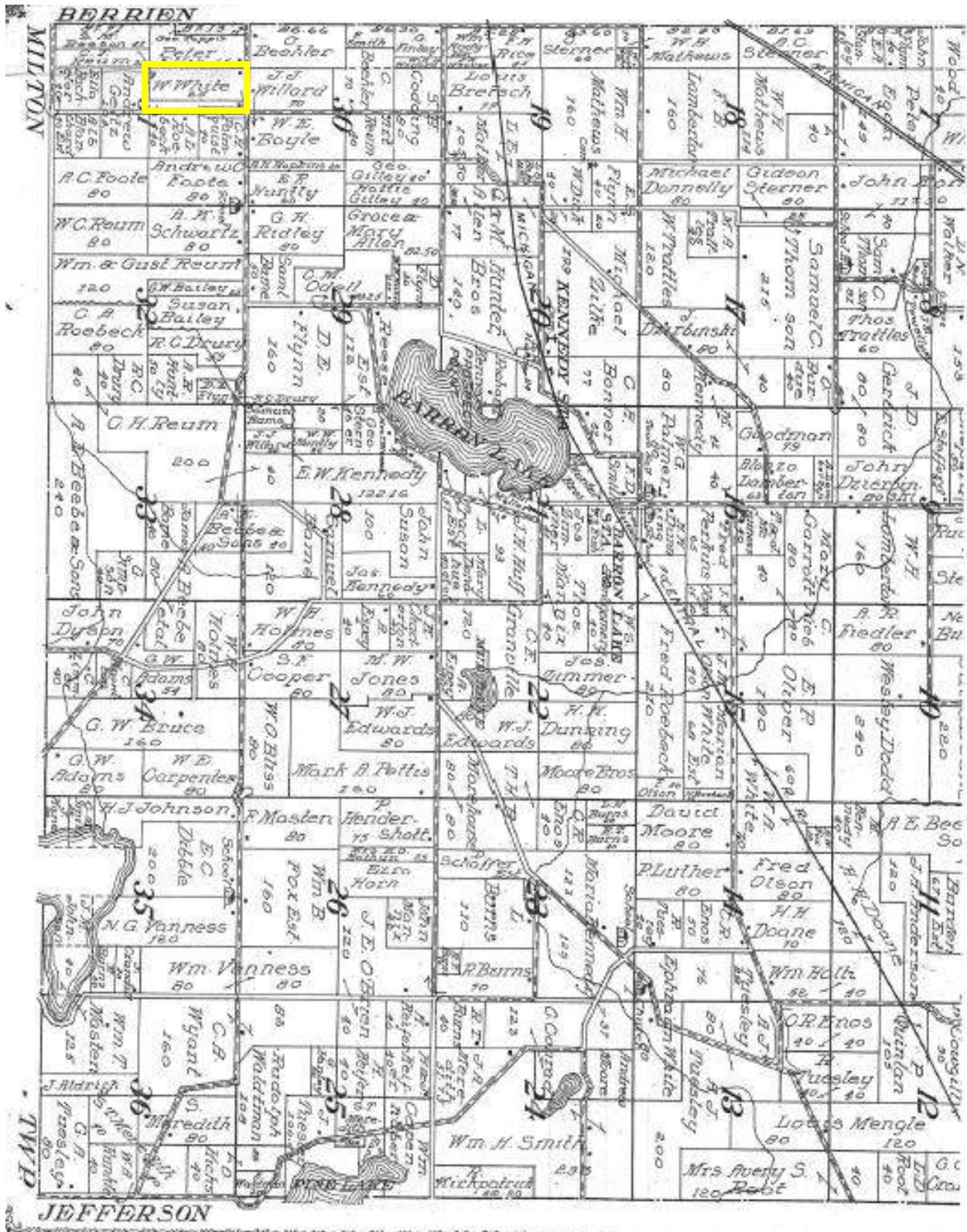
1872 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁸

⁵⁸ "Howard."



1897 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁹

⁵⁹ Chas. O. Harmon, "Map of Cass County, Michigan" (Battle Creek, Michigan: Home Publishing Co., 1897), Library of Congress.



1914 plat map of Howard Township with the subject parcel bordered in yellow.⁶⁰

⁶⁰ "Map of Howard Township" (George A. Ogle & Co., 1914), Historic Map Works Rare Historic Maps Collection.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2274 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-037-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826174	Long: 86.217003			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1925
Architectural Style	Colonial Revival
Building Form	Irregular
Roof Form	Side gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and fixed vinyl windows, some with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage; 1/Barn or Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	Sutherland House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2274 Yankee Street is a one-and-one-half-story, irregular-plan, Colonial Revival house with additions at the west and south elevations. The house has a moderate-pitch, side-gable roof clad in asphalt shingles and exhibits gable dormers. The exterior is clad in vinyl lap siding and windows are vinyl replacements consisting of a combination of double-hung and fixed windows, many of which exhibit faux divided lights and false shutters. The front entry is centered on the original portion of the house and is framed by pilasters and flanked by two large, fixed, divided light windows (24 panes each) with green exterior false shutters. The addition that projects from the west elevation consists of a one-story, front-gable garage facing west, which is connected to the original building form via a shed-roof hyphen. A shed porch also extends from the east elevation. A one-story addition on the west side of the house is clad in white lap shingle and has a flat roof. A detached two-car garage is located to the east of the house and exhibits a front-gable roof and similar exterior vinyl lap siding. There appears to be a large gable barn or shed building located to the south of the detached garage. The house and its outbuildings are sited behind a series of picket fencing and metal chain-link fencing, with the gated driveway flanked by what appear to be contemporary brick posts topped by concrete and light fixtures.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s. Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. The house appears to have been constructed c.1925, and since construction it has served as a private residence. County tax assessor records available online did not document parcel improvement dates. Although the house address is 2274 Yankee Street, county assessor GIS records online list the parcel address as 2268 Yankee Street, associated with the adjacent c.1832 house to the west. A preliminary search of historic records available online did not identify occupants prior to 1952, with the earliest known resident being James Daniels.¹ The Sutherland Family is not recorded as residing at the property until at least 1993.²

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of the Colonial Revival architectural style, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

1993 *White Pages Niles, Michigan*. Little Rock, Arkansas: Acxiom Corporation, 1993.

Luedders' Directory Service. *Luedders' Historical and Pictorial City Directory of Niles, Michigan*. Coldwater, Mich.: Niles Office Supply Co., 1952.

¹ Luedders' Directory Service, *Luedders' Historical and Pictorial City Directory of Niles, Michigan* (Coldwater, Mich.: Niles Office Supply Co., 1952).

² 1993 *White Pages Niles, Michigan* (Little Rock, Arkansas: Acxiom Corporation, 1993).

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2279 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-030-037-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.827034	Long: 86.216513			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1945
Architectural Style	Vernacular
Building Form	Irregular
Roof Form	Gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl siding, vinyl shingle
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	2/Garage; 1/Barn

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input checked="" type="checkbox"/>
Feeling <input type="checkbox"/>	Association <input type="checkbox"/>	Date(s):		
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	9/2019; 11/04/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #	
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2279 Yankee Street is a one-and-one-half-story Vernacular house with a moderate-pitch gable roof clad in asphalt shingles, with little to no eaves. The exterior is clad in vinyl siding with vinyl shingles that clad the gable ends. The original rectangular L-shape form of the house has been altered by two additions: one gabled addition projecting from the front (south) elevation, and a nearly flat-roofed addition projecting from the rear (north) elevation. Windows appear to be replacement and consist of vinyl double-hung with faux divided lights. There are two brick chimneys: one exterior chimney along the south elevation and one interior chimney at the center gable. An exterior wood deck is located along the east elevation. Adjacent outbuildings include a side-gable barn, a rear shed addition, a gable one-car garage, and a gable two-car garage. Each outbuilding exterior is clad in vinyl siding and vinyl shingles in the same style as the residence.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Since construction c.1945, the property has served as a personal residence and farm. Cass County tax assessor records available online did not document parcel improvement dates, however, historic aerials show changes to the number of outbuildings and the circular driveway in the 1960s and 1970s.²

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under *Criterion B*. Constructed c.1945, the house is an altered example of a common Vernacular form and is lacking distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. Additionally, the number of outbuildings has changed and those extant have experienced material alterations or are not of historic age. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

R. S. Thomas & Associates, Inc, and Harold Blake Co. "Appraisal of Real Estate: Jerry Tyler Memorial Airport Compliance Project, Runway 33 Obstruction Removal Project, Project: 0200.0037/APPR/Parcel #E18 (K)," September 17, 2019.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2288 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-036-00				
Latitude/Longitude (to the 6 th decimal point)	Lat:41.826328	Long: 86.216194			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1900
Architectural Style	Front gable
Building Form	Irregular
Roof Form	Gable
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Vinyl siding and shingles
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights
Outbuildings	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Number/Type:	

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2288 Yankee Street is a one-and-one-half-story house with a moderate-pitch front-gable roof clad in asphalt shingles. The exterior appears to be clad in replacement materials that include a combination of vinyl siding and vinyl shingles. Windows appear to be replacement and mainly consist of vinyl double-hung windows with faux divided lights. A gabled one-story addition projects from the north-facing facade and contains the building's primary entrance, which is marked by a gabled stoop overhang. A one-story, side-gable addition projects from the west elevation of the original two-story building form and connects with the attached front-gable garage. A porch is located along the north elevation of this addition, with the roof supported by simple square posts.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1900, the house continues to serve as a private residence. Historic aerials appear to show that the house and garage began as separate structures, joined together by the side addition sometime after 1975.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under *Criterion B*. The house is an altered example of a simple front-gable form and has experienced additions to its simple form, as well as replacement materials such as siding and windows. Additionally, the house does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2290 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-035-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826298	Long: 86.215916			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Bungalow
Building Form	Rectangular
Roof Form	Side gable with gable wall dormer
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl siding
Foundation Materials	Concrete block
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights in upper sashes
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage or Barn

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2290 Yankee Street is a two-and-one-half-story house with a flared side-gable main roof form and a dominating front-gable wall dormer, all clad in asphalt shingle roofing. The exterior is clad in replacement vinyl lap siding, with a partial water-table clad in what appears to be a composite material with a rusticated appearance. Windows appear to be replacement, consisting of pairs and triplets of vinyl double-hung windows with faux divided lights in the upper sash. The original cutaway porch has been infilled but continues to exhibit portions of the original brick clad square piers. A shed-roof bumpout addition is located along the west elevation. A one-story hip roof addition projects from the rear, south elevation of the house. A large gabled outbuilding is located to the south of the house, and a second smaller outbuilding is located at the south end of the parcel. One concrete driveway provides access to the house and large outbuilding; a second provides direct access to the smaller outbuilding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. The house was constructed c.1920 and continues to serve as a private residence. Historic aerials show the outbuilding was constructed by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of a Bungalow form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2298 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-031-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826280	Long: 86.215053			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1900
Architectural Style	Front gable
Building Form	Rectangular
Roof Form	Front gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and sliding sash
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage; 2/Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2298 Yankee Street is a two-story house with a front gable clad in asphalt shingles. The exterior appears to be clad in replacement materials consisting of vinyl lap siding. Semi-lunar vents are located just below the gable apex. The house has an exterior concrete masonry unit chimney along the north-facing facade and a brick chimney along the east elevation. A canted bay along the east elevation is topped by what appears to be rolled asphalt roofing with standing seams. Concrete steps lead to an off-center entrance with double doors; a circular louvered vent accents the gable peak. Windows appear to be replacements and consist of vinyl double-hung and vinyl sliding sash. A gabled one-story addition with an enclosed shed porch projects from the rear, south elevation of the house. The enclosed porch has vinyl sliding sash windows and a vinyl sliding sash glazed door. A contemporary wood trellis is located immediately adjacent to the south elevation of this rear addition. Also located behind the house are a two-car garage clad in siding with a gable shingle roof, a gambrel roof shed, and a third outbuilding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1900, this house continues to serve as a private residence. Historic aerials suggest the rear addition had been constructed by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produced any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of a turn-of-the-twentieth-century, front-gable form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2302 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-018-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826230	Long: 86.214508			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1940
Architectural Style	Colonial Revival
Building Form	Rectangular
Roof Form	Side gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Wood siding
Foundation Materials	Not visible
Window Materials	Wood
Window Type	Double-hung (12-over-12 and 8-over-12) and 4-light casement
Outbuildings	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Number/Type:	

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input checked="" type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input type="checkbox"/>				
Area(s) of Significance	Architecture			
Period(s) of Significance	c.1940			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input checked="" type="checkbox"/>	Design <input checked="" type="checkbox"/>	Materials <input checked="" type="checkbox"/>	Workmanship <input checked="" type="checkbox"/>	Setting <input checked="" type="checkbox"/>
Feeling <input checked="" type="checkbox"/>	Association <input checked="" type="checkbox"/>			
General Integrity:	Intact <input checked="" type="checkbox"/>	Altered <input type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/04/2019	Recorded By	Mead & Hunt., Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2302 Yankee Street is a two-story Colonial Revival-style house with a side-gable, asphalt shingle roof and painted brick exterior corbeled chimney. The exterior is clad in lapped wood siding, with flush wood siding at the second story north elevation that exhibits decorative punched holes in a scalloped design. Windows appear to be wood double-hung with divided light sashes; most appear to have exterior hinged storm windows. Gabled wall dormers at the second story exhibit dental molding along the window sills. The front door is accented by a decorative wrought iron-style lantern and a small side light. A one-story set-back addition on the west side of the house is clad in lap shingle and topped with a gable shingle roof.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aerials and parcel data suggests the house was constructed c.1940.² Since construction, this house has served as a private residence and appears to have maintained its original form. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

American Colonial Revival Style

The American Colonial Revival was a revival style that took hold primarily between 1895 and 1960 and was inspired by the architectural character of the elite classes in the American Colonies. Rather than a single style, the larger Colonial Revival style had subset styles that came about at various periods, including Georgian Revival, Early American Colonial Revival, Late American Colonial Revival, and Dutch Colonial Revival.³

The Philadelphia Centennial Exhibition in 1876 renewed the American common interest in distinctly American culture, including idealistic imagery of the eighteenth-century Colonies, which manifested in design trends for furniture, gardens, and domestic architecture.⁴ The first few years of the twentieth century experienced enthusiasm for houses that exhibited an "Old Colonial Style," which referred to "old-fashioned" character applied to a new, modern home.⁵ Originally a highly decorated style choice, the American Colonial Revival style showed shifts in domestic design ideals, which is split between two main periods: an early period, c.1900-c.1940, and a later period, c.1940-c.1960. This house represents the later period, which transitioned around the time of World War II

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

³ GPA Consulting, "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement" (City of Los Angeles Department of City Planning, Office of Historic Resources, December 2015), 3-4.

⁴ Resource Design Group, "City-Wide Historical and Architectural Survey, Ypsilanti, Michigan" (City of Ypsilanti, July 12, 1983), 20; Richard Guy Wilson, Shaun Eyring, and Kenny Marotta, eds., *Recreating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 5.

⁵ Jean Dunbar, "Candace Wheeler and the New Old-Fashioned Home," in *Re-Creating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 40.

to become a simpler composition of those earlier high-style designs.⁶ This latter period of the American Colonial Revival style sought to bring a simpler character to the more heavily Classical-inspired architecture prevalent in the revival style's earlier period.⁷ Design simplification was also partially influenced by lower wages during the Great Depression.⁸ Domestic architecture reflecting the Late American Colonial Revival style began to take more subtle, suggestive cues to the earlier period, utilizing fewer heavy Classical elements, with forms and plans that were more modest in size.

The American Colonial Revival style of the later period, between c.1940 and c.1960, was often defined by simple building forms with side-gable roofs, a symmetrical facade, clapboard or brick exteriors, multi-light wood windows flanked by shutters, gabled dormers, and sometimes with a built-in garage.⁹ The style continued beyond this period, with new construction utilizing variations of these simpler, Classical-inspired elements that are seen as traditional architecture expressive of American ideology.¹⁰

Evaluation

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events within any known context under *Criterion A: History*. Likewise, no evidence was found to suggest potential for significance under *Criterion B: Significant Person*. The house is a representative example of the American Colonial Revival style from the style's later period in the twentieth century, and displays the form and features that embody the Late American Colonial Revival style. The design displays a high level of skilled craftsmanship in patterns of punched wood siding, dentil molding, and a corbeled brick chimney, while displaying most of the character-defining features of the style: side-gable roof with wall dormers, horizontal wood siding, and a symmetrical facade. As such, the house appears to exhibit significance for its architectural style under *Criterion C: Architecture*, and possesses sufficient integrity to be recommended eligible for the National Register.

References

List references used to research and evaluate the individual property.

City of Detroit City Council, Historic Designation Advisory Board. "Proposed Rosedale Historic District Final Report." City of Detroit City Council, Historic Designation Advisory Board, 2006.

"County Baseball League." *The Herald-Press*. April 7, 1909.

Dunbar, Jean. "Candace Wheeler and the New Old-Fashioned Home." In *Re-Creating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

"Fatal Accident at Niles." *Detroit Free Press*. March 13, 1879.

GPA Consulting. "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement." City of Los Angeles Department of City Planning, Office of Historic Resources, December 2015.

"Hartford Couple Will Mark Golden Wedding on Monday." *The News-Palladium*. February 1, 1935.

Mathews, Alfred. *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*. Chicago: Waterman, Watkins & Co., 1882.

⁶ Virginia McAlester et al., *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*, Revised and expanded edition/second edition (New York: Alfred A. Knopf, 2013), 414.

⁷ GPA Consulting, "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement," 16.

⁸ City of Detroit City Council, Historic Designation Advisory Board, "Proposed Rosedale Historic District Final Report" (City of Detroit City Council, Historic Designation Advisory Board, 2006), 10.

⁹ McAlester et al., *A Field Guide to American Houses*, 411–12.

¹⁰ William B. Rhoads, "The Long and Unsuccessful Effort to Kill Off the Colonial Revival," in *Re-Creating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 14.

McAlester, Virginia, Lee McAlester, Lauren Jarrett, and Juan Rodriguez-Arnaiz. *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*. Revised and expanded edition/second edition. New York: Alfred A. Knopf, 2013.

"Niles May Re-Route Colgrove Highway." *The Herald-Press*. August 3, 1921.

"Ptomaine Poison." *The Herald-Press*. July 13, 1908.

"R. C. Atkinson Takes Over Road Contract." *The Herald-Press*. September 2, 1916.

Resource Design Group. "City-Wide Historical and Architectural Survey, Ypsilanti, Michigan." City of Ypsilanti, July 12, 1983.

Rhoads, William B. "The Long and Unsuccessful Effort to Kill Off the Colonial Revival." In *Re-Creating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Census Office. *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1860. [ancestry.com](https://www.ancestry.com).

———. *1870 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1870. [ancestry.com](https://www.ancestry.com).

———. *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](https://www.ancestry.com).

———. *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](https://www.ancestry.com).

———. *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](https://www.ancestry.com).

———. *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1920. [ancestry.com](https://www.ancestry.com).

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VECL00120029, Roll 000012, Frame 29." U.S. Geological Survey, April 10, 1977. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "ARB593512212325, Roll 000122, Frame 12325." U.S. Geological Survey, June 8, 1960. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "Cassopolis, MICH.-IND." 1:24000. Washington DC: U.S. Department of the Interior, Geological Survey, 1945.

———. "Cassopolis, MICH.-IND." 1:24000. Washington DC: U.S. Department of the Interior, Geological Survey, 1945.

Wilson, Richard Guy, Shaun Eyring, and Kenny Marotta, eds. *Recreating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2306 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-025-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826218	Long: 86.214174			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Period Revival
Building Form	Irregular
Roof Form	Side gambrel
Roof Materials	Asphalt shingle
Exterior Wall Materials	Brick, vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung, some with faux divided lights in upper sash, some with semi-lunar transoms
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2306 Yankee Street is a two-story Period Revival house with a side gambrel roof clad in asphalt shingles. The exterior consists of a combination of brick and what appears to be replacement vinyl lap siding. A steep-pitch gable intersects with the main roof form and forms a central, primary entrance flanked by two shed-roof dormers. An exterior brick chimney is located along the east elevation. Windows mainly consist of vinyl double-hung windows with faux divided lights. A grouping of three, vinyl, double-hung windows with semi-lunar transoms is located at the northeast corner of the north-facing facade in an area that appears to have been an infilled cutaway porch. A detached, one-and-one-half-story, two-car garage clad in vinyl lap siding is located just behind the house to the southwest.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1920, the house continues to serve as a private residence. Historic aerials show the adjacent garage was constructed by 1975.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produced any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of Period Revival architecture, and with replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2310 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-024-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826193	Long: 86.213787			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Bungalow
Building Form	Rectangular
Roof Form	Side gable
Roof Materials	Metal standing seam
Exterior Wall Materials	Brick
Foundation Materials	Not visible
Window Materials	Wood, vinyl
Window Type	Fixed tripartite with divided light, double-hung with divided light
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2310 Yankee Street is a one-and-one-half-story, brick Bungalow with a side-gable, metal standing seam roof, a gabled dormer clad in shingles, and a full-width front porch at the north-facing facade. The shed porch roof is also clad in metal standing seam roofing, is bordered by a closed brick parapet, and is supported by brick columns at the outer ends and tapered wood columns flanking the centered concrete entry stairs. An interior brick chimney is located along the east elevation. First-story windows appear to be wood, fixed, tripartite divided light (12 lights each), while the second-story window in the gabled dormer appears to be a vinyl, six-over-one, double-hung window. A detached garage clad in lap siding and with a hip roof is located directly behind the house.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Since its construction c.1920, this house has served as a private residence. Historic aerials show the rear outbuilding was built by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is a common example of a Bungalow form and does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

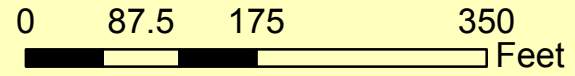
U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.




¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

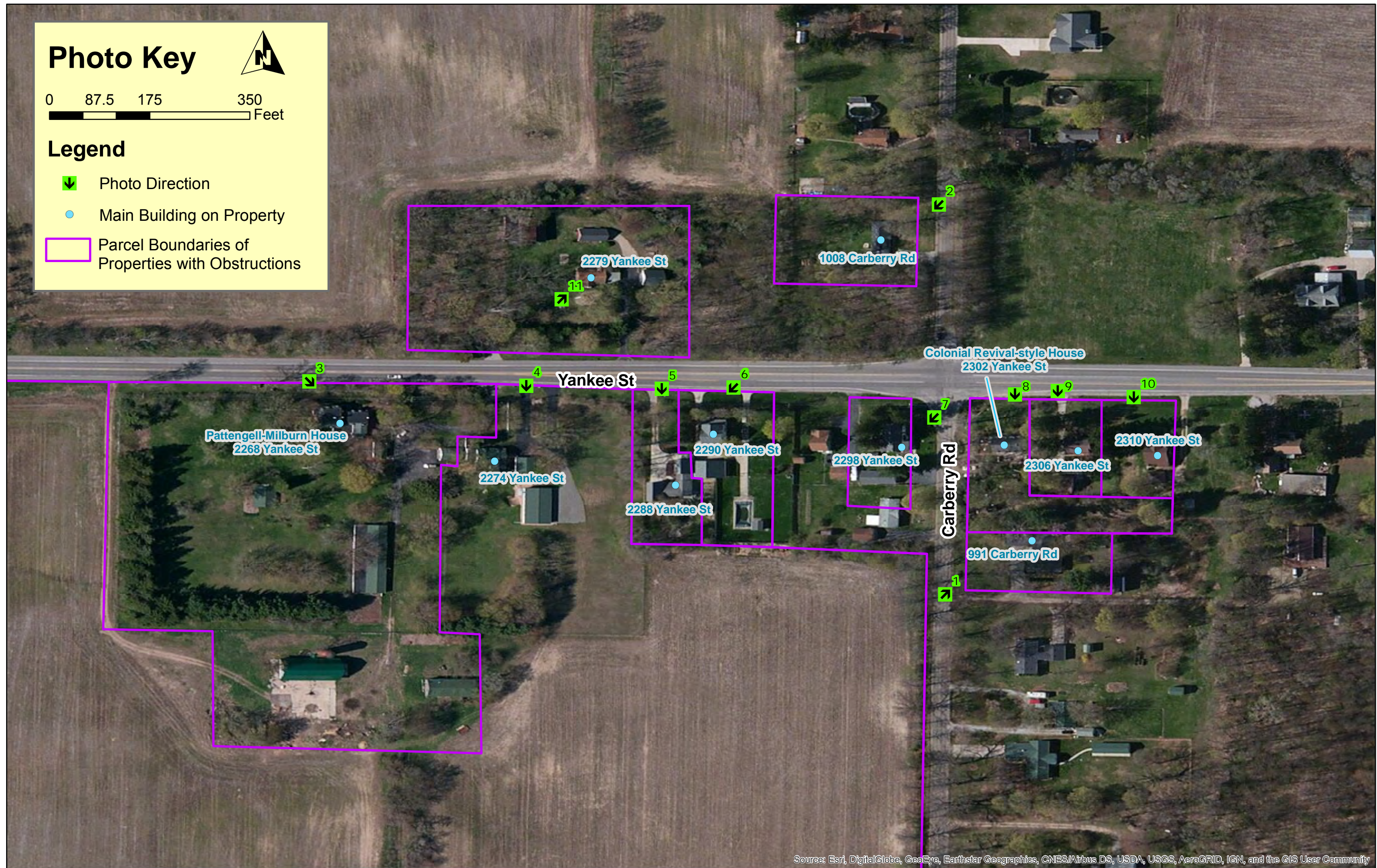
² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Photo Key



Legend

-  Photo Direction
-  Main Building on Property
-  Parcel Boundaries of Properties with Obstructions



Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 1. 991 Carberry Road, view facing northeast.



Photo 2. 1008 Carberry Road, view facing southwest.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 3. Pattengell-Milburn House, 2268 Yankee Street, view facing southeast.



Photo 4. 2274 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 5. 2288 Yankee Street, view facing south.



Photo 6. 2290 Yankee Street, view facing southwest.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 7. 2298 Yankee Street, view facing southwest.



Photo 8. 2302 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 9. 2306 Yankee Street, view facing south.



Photo 10. 2310 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 11. Photo of 2279 Yankee Street from Appraiser Report, view facing northeast.

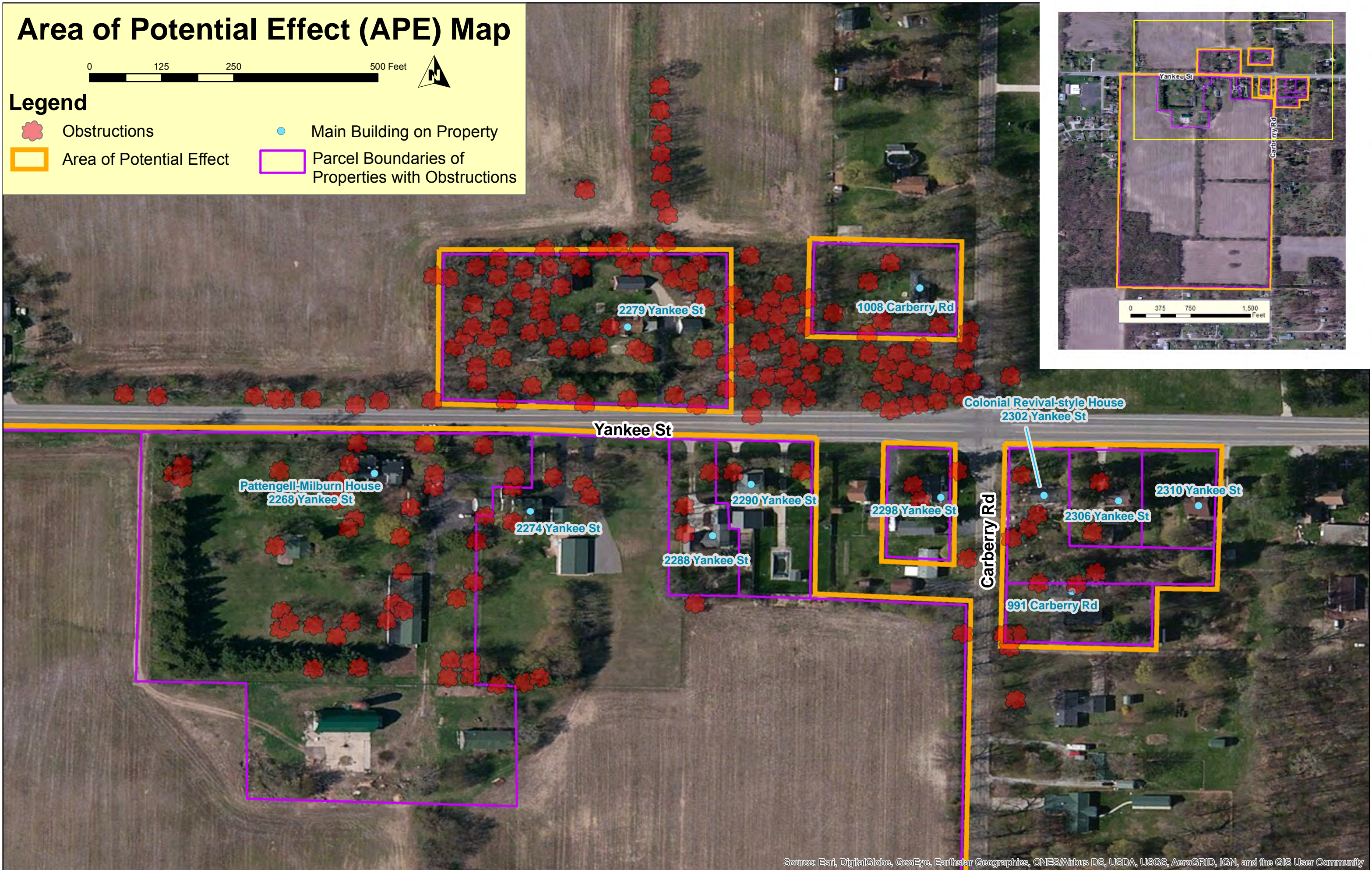
Area of Potential Effect (APE) Map

0 125 250 500 Feet



Legend

- Obstructions
- Main Building on Property
- Area of Potential Effect
- Parcel Boundaries of Properties with Obstructions



ARCHAEOLOGICAL RECONNAISSANCE
Runway 33 Approach Clearing
Jerry Tyler Memorial Airport
Cass County, Michigan
L&A Project No: 20-0245



Prepared by:
Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
June 22, 2020



Prepared for:
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, Michigan 48906

**Archaeological Reconnaissance for the Runway 33 Approach Clearing
Project at the Jerry Tyler Memorial Airport in Cass County, Michigan**

by

**Andrew R. Sewell, RPA
Justin P. Zink, RPA
Mason Waugh**

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Lansing, Michigan 48906**

**Lead Agency:
Michigan Department of Transportation,
Office of Aeronautics**



**Justin P. Zink, RPA
Principal Investigator**

June 22, 2020

0.1 ABSTRACT

In May of 2020, Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan. L&A conducted the reconnaissance at the request of Mead & Hunt, Inc. for inclusion in a 3TR Short Form Environmental Assessment for the project. The Michigan Department of Transportation, Office of Aeronautics is the lead agency for the undertaking. The area subjected to archaeological reconnaissance consisted of an area at the southeast end of Runway 33 where trees must be cleared to meet updated FAA requirements for runway clearance zones. The reconnaissance involved a literature review and visual inspection of the project area. No excavations were authorized for the reconnaissance. The literature review did not indicate the presence of previously identified archaeological sites within the project area. The visual reconnaissance did not identify any surface indications of archaeological sites within the project area. The presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing. However, if the individual trees can be felled without significant ground disturbance (e. g. stump removal, grubbing, etc.), archaeological survey would likely not be warranted for the undertaking.

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APPENDICIES

Appendix A: Project Plans

1.0 INTRODUCTION

Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan, just outside the City of Niles. L&A conducted the reconnaissance at the request of Mead & Hunt, Inc. for inclusion in a 3TR Short Form Environmental Assessment for the project. The Michigan Department of Transportation, Office of Aeronautics is the lead agency for the undertaking.

The Area of Potential Effects (APE) is different for each project. According to 36 CFR 800, the area of potential effects is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” The APE considers the effect that the proposed project will have on the project area itself (direct effect) and on the areas surrounding the project (indirect effect). The APE for direct effects is typically equivalent with the construction footprint of the project. The APE for indirect effects involves areas in the vicinity of the project that might be visually impacted by the proposed project. Archaeological surveys are typically concerned with the APE for direct effects; however, any project action that may result in an indirect effect to an archaeological site outside the construction limits would need to be considered by a survey.

The APE for this project consists of an approximately 46-acre area situated at the southeast end of Runway 33 at the Jerry Tyler Memorial Airport. This area extends from the terminus of the runway to the southeast, crossing Yankee Street. The area consists largely of agricultural field and treed residential lots. There are several trees within this area that required removal for the approach area to meet FAA regulations. The APE for direct effects includes the locations of these trees. At the request of Mead & Hunt, L&A performed a reconnaissance of the APE for direct effects to identify any previously recorded archaeological sites and to visually inspect the APE for signs of unrecorded archaeological sites. Subsurface testing is not authorized at this stage of work. Mead & Hunt has conducted a survey of the project for effects on historical resources; this report thus does not account for them except to note if any previously recorded historical resources are within the APE for direct effects.

L&A conducted the archaeological reconnaissance on May 28, 2020. The field crew included Justin Zink and Samuel Plent. Justin Zink served as the Principal Investigator. Andrew Sewell served as the primary report author. The following report describes the research design, methods, and results of the literature review and field inspection for this project. The results presented in this report are based on information collected from various literature review resources as well as photographs and field records resulting from this study.

2.0 RESEARCH DESIGN

This research design presents a framework within which the archaeological reconnaissance was conducted. The purpose of the reconnaissance is to identify any previously identified archaeological resources that will be affected by the proposed project and to determine through visual inspection the potential for previously unidentified archaeological resources to exist within the APE.

The principal investigator designed the reconnaissance to answer the following general set of questions:

1. Has the project been subjected to previous cultural resources investigations and are there any previously recorded sites or resources located within or immediately adjacent to the project?
2. What is the likelihood of identifying previously unrecorded cultural resources within the project? Where are these cultural resources most likely to occur?
3. Will the proposed project affect any archaeological resources?
4. If cultural resources will be affected, are any of those affected resources listed, eligible, or require further study for inclusion on the National Register of Historic Places?

3.0 ENVIRONMENTAL SETTING

The environmental setting contextualizes the cultural investigations within the natural environment. Since environmental factors influenced much of prehistoric activity, either directly or indirectly, the environmental setting contributes to the understanding of behaviors exhibited by the former inhabitants of an archaeological site. Environmental and geographical conditions affected the function, social status, and productivity of historical sites as well, among other factors. Understanding the environmental setting is a key element of the interpretation of archaeological sites.

3.1 CLIMATE

The climate in Cass County is continental, having relatively cold winters and hot summers. The annual precipitation in the county is approximately 37 inches, with most rainfall occurring in August. The county receives an average of 85 inches of snowfall a year, with most occurring in December and January (US Climate Data 2020).

3.2 PHYSIOGRAPHY AND GEOLOGY

The project area in Cass County is in the Niles-Thornapple Spillway section of the Southern Lower Peninsula Hills and Plains Region in southwest Michigan (WMU 2020). The topography within this part of the county contains rolling glacial landscapes. The geology of the region is the Ellsworth Shale, a Late Devonian shale with minor inclusions of siltstone and sandstone (USGS 2020). The glacial till that dominates the area generally consisted of sandy outwash from the melting of the last ice sheets.

3.3 SOILS

The project area is located within the Spinks-Oshtemo-Ormas soil association (USDS SCS 1991). The association contains nearly level to steep, well drained soils formed in glacial outwash, and mainly consists of the Spinks soil series, with lesser amounts of Oshtemo and Ormas soils. Minor soils include Coloma and Kalamazoo series.

Five individual soil types are present within the APE (Table 1). Soil descriptions are from the USDA NRCS web soil survey (2020).

Table 1. Soils encountered within the project area

Soil Symbol	Soil Name	Landform	Drainage	Parent Material
4B	Oshtemo sandy loam, 2–6% slopes	Moraines and outwash plains	Well	Loamy drift over sandy/gravelly drift
5B	Spinks loamy sand, 0–6% slopes	Outwash plains and glacial drainage channels	Well	Sandy drift
9B	Kalamazoo loam, 2–6% slopes	Outwash plains	Well	Loamy outwash over sandy/gravelly outwash
16B	Ormas loamy sand, 0–6% slopes	Outwash plains	Well	Sandy and/or loamy outwash
41C	Spinks-Oshtemo complex, 6–12% slopes	Outwash plains, moraines, and glacial drainage channels	Well	Sandy drift/ loamy drift

3.4 HYDROLOGY

The major drainage in southwestern Michigan is the St. Joseph River. The project area drains to the northwest, through an unnamed tributary of the Dowagiac River that has its headwaters roughly a mile north of the project.

3.5 FLORA AND FAUNA

Prior to settlement in the region, natural phenomenon such as glaciations during the Pleistocene and the associated climate changes had a major effect on plant and animal communities (Anderson and King 1976). As the glaciers retreated and the climate warmed, tundra ecosystems with their characteristic plant and animal life retreated north, and forests covered much of Ohio, bringing with them an entirely different community of life. Some areas of Ohio developed into prairies or vast marshes. Small pockets of typically boreal plant and animal communities

persisted in some areas, such as ravine habitats in the Hocking Hills and northern Ohio.

The modern animal and plant life in the county bears little resemblance to those present prior to wide-scale nineteenth century settlement in the region. These changes are attributable to habitat loss and change, purposeful extirpation of predators, unchecked hunting, and introduction of non-native species. Early settler accounts of the region provide useful information on the original ecosystem of this part of the state, supplemented by information from the archaeological record. The earliest recorded land surveys classified the natural vegetation in this region as an oak-hickory savanna with patches of swamp forest (WMU 2020).

The modern pattern of land use has altered historical animal and plant community distributions and populations. The fauna historically inhabiting the general region of the survey area included several species of mammals, birds, reptiles, amphibians, and fish. Many species are no longer present due to the drastic habitat changes in the region, competition with invasive species, and historical periods of overhunting (Anderson and King 1976).

In summary, the environmental information indicates a rich prehistoric environment with a variety of resources. A variety of plants characterized a diverse floral environment exploitable by humans and animals. Animal life provided a source of protein and raw material for clothing and tools. All these factors indicate that this area possesses potential for the presence of archaeological sites within the project area.

4.0 LITERATURE REVIEW

The literature review study radius is 2 km (1.2 mi) from each exterior corner of the proposed project limits. This size is usually adequate to provide the necessary contextual information regarding previously identified cultural resources and historical information on the project area. The report author examined following sources from the State Historic Preservation Office (SHPO) and various online resources. Because of restrictions associated with the global COVID-19 pandemic, in-person research trips to repositories were not possible and all research was conducted remotely. Thus, the information from sources maintained by the Michigan SHPO is necessarily limited from what would normally be available.

1. Hinsdale's (1931) *Archaeological Atlas of Michigan*
2. Michigan Archaeological Site Files
3. Contract Cultural Resource Management reports
4. Michigan Architectural Site Files
5. National Historic Landmark listings
6. NRHP listings and nomination form files
7. USGS 7.5' and 15' series topographic maps, historical aerial photographs, and Cass County historic atlases

The *Archaeological Atlas of Michigan* (Hinsdale 1931) does not indicate any prehistoric resources within or adjacent to the project (Figure 5). Hinsdale tallied 3

village sites, 1 burying ground, 22 mounds, 1 circular enclosure, 1 rectangular enclosure, and 1 garden bed in the county, with 40 villages, 12 burying grounds, 20 mounds, 1 garden bed, and 1 dance circle in neighboring Berrien County. These resources will not be impacted by the proposed project; however, they indicate that this part of Michigan is very archaeologically sensitive.

The Michigan Archaeological Site Files indicate that there are no previously recorded archaeological sites within and/or adjacent to the project. There are two previously recorded archaeological sites within the 2 km study radius for the project, but these will not be impacted by the undertaking. The two sites include 20BE211 and 20BE391. According to Michigan SHPO mapping, 20BE211 is actually located in Cass County, not Berrien County, and is northeast of the project area. It is a reported collection of artifacts from a local avocational archaeologist. 20BE391 is within the City of Niles to the northwest. It is associated with a historic-period Native American camp and identified through the documentary record. Neither site appears to have been field verified and their locations are tenuous.

A review of the SHPO contract CRM reports indicated that the project area has not previously been surveyed (Figure 6). There is one previously conducted archaeological survey within the literature review study radius, associated with the Enbridge Line 6 project (Project ID ER10-579). However, we could not determine which specific report associated with this massive project covers this small survey area, so it is not included in the references cited. It is apparent from the information provided by SHPO that this part of the overall survey did not result in the identification of any cultural resources. One architectural history survey has been conducted within the literature review study area (Henry and Henry 2001), which crosses through the project area where the project area intersects M-60.

A review of the Michigan Architectural Site Files did not indicate any previously recorded above ground resources within the APE with MASF identification numbers. This report does not address above ground resources, which will be covered by Mead & Hunt in a separate report.

There are no NRHP listings or nomination form files located within or adjacent to the project area, or within the literature review study radius.

Examination of available historical maps dating to the mid-nineteenth century allows for a reconstruction of landscape history and can identify the potential for historical sites within a project area. The earliest township map is from the 1896 atlas of Cass County and shows the APE within the properties of F. Hammond and J. J. Willard (Figure 7). Willard's residence is shown within the APE on the north side of M-60, where a modern residence is located. It is unclear if the residence is the historical house or a replacement. South of M-60, the property owners in the APE were Sheldon Bronson, Andrew Gulty, and W. C. Bliss. A house is shown on Gulty's property in the APE, although he also had a house further south on his property along Carberry Road. The 1914 plat shows O. Beehler owning the former Hammond property, with J. J. Willard still present on the other property within the APE north of M-60. South of M-60, property owners in the APE include W. White, Andrew Geltz, and C. H. Palmquist (Figure 8). Geltz may be the same person as

the Andrew Gulty on the 1896 map, and the same two houses are shown on his property. The 1920 plat shows ownership only, with no buildings indicated (Figure 9). Ownership in the APE north of M-60 was the same as in 1914, and White and Geltz are still shown south of M-60. M. J. Hunzilter acquired the Palmquist property. The 1945 USGS topographic map shows several houses lining M-60 east of Niles, all of which appear to correlate to existing houses in the APE. The airport is not depicted on this map (Figure 10).

Aerial photographs dating back to 1955 showing the project area available online (NETR 2020) show that the only major change to the landscape is the airport itself, which first shows up in a 1969 aerial. Otherwise, only minor changes are visible between 1955 and the latest aerial photograph of 2016. These changes include the removal of some older houses supplemented by the construction of new buildings, maturing tree growth in woodlots and residential lots, and some light commercial development.

5.0 CULTURAL SETTING

The historic context provides a framework for evaluating the integrity and significance of any identified cultural resources. The principal investigator uses the context to assess a sites' ability to contribute to the existing historic knowledge of a region. The report authors derived the following contexts from previously reported information from throughout the region and identified in the immediate area through previous archaeological and historical research. While not all of these contexts may be identified within the project area during the survey, the established contexts are presented in chronological order to understand the relationships between different temporal periods and the continuum of cultural development that occurred in this area. It should be noted that these periods are defined through cultural expressions, and that the ranges of time associated with each period will likely overlap in different parts of the region, as some prehistoric groups may not have adapted a new cultural expression at the same time as other groups, or indeed even at all.

5.1 PREHISTORIC CONTEXT

The prehistoric cultural development of the region began with the influx of the first post-glacial populations and continued throughout prehistory until the arrival of Europeans and settlers from east of the Appalachians. Archaeologists developed temporal periods to distinguish cultural and/or technical advances over time, divided into the Paleoindian; Early, Middle, and Late Archaic; Early, Middle, and Late Woodland; Late Prehistoric and Protohistoric. The temporal ranges given here for each period may differ from other presented material. This should not be construed as either a challenge to, or perceived error on the part of earlier material, but reflects the rather fluid nature of defining temporal periods based on current dating techniques, selective regional data comparisons, and differing opinions on when and where to divide prehistory into arbitrary periods.

5.1.1 PALEOINDIAN PERIOD

Archaeologists estimate that occupation of the Lower Peninsula of Michigan would have been possible by approximately 11,500 B.C. to 11,000 B.C. By this time, the glacial front that had once covered the peninsula had retreated into the Upper Peninsula/Lake Superior region. The Paleoindians, the first known prehistoric population to occupy Michigan, were highly mobile, small-band hunters moving on a seasonal basis in order to more fully exploit available natural resources (Dragoo 1976), and carbon dated evidence for their presence in the Lower Great Lakes region suggests occupations as far back as far as 10,500 B.C. (Carr 2012). The Paleoindians were opportunists willing to use a broad spectrum of animal and plant resources, and with a fluctuating post-glacial environment, both in terms of climate and ecological communities, they had to adapt to exploit a variety of environments from tundra to wetlands. Analysis of pollen data and plant macrofossils suggest that tundra conditions in the late Pleistocene Midwest were constricted to the glacier margins, with differing ecological regimes advancing quickly northward as the glaciers retreated. Specifically, spruce-sedge parkland environments dominated the immediate post-glacial landscape for about 2000 years after the last glacial maximum, then rather quickly replaced by pine and then oak forests in the Lower Peninsula. Within this set of environmental conditions, a great diversity of animal species flourished, including several species that would have represented important game animals for human predation, such as mastodon, mammoth, ground-sloths, musk-ox, elk, caribou, and smaller game species.

One popular hypothesis about Paleoindian subsistence strategies is that they were primarily herd-followers, tracking caribou across the post-glacial landscape. Carr (2012) points out that such hypotheses are largely based on ethnographic analogy and not on hard data reflecting actual Paleoindian subsistence strategies. He points out that there is a general lack of such data for the lower Great Lakes and posits that this reflects Paleoindian site selection strategies that correspond to locations with poor long-term preservation characteristics. Instead, Carr lays out a hypothesis that Paleoindian hunters employed a herd-intercept strategy oriented along lake shores, moving to key locations where caribou herds would be found at certain points of a season, rather than seasonal relocation of a group to be within the summer and winter ranges of a single herd. People practicing the herd-intercept strategy would rely on storage and secondary protein resources when caribou were scarce. Carr suggests Paleoindian bands were residentially mobile within large territories exceeding 20,000 km², and notes the absence in the archaeological record for definitive evidence of periodic large aggregations of individual bands, which has occurred elsewhere in the Eastern Woodlands (Bull Brook, Massachusetts, for example).

Specific Paleoindian complexes in the lower Great Lakes include Gainey (9500–9000 B.C.), Parkhill (9000–8400 B.C.), Crowfield, and Holcombe (both occurring after 8400 B.C.). Shott and Wright (1999) also note the ephemeral presence of a Mid-Atlantic Paleoindian phase contemporary with Clovis called the Enterline phase, which is known in Michigan only from one site in Saginaw County, and is

quite possibly a local variant of Gainey instead of representing Enterline. The Gainey complex, taking its name from an important site in southeast Michigan, is represented by large fluted points with parallel sides, similar to western Folsom points, and accompanied by triangular end scrapers, side scrapers, and graters (Carr 2012; Shott and Wright 1999). The Parkhill complex was identified from a series of sites in southern Ontario and are identified through the presence of Barnes fluted points. Groups associated with the Parkhill complex are thought to have had a residential preference for the shore margins of Glacial Lake Algonquian, and occupied much smaller territories than Gainey people; southwest Michigan is posited to have been one such territory, albeit without much supporting evidence (Shott and Wright 1999). Parkhill toolkits show an increasing diversity of tool forms over preceding Gainey kits. The Crowfield and Holcombe complexes represent the end of the Paleoindian period, with many Holcombe points being either poorly fluted or in some cases, simply being basally thinned in place of fluting. Few examples of the Crowfield complex have been identified in Michigan, being more of an eastern Great Lakes phenomenon. Holcomb complex sites are mainly restricted to southeastern Michigan (Shott and Wright 1999).

Small lithic scatters and isolated finds of diagnostic fluted projectile points characterize the archaeological record of Michigan's Paleoindian period; such points including Clovis, Holcombe, Cumberland, Plainview, and Agate Basin types. Unfluted Hi-Lo points are also a diagnostic point for the period in Michigan (Justice 1987; Carr 2012); although some archaeologists prefer to assign these points to the initial Early Archaic (Shott 1999). Paleoindian groups in Michigan are noted for a heavy reliance on Onondaga, Bayport, and Fossil Hill cherts, with early Gainey phase people also using exotic Upper Mercer chert from east-central Ohio (Carr 2012; Shott and Wright 1999). Notably, Paleoindian groups appear to have focused on single sources of lithic raw material, so that lithic types may be an identifier for a band territory.

5.1.2 ARCHAIC

A period of significant environmental change ensued as the glaciers retreated northward at the end of the Pleistocene. The climate became temperate. Large-game species, such as mastodon, became extinct, and the deciduous forest common today developed, replacing the boreal-coniferous forests. The Archaic period encompasses the notable human adaptations and settlement practices developed in response to the changing environment (Ford 1974). Artifact assemblages from Archaic sites show a wider range of tool types in comparison to the preceding Paleoindian period, some of which have specialized functions for the processing of a wider variety of plant and animal resources (Griffin 1967). Although all Archaic-period human groups exhibited characteristics of classic hunter-gathering lifestyles, environmental differences led to regionally distinctive artifact assemblages by the end of the period, which might reflect the evolution of culturally distinct human social groups (Dragoo 1976).

Changes in human social organization occurred concurrently with expanding food procurement strategies. In eastern North America, organizational changes

generally included restricted group mobility, larger aggregations of individuals, development of ritual behavior, development of inter-regional exchange systems, and the first attempts at plant domestication (Ford 1974). Other results included smaller group territories, sites occupied for longer periods, reuse of sites at more frequent and probably more regular intervals, and the use of a wider variety of plants and animals. Storage facilities and vessels also appeared more frequently in Archaic sites, as well as evidence for early cultivation of some plant species. Archaic developed burial ceremonialism and other ritual behavior and showed signs of becoming formalized in some regions. Ritual activity might be linked to the establishment of social group identities, the maintenance of territorial boundaries, and the regulation of intergroup alliances and trade. However, archaeologists are still trying to adequately test this proposition.

Research has shown the progression of these adaptations through the Archaic period (ca. 8000 B.C. to 1000 B.C.), resulting in the subdivision of time into three distinct temporal periods: Early, Middle, and Late Archaic. Some general traits, such as basal styles of projectile points, are common throughout all three Archaic sub-periods, so some Archaic sites cannot be classified to one of these three periods.

Early and Middle Archaic sites are somewhat rare in Michigan, which was once attributed to an actual general absence of people during that time in the region. However, recent studies suggest that fluctuations in glacial meltwater lake levels in the early Holocene may have resulted in contemporary sites being either flooded or deeply buried under alluvium, as lake levels were considerably lower than at present.

5.1.2.1 EARLY ARCHAIC

During the Early Archaic period (8000 B.C. to 6000 B.C.), small mobile groups gradually became more geographically restricted as seasonally oriented hunting-and-gathering activities were focused on smaller, well-exploited territories. This reduction in territory size and mobility is a direct link to the expansion of the deciduous forests that produced a more favorable habitat for game species (Chapman 1975). Although hunting was the major subsistence activity, Early Archaic people also used a narrow spectrum of nutritious plant foods (Chapman 1975; Cleland 1966). This expansion of the subsistence base correlates with a change in material culture. Early Archaic hunters switched from lanceolate spear points, ideal for hunting larger animals, to a series of smaller, more diversified notched and stemmed projectile points, scrapers, knives, drills, and ovoid blades. Woodworking and food preparation tools first appear in the tool assemblage during the Early Archaic period. These tools included axes, adzes, mortars and pestles, awls, gouges, and grinding stones (Chapman 1975; Jennings 1968). Sites were small and scattered, largely discovered through surface collection, and usually located in uplands near secondary stream valleys (Benchley 1975).

Early on, Early Archaic bands in Michigan practiced a lifeway fairly like preceding Paleoindian groups, and sites from this part of the period are classified as the Plano tradition. Indeed, some archaeologists place Plano as a Paleoindian

manifestation characterized by a loss of fluting in projectile point technology (Justice 1987). It seems likely that Plano and Dalton types of points are reflective of gradual change, rather than demarking any sharp divisions between the Paleoindian and Early Archaic periods, and thus may best be discussed as Paleoindian/Early Archaic. The Plano tradition dates to ca. 8000–7500 B.C. and is characterized by Hi-Lo projectile points (Shott 1999).

The succeeding Kirk tradition dates to ca. 7500–6000 B.C. and is notable for the first occurrence of notched and stemmed bifaces, variously attributable to Palmer, Kirk Corner-notched, Kirk-stemmed, St Albans, Kanawha, and LeCroy types (Shott 1999). This change represents an abrupt change in lithic technology from preceding lanceolate forms, with a concurrent increase in use of exotic Ohio lithic materials. This change may be correlated with movement of new groups into Michigan from Ohio, although such interpretations do not suggest what happened with the Plano people already present. Shott (1999) posits a viewpoint that suggests bands belonging to the Plano and Kirk traditions overlapped in territory and interacted with each other. Indeed, he notes that while there is a relative explosion in biface form diversity, the overall toolkit for Early Archaic peoples share many characteristics with late Paleoindian and subsequent Archaic groups.

5.1.2.2 MIDDLE ARCHAIC

During the Middle Archaic period (6000 B.C. to 3000 B.C.), floral communities diversified as the overall climate warmed and stabilized, allowing for a broader selection of food and material for use. However, Middle Archaic people still appear to have emphasized hunting within an increasingly sedentary lifestyle (Cleland 1966). In lower Michigan, there is a debate as to whether the local environment could support a large population of hunter-gatherers. Boreal forests may not have developed sufficient mast-bearing species to support a new regime of large mammals, and stream flows may have been too rapid to support large fish populations. However, extensive, productive marshes along the relict margins of Lake Algonquin in southeastern Michigan may have been well-exploited by Middle Archaic bands, and many of Michigan's Middle Archaic sites are found in the that region (Lovis 1999). As well, pollen studies indicate that oak, maple, and elm had begun to establish themselves in southern Michigan by 5000 B.C. It may simply be that Michigan Middle Archaic populations were largely focused on shoreline habitats that are now underwater, thus introducing a significant bias in typical survey results. In addition, Middle Archaic groups are suggested to have practiced a long-distance logistic mobility strategy that would spread evidence of Middle Archaic people thinly over a landscape, moving between shoreline residential camps and upland logistical sites (Lovis et al. 2005); such a strategy, where people are normally occupying sites on a very short-term basis, would also help to explain the low density of Middle Archaic sites.

Middle Archaic material cultural reflects the change in economy as well, adapted to intensive exploitation of forest and riverine environments. Some researchers divide the Middle Archaic in the Great Lakes into two horizons based on projectile point morphology (Stothers et al. 2001). The first horizon is the Weak-Stemmed

Point Horizon (6000–3800 B.C.), with points such as Morrow Mountain and Stanly Stemmed; the second horizon is the Side-notched Point Horizon (3800–2000 B.C.), associated with points similar to the Raddatz, Matanzas, Otter Creek, and Brewerton styles (Lovis 1999). Of note is the overlap of Brewerton points between the Middle and Late Archaic periods. Plant-processing tools included a variety of ground stone implements, grooved axes, metates, and nutting stones. Bone tools such as awls and fishhooks also appear in Middle Archaic assemblages. Atlatl weights and bone tools first appear in the archaeological record elsewhere in the Midwest and Northeast (Broyles 1971; Lewis and Lewis 1961). These types of groundstone tools are curiously absent from Michigan Middle Archaic sites, but this may be a bias resulting from the overall scarcity of Middle Archaic sites formally excavated in the state (Lovis 1999; Stothers et al. 2001).

Although Middle Archaic sites tend to be rare, one important site in Michigan is the Weber I Site (20SA581) in the Saginaw River Valley (Lovis 1999). This site exhibited stratified Middle Archaic and Late Archaic deposits and provided evidence for Middle Archaic subsistence strategies, specifically focusing on hunting elk and deer while gathering nuts and berries (Smith and Egan 1990).

5.1.2.3 LATE ARCHAIC

In contrast to the preceding Middle Archaic period, the Late Archaic (3000 B.C. to 500 B.C.) is a highly visible manifestation in Michigan's archaeological record. Group ceremonialism increased in importance, as demonstrated by more elaborate, formalized burial practices and the presence of exotic materials obtained from emerging trade networks. Scheduled harvesting of seasonal, available plant and animal resources climaxed in the Late Archaic (Caldwell 1964). Coinciding with an increase in territorial permanence was the first appearance of regionally distinct human culture groups in Michigan (Cleland 1966). Late Archaic lifeways in the northern parts of the state (the Upper Peninsula and northern Lower Peninsula) persisted well into what would be considered the Early Woodland period in more southerly regions, with pottery only appearing around A.D. 0. Late Archaic people were organized into seasonally mobile bands, likely in the range of 25-30 people. There likely were population aggregations in the winter months with dispersal in the warmer seasons, perhaps down to single-family groups. There is limited evidence for Late Archaic houses available in the archaeological record of Michigan.

In Michigan, the levels of the Great Lakes were much higher than today, but also fluctuated considerably over the course of the period. In the Late Archaic period, the expansion of deciduous forests reached its northernmost limit (Cleland 1966). The vegetation communities present in the state had become more or less modern (Roberston et al. 1999). Late Archaic people responding to the diverse and evolving ecosystems adapted varying ways of exploiting natural resources. Fishing was an important component of faunal exploitation. The Late Archaic period marks the first appearance of cultigens in the archaeological record. Archaeologists recovered chenopodium, sunflower, and gourd seeds dated to approximately 1500 B.C. from the Salts Cave site in Kentucky (Yarnell 1974), while other researchers

have dated squash seed as early as 2300 B.C. in Missouri and Kentucky (Yarnell 1963). However, these Eastern Agricultural Complex (EAC) cultigens are not often found in Late Archaic contexts in Michigan (Robertson et al. 1999). Exploitation of local plant and animal resources, including aquatic species, became more efficient and broad-based in the Late Archaic period. The success of this subsistence strategy is shown by the recovery of charred botanical remains of a variety of nuts, including acorn, hazel, hickory, and black walnut. Fruit also was an important food resource, as demonstrated by the diversity of fruit seeds in archaeobotanical assemblages, such as wild grape, blueberry, raspberry, and strawberry (Dye 1977; Yarnell 1974). Late Archaic people exploited these resources as a seasonal round, with either longer, more extensive occupations or higher seasonal site fidelity only occurring in the Terminal Late Archaic. Specifically, spring occupations may have focused on fish runs, followed by summer camps for berry exploitation, fall camps for mast resources, and winter camps with a broad-based hunting focus. A general lack of sedentism may be attributable to the largely unreliable nature of the fluctuating environmental conditions that typify most of this period (Robertson et al. 1999). It should be noted that caution must be taken with applying general statements about Late Archaic lifeways in Michigan, as the database of Late Archaic site information is heavily skewed towards the well-scrutinized Saginaw Valley region of southeastern Michigan.

Late Archaic people developed a wide array of specialized objects, including steatite and sandstone bowls, stone tubes and beads, polished plummets, net sinkers, whistles and rattles, birdstones, and boatstones, as well as awls, needles, and perforators made of bone (Chapman 1975). Brewerton series points are characteristic of this period (Ritchie 1961; Witthoft 1953; Robertson et al. 1999). In Michigan, broad-bladed stemmed points, such as Susquehanna, Adder Orchard, Perkiomen, and Genesee types, also are associated with the Late Archaic (Robertson et al. 1999). Interestingly, narrow projectile point styles that occur at Late Archaic sites in the eastern Great Lakes (Lamoka, Normanskill) are not associated with Michigan Late Archaic assemblages. By the end of the Late Archaic, projectile point style diversity increased, with the introduction of small, broad-bladed point types. In southwest Michigan, these points are associated with types including Berrien Corner-notched, Oronoko Side-notched, Sodus Expanding Stemmed (Robertson et al. 1999). Turkey-tail points also occur in ceremonial contexts and in buried caches. By the very end of the period, Meadowood points begin to occur in Terminal Late Archaic contexts. Meadowood points do not occur with pottery on Michigan sites, although sites with Meadowood points are contemporary with Early Woodland sites in Ontario and elsewhere, suggesting that Meadowood points are associated with the end of the Late Archaic here. In southwest Michigan, the transition to the Early Woodland is typified by Terminal Late Archaic point types showing up in association with Early Woodland deposits (Robertson et al. 1999).

Trade is demonstrated through the appearance of exotic materials in Late Archaic assemblages, and through the dating of certain prehistoric Lake Superior copper mining pits to this period. In addition, foreign cherts such as Wyandotte/Indiana

Hornstone and Onondaga appear in Lower Peninsula assemblages, and ritual objects made from marine shell appear for the first time. However, the occurrence of such exotic materials is rare on Late Archaic sites, suggesting that trade was not intensive. Trade was likely a key component of maintaining social ties among related but widely dispersed groups. Trade may also have been one response to uncertain availability of resources related to subsistence, including food and animal hides for clothing. Notably, exotic trade items often are found in mortuary contexts. There are three distinct burial complexes associated with the Michigan Late Archaic: Old Copper, Glacial Kame, and Red Ochre (previously thought to represent entire cultures, but now more properly classified as distinct subcomponents of larger Late Archaic cultural practices). Old Copper Complex burials are largely found in the western Great Lakes, primarily Wisconsin, although there are documented occurrences in Ontario and Quebec to the east. The complex is eponymously named for the occurrence of copper artifacts with burials. Old Copper Complex burials are not documented from the Lower Peninsula. Glacial Kame burials are associated with exotic shell beads and gorgets, copper beads, stone pipes, and birdstones, among other items. As the name indicates, Glacial Kame burials have commonly been found interred in kame landforms. Largely a southern Midwest expression, Glacial Kame burials are documented as far north as Cheboygan County. Evidence from Wisconsin documents interactions between people practicing Old Copper and Glacial Kame burial traditions. Finally, the Red Ochre burial complex is associated with the Terminal Archaic Meadowood cultural expression, which elsewhere is associated with the initial stages of the Early Woodland period (there are very few Early Woodland mounds in Michigan, obscuring the boundary even further between the Terminal Archaic and Early Woodland periods). Red Ochre burials take their name from the use of red ochre to cover the grave. Interments are flexed, accompanied by Turkey-tail blades, small ovate cache blades, copper artifacts, and tubular marine shell beads. As with Glacial Kame, Red Ochre burials have been documented in association with Old Copper culture burials at cemetery sites. It should be noted that not all Late Archaic burials conform to one of the three complexes, which are regional and may be sequentialized cultural expressions (Robertson et al. 1999). Of considerable interest is the observation that the increase in mortuary ceremonialism appears to halt with the commencement of the subsequent Early Woodland period.

5.1.3 WOODLAND PERIOD

W. C. McKern first described the Woodland period as an archaeological manifestation within the McKern Taxonomic System (McKern 1939), initially distinguishing it from the preceding Archaic period by pottery and ceremonial construction of earthworks and mounds. Griffin's work (1952) on the Woodland period defined three sub-periods: Early Woodland (1000 B.C.–100 B.C.), Middle Woodland (100 B.C.–A.D. 500), and Late Woodland (A.D. 500–1200). Archaeologists still use the same basic system today, although current research suggests that adaptations and cultural traits assigned to each period are quite variable in both time and location. For example, in some regions of the Midwest, the cultural expressions associated with the Middle Woodland are not present, with

Early Woodland practices persisting through time. Some Woodland period sites are identified solely through the presence of pottery or burial mounds; these sites are typically not assigned to one of the three sub-periods. Specifically to Michigan, the Woodland period spans 800 B.C. to A.D. 1650 (Chivis 2003). Late Prehistoric cultural manifestations, such as Mississippian cultures, did not occur widely in Michigan; instead, Late Woodland cultural practices persisted to the Contact Period in large portions of the state, and Late Prehistoric groups appear confined to the southwestern Lower Peninsula, contemporary with Late Woodland people elsewhere in the state.

5.1.3.1 EARLY WOODLAND

The Early Woodland period in Michigan begins at different times in different regions in Michigan. In the southern Lower Peninsula, it extends from approximately 800 B.C. to A.D. 1, overlapping somewhat with the Middle Woodland period. Research in the Midwest demonstrates a general continuum from the end of the Archaic through the Middle Woodland for the intensification of horticulture and the formalization and elaboration of mortuary practices (Dragoo 1976). However, Woodland people did not uniformly adapt these traits at the same general time, and some practices associated with Woodland people (such as mound building) are largely absent in Michigan. There are few Early Woodland mound sites in Michigan, Croton Carrigan Mounds in Newaygo County being one (Garland and Beld 1999). In general, Early Woodland peoples maintained a largely foraging-focused economy with gradual incorporation of plant cultivation, specifically sunflower and squash. Early Woodland sites are somewhat rare in Michigan, and often occur as part of multicomponent sites, with subsequent Woodland-period occupations.

To the south, archaeologists most closely associate the Early Woodland period with the Adena Culture. The Adena culture dominated much of the northern Eastern Woodlands from upstate New York into the Ohio and Mississippi Valleys, characterized by conical earthen mounds and elaborate burials with ornamental grave goods. The Adena culture may have developed as early as 500 B.C., based on the dating of burial mounds in the central Ohio River Valley region (Seeman 1992:25). Notably, the Adena culture did not expand into Michigan. However, there is one Early Woodland earthworks in central Michigan, 20IA37, which bear similarities to Adena earthworks to the south (Garland and Beld 1999). 20IA37 represents a unique occurrence of a ceremonial aggregation site associated with the Early Woodland period in the state. Mortuary processing at the site is suggested through the recovery of fragmentary human bones, but no actual burials are known to be present.

In southwestern Michigan, research indicates a strong continuity between Late Archaic and Early Woodland cultural practices. Horticulture likely became more important in the subsistence strategy of Early Woodland people, but how important this adaptation was to different groups varies across time and space within this period. Some areas do not show much evidence of domesticated plants until near the end of the Early Woodland period, coinciding with the beginning of the Middle

Woodland period (Fritz 1990:403). Sunflower cultivation is demonstrated at the Eidson Site, being a continuous tradition with the preceding Late Archaic occupation (Garland and Beld 1999). Seasonal mast crops continued to be an important resource, and Early Woodland groups still depended on wild versions of plants that would become cultivars, such as squash, sumpweed, gourd and goosefoot.

Although there may have been some tendency for limiting residential mobility in the Early Woodland period, settlement patterns generally resemble those of the preceding Late Archaic period, with large summer base camps in the flood plains and upland resource extraction camps occupied in the fall and winter (Garland and Beld 1999; Yerkes 1988:319). Clay (1992:80) suggests that Early Woodland groups were likely practicing a semi-sedentary, hunter-gatherer lifestyle organized into egalitarian groups, rather than having a more hierarchical tribal system. This certainly seems to be the case in Michigan.

Projectile point/knife forms diagnostic of the Early Woodland period include Kramer, Cresap, Meadowood and Adena Stemmed types (Chivis 2003; Justice 1987). As noted previously, Meadowood points are also associated with the Terminal Archaic in Michigan. Early Woodland pottery first appears around 500 B.C. and tends to exhibit coil construction with cordmarked surfaces. Pottery types associated with the Early Woodland period includes Marion Thick (also known as Schultz Thick), Shiawassee Ware (found in the Saginaw Valley), and Mushroom Cordmarked, a late Early Woodland type (Garland and Beld 1999; Chivis 2003). Marion Thick is similar to types in other regions of the Midwest, such as Vinette in Ontario and Fayette and Leimbach Thick in Ohio. The production of Marion Thick appears to have persisted into the Middle Woodland period. Exotic materials are indicative of long-distance trade networks, including copper and high-quality cherts from Ohio and Illinois.

5.1.3.2 MIDDLE WOODLAND

The Middle Woodland period (ca. 100 B.C. – A.D.400) saw a gradual expansion in the general patterns of the Early Woodland. Elaborate burials and distinct ceremonialism increased, and mound construction became increasingly complex, with huge, precisely arranged geometric earthworks being the hallmark of the Hopewell cultural manifestation that flourished to the south in Ohio, with its influence spreading throughout the Midwest. Like the Adena, the Hopewell manifestation likely does not represent a single monolithic culture, but rather a shared worldview among many different groups of people across the mid-continent. Elaborate mound construction and an increased reliance on fishing are hallmarks of the Middle Woodland in Michigan.

In southwest Michigan, the Norton Tradition is the main regional expression of the Hopewell cultural manifestation, although Havana Hopewell is present in sites along the Michigan-Indiana border. Chivis (2003) notes that current research suggests many of the Middle Woodland vessels recovered archaeologically from western Michigan show influence from Illinois populations, with several probably representing imported or trade items. Pottery types associated with Middle

Woodland groups in southwest Michigan include Norton Ware, Havana Ware, Western Basin Ware, Crockery Ware, and Hacklander Ware (Chivis 2003). In southeast Michigan, near Saginaw Bay, the local Hopewell expression is the Saginaw Tradition. Hopewell cultural expressions were not adopted by Woodland groups occupying the area beginning roughly at the Muskegon River and northwards, and additionally do not seem to be present in the southeastern corner of the state south of Saginaw Bay (Kingsley et al. 1999). It appears that while migration of Hopewell people into southwestern Michigan may be the best explanation for the cultural development observed there, the Saginaw Bay tradition may have developed in situ. Middle Woodland period sites have been identified along the northwest coast of the Lower Peninsula, some with Hopewellian materials. However, it is not clear that these sites represent a Hopewell population; instead, they may be a contemporary Middle Woodland population that traded with Hopewell groups to the south but did not adopt their practices.

The Norton Tradition is thought to have evolved from the Havana Hopewell tradition to the southwest and is contemporaneous with the later expressions of Havana Hopewell. The Norton Tradition is divided into the Norton Phase, ca. 10 B.C.–A.D. 200, and the Converse Phase, ca. A.D. 200–400. However, due to a lack of datable material from sites and phase-sensitive artifacts, the Converse Phase is considered problematic at best, as the dual Norton/Converse phases were actually created to serve as an analogue to Illinois phases, and may not be actually warranted as an accurate interpretation of the cultural manifestation of Hopewell in southwest Michigan (Kingsley et al. 1999). The earliest expressions of the Norton Phase appear to be highly correlated to Havana Hopewell groups to the southwest, albeit on a smaller scale. Norton people buried their dead in mounds, with practices like the Havana Hopewell, the parent group. Norton groups appear to have focused their territory on the Muskegon, Grand and St. Joseph River valleys, with several mound groups present. Domestic sites associated with the mounds are rare, however, and the settlement system for Norton Tradition Hopewell is poorly understood. The constriction of Hopewell to these three river valleys in southwest Michigan is somewhat of a puzzle, and may indicate that the Hopewell people, possibly being an immigrant group, settled in areas sparsely occupied by other Woodland people practicing a different cultural system. Supporting this view of long-term sedentism without expansion is the fact that each of the three river systems have major mound group sites composed of numerous mounds, suggesting a long period of settlement adding to the ceremonial mound centers over time.

An important component of understanding the Middle Woodland period in Michigan is the presence of cultural systems unrelated to the Hopewell phenomenon. Some of these societies may simply be groups continuing cultural practices first developed in the Late Archaic and Early Woodland periods. In southeast Michigan, the Western Basin Tradition is recognized as a non-Hopewell Middle Woodland-Late Woodland cultural expression. Several researchers interpret Western Basin material as representing an in situ cultural evolution of Woodland traits culminating in Late Woodland cultural expressions, such as the Younge Phase in northwest

Ohio and the Wayne Tradition in southeast Michigan. Another resident, non-Hopewell Middle Woodland population is posited in southwest Michigan, in between the Havana Hopewell and the Norton Hopewell areas. These people are known from locally derived ceramic forms, some of which are similar to Point Peninsula cultures to the east. Some Hopewellian material also occurs at sites thought to be Non-Hopewell Middle Woodland, interpreted as the result of contact with Hopewell groups to the north and south (Kingsley et al. 1999). In northern Michigan and the Upper Peninsula, groups are classified as belonging to the Lake Forest Middle Woodland, a cultural expression that is contemporary and interacted with other Middle Woodland cultures, such as people associated with Laurel, Hopewell, Point Peninsula, and North Bay cultural traditions.

The current understanding of settlement and subsistence behaviors of the Hopewell and other Middle Woodland populations is unclear at best, with a variety of opinion to explain the data collected to date. Using information from non-mound excavations (e.g., Prufer 1964), Ford (1979) suggested a basic hunting-and-gathering economy with limited horticulture. Subsistence data from Michigan sites is scarce, unfortunately, complicating the development of a robust theory on Middle Woodland subsistence and settlement, like that developed for Ohio, Indiana, and Illinois Hopewell societies. A settlement pattern has been developed for the Norton Tradition, based upon a system known as Intensive Harvest Collecting associated with Havana Hopewell groups. The Norton settlement pattern consists of villages located on terraces or levees along the main river associated with the group's territory, and always are near large floodplains with backwater and mudflat habitats. Villages were also located near reliable sources of mast. Interestingly, the environmental requirements of this system match well with known Norton site distribution. In particular, the Kalamazoo River Valley lacks such requirements, and correspondingly also lacks any major Hopewell settlements. In contrast, the Saginaw Tradition settlement pattern includes warm-weather base camps with a heavy reliance on fishing for subsistence, likely also serving as population aggregation centers. In the winter months, Saginaw Tradition people dispersed into smaller winter hunting camps. This system is more in line with northern Lake Forest Middle Woodland cultures, and indeed, even with historic-period Ojibwa practices (Kingsley et al. 1999).

Mortuary Traditions

Most information about Middle Woodland burial practices are from Norton Tradition internments. Norton Tradition people interred individuals in tombs covered by burial mounds, like Illinois Hopewell traditions. Norton Tradition mound sites include the Norton Mounds, Schumaker Mound, Converse Mounds, Mallon Mound, Hardy Dam Mound, Grattan Mounds, Parsons Mound, Marantette Mounds, McNeal Mound, Paggeot Mound, Spoonville Mound, Scott Mounds, Palmiter Mounds, and Summerville Mounds. Norton burials tend to occur within the subfloor tomb of a mound, and consist of secondary bundle burials and more rarely, rearticulation of formerly bundled individuals. Burials are accompanied by exotic Hopewell Interaction Sphere artifacts; in fact, these artifacts rarely occur

outside of mortuary contexts on Norton sites. Finely made pottery vessels specifically made for mortuary use, either imported Hopewell Ware from Illinois or the local Sumnerville Ware variant of that type, accompany most burials. These vessels are often accompanied by turtle shell dishes and mussel shell spoons. Individual burials are also found with clusters of artifacts that appear to represent toolkits for use in the afterlife. Exotic, non-local goods include conch shells from the Gulf of Mexico, copper tools from the Lake Superior copper region, native silver (also probably from the upper Great Lakes), and mica. Of special note are copper and silver panpipes, which mainly occur with Norton burials, although one specimen is associated with a Saginaw Tradition internment. Curiously, one type of Hopewellian artifact that is common in mortuary contexts elsewhere in the Midwest but largely absent in Michigan is the copper earspool. Only one burial with earspools is documented in the state. Another way that Michigan Hopewell burials differ from other regions is the inclusion of slate gorgets, an apparent continuation of a Late Archaic artifact type that does not occur elsewhere in the Hopewell region. It is uncertain if the gorgets were manufactured by Norton Hopewell people or were a trade item originating with groups in the region that were still practicing Late Archaic cultural traditions (Kingsley et al. 1999).

Social Structure

The social structure of Hopewell groups is one that numerous archaeologists across the continent have studied and argued over for years, with little consensus. Information from mortuary contexts holds up tantalizing evidence for the existence of complex societal structures, yet this data can be interpreted in varying ways and widely different hypotheses can be generated from the same data set. One way of approaching the problem of teasing out social structures from limited mortuary data is to examine variation in burial types. If there seems to be differing treatment of individual burials, with some receiving more lavish ministrations than others, then some form of equivalent social ranking was probably practiced by that society. Ranking can be teased out in the form of analysis of how different age groups and genders are treated in burials. If there is a difference in burial types, but the difference does not apply to age groups or gender, then a social hierarchy is present in the living population. Such conditions do not appear present in Norton Tradition burials. Rather, status seems to be associated with age, and to some degree gender. Older male Norton internments tend to have higher quantities of exotic grave goods, and often display a treatment where a section of the skull is removed. Most of these male burials are also rearticulated in the submound tomb. In contrast, few female or subadult burials show such lavish treatment, although they do exist. These burial characteristics suggest Norton Tradition groups were egalitarian in structure, with status assigned mainly through the male gender, age, and personal achievement, although some form of basic ranking system cannot be ruled out (Kingsley et al. 1999).

Late Woodland Transition

The transition from Middle Woodland to Late Woodland cultural practices in Michigan appears to reflect an in-situ development, rather than a population

displacement. One possible population movement in Michigan involves the development of the Wayne Mortuary Complex of eastern Michigan, which does not have any clear precedents in the local archaeological record, but has some defining features (Jack's Reef points, use of exotic Upper Mercer chert) that have been documented in late Hopewell burials in the Grand River valley. A tentative hypothesis is that this Late Woodland mortuary complex evolved out of Hopewell antecedents in western Michigan and moved east with a band of people at the end of the Middle Woodland period (Kingsley et al. 1999).

5.1.3.3 LATE WOODLAND

The Late Woodland period (ca. A.D. 400–1650) can be defined as a period of complex social change, and there are competing theories about the various cultural sequences associated with the period in the southern Lower Peninsula. The early part of the Late Woodland period is characterized by a subsistence economy almost wholly devoted to wild food sources (ca. A.D. 600-1000), while the latter part of the period sees the increasing importance of horticulture and domesticates (ca. A.D. 1000-1650). However, Muhammad (2010) characterizes certain Late Woodland groups as practicing a “middle ground” subsistence system, with mingled aspects of hunter-gatherer and agriculturalist strategies. She further posits a fluid network of resource exchange between groups practicing different subsistence strategies as a form of societal risk management for dealing with periodic episodes of regional resource scarcity. During this later part as well, southwestern Michigan saw the influx of Upper Mississippian peoples, an event that surely was important in the cultural development of resident Late Woodland groups. Defensive earthworks appear for the first time, a reflection of the rate of change and the reactions of Michigan Late Woodland people to this change (Holman and Brashler 1999:213). Late Woodland people appear to have rather abruptly stopped the practice of mound construction and elaborate mortuary traditions of the preceding Hopewell culture. In the early Late Woodland period, there is evidence of regional adaptations, development of formal kinship systems tied to exchange of different kinds of chert, food storage intensification, and seasonal migrations. Ceramic types were similar between disparate groups, suggesting close relationships between them. After about A.D. 1000, group territories were more strictly observed, and chert gift-giving ceased to occur. Rock art and earthwork construction began to appear. The Late Woodland sites in the Upper Peninsula show a general continuity with Middle Woodland cultural behaviors, with small bands of people relying on wild rice, mammal hunting, and fishing for their economic base. Lake Phase sites are found in the western Upper Peninsula, while Mackinac Phase, Bois Blanc Phase, and Juntunen Phase sites are associated with the eastern Upper Peninsula. One notable characteristic that differentiates Upper Peninsula Late Woodland from the preceding period is an increase in site fidelity (Martin 1999).

Late Woodland groups in western Michigan are divided into two traditions. The Allegan Tradition encompasses people living in the St. Joseph and Kalamazoo river valleys, and the Spring Creek Tradition is associated with groups in the Grand

and Muskegon river valleys. Each river valley has its distinct phases within its affiliated tradition. The St. Joseph River phases include the Brems Phase (ca. A.D. 500-1000) and the Moccasin Bluff Phase (A.D. 1000-1200). In the Kalamazoo River Valley, the Allegan Tradition is divided into an Early Allegan Phase (ca. A.D. 600-900) and a Late Allegan Phase (ca. A.D. 900-1650). The Spring Creek Tradition of the Grand and Muskegon river valleys are divided into the Zemaitis Phase (ca. A.D. 600-1000) and the Spring Creek Phase (ca. A.D. 1000-1200). The Spring Creek Tradition disappears after this, perhaps an indication of cultural disruption from encroaching Upper Mississippian people (Holman and Brashler 1999). Late Woodland diagnostic artifacts for southwest Michigan include small triangular projectile points associated with the introduction of the bow and arrow, and ceramic types such as Skegemog Ware, Mackinac Ware, Bowerman Ware, Allegan Ware, and Spring Creek Ware (Chivis 2003).

Late Woodland Spring Creek Tradition people were seasonally mobile along the Grand River valley, moving from summer gathering regions to interior winter hunting camps, although specific subsistence strategies are poorly understood for southwestern Michigan due to a lack of preserved biological remains at Late Woodland sites. Late Woodland people practiced economic systems that were flexible and adapted to regional environments. Evidence for agriculture is somewhat scarce and seems to have only been a major part of subsistence for the people in the Saginaw Valley. Fishing may have been a primary spring/summer activity, switching to large mammal hunting in the fall and winter. Food storage was an important component of Late Woodland subsistence strategies. Deep pits with organic residue are associated with sites interpreted as winter camps. Some areas, such as the Grand River, lack sites with storage pit features, although this may be more a result of survey bias than archaeological reality. Large ceramic vessels also likely served a storage function. Certain locations may have served as seasonal aggregation points, such as the Moccasin Bluff site (20BE8) in Berrien County for southwest Michigan groups (Holman and Brashler 1999).

The appearance of high-quality Bayport and Norwood cherts across the southern Lower Peninsula suggests the exchange of this material as part of social relationship maintenance in the early Late Woodland. Distribution of ceramic wares suggests that groups from different traditions could rely on the use of each other's territories in times of scarcity. A maintenance of the social network affiliated with the Middle Woodland is suggested through the appearance of exotic cherts from Illinois and Ohio (specifically Upper Mercer chert), and there is a continuity of projectile point styles from the Middle Woodland into the Late Woodland as well. There is evidence as well for a small population movement into Michigan from the east. A non-locally derived ceramic type called Hacklander Ware appears in southwest Michigan during the late Middle Woodland and early Late Woodland, bearing similarities to wares from New York and southern Ontario. Analysis of this pottery on Michigan sites suggest it does not represent a trade item (Holman and Brashler 1999).

After about A.D. 1000, southern Michigan saw a major change in Late Woodland behaviors. Ceramic types and lithic material choices indicate that inter-regional exchange and contact declined within the state. Exotic cherts become uncommon in assemblages. About this time is when Mississippian people appear to have begun interacting with Late Woodland groups in southwest Michigan, with evidence for interaction with Upper Mississippian people by 1100, and another such incursion in 1400 by makers of Huber Ware (Holman and Brashler 1999). It appears that certain indigenous Late Woodland groups began adopting Mississippian practices (including corn-bean-squash agriculture), while others continued Late Woodland lifestyles.

In the early part of the Late Woodland period, burial practices continued to be characterized by the inclusion of “rich grave goods” with high-status individuals (Halsey 1999:234). In the southern Lower Peninsula, the Wayne Mortuary Complex is predominant, and Halsey places it within a larger group of similar burial traditions extending from the Mid-Atlantic to North Dakota. Burial mound construction like the Middle Woodland period still occurred in the early Late Woodland period, but this burial system was soon abandoned for individual graves in cemeteries, isolated graves, and intrusive burials into pre-existing mounds. Towards the middle of the period, clay elbow pipes began to be included in graves, although most other forms of grave goods were no longer used in mortuary contexts. However, a very late cemetery excavated by pot hunters dating to the 1500s or early 1600s was very well preserved, with numerous organic artifacts that suggests grave goods were still numerous within Late Woodland internments but likely were too perishable to survive in earlier excavated graves. Some Late Woodland burial practices switched to the use of ossuaries. St

Earthworks in Michigan are a Late Woodland phenomenon, and usually consist of circles or horseshoe-shaped constructions with adjacent ditches. Zurel estimated that over 100 such earthworks probably existed in Michigan; only a handful remain intact today. The earliest carbon-dated earthwork is from southwest Michigan, the Whorley Earthwork (20BR6), dated to ca. A.D.1080+100. Other carbon dated earthworks fall in the date range of about A.D. 1275-1550, with a late date of A.D. 1700+60 for the Graham-Vogt site (20MB78). Many enclosures seem to be associated with wooden palisades. However, the exact nature of these earthworks is unclear. In southeast Michigan, the locations of earthworks all seem to be about a day’s walk apart, suggesting a possible affiliation of individual bands to individual earthworks. A defensive nature is suggested by the palisades and by evidence of occupation zones within the earthworks that have been archaeologically tested (Zurel 1999).

5.1.3 UPPER MISSISSIPPIAN

The Upper Mississippian period is one of the least well-known prehistoric expressions in Michigan, partly due to a scarcity of sites and limited geographical distribution of Upper Mississippian sites. Archaeological evidence places Upper Mississippian people in southwest Michigan beginning ca. A.D. 1050, persisting until ca. 1600. The Upper Mississippian development is thought to be an in-situ

development of groups adopting practices developed by Middle Mississippian groups centered on the St. Louis region. Specifically in Michigan, Upper Mississippian traits are overlain on a Late Woodland cultural base (McAllister et al. 1999). Upper Mississippian people in southwest Michigan practiced corn-bean-squash agriculture, aggregating in a few summer villages, and then dispersing in smaller, family-based groups to winter hunting camps. However, some village sites may have been occupied year-round, such as Moccasin Bluff. Evidence for specialized camps in southwest Michigan includes site types focused on the spring sturgeon run and wetland resources.

The Moccasin Bluff Phase of southwest Michigan (ca. A.D. 1050-1300) corresponds to the Fisher and Huber phases located to the south and southwest in Indiana and Illinois. Ceramics diagnostic to this phase include Moccasin Bluff Impressed Exterior Lip (a grit-tempered, cordmarked ware) and shell-tempered wares that appear related to Fisher phase ceramics. Of interest is that Late Woodland vessel forms co-occur with Mississippian vessel forms in Moccasin Bluff Phase assemblages, specifically with grit-tempered ceramics. Following the Moccasin Bluff Phase is the Berrien Phase (ca. A.D. 1400–1600), which was also first described at the Moccasin Bluff site. Ceramics remain a mixture of grit- and shell-tempered wares, including Berrien (shell), Moccasin Bluff Scalloped (grit), and Moccasin Bluff Notched Applique Strip (grit) types (McAllister et al. 1999). The Berrien Phase shows strong relationships to the Huber Phase in northern Indiana. Other characteristics of southwestern Mississippian assemblages include Madison projectile points, predominant use of local cherts (but supplemented with exotics) in lithic assemblages, and occasionally trade items such as catlinite pipes (McAllister et al. 1999).

Evidence for Upper Mississippian house types is lacking in Michigan. However, early historical descriptions of Miami and Potawatomi villages, considered to be good analogues for Mississippian lifeways (if not actually representing the direct descendants of these groups), consisted of clusters of small wigwam-like buildings, constructed from bent saplings and covered with bark. Such buildings may not leave much in the way of posthole patterns at sites.

Elsewhere in Michigan, evidence of Mississippian influence and occupation is much less prevalent. The Saginaw Valley region has sites with Mississippian-style pottery present in small amounts, and a few burials are highly similar to those documented in Mississippian societies elsewhere. However, the evidence is too scant to conclusively state that people practicing a primarily Mississippian lifestyle occupied this region in any significant numbers. In the Upper Peninsula, the rare sites showing Mississippian influence are mainly related to Oneota cultural expressions found primarily to the south in Wisconsin and are identified through the presence of shell-tempered pottery. Middle Mississippian wares, such as Ramsey, have also been found in the Upper Peninsula. The Menominee River Basin has perhaps the most evidence for occupation by Upper Mississippian people, while the presence of Mississippian artifacts elsewhere is as equally explainable as trade items versus the actual presence of people practicing

Mississippian lifeways. No evidence for Mississippian agriculture has been found at any Upper Peninsula sites; indeed, the environmental conditions of the peninsula may have actively discouraged such practices. Instead, Mississippian people may have been temporary visitors or seasonal occupants exploiting resources at the very northern edge of their territories (McAllister et al. 1999)

5.2 HISTORICAL PERIOD CONTEXT

There is scant evidence for the direct presence of Europeans in Michigan prior to the mid-seventeenth century. However, some protohistoric Native American sites do show indirect contact through the presence of European trade items, such as the Cloudman Site on Drummond Island, dating to ca. 1615 and including glass beads, iron, and copper artifacts made using Native methods but mimicking French knife forms. This site is interpreted as likely being an Ottawa occupation, whose residents had trade relations with other Native people to the east that had been directly in contact with early French explorers (Cleland 1999).

5.2.1 EARLY HISTORIC PERIOD, CA. 1630–1800

Early European presence in the Great Lakes is linked to French exploration and missionary activity. The first documented European explorer in the Michigan region is Jean Nicolet in 1634. Seven years later, the Raymbault Mission was established at Sault Ste. Marie by Jesuit missionaries. This mission first served Ojibwa groups moving west to get away from raiding Iroquois bands, with Ottawa people subsequently settling around it. While the French also established the fur trade, it did not become the dominant focus of activity in the region due to the conservatism of the French court, which placed greater emphasis on conversion of Native groups and exploration (Heldman et al. 1999). However, competition with other European nation-states forced a change in emphasis for the French to commerce, beginning about 1700. The French Bourbon court largely viewed its North American activities in terms of wealth extraction rather than colonial expansion and settlement. The lack of any substantial French immigration to the New World (in contrast to British policies) meant that Native alliances were highly important to the success of French activities on the continent.

The French established settlements at the Straits of Mackinac beginning in 1671, first on the north shore near St. Ignace and then at Fort Michilimackinac in 1715 (the latter of which is arguably the most important early historical archaeological site in the Great Lakes). The French traded with local Huron, Petun, and Ottawa people here, and established a Jesuit mission headed by Father Jacques Marquette, who had moved the focus of missionary activity here from Sault Ste. Marie in recognition of the primacy of the Straits as a Native transportation route. The Native tribes had settled here just prior to the French, having been forced out of their former territories to the east and southeast during the Iroquois Wars, ca. 1640–1660 (Cleland 1999; Heldman et al. 1999). Other Native tribes that were present in the state in the seventeenth century include the Mascouten, Potawatomi, Miami, and Menominee. In particular, the Ottawa, Ojibwa, and Potawatomi formed a loose alliance called “The Three Fires” (Rubenstein and Ziewacz 2014). Native American sites of the Early Historic Period consist of

villages and burials. Village sites can show reconstruction episodes for the longhouses, which can confuse interpretation. European trade goods are diagnostic, as are traditional Native technologies using European artifacts as raw material (e.g., glass projectile points, brass tinkler cones). An important corollary is that there do not appear to be any types of diagnostic Native artifacts that would allow identification of tribal identity; this situation is largely due to the disruptive effects of colonization and contact that led to rapid changes in material culture and mixing of previously separate tribal bands in single villages in some cases. One exception to this rule is the Marquette Mission Huron Village site (20MK82 and 20MK99), where artifacts do show an Iroquoian affiliation (Cleland 1999). Also of important note is that a drastic change in technology and raw material use does not indicate an equivalent change in cultural traditions. Ethnohistorical accounts support the continuation of cultural traditions with likely roots far back into the prehistoric period among Michigan tribal groups (Heldman et al. 1999).

In southwest Michigan, Rene-Robert Cavalier, Sieur de la Salle, established Fort Miami at modern St. Joseph in 1679, named after the Miami tribe that was the focus of missionary efforts in that location. In 1686, the French established Fort St. Joseph in the Port Huron area (the second fort by the name; the first was near Fort Miami). These forts protected French interests in the fur trade against the expanding British. In 1701, Antoine de la Mothe, Sieur de Cadillac, built Fort Pontchartrain between Lake Huron and Lake Erie, at a spot he called “le Detroit,” meaning “the strait.” Because of its strategic location, the fort and the surrounding community of Detroit became the most important French settlement in the first half of the eighteenth century (Rubenstein and Ziewacz 2014; Heldman et al. 1999). By the 1750s, numerous small French farms were present in the southeast Lower Peninsula.

The mid-1700s were a period of war between the two major colonizing powers in eastern North America, the French and British. King George’s War broke out in 1744, followed by the French and Indian War of 1754–1763. The British were slowly expanding and forming new alliances with tribes, forcing the French to react with increased fortifications. British blockades during the war years severely hindered the French’s ability to conduct trade. In 1760, all French forces surrendered, and in 1763, the French ceded claim to all their lands to the victorious British in the Treaty of Paris (Rubenstein and Ziewacz 2014). Soon after the surrender, British forces moved into the Great Lakes and took over important forts at the Straits of Mackinac and Detroit, although many French inhabitants of the associated settlements remained. Some stayed and lived alongside the British, while others relocated to new communities to preserve some sense of autonomy and cultural traditions, such as at River Raisin. British settlement outside of the forts is not well documented, but there are several archaeological sites known that represent British-era settlement.

The change from French to British occupation was drastic in terms of cultural approaches to interactions with Native groups. The British lost their chance to capitalize on goodwill with their Native allies by appointing Lord Jeffery Amherst

as Governor General of North America. Amherst refused to listen to other British officials who understood Native customs and his actions, including ignoring pledges made during the war and a cessation of gift-giving, led to increasing hostilities, such as Pontiac's War of 1763. French traders encouraged the division between Native Americans and their former allies. The efforts of the French were successful in helping make up the minds of Great Lakes tribes to revolt against the British (Rubenstein and Ziewacz 2014). This conflict was a major, if temporary, setback to the British, who lost control of all their western forts apart from those at Detroit, Niagara, and Pitt. However, the British soon regained control of the territory (Heldman et al. 1999). The Proclamation of 1763, drafted in response to Pontiac's Rebellion, stated that all land west of the Allegheny Mountains as permanent Native territory, with land sales only by permission of the British government.

The next major event during the British period in Michigan was the American Revolution. Being on the periphery of British territory in North America, the British military outposts in Michigan did not result in any direct response to the outbreak of hostilities until 1778 and 1779, when American actions in Illinois prompted the building of new forts and strengthening of some of the older forts. In 1780-1781, the British dismantled Fort Michilimackinac and relocated to a new fort on Mackinac Island to better defend the Straits. Britain directed Native raids against American settlements from Detroit, which served as a major source of war supplies for such raids (Rubenstein and Ziewacz 2014). An interesting bit of Revolutionary War history is the taking of Fort St. Joseph at Niles by a combined force of Spanish, French, and Native soldiers, who briefly raised a Spanish flag over the fort before looting and abandoning it. Niles thus has the distinction of the only city in Michigan that has had the flags of four nations flying over it (Rubenstein and Ziewacz 2014). The British period in Michigan ended with their signing of the Jay Treaty in 1794, and American forces took over the major British forts at Detroit and Mackinac in 1796. A British fort on Drummond Island was built in 1815 and remained until 1828, when the United States formally acquired the island.

5.2.2 AMERICAN ACQUISITION AND STATEHOOD, 1800–1837

Although American forces occupied forts in Michigan in 1796, American expansion and settlement in Michigan did not occur with any frequency until the nineteenth century, largely after the War of 1812. Landscapes within Michigan retained a frontier character until their resources became important to the economic development of the state and nation, such as the mineral ranges of the Upper Peninsula, which were not developed until later in the nineteenth century. The Michigan Territory was created by Congress in 1805 after the admittance of Ohio to the Union. However, prior to 1812, most of the white residents of the territory were French, with several British traders still operating out of the territory.

The War of 1812 broke out when the Michigan Territory was under control of territorial governor William Hull, who proved to be completely inept in military matters. Despite a brief foray into Canada, Hull's leadership was disorganized and British forces soon took over the primary forts in the territory, and Hull himself surrendered Detroit. Initial British success was short-lived, and American victory in

1814 marked the last active hostilities in Michigan between white and Native forces, while cementing the Michigan Territory as a part of the United States (Rubenstein and Ziewacz 2014). Native rights to land in Michigan were slowly chipped away in a series of land cessations, beginning with the Treaty of Detroit in 1807 and culminating in the Treaty of La Pointe in 1842 (Rubenstein and Ziewacz 2014). By the 1870s, most of the state's Native population were living on reservations.

By 1833, Michigan's population was over 60,000 people, more than enough to be admitted into the Union as a state. However, Congress refused to consider the matter until a boundary dispute with Ohio was resolved. Both the State of Ohio and the Michigan Territory considered a strip of land at the northwest corner of Ohio as their rightful possession. This area, called the Toledo Strip, was controversial because Ohio had a provision in its constitution that its northern boundary, delineated in the Ordinance of 1787, could be adjusted if it did not include the mouth of the Maumee River. However, when the Michigan Territory was set up in 1805, Congress either was unaware of or ignored this provision and gave this land to the new territory. While militias on both sides were formed and Michigan militiamen made incursions into Ohio, the so-called "Toledo War" mainly consisted of political bluster, and was resolved without a shot being fired through a compromise bill in Congress that admitted Michigan as a state if it ceded the Toledo strip. As a consolation prize, the Upper Peninsula was included as part of the new state's territory (a transaction that subsequent generations of Michiganders now recognize as getting the best part of the deal). Still, various attempts down through the years have been made on Michigan's behalf to regain Toledo, all ending in failure. On January 26, 1837, Michigan was formally admitted to the Union (Rubenstein and Ziewacz 2014).

5.2.3 EXPANSION AND ECONOMIC GROWTH, 1837–1860

The initial settlement after statehood was achieved focused mainly on the southern tier of counties in the state, largely due to proximity to transportation routes, but also because of the presence of good farmland, especially in the southwestern prairie habitats. Settlers moved north at a slower rate, as transportation routes were nearly non-existent and there was a considerable effort required to clear land for agriculture. Too, the climate became harsher the farther north one went, with fewer growing days per year. The early settlers to the southeastern part of the state were largely from New England and New York, while people from Indiana and Ohio moved into the southwestern quarter, giving each area a distinct set of traits related to the settlers' origins. Improving transportation was the first priority for the new state legislature, and an elaborate proposal to build two canals running across the state and three railroads, all extending east-west across the southern half of the Lower Peninsula was funded by a public improvement act in 1837. Unfortunately, financial troubles ultimately meant that these projects could never actually be funded through the sale of bonds (Rubenstein and Ziewacz 2014).

A new source of profit for the state was needed. Eyes turned towards the Upper Peninsula, especially the copper country of the Keweenaw Peninsula. The copper

wealth of this region was first recognized back in the era of French exploration, when massive chunks of float copper were described on the surface. The expedition of Douglass Houghton and Henry Rowe Schoolcraft in 1837 confirmed for the state the vast potential of this area. However, exploiting this resource was hampered by the fact that the state did not technically possess this part of the Upper Peninsula, which was still recognized by the United States as Ojibwa territory. The Federal Government quickly entered negotiations with Ojibwa representatives, extracting the rights to the tribe's Lake Superior territory in exchange for \$800,000 and the right to occupy portions of the area for a temporary period of time. With the signing of the Treaty of La Pointe in 1842, the Upper Peninsula mineral rush began. After problems with issuing mining permits was ironed out between the state and the Federal governments, people began flooding into the western Upper Peninsula. Numerous mining companies financed by Eastern businessmen, especially from Boston, set up mines and attendant communities across the landscape. Soon after the establishment of copper mining, large iron ore deposits were discovered along the southern Lake Superior shore in the central Upper Peninsula near present-day Negaunee. As with the Keewenaw region, several iron mining companies quickly developed to exploit this valuable resource, with new communities springing up around the mine locations. For a brief period around 1880, Michigan led the nation in both copper and iron production. Many of the towns and villages of the western and central Upper Peninsula today are directly related to the mining boom of the last half of the nineteenth century (Rubenstein and Ziewacz 2014).

In 1847, Lansing became the state capital, which previously was held at Detroit. A new state constitution was approved in 1850, which raised the question of suffrage for non-white men. Ultimately, the constitution approved extending the vote to immigrants who pledged to attain full citizenship and Native Americans who renounced tribal membership. Suffrage for Black people was placed on a separate ballot and soundly defeated. This event was typical for early civil rights in the state, which had early on addressed the issue during the territorial government days by passing a law that, while protecting free blacks from Southern slave catchers, denied them any semblance of civil rights or equality. Still, the abolitionist movement grew in Michigan, bolstered by immigrants from states with large numbers of abolitionists. The Underground Railroad had several routes leading across the state and slowly, anti-slavery sentiment grew in strength, until antebellum newspapers were bold enough to print statistics on the number of escaped enslaved people that made it to freedom in Canada through Michigan. As part of this movement, the Republican party saw a surge in electoral success in the 1850s, turning the state into one of the first strongholds for the party in the nation (Rubenstein and Ziewacz 2014).

5.2.4 THE CIVIL WAR YEARS AND POSTBELLUM DEVELOPMENTS, 1860–1900

Michigan was a vocal supporter of the Union cause in the months leading up to the Civil War, and put deeds to words by sending an infantry company for the Union

Army to Washington, D.C., just over a month after Confederate forces fired on Fort Sumter. The Michigan legislature recognized the key issue of the conflict in an 1862 resolution calling for the complete abolishment of slavery. As the war ground on, however, northern Democrats saw a chance to push back and rallied against abolitionism. While seeing some short-term gains, a party platform explicitly supporting white supremacy was too much for many of the so-called “War Democrats” who switched affiliation to the Republicans, and the Michigan Democratic Party was essentially neutered. Republicans swept the 1864 election, buoyed by the success of Sherman’s Atlanta campaign. Outside of the state government’s actions, Michigan’s support for the Union cause is seen in the number of men it sent to the war. Nearly a quarter of the male population of the state served in the war, including half of all military-aged men. Over 90,000 men in total went to war, including 1,600 free Black men who served in units like the First Michigan Colored Infantry. One of the most famous Michigan citizens tied to the Civil War is George Armstrong Custer, who rose to the rank of Major General and was known as one of the most talented cavalry officers on either side of the conflict. Michigan’s economy boomed during the war years, as its copper and iron were vital to the war effort. Too, the state’s farmers rapidly adopted mechanization into their labor practices, due to a labor shortage of farmhands who had gone off to war. This development was supported by increasing prosperity for farmers, who were making good money off providing food supplies for the war effort. This development was key in the change from primarily subsistence farming to large-scale commercial farming in the state. Although hampered during the war years because of labor shortages, the Michigan timber industry became one of the state’s predominant industries, with a yearly average of 33,000 acres of timberland cleared during this period. This period was also the golden age of rail in the state, with nearly 7,000 miles of track crisscrossing the state by 1900 (Rubenstein and Ziewacz 2014).

The post-war years showed that Michigan, while strongly anti-slavery during the war, was hesitant to grant full civil rights to Black people afterwards. An act to grant suffrage to Black men barely passed in 1870, with fear among segments of the white populace that passage would result in a mass migration to the state of former slaves. The same year, Michigan’s first women’s suffrage societies formed, although their goals would not be reached until the twentieth century. Politically, the Republican party dominated control of both the governor’s seat and the State House during this period, although the Democrats made steady advances in eroding their control.

Ironically, while white Michiganders feared an influx of Black immigrants from the South, it was experiencing massive population growth during this period of other immigrants, primarily from Europe. Over half of the 700,000 people who moved to the state between 1860 and 1900 were foreign nationals. Indeed, foreign immigration to the state was actively encouraged by the state legislature as early as 1845. Special focus of these efforts was on the Germanic region of Europe, whose residents were ideal immigrants due to their perceived conservatism, education, work ethic, and religious values. Many towns in Michigan still boast a

strong Germanic culture, such as Frankenmuth and Gaylord. Canadians, especially French *Canadiens*, were another significant source of newcomers. An influx of Dutch settlers to western Michigan influenced cultural development in that region, including the development of a town called Holland, an annual tulip festival, and even a few traditional Dutch windmills. In the Upper Peninsula, the mining companies actively recruited skilled Cornish miners from the United Kingdom. Large numbers of Irish also came to the mining districts, followed at the end of the nineteenth century by Italians, Swedes, Eastern Europeans, and Finns. While many of these immigrants moved further west to follow mining booms, the Finns stayed put and Finnish heritage remains a key component of Upper Peninsula culture (Rubenstein and Ziewacz 2014).

5.2.5 INDUSTRIAL BOOM YEARS AND THE DEPRESSION, 1900–1940

Michigan's industrial base developed greatly in the first two decades of the twentieth century. The copper and iron mining regions were still experiencing success, even with the contraction of active copper mines to the Portage Lake region and major competition with western mines. It was the automobile industry, however, that would define Michigan industry in the twentieth century. By 1900, Ransom Olds had already established Michigan's first automobile manufacturing company, and thanks in part to a mass-market advertising campaign, became rather successful. Olds' success inspired many others to enter the automobile industry. The most famous name in the industry is that of Henry Ford, who founded the Ford Motor Company in 1903. Ford is credited with the introduction of many innovations to the industry, including the assembly line and providing a living wage for his workers, based on the idea that the people who made his products should also be able to afford them. Other Michigan-based automobile companies that sprang up at the turn of the century include General Motors, created in 1908 out of an amalgamation of 30 different car companies purchased by William Durant.

The Great Depression had a tremendous effect on Michigan. The automobile industry was hard-hit, as cars were still viewed as a luxury item. The mining districts were devastated, and the copper mines never recovered. State efforts to provide relief were hampered by a Red Scare that occurred in the 1920s, lending a stigma to state welfare programs. Numerous strikes occurred during this period of labor disruption and unrest. Towards the end of the depression years, however, federal programs such as the Civilian Conservation Corps and Works Progress Administration had hired thousands of out-of-work Michigan residents, resulting in what has been described as 20 years' worth of infrastructure and societal improvements in the span of three years (Rubenstein and Ziewacz 2014).

5.2.6 WORLD WAR II AND THE POST WAR YEARS, 1941–1967

Michigan was a major player in materiel supply during World War II. Its industries were well-positioned to convert to production of vehicles, ammunition, and other supplies for the war, while its mines provided valuable copper and iron. Indeed, World War II is likely responsible for the survival of the copper industry in Michigan past the mid-century mark. Ten percent of all federal war contracts went to Michigan companies, second only to New York. After the war, numerous

developments, such as middle-class families with substantial savings to spend and the development of the interstate highway system, helped grow the automobile industry even more. The copper industry essentially collapsed completely after the war, with only two major mining companies barely managing to struggle along. Many of the rural counties in Michigan, especially in the Upper Peninsula, saw drastic population declines as families moved elsewhere to take advantage of better economic opportunities.

The development of a car-centric culture is a key factor in suburban growth, with a more negative contribution coming from systematic racism, as white families fled cities like Detroit with rising Black populations. Race relations were always a simmering issue in Michigan, with a surge in the Ku Klux Klan in the 1920s and a major race riot in Detroit in 1943. Because of its large Black population, Detroit was a hotbed of civil rights activity in the postwar years. In 1963, the city was the location of a national civil rights conclave attended by key figures in the movement, including Reverend Martin Luther King, Jr. Despite efforts to improve social and economic conditions, unemployment reached 11 percent by 1967, and civil discontent reached the boiling point in July of that year, with the infamous 1967 Detroit Riot. Sparked by a police raid on a night club during a severe heat wave, riots spread uncontrollable throughout the city, with entire city blocks destroyed by fire, the deaths of 44 people, and over \$50 million in property damage. The city is still trying to recover from the effects of this event to this day (Rubenstein and Ziewacz 2014).

5.2.7 THE MODERN ERA

Beginning in the 1970s, Michigan has experienced a series of declines in its industrial base. The automobile industry in the state has been affected through enticements by southern states to relocate factories with the promise of tax abatements and an anti-union governmental stance, while increased automation in the auto plants reduced the need for large workforces. The oil embargo of the early 1970s and governmental efforts to mandate fuel efficiency and emissions reductions also challenged the industry. By the 1980s, the state had one of the highest unemployment rates in the nation. The state economy has begun to diversify in recognition that depending largely on one dominant economic sector was not sustainable. New sources of business development appeared in the form of wineries and tourism. A series of political reforms of varying strategies helped pull the state out of severe economic woes by the 1990s, although it still lags much of the rest of the nation in key areas (Rubenstein and Ziewacz 2014).

5.2.1 CASS COUNTY HISTORY

Cass County was organized by an act of legislature on November 4, 1829, and named after General Lewis Cass, Governor of Michigan from 1813 to 1831 (Discover Cass County Michigan 2020). It is surrounded by the counties of Berrien to its west, Van Buren to its north, St. Joseph to its east, and borders the state of Indiana to its south. The county seat lays in the village of Cassopolis. Prior to the arrival of Europeans, several tribes of Native Americans lived in the area, such as the Pokagon and the Weesaw (Glover 1906). The Miami tribe controlled the area

when the French missionaries and explorers entered the area and were succeeded by the Potawatomi tribe. The settlers regarded the Potawatomi people as being particularly friendly compared to other tribes in the surrounding area. The Potawatomi people also took more of an interest in the teaching of French missionaries than other Native American groups. Perhaps due in small part to the Potawatomi tribe's friendly demeanor, three distinct treaties were made between them and the United States Government that encompassed Cass County. The first treaty made in 1821 included the Potawatomi tribe but also the Ottawa and Chippewa tribes, ceding their territory to the U.S. government except a portion of Berrien county between the St. Joseph River and Lake Michigan (Coolidge 1906). However, later treaties would see the Native groups lose the rest of the land they occupied to the US government and they were relocated to lands west of the Mississippi Rieve (Discover Cass County Michigan 2020, Glover 1906, Coolidge 1906).

The French were the first Europeans to enter Cass County. Their friendship with Algonquian tribes in the Great Lakes allowed them to access the area and trade freely. Yet, these explorers and traders were not permanent settlers to Cass County, and they moved frequently in and out of the area. Of early note was the Carey Mission, in which many Baptist missionaries moved into the wilderness of Cass county to convert members of the Potawatomi tribe (Mathews 1882). The mission was founded on a site just west of Niles and developed into a settlement that weary travelers could come to. Schools were erected as well as many other buildings for the religious mission. The Carey Mission became very important to the history of southwestern Michigan because it was the center of early settlement (Mathews 1882). It supplied early settlers from its mill and made crossing the wilderness a little easier. The first permanent American resident to Cass County was Uzziel Putnam, who settled in the Pokagon prairie with his family in 1825 (Glover 1906). Others soon followed and settlement started to begin in the prairie region, followed by surrounding townships. However, there were multiple incidents that happened around the time of settlement that discouraged settlers to continue gradually settling the area. Many settlers were still worried about the many Native American groups still in the area and conflicts happening in nearby areas. It would not be until 1834 that the county would become more accessible for easier settlement because of the proximity of the Erie Canal and Chicago Road (Coolidge 1906). These transportation systems allowed an important influx of settlers to come from places like New York, New England, and Pennsylvania. Throughout the years of 1836 to 1840, immigration increased, and the area of the county became more developed (Mathews 1882). Forests were cut back, log houses became more numerous, frame houses and barns appeared, and finally society started to be established with churches and schoolhouses (Mathews 1882, Glover 1906, Coolidge 1906).

When settlers came in higher numbers after the county was established in November 1829, and four original townships were organized the day after the county was founded. These original townships were Pokagon, Penn, La Grange and Ontwa (Mathews 1882). Early communities founded in Cass County included

Cassopolis, Dowagiac, Edwardsburg, Marcellus, and Vandalia, many of which started to be settled slightly before the major influx of settlers from 1836 to 1840. Cassopolis was platted in 1831 with the intention of it becoming the county seat because of its geographic location in the center of the county (Discover Cass County Michigan 2020). Railroads came slightly slower to Cass County than in other areas of southern Michigan because of the financial crash in 1837, followed by a period of depression that destroyed plans of constructing a railroad from Constantine to Niles (Rogers 1875). The first railroad in Cass County was the Michigan Central Railroad, built through Dowagiac to Kalamazoo in 1846, followed by several other lines. The completion of the Michigan Central Railroad helped with the development of Dowagiac but slowed the development of Cassopolis because Dowagiac's rail access made it a more attractive market (Mathews 1882, Discover Cass County Michigan 2020, Rogers 1875).

The Underground Railroad was very active in Cass County by 1840, ran largely by Quakers. Stephen Bogue and Zachariah Shugert were two prominent men in Cass County who ran stations on the Underground Railroad (Rogers 1875). By 1846 it was estimated that there were at least one hundred formerly enslaved people in Cass County, creating the East and Osborn settlements (Rogers 1875). They ended up being industrious and sturdy pioneers that helped improve the county. Eventually word reached ears of southern slave owners who sought to reclaim the freed enslaved people. A series of disputes and sometimes violent instances between Quakers, the freed fugitives, and "Kentuckians" became known as the "Kentucky Raid" (Rogers 1875). Most of the fugitives, being mainly from Bourbon County in Kentucky, fled to Canada, thanks to the actions of Commissioner McIlvain, who delayed the Kentuckians long enough to allow the escape. Later, Kentuckians would file suits against the Quakers for reimbursement (Rogers 1875).

As population increased, so did the industry of Cass County. The first grist mill was at the Carey Mission, and several other mills were eventually established. Sawmills were very numerous in the county as well, with woolen mills coming slightly later. Several tanneries once operated here as well, one of them being in Brownsville (Glover 1906). Cassopolis never became a center for manufacture but had a few industrial concerns, like the Cassopolis Manufacturing Company for the manufacture of grain drills built in 1900 (Glover 1906). Due to its early connection to a rail line, Dowagiac became the industrial center for the county with several factories and the Round Oak Stove Works, the drill works, the Colby mills, and many other industrial businesses (Glover 1906). Cassopolis was more agriculturally based than Dowagiac and so would have been numerous other villages and towns throughout the county. Today agriculture is still very prevalent and helps provide for many of the county's inhabitants but not in the same capacity as manufacturing, still the largest employer in the county, followed by health care and retail trade (Data USA 2020). The county today has a population of 51,397 and is still mainly rural in nature (Data USA 2020, Glover 1906).

5.2.2 HOWARD TOWNSHIP HISTORY

Howard Township was not as readily settled as other townships in Cass county due to its very dense woods. Settlers usually chose the open prairies to first establish their homes. However, eventually a pioneer was bold enough to try the task. William Kirk, a native of Virginia, was the first to settle in Howard Township around 1826 (Mathews 1882). In 1830, Joseph Harter was next to move to the township and is important to mention for his improvements that he made to the township. He ended up building the first and only water-powered sawmill in the township on his property around 1833 (Mathews 1882). Henley C. Lybrook would teach at one of the first schools near Joseph Harter's house in 1833 during the winter (Rogers 1875). After the first improvements were made to the township, more settlers moved to the area. On March 7th, 1834, Howard Township was organized by the Territorial Legislature, with the first meeting to be held at John Fosdick's house (Mathews 1882, Rogers 1875).

With the organization of the township came many positions to maintain governmental affairs. Ezekial C. Smith is of note in his service to that purpose. He was elected justice of the peace and maintained the position for thirty-six years and went to the state legislature in 1850 (Glover 1906). Howard Township developed slowly, with no formally organized villages or even a post office for most of the nineteenth century, and its population around 1882 was only around 974 (Mathews 1882). The only church in the township by the 1880s was the Methodist Episcopal church built in 1858 (Mathews 1882). Of note regarding Howard Township were multiple prehistoric mounds once present within its bounds. E. C. Smith excavated one of the mounds in 1835 with the help of his family (Mathews 1882). Today the township still maintains many of its rural characteristics, but its original forested condition has been altered to accommodate farms and pastures (Glover 1906, Mathews 1882).

5.2.3 HISTORY OF THE PROJECT AREA

The project area after settlement in the nineteenth century developed an agricultural character, which it still retains to a small extent. Increased residential development occurred in the twentieth century along M-60, especially as automobile ownership became more common and allowed for people to live farther away from their places of employment. The major development in the project area is the construction of the Jerry Tyler Memorial Airport, a municipal airfield built in 1929 (*The Herald-Press* 1929). The airport was one of many such small municipal airfields built across the nation at this time as air traffic increased and having an airport was a municipal point of pride, not to mention a potential economic boost. The airport features two paved runways in the form of an X.

5.3 RESEARCH QUESTIONS 1 AND 2 DISCUSSION

The first two research questions address the relationship of previous surveys and previously recorded sites/resources to the proposed project and the likelihood of encountering previously recorded cultural resources within the proposed project. These questions can be answered using the information collected from the

literature review and application of the environmental and cultural contexts to the specific ecological history of the project location.

1. *Has the project been subjected to previous cultural resources investigations, and are there any previously recorded resources located within or immediately adjacent to the project?*

The project area has not been subjected to previous archaeological investigations. The portion of the project area that crosses over M-60 overlaps the survey corridor of a previously conducted historic resources survey (Henry and Henry 2001). No previously recorded cultural resources are within the project area.

2. *What is the likelihood of identifying previously unrecorded cultural resources within the project?*

The likelihood to encounter previously unrecorded archaeological sites within the project area appears low to moderate in probability. For prehistoric sites, the project area is well drained but also does not contain or is adjacent to a permanent water source, nor does it appear that attractive habitats such as wetlands were in or near the project area that would have supplied specialized resources for exploitation. Prehistoric sites, if present, are projected to occur as isolated finds or low-density lithic scatters. Historical artifact scatters may be present around some of the houses within the project area, associated with residential use of yard spaces and potentially agricultural activities at any house associated with a farm.

6.0 METHODS

6.1 ARCHAEOLOGICAL FIELD METHODS

The field crew used visual inspection for the reconnaissance of the project area. More intensive testing was not included in the scope of work at this phase of project development.

6.1.1 VISUAL INSPECTION

The crew visually inspected the APE to identify readily apparent archaeological resources, such as mounds, earthworks, buildings, or structural remnants of such. The crew also documented areas of disturbance, steep slope, and any inundated areas (i.e. wetlands, streams, ponds, etc.), which would preclude physical testing in the future.

7.0 RESULTS OF THE ARCHAEOLOGICAL RECONNAISSANCE

The crew conducted the reconnaissance in late May of 2020. The weather was overcast and warm (75° F). The weather did not hinder the completion of the fieldwork. The crew used visual inspection to inspect the APE for above ground indications of archaeological resources (Figure 11, Photo 1–Photo 12). Most of the APE was in residential yards due to the nature of the project (tree clearing from a runway approach), while some portions represent treelines serving as agricultural

field borders. The reconnaissance did not result in the identification of any archaeological resources through visual inspection.

7.6 RESEARCH QUESTIONS 3 AND 4 DISCUSSION

After completing analysis of the results of fieldwork, the second two research questions regarding whether the proposed project will affect any cultural resources and if so, are those affected resources listed, eligible, or potentially eligible for the NRHP can be addressed.

- 3. Will the proposed project affect any cultural resources (archaeological or above ground structures)?*

It is uncertain if the project will affect archaeological resources, as no subsurface testing was included in the reconnaissance. No surface indications of buried resources was observed, but given the lightly developed nature of the APE, visual inspection cannot rule out the potential for archaeological deposits. This reconnaissance only focused on archaeological resources and the potential effect on above ground structures will be addressed in a forthcoming report by Mead and Hunt.

- 4. If cultural resources will be affected, are any of those affected resources listed, eligible, or require further study for inclusion on the National Register of Historic Places?*

It does not appear from this initial reconnaissance that there will be any significant archaeological resources present that would be National Register-eligible; however, this cannot be confirmed without further investigation of the APE.

8.0 SUMMARY AND CONCLUSIONS

Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan, just outside the City of Niles. The APE for the project consists of the individual locations where trees will be removed to provide a clear approach to the southeast end of one of the runways at the airport. The reconnaissance involved a literature review and visual inspection to give a preliminary assessment of the probability for archaeological resources within the APE.

The literature review revealed that the project area has not been previously surveyed for archaeological resources. A 2001 history/architecture survey crossed the project area along M-60 but did not identify any significant architectural resources within the project area. The visual inspection of the APE did not result in the identification of any surface indicators for archaeological sites. The presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing. However, if the individual trees can be felled without significant ground disturbance (e. g. stump removal, grubbing, etc.), archaeological survey would likely not be warranted for the undertaking.

9.0 REFERENCES

Benchley, E. D.

1975 *Final Report of an Archaeological Survey of the Franklin Sanitary Landfill Site, Milwaukee County, Wisconsin*. University of Wisconsin – Milwaukee Archaeological Research Laboratory Reports of Investigation No. 6. Submitted to Metro Disposal Service. Copies on file at the University of Wisconsin – Milwaukee Archaeological Research Laboratory, Milwaukee.

Brashler, J. G., J. R. Halsey, M. B. Holman, J. J. Krakker, S. R. Martin, D. M. Stothers, and R. I. Zurel

1999 *The Late Woodland: Prehistory's Finale, History's Prelude*. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp.193–252. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Broyles, B. J.

1971 *Second Preliminary Report: The St. Albans Site, Kanawha County, West Virginia*. Report of Archaeological Investigations No. 3. West Virginia Geological and Economic Survey, Morgantown.

Caldwell, J. R.

1964 *Trend and Tradition in the Prehistory of the Eastern United States*. Memoir of the American Anthropological Association No. 88. American Anthropological Association, Washington, D.C.

Carr, D. H.

2012 *Paleoindian Economic Organization in the Lower Great Lakes Region: Evaluating the Role of Caribou as a Critical Resource*. Unpublished Ph.D dissertation, Department of Anthropology, Michigan State University, East Lansing.

Chapman, J.

1975 *The Rose Island Site and Bifurcate Point Tradition*. Report of Investigations 14. Department of Anthropology, University of Tennessee, Knoxville.

Chivis, J.

2003 *Understanding Prehistoric Ceramic Technology from the Grand River Valley*. *McNair Scholars Journal* 7(1):49–59.

Clay, R. B.

1992 *Chief, Big Men, or What? Economy, Settlement Patterns, and Their Bearing on Adena Political Models*. In *Cultural Variability in Context: Woodland Settlement Patterns of the Mid-Ohio Valley*, edited by M. F. Seeman, pp. 77–80. Kent State University Press, Kent, Ohio.

Cleland, C. E.

1966 *The Prehistoric Animal Ecology and Ethnozoology of the Upper Great Lakes Region*. Anthropological Papers No. 29. Museum of Anthropology, University of Michigan, Ann Arbor.

1999 Cultural Transformation: The Archaeology of Historic Indian Sites in Michigan, 1670–1940. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 279–290. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Coolidge, O. W.

1906 *A Twentieth Century History of Berrien County, Michigan*. Lewis Publishing Company, Chicago.

Data USA

2020 Cass County, MI. datausa.io/profile/geo/cass-county-mi, accessed May 12, 2020.

Discover Cass County Michigan

2020 History of Cass County. discovercasscounty.com/history-of-cass-county/, accessed May 12, 2020.

Dragoo, D. W.

1976 Some Aspects of Eastern North American Prehistory: A Review 1975. *American Antiquity* 4:3–27.

Dye, D.

1977 Model for Late Archaic Subsistence Systems in the Western Middle Tennessee Valley During the Bluff Creek Phase. *Tennessee Anthropologist* 2(1):63–80.

Ford, R. I.

1974 Northeastern Archaeology: Past and Future Directions. *American Antiquity* 3:385–413.

1979 Gathering and Gardening: Trends and Consequences of Hopewell Subsistence Strategies. In *Hopewell Archaeology*, edited by D. S. Brose and N. Greber, pp. 234–238. The Kent State University Press, Kent, Ohio.

Fritz, G. J.

1990 Multiple Pathways to Farming in Precontact Eastern North America. *The Journal of World Prehistory* 4(4):387–426.

Garland, E. B., and S. G. Beld

1999 The Early Woodland: Ceramics, Domesticated Plants, and Burial Mounds Foretell the Shape of the Future. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 125–146. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Glover, L. H.

1906 *A Twentieth Century History of Cass County, Michigan*. Lewis Publishing Company, Chicago.

Griffin, J. B.

1952 Culture Periods in Eastern United States Archaeology. In *Archaeology of Eastern United States*, edited by J. B. Griffin, pp. 352–364. University of Chicago Press, Chicago.

-
- 1967 Eastern North American Archaeology: A Summary. *Science* 156:175–191.
- Halsey, J. R.
1999 Late Woodland Burial Practices. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 234-243. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Henry and Henry
2001 *Intensive Level Survey of Above-Ground Resources, M-60 BR, Niles, Berrien and Cass Counties, Michigan CS #11041/14061, JN #45637*. Submitted by Henry and Henry, Eagle, Michigan. Submitted to Michigan Department of Transportation, Lansing. Copy on file at Michigan State Historic Preservation Office, Lansing.
- Herald-Press*
1929 "Begin Work On Niles Airport." *The Herald-Press*, St. Joseph, Michigan. April 19.
- Hinsdale, W. B.
1931 *Archaeological Atlas of Michigan*. University of Michigan Press, Ann Arbor.
- Holloway, C.
2012 Late Woodland Period Settlement Organization in Southeast Michigan. Unpublished Senior Honors Thesis, Eastern Michigan University, Ypsilanti.
- Jennings, J. D.
1968 *Prehistory of North America*. 2nd ed. McGraw-Hill, New York.
- Justice, N. D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington and Indianapolis.
- Kingsley, R. G., D. S. Brose, and M. J. Hambacher.
1999 The Middle Woodland: A Golden Age of Mound Builders and Fishermen. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 147–192. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Lewis, T. M. N., and M. K. Lewis
1961 *Eva: An Archaic Site*. University of Tennessee Press, Knoxville.
- Lovis, W. A.
1999 The Middle Archaic: Learning to Live in the Woodlands. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 83–94. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Lovis, W. A., R. E. Donahue, and M. B. Holman
2005 Long-Distance Logistic Mobility as an Organizing Principle among Northern Hunter-Gatherers: A Great Lakes Middle Holocene Settlement System. *American Antiquity* 70(4):669–693.
-

Martin, S. R.

1999 A Site For All Seasons: Some Aspects of Life in the Upper Peninsula during Late Woodland Times. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 221–227. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Mathews, A.

1882 *History of Cass County, Michigan. With illustrations and biographical sketches of some of its prominent men and pioneers*. Waterman, Watkins & Company, Chicago.

McAllister, P. W., W. M. Cremin, and J. R. Halsey

1999 Upper Mississippian/Oneota: People on the Margins of Michigan and the Fringes of History. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 253–279. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

McKern, W. C.

1939 The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study. *American Antiquity*4(4):301–313.

Muhammad, A. J.

2010 A Bioarchaeological Study of a Late Woodland Population from Michigan: Frazer-Tyra Site (20SA9). Unpublished Ph.D. dissertation, Wayne State University, Detroit, Michigan.

National Environmental Title Research (NETR)

2016 *Historic Aerials*. <http://www.historicaerials.com/>, accessed May 18, 2020.

Prufer, O. H.

1964 The Hopewell Complex of Ohio. In *Hopewellian Studies*, edited by J. R. Caldwell and R. L. Hall, pp. 35–84. Scientific Papers No. 12. Illinois State Museum, Springfield.

Robertson, J. A., W. A. Lovis, and J. R. Halsey

1999 The Late Archaic: Hunter-Gatherers in an Uncertain Environment. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 95–124. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Rogers, H. S.

1875 *History of Cass County, from 1825 to 1875*. W. H. Mansfield, Vigilant book and job print. Cassopolis, Michigan.

Rubenstein, B. A., and L. E. Ziewacz

2014 *Michigan: A History of the Great Lakes State*. John Wiley & Sons, Chichester, West Sussex, United Kingdom.

Seeman, M. F.

1992 Woodland Traditions in the Midcontinent: A Comparison of Three Regional Sequences. In *Long-term Subsistence Change in Prehistoric North*

- America*. D. Croes, R. Hawkins, and B. Isaac, eds., pp. 3–46. Ohio Archaeological Council, Columbus.
- Shott, M. J.
1999 The Early Archaic: Life After the Glaciers. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 71–82. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Shott, M. J. and H. T. Wright
1999 The Paleo-Indians: Michigan's First People. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 59–70. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Smith, B. A., and K. C. Egan
1990 Middle and Late Archaic Faunal and Floral Exploitation at the Weber I Site (20SA581), Michigan. *Ontario Archaeology* 50:39–54.
- Stothers, D. M., T. J. Abel, and A. M. Schneider
2001 Archaic Perspectives in the Western Lake Erie Basin. In *Archaic Transitions in Ohio & Kentucky Prehistory*, edited by O. H. Prufer, S. E. Pedde, and R. S. Meindl, pp. 233–289. Kent State University Press, Kent, Ohio.
- Tanner, H. H.
1987 *Atlas of Great Lakes Indian History*. University of Oklahoma Press, Norman.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS)
2020 *Web Soil Survey*. <http://websoilsurvey.nrcs.usda.gov>, accessed May 14, 2020.
- United States Department of Agriculture, Soil Conservation Service (USDA SCS)
1991 *Soil Survey of Cass County, Michigan*. U.S. Government Printing Office, Washington, D.C.
- US Climate Data
2020 *Climate Eau Claire-Michigan*. <https://www.usclimatedata.com/climate/eau-claire/michigan/united-states/usmi0255>, accessed May 14, 2020.
- United States Geological Survey
2020 Geologic Units of Michigan. Geospatial database, <https://mrdata.usgs.gov/geology/state/state.php?state=MI>, accessed May 14, 2020.
- Western Michigan University
2020 Physiographic Map of Michigan. Geospatial database, <https://www.esrs.wmich.edu/mgs/webmgs/physiography/physio.html>, accessed May 14, 2020.
- Witthoft, J.
1953 Broad Spearpoints and the Transitional Period Cultures in Pennsylvania. *Pennsylvania Archaeologist* 23(1):4–31.

Yarnell, R. A.

1963 Comments on Struever's Discussion of an Early "Eastern Agricultural Complex." *American Antiquity* 28: 547–548.

1974 Plant Food and Cultivation of the Salts Caves. In *Archaeology of the Mammoth Cave Area*, edited by P. J. Watson, pp. 113–122. Academic Press, New York.

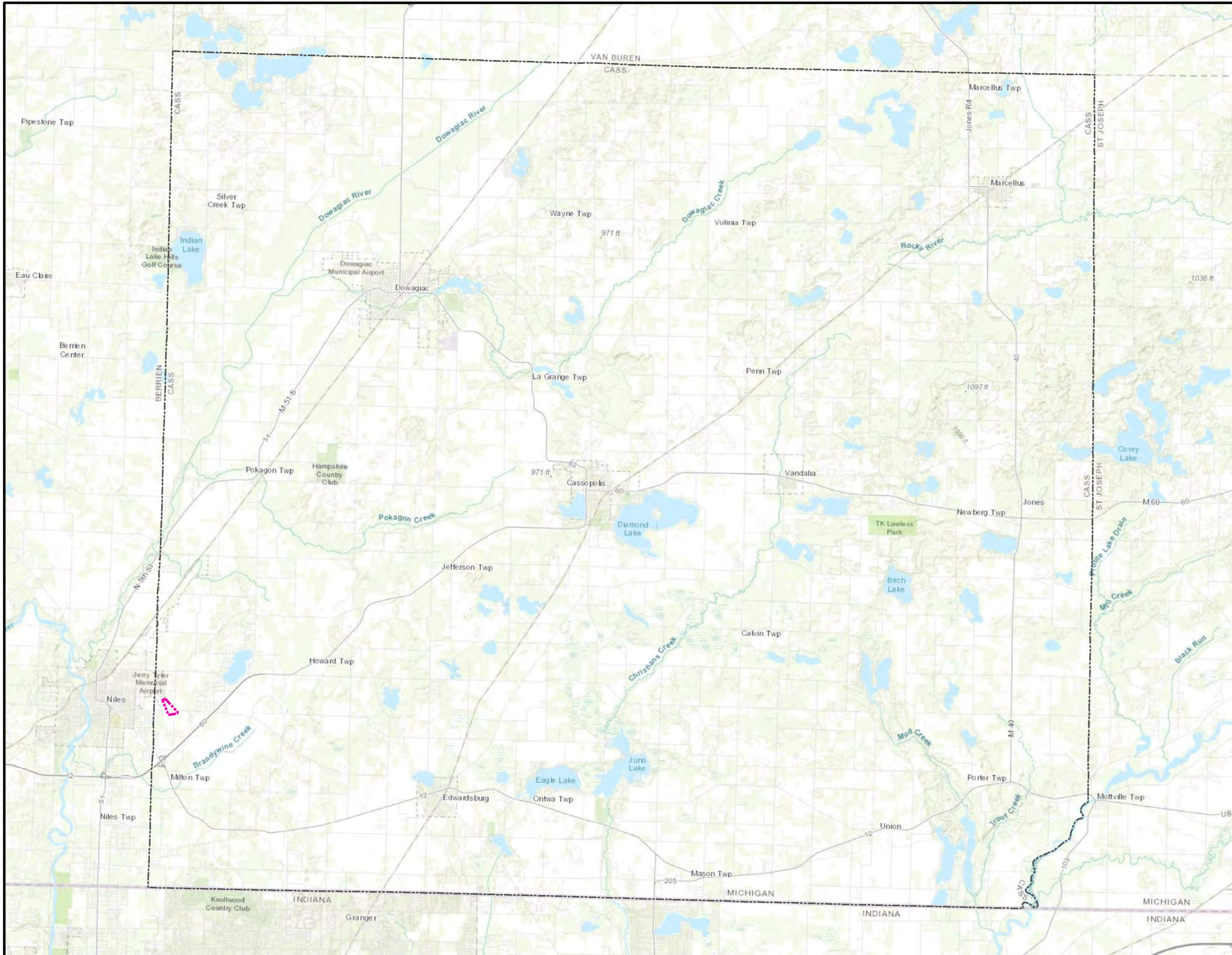
Yerkes, R. W.

1988 The Woodland and Mississippian Traditions in the Prehistory of Midwestern North America. *Journal of World Prehistory* 2(3):307–358.

Zurel, R. L.

1999 Earthwork Enclosure Sites in Michigan. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 244-248. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

10.0 FIGURES



Overview of Michigan

Legend

-  Cass County
-  Study Area



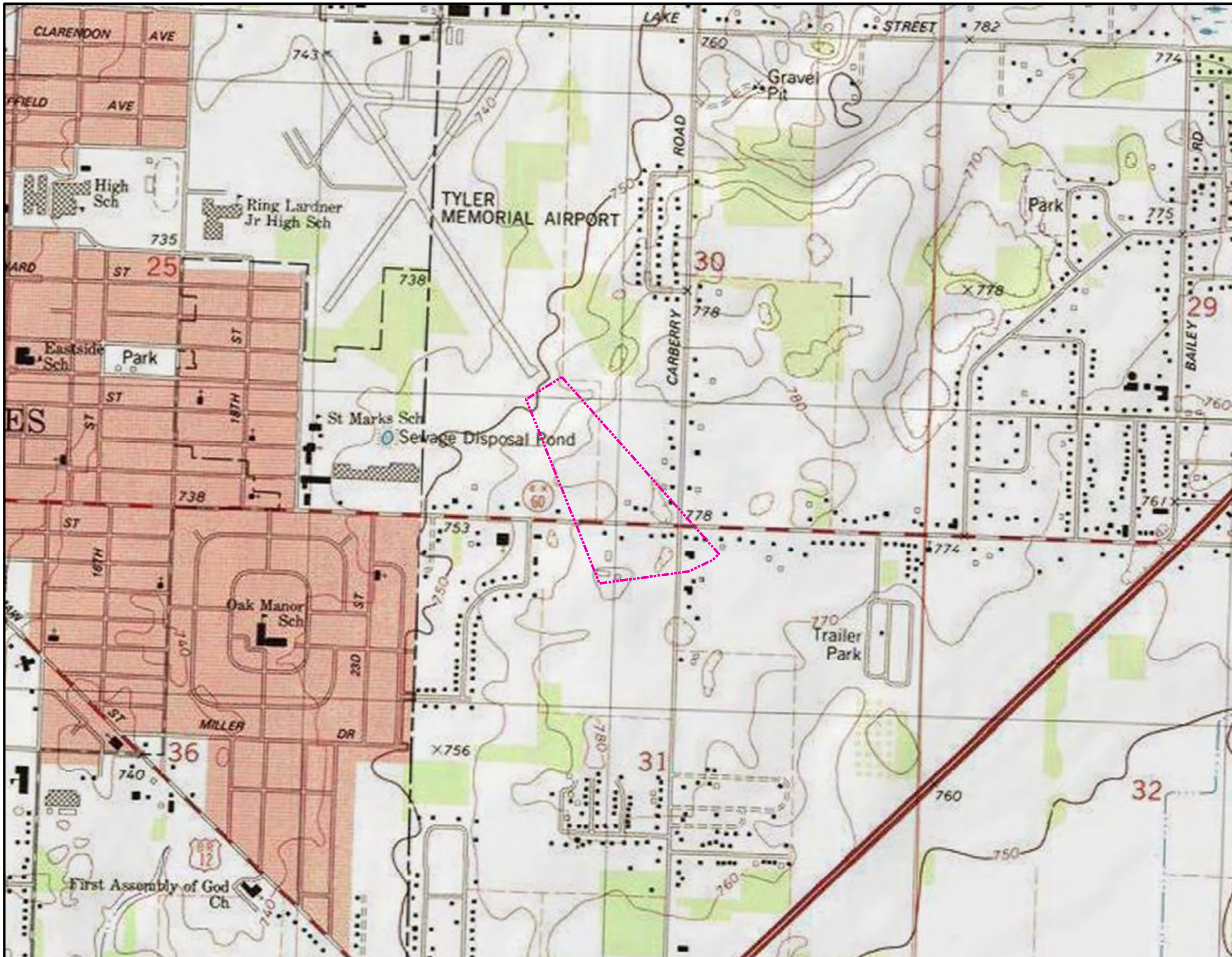
**Jerry Tyler
Memorial Airport**

Cass County Map with
an Overview of Michigan



Lawton & Associates, Inc.

Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 1
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Site Location Map

Legend


 Study Area

N
↑

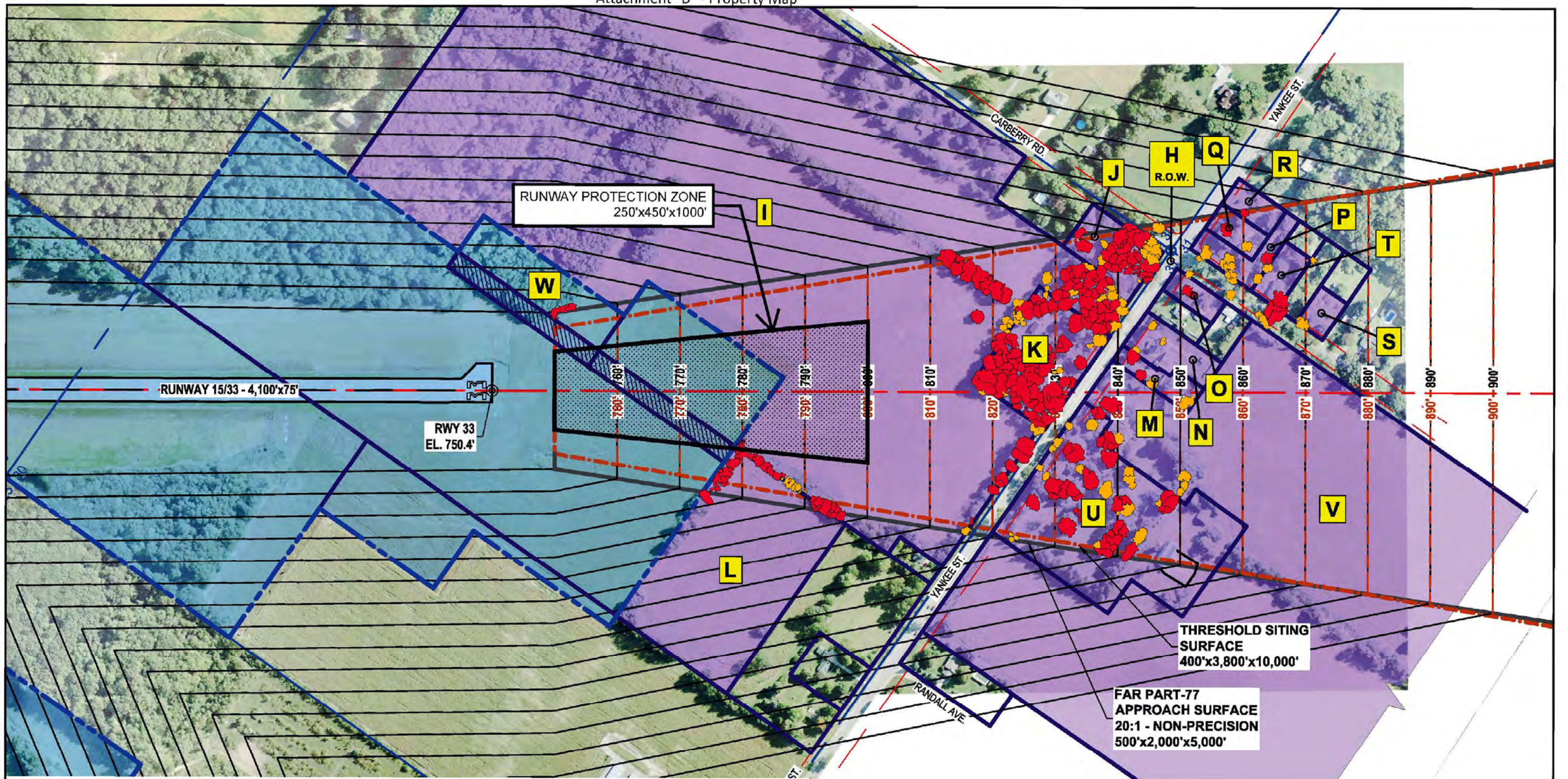
0 500 1,000 2,000
Feet

Jerry Tyler Memorial Airport

USGS Topographic Map
Niles East Quad


Lawton & Associates, Inc.

Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 2
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DATE: 03/16/17

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	AIRPORT PROPERTY LINE		THRESHOLD SITING SURFACE
	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

Jerry Tyler
Memorial Airport

Project Plans



Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 3
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Site Location Map

Legend

Study Area

Soil Type

- 16B
- 41C
- 4B
- 5B
- 9B

N

0 100 200 400
Feet

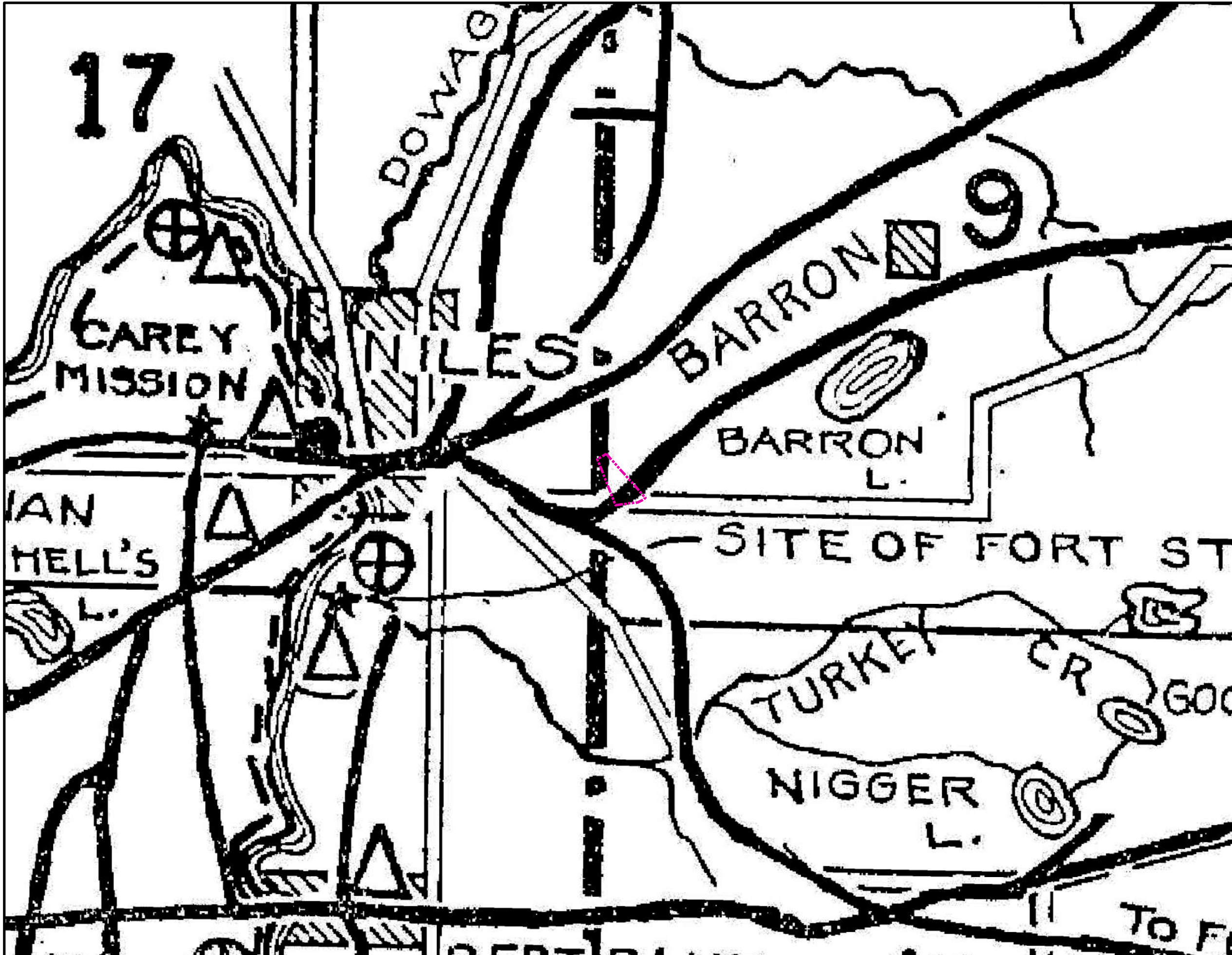
Jerry Tyler Memorial Airport

Soils Map




Lawhon & Associates, Inc.


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Site Location Map

Legend


 Study Area

N


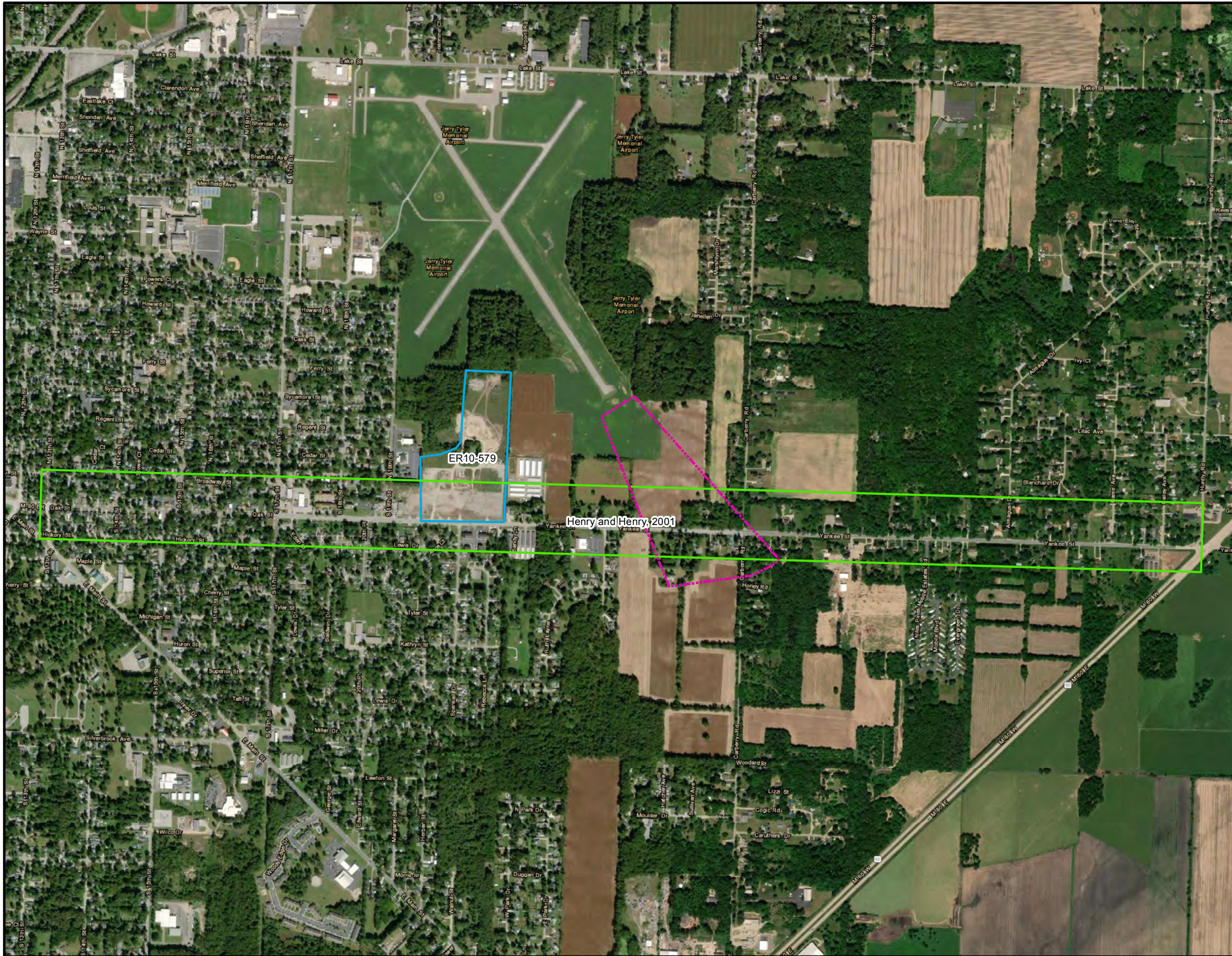
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Feet

Jerry Tyler Memorial Airport

Detail of Cass County
Map from Hinsdale 1931


Lawhon & Associates, Inc.

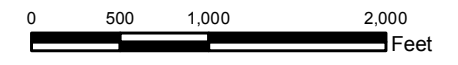
Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 5
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Site Location Map

Legend

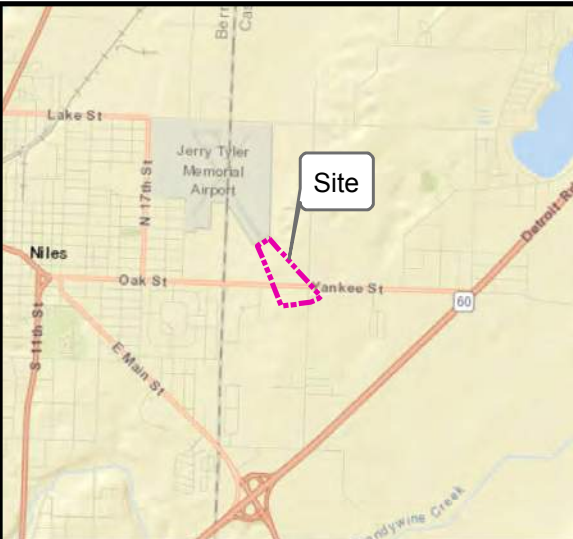
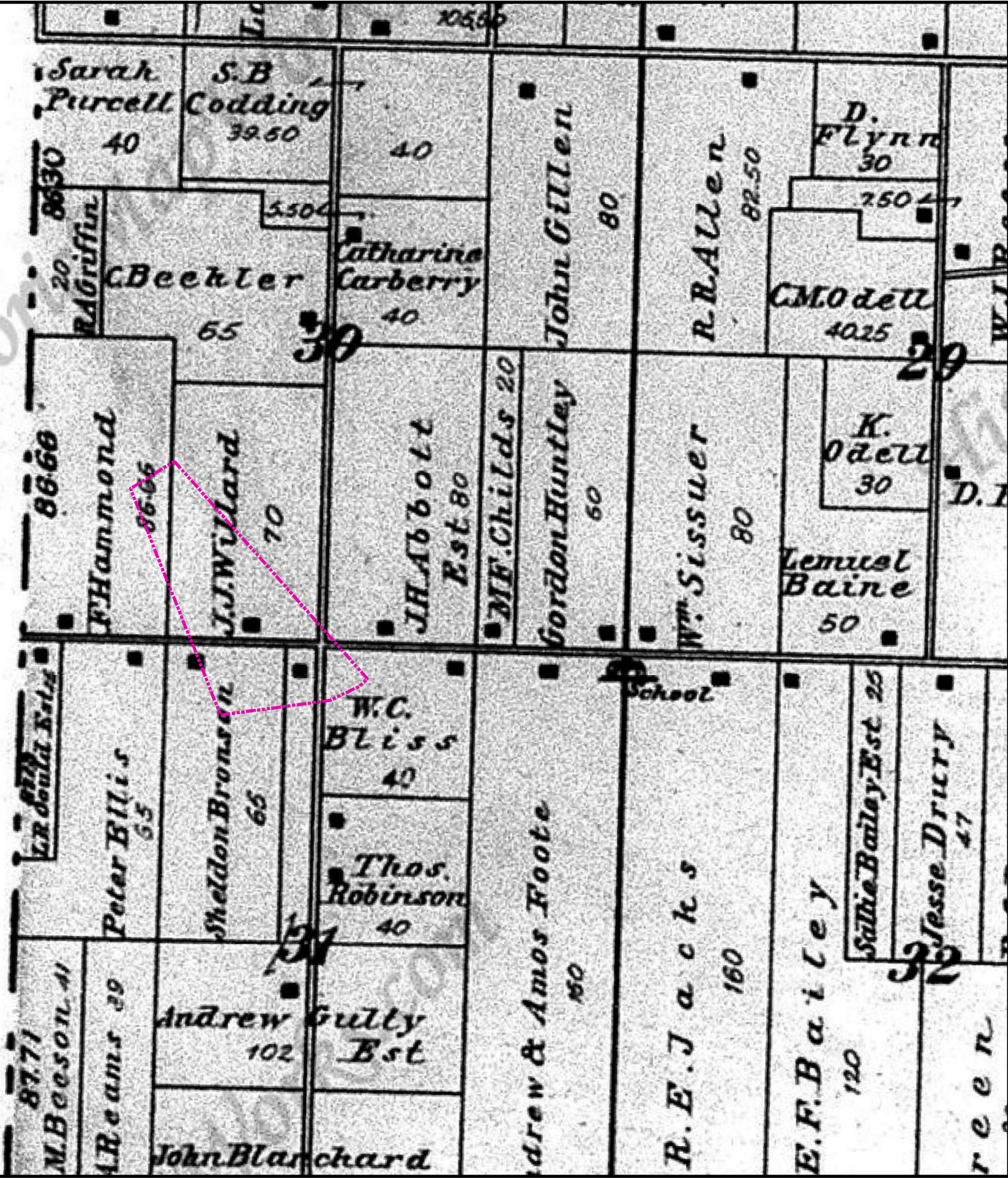
- Study Area
- Archaeology Survey Area
- History/Architecture Survey Area



Jerry Tyler Memorial Airport
 Previously Identified Cultural Resources Surveys



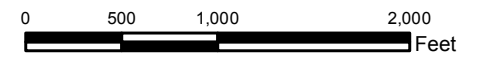
Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 6
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Site Location Map

Legend

Study Area



Jerry Tyler Memorial Airport
 Detail of 1896
 Howard Township Plat



Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 7
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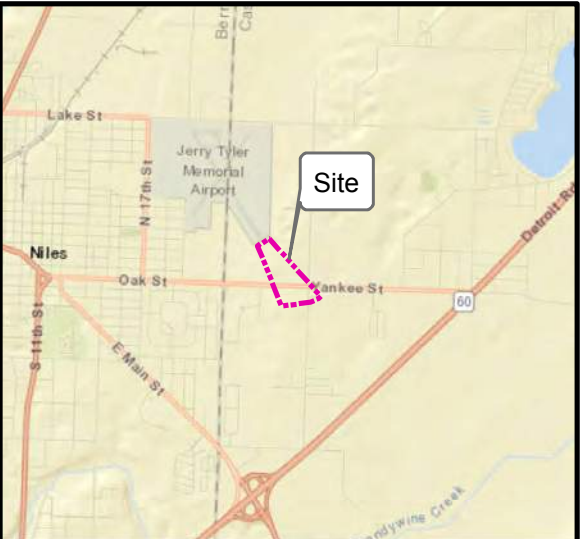
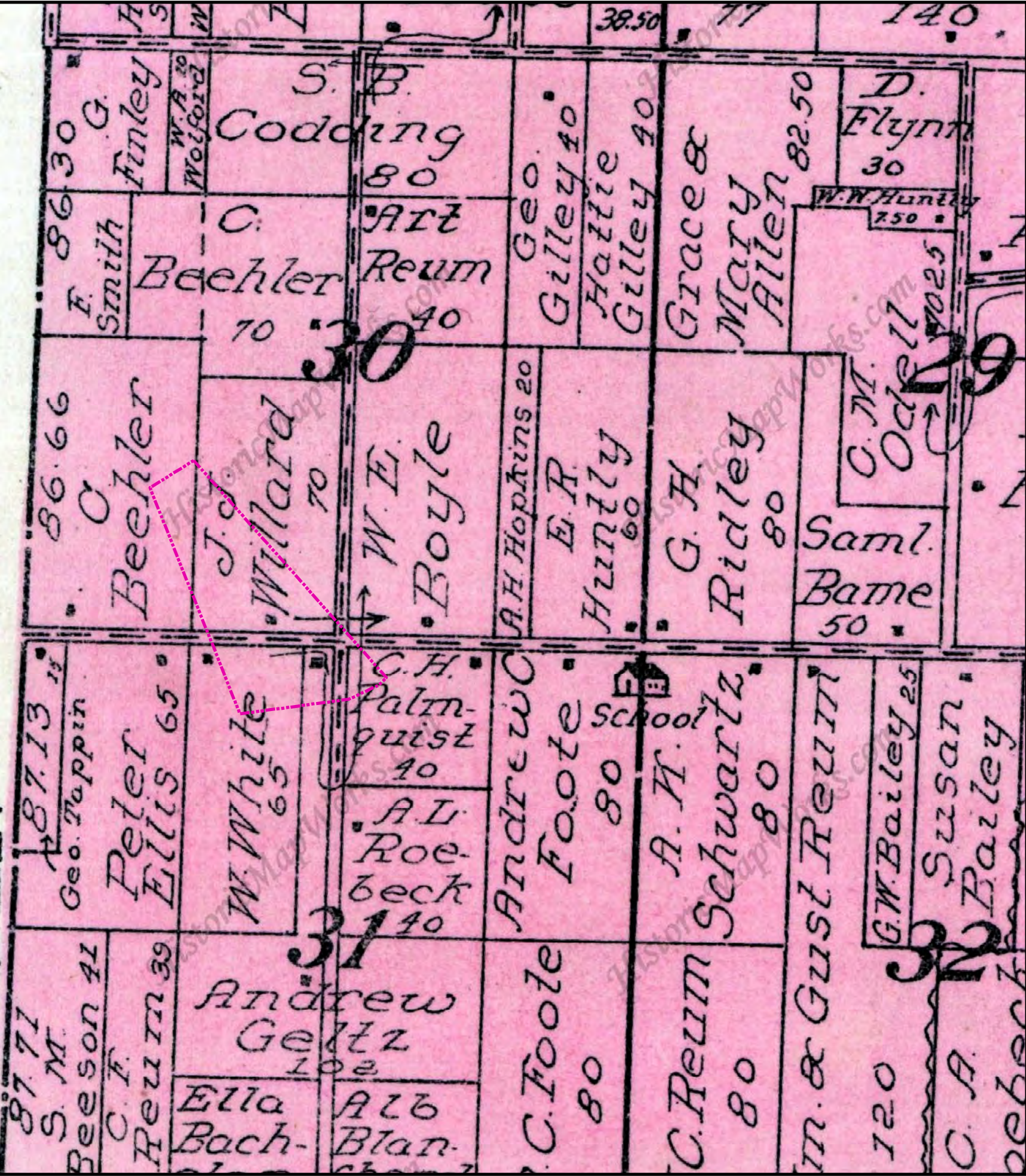
Historic

HistoricMap.com

HistoricMap.com



BERRIEN



Site Location Map

Legend

Study Area

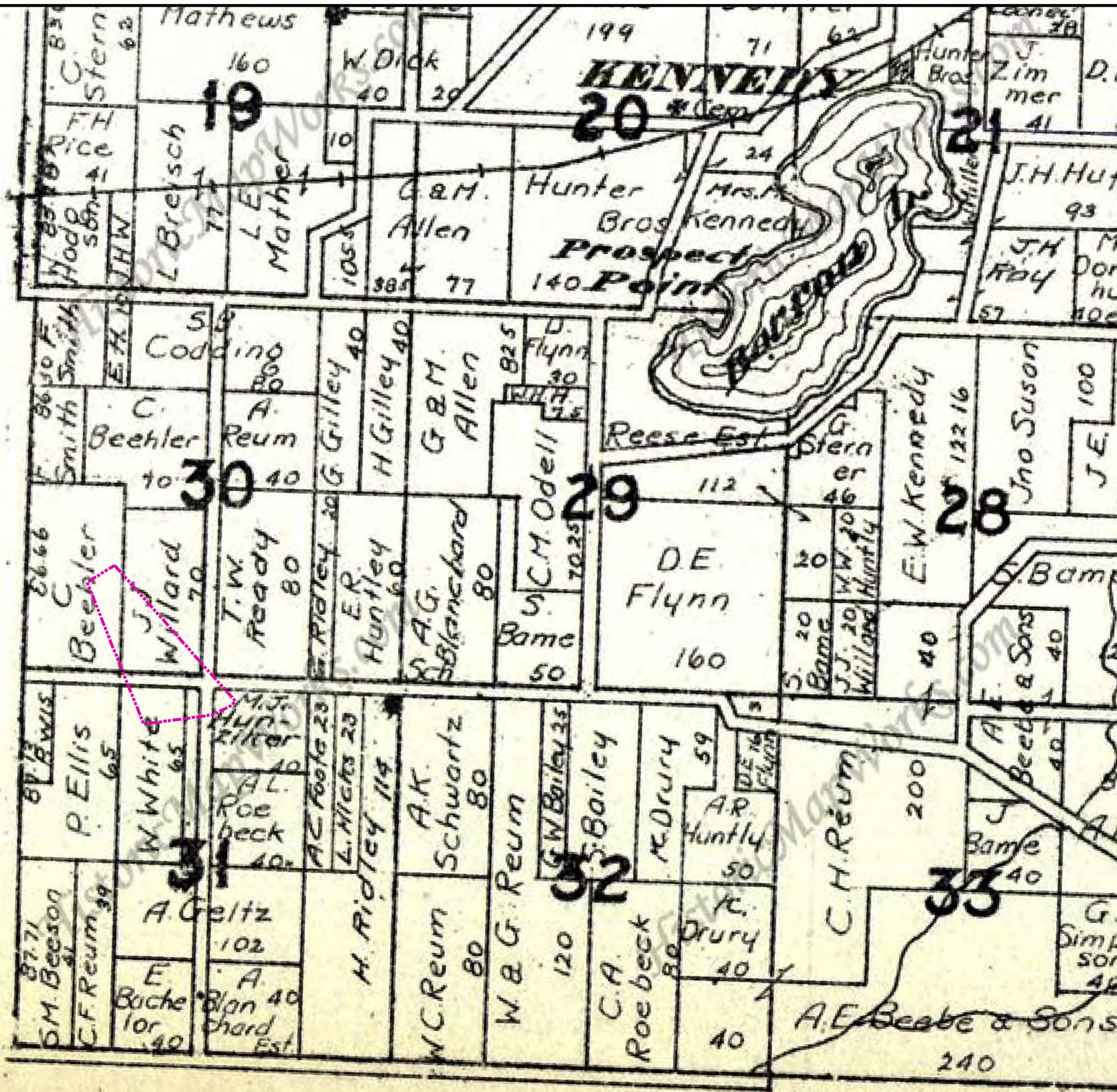


Jerry Tyler Memorial Airport
 Detail of 1914 Plat of
 Howard Township



Lawhon & Associates, Inc.

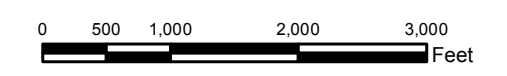
Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 8
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Site Location Map

Legend

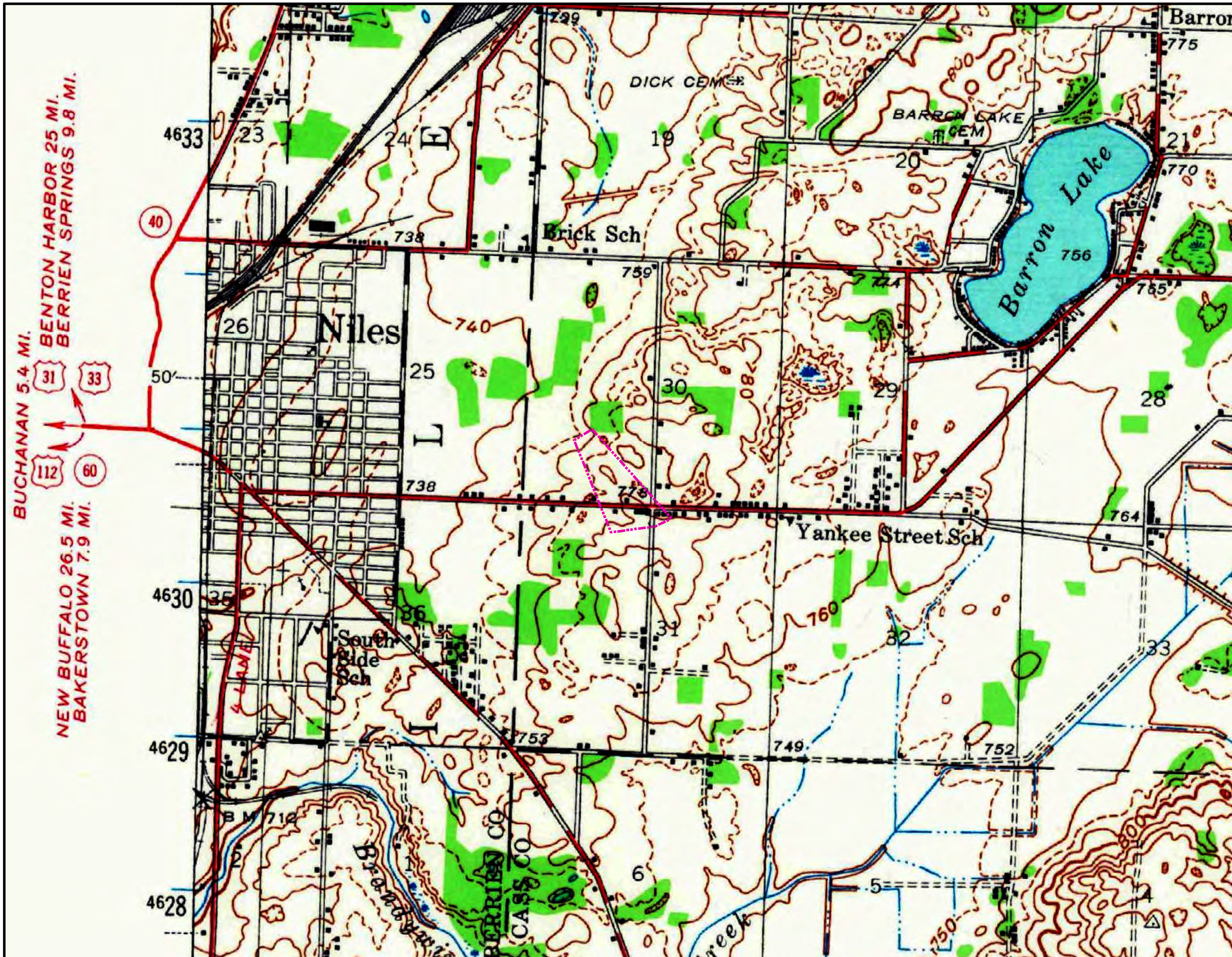
Study Area



Jerry Tyler Memorial Airport
 Detail of 1920 Plat of Howard Township



Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 9
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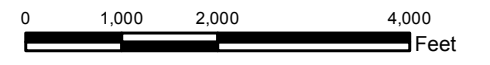
BUCHANAN 5.4 MI.
 BENTON HARBOR 25 MI.
 BERRIEN SPRINGS 9.8 MI.
 NEW BUFFALO 26.5 MI.
 BAKERSTOWN 7.9 MI.



Site Location Map

Legend

- Study Area

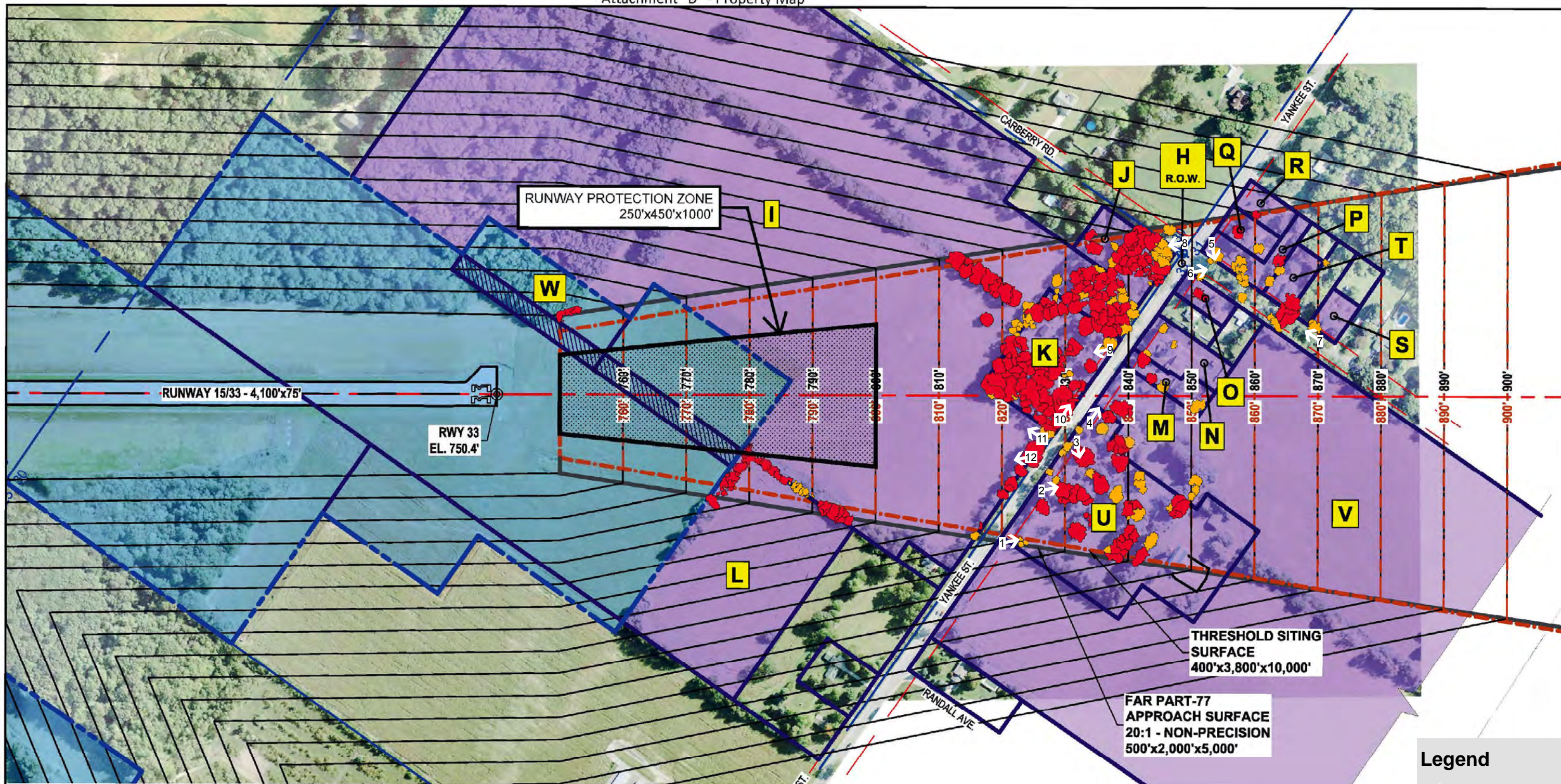


Jerry Tyler Memorial Airport
 1945 Cassopolis, Michigan
 15' Series Topographic Map



Lawton & Associates, Inc.

Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 10
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Legend
 ↑ Photo Location

0 150 300 600

DATE: 03/16/17

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	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
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	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

Jerry Tyler Memorial Airport

Photo Orientation Map

Lawhon & Associates, Inc

Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 11
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11.0 PHOTOS



Photo 1. APE conditions along the south side of M60, facing southeast



Photo 2: Historic-period house and yard in APE south of M60, facing southeast



Photo 3. Residential yard of historic-period house south of M60, facing southwest



Photo 4. APE conditions along south side of M60, facing east



Photo 5. Historic-period house with large tree in APE south of M60, facing southwest



Photo 6. Residential lot with large trees in APE, facing southwest



Photo 7. Conditions in APE looking north along Carberry Road towards M60



Photo 8. Mature trees in APE at M60/Carberry Road intersection, facing northwest



Photo 9. Residential lot with mature trees north of M60, facing northwest



Photo 10. Conditions along north side of M60 in APE, facing east

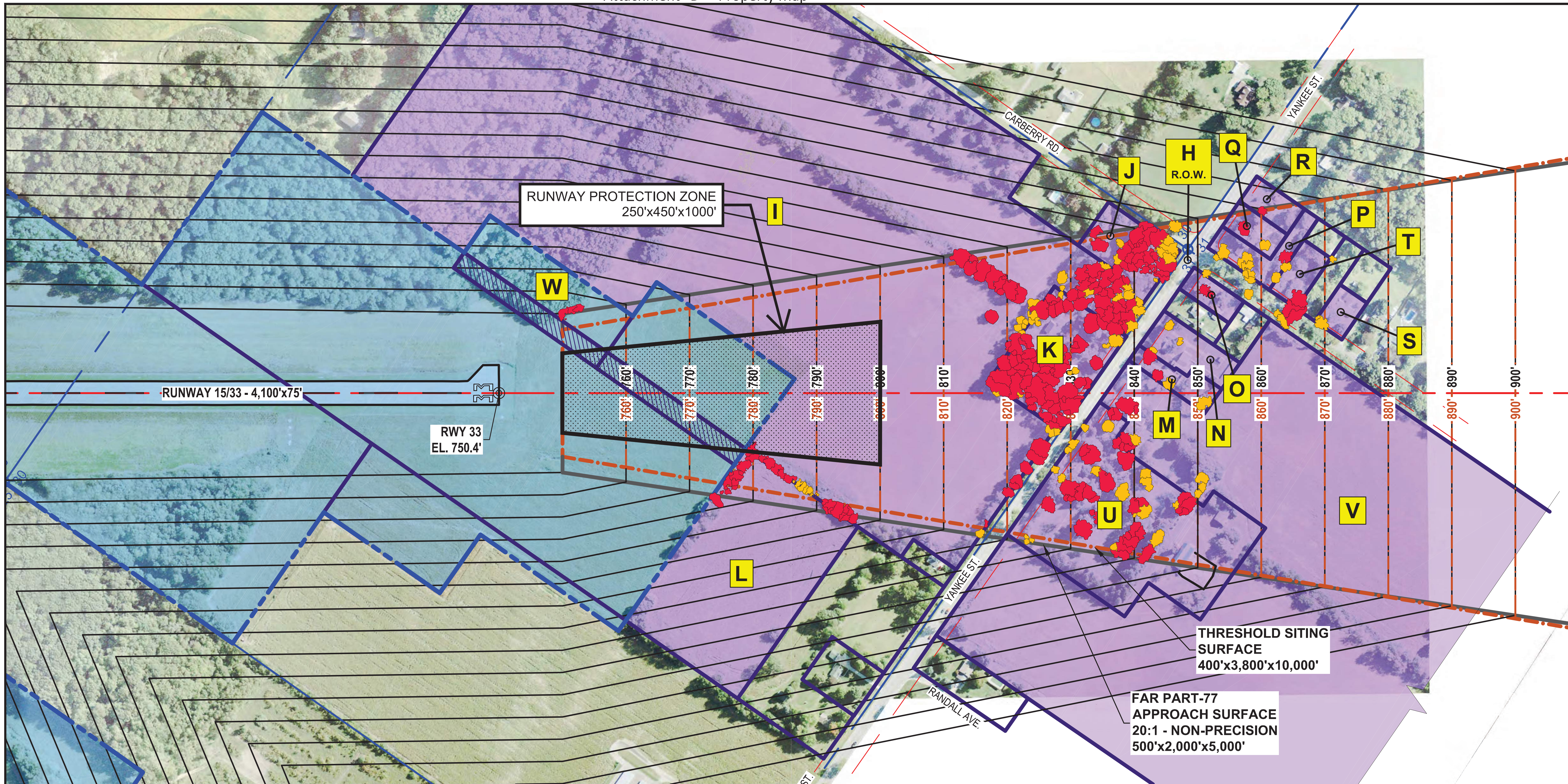


Photo 11. Agricultural field in project area, facing north
Tree line in center rear of photograph within APE for this project.



Photo 12. Agricultural field in project area, facing northwest
Tree line in center rear of photograph within APE for this project.

APPENDIX A. PROJECT PLANS



0 150 300 600

DATE: 03/16/17

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	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

RUNWAY 33	
OBSTRUCTION ANALYSIS - PARCEL IDENTIFICATION	
JERRY TYLER MEMORIAL AIRPORT NILES, MICHIGAN	
 2605 Port Lansing Road Lansing, MI 48906 phone: 517-321-8334 meadhunt.com	



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GRETCHEN WHITMER
GOVERNOR

PAUL AJEGBA
DIRECTOR

January 11, 2021

Brian G. Grennell
Cultural Resource Management Coordinator
Michigan State Historic Preservation Office
300 North Washington Square
Lansing, MI 48913

Subject: Jerry Tyler Memorial Airport (3TR)
Runway 15 Approach Clearing Project - Section 106 Consultation
Niles, Cass County, Michigan

Dear Mr. Grennell,

This letter is meant to provide follow-up to your October 15, 2020 email to me and Emily Pettis at Mead & Hunt, regarding the Section 106 consultation for the Jerry Tyler Memorial Airport, Runway 15 Approach Clearing Project, in Niles, Michigan. It provides responses to specific questions, and requests, for the subject project. Each question, or request for additional information, is provided below in italics, directly followed by our response.

- ***Please provide one map that shows the entire above-ground survey area.***
A revised map showing the Area of Potential Effect (APE) with a scale that shows all parcels surveyed, and the APE boundaries, on a single map is included (Attachment A). The APE boundaries remain unchanged from the original submittal.
- ***Provide the acreage surveyed.***
The total acreage surveyed, which corresponds with the area of the APE, is 93 acres.
- ***Provide a brief explanation for why these resources were not assessed as part of a potential historic district. There appears to be some potential for a small historic district along Yankee Street, but this was not included in the report.***
The area of Yankee Street, east of the current Niles city limits, was developed gradually over time, with the first settlers in the area arriving around the 1830s. These earliest settlers lived on large parcels that were mainly tended for agricultural purposes. This pattern of development continued through the latter half of the nineteenth century, with some parcels subdivided to create a denser, though still agricultural, area. In the early twentieth century, many parcels fronting Yankee Street were subdivided, and subsequently developed with more residential buildings. This infill occurred over several decades, between the 1900s and 1960s, along both Yankee Street and along cross streets near intersections.

Brian Grennell
Page 2
January 11, 2021

During fieldwork, Mead & Hunt considered the area for a potential historic district, with a focus on both early settlement around the middle of the nineteenth century, as well as, later development and infill that occurred in the early to mid-twentieth century. Today, the properties along Yankee Street do not evoke any significant theme for a particular historical period related to early settlement, patterns of development, or architecture. With widely varying property uses, styles, and ages, properties along this section of Yankee Street do not comprise a unified entity that relates to any area of significance through local, state, or national contexts, that would be applicable under any National Register of Historic Places (NRHP) eligibility criteria.

- ***We request that you submit specific information (photos keyed to site plans, etc.) regarding the number and location of trees to be removed.***

Additional maps specific to the two properties we recommended eligible for individual listing in the NRHP are included (Attachment B: Pattengell-Milburn House at 2268 Yankee Street & Attachment C: Colonial Revival House at 2302 Yankee Street). Both maps are keyed to additional photographs showing the setting of the respective properties, which can be viewed on the pages that directly follow each map.

Please let us know if you concur with our recommendation of adverse effect to the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival House at 2302 Yankee Street, or if you need any additional information to complete your review of this project.

Sincerely,

Steve

Houtteman

Digitally signed by: Steve
Houtteman
DN: CN = Steve Houtteman
email =
houttemans@michigan.gov C
= US O = State of Michigan
Date: 2021.01.11 14:53:34 -
05'00'

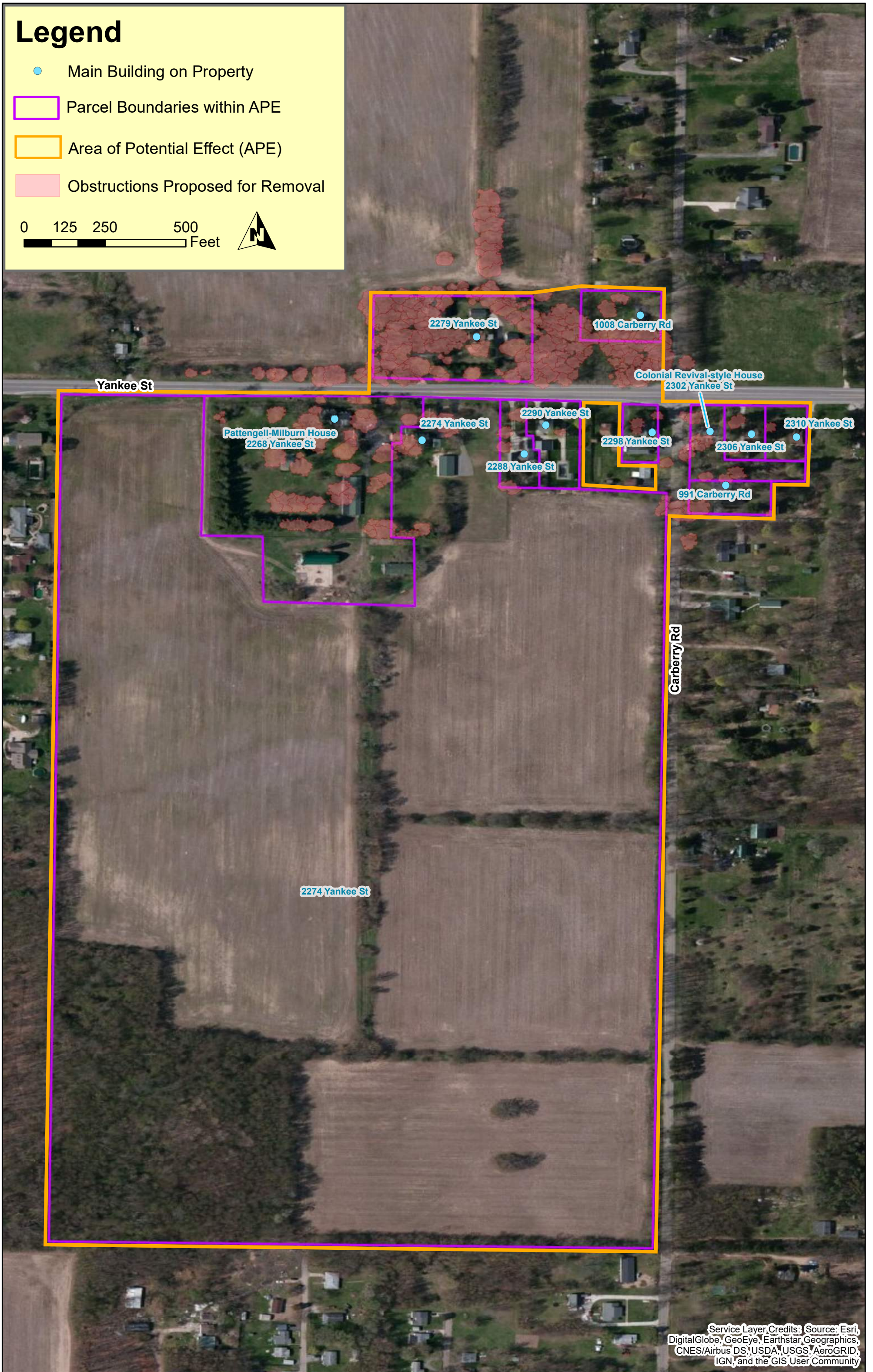
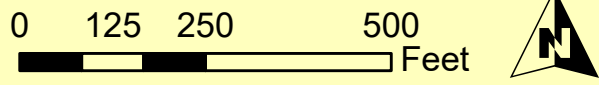
Steve Houtteman
Aeronautics Environmental Specialist
Project Support Unit
MDOT – Office of Aeronautics
houttemans@michigan.gov
616-299-2654

Attachments

Appendix A. Area of Potential Effects (APE) Map

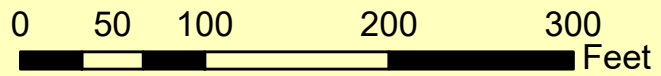
Legend







- Main Building on Property
- ▭ Parcel Boundaries within APE
- ▭ Area of Potential Effect (APE)
- ▭ Obstructions Proposed for Removal



**Appendix B. Additional Map Keyed to Photographs
Pattengell-Milburn House, 2268 Yankee Street**

Pattengell-Milburn House 2268 Yankee Street



-  2268 Yankee St Parcel Boundaries
-  Area of Potential Effect (APE)
-  Main Building on Property
-  Keyed Photos
-  Parcel Boundaries within APE
-  Obstructions Proposed for Removal

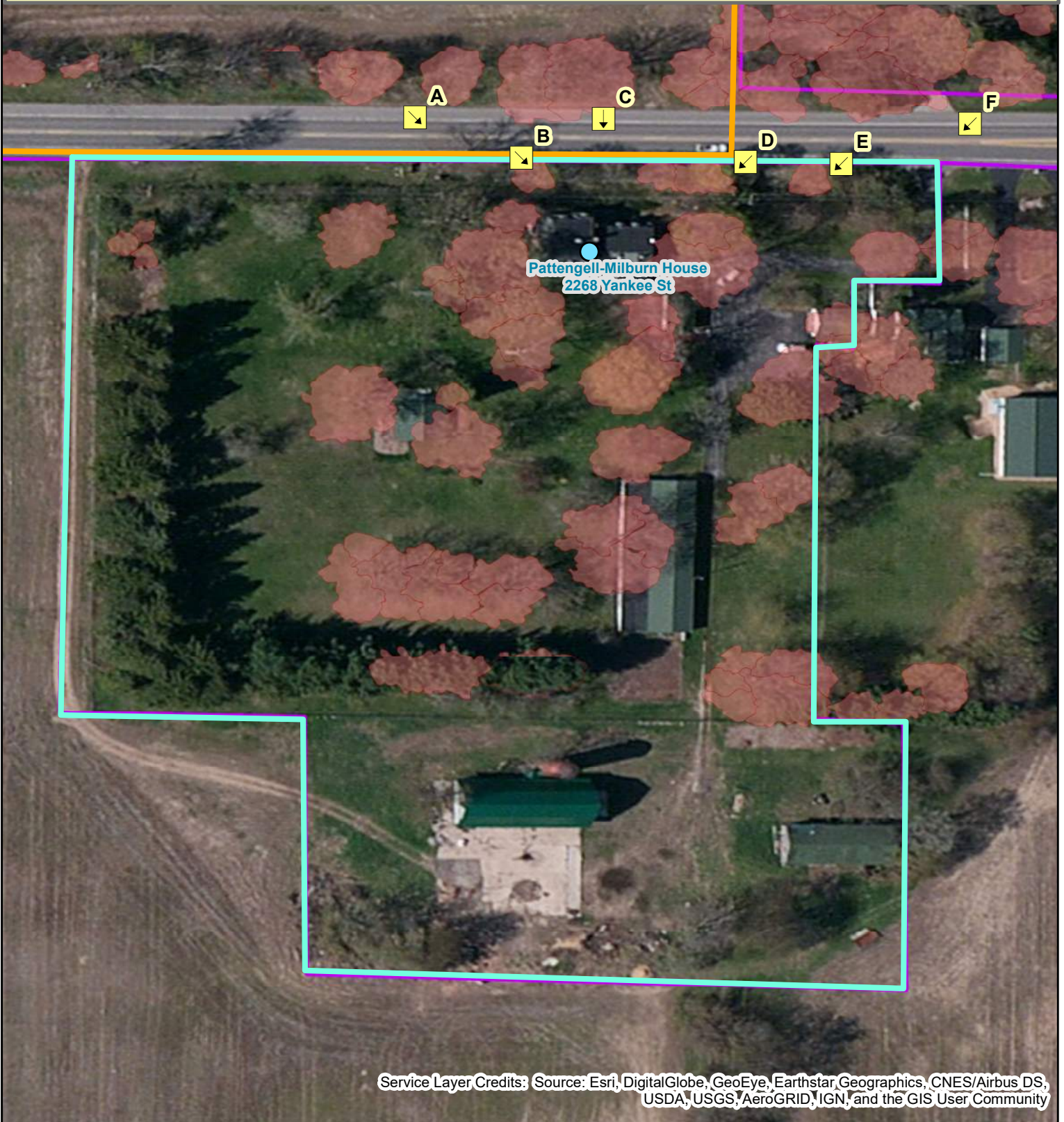




Photo A: View southeast from Yankee Street.



Photo B: View southeast from Yankee Street.



Photo C: View south from Yankee Street.



Photo D: View southwest from Yankee Street.



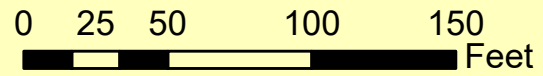
Photo E: View southwest from Yankee Street.

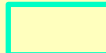



Photo F: View southwest from Yankee Street.


**Appendix C. Additional Map Keyed to Photographs
Colonial Revival House, 2302 Yankee Street**


Colonial Revival House 2302 Yankee Street





 2302 Yankee St Parcel Boundaries

 Area of Potential Effect (APE)

 Main Building on Property

 Keyed Photos

 Parcel Boundaries within APE

 Obstructions Proposed for Removal

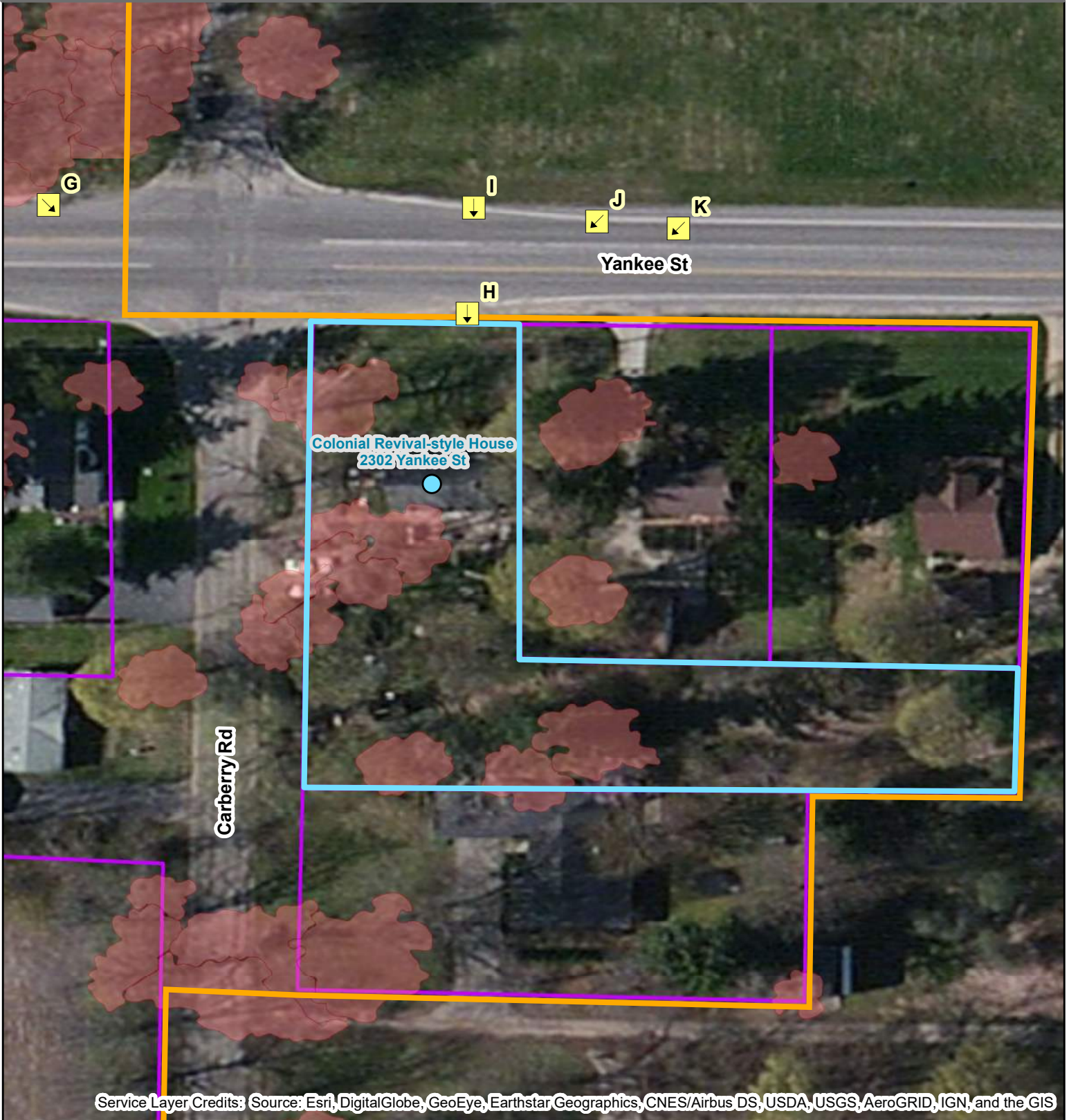




Photo G: View southeast from Yankee Street. Carberry Road is visible in foreground.



Photo H: View south from Yankee Street.



Photo I: View south from Yankee Street.



Photo J: View southwest from Yankee Street.



Photo K: View southwest from Yankee Street.



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

MARK A. BURTON
PRESIDENT

November 8, 2023

MISTY PEAVLER
FEDERAL AVIATION ADMINISTRATION
DETROIT AIRPORTS DISTRICT OFFICE
11677 SOUTH WAYNE ROAD SUITE 107
ROMULUS MI 48174

RE: ER20-948 Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project, T07S, R16W,
Sec. 30-31, Howard Township, Cass County (FAA)

Dear Ms. Peavler:

Under the authority of Section 106 of the National Historic Preservation Act of 1966 as amended, we have reviewed the case study letter detailing the rationale for the above-referenced project. We recognize the need for this project, and we accept the consideration of feasible alternatives.

In order to proceed with the Section 106 process, we will continue consultation with FAA towards the completion of Memorandum of Agreement (MOA) to mitigate the adverse effects. Enclosed, please find our comments on the initial draft provided for our review.

If you have any questions, please contact Scott Slagor, Cultural Resource Protection Manager, at (517) 285-5120 or by email at slagors2@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.** Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

Ryan M. Schumaker
State Historic Preservation Officer

RMS:SES

Enclosure: Draft MOA Mark-up

Copy: Emily Pettis, Mead & Hunt
Steve Houtteman, MDOT



Section 106 Case Study

Jerry Tyler Memorial Airport Runway 15/33 Approach Clearing Project

**Niles, Howard Township, Cass County,
Michigan**

Report prepared for

**Michigan Department of
Transportation, Office of
Aeronautics**

Report prepared by

**Mead
& Hunt**

www.meadhunt.com

October 2023

1. Introduction

The Jerry Tyler Memorial Airport (Airport) is proposing a project to determine the most prudent and feasible options to clear obstructions in the approach of Runway 15/33 (Project). As part of the Federal Aviation Administration (FAA) responsibilities to comply with Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106), Project activities were analyzed for potential impacts to historic properties. The Section 106 report was initially submitted to the Michigan State Historic Preservation Office (SHPO) on July 13, 2020. In a letter dated March 1, 2021, SHPO concurred with the Section 106 report findings that the Project would cause an adverse effect to one historic property: the Pattengell-Milburn House property at 2268 Yankee Street. This Case Study document outlines the identified adverse effect to the Pattengell-Milburn House property, and provides a history of consultation with the Advisory Council on Historic Preservation (ACHP) and Project stakeholders to participate in development of alternatives to avoid adverse effects, and identify mitigation measures to include in a Memorandum of Agreement (MOA) if an adverse effect cannot be avoided.

2. Summary of Project Activities

The Project activities consist of clearing current obstructions in the approach of Runway 33, as well as vegetation and trees identified within 10 feet of becoming an obstruction. Project work includes the complete and/or partial removal of obstructions determined to be within the runway approach sightline and will require acquisition of avigation easements from select property owners.

The project is funded in part by the FAA and Michigan Department of Transportation (MDOT). The MDOT Office of Aeronautics (AERO), acting on behalf of the FAA, is responsible for complying with the policies and procedures of Section 106, the National Environmental Policy Act (NEPA) of 1969, and other related environmental laws, regulations, and orders applicable to FAA actions. This requires AERO to identify potential alternatives that are available to achieve the purpose and need for a given project and present the basis used to make an informed decision regarding the selection of a preferred alternative.

Proposed project objectives include the following:

- Obtain avigation easements to remove the trees that are obstructions to the approach surface of Runway 33
- Clear obstructions that penetrate the Runway 33 FAR Part 77 Surface

The Area of Potential Effects (APE) was identified from results of a LiDAR obstruction survey by Mead & Hunt, Inc. (Mead & Hunt), and includes parcels where select obstructions—primarily trees—penetrate the Approach Surface and Part 77 Surface. Avigation easements are proposed for these properties to give the Airport the right to maintain the airspace and allow for the removal of trees on the properties. One historic property was identified where these project activities will cause an Adverse Effect, and is described below.

3. Description of Historic Property

Within the APE, one property at 2268 Yankee Street, commonly known as the Pattengell-Milburn House, was evaluated and recommended eligible for listing in the National Register of Historic Places (National Register) under *Criteria A* and *C* as part of the Section 106 compliance report. The house is an early and rare example of brick residential architecture in the southwestern region of Michigan and a representative example of the Second Empire style, with periods of significance of c.1832 and c.1896, respectively.

4. Impacts to Historic Property

An analysis of the project activities under the Criteria of Adverse Effects identified the proposed tree removal has the potential to alter the historic setting of the Pattengell-Milburn House at 2268 Yankee Street, which may result in an Adverse Effect. The applicable example of adverse effect is Example (iv): *Change of the character of the property's use or physical features within the property's setting that contribute to its historic significance.*

First settled in 1832, the earliest-built properties along Yankee Street were farmsteads. Changes to the landscape occurred over time as settlers cleared the land to erect houses, sheds, and barns; practice agriculture; and tend livestock. The land was subdivided and new homes constructed into the late twentieth century, though census records classified Cass County and Howard Township as “rural” throughout most of this period. As such, the surrounding natural landscape contributes to a sense of place as much as the built environment.

The Pattengell-Milburn House, the earliest building within the APE, retains its general agricultural setting and overall feeling of a rural farmstead, with some designed landscape elements added over time. The numerous trees on the property, and adjacent to the Pattengell-Milburn House, contribute to the historic setting of the property as a rural farmstead. The removal of a large number of mature trees from the property would change the physical features within the property's setting that contribute to its historic significance, resulting in an Adverse Effect to the historic property.

On March 1, 2021, SHPO concurred with Mead & Hunt's findings that the Pattengell-Milburn House is eligible for individual listing in the National Register and that the project activities would cause an Adverse Effect to the historic property (see Appendices A and B).

5. Alternatives Case Study

This section describes consultation undertaken to collaborate with interested parties on potential alternatives to avoid, minimize, and mitigate the Adverse Effect to the Pattengell-Milburn House, and describes three alternatives identified through this process.

A. Consultation

In addition to public involvement efforts as part of the larger project, the Advisory Council on Historic Preservation (ACHP) and two interested parties were notified of the potential for Adverse Effect and invited to collaborate on mitigation. The FAA submitted a letter to the ACHP in April 2022, and the ACHP declined to participate in a letter dated May 4, 2022 (see Appendix C).

The property owners have been consulted by the project team through communication between legal counsel of the owners and the Airport. Through this process, the property owners expressed an unwillingness to participate in collaboration on mitigating the adverse effects to the historic property, despite several attempts to involve them in the process (see Appendix D).

The Niles History Center is a branch of the City of Niles, and the only history-focused organization identified in the immediate area around Niles and Howard Township. The project team contacted this organization to invite it to collaborate on identifying appropriate mitigation, which was later conducted through a conference call between the project team and Christina Arseneau, the Executive Director of the Niles History Center (see Appendix D). Resulting from this discussion was a potential mitigation measure to submit all research materials obtained through Mead & Hunt's Phase II determination of eligibility for the Pattengell-Milburn House for the Niles History Center to incorporate into its collection, as Ms. Arseneau expressed the center has little information about the property and the family that is historically associated with the house. This action has been incorporated into the proposed mitigation.

B. Alternatives

No-build alternative

The no-build alternative assumes that no action would be taken to address tree obstructions at the Pattengell-Milburn House in the approach of Runway 33. Under this alternative, the Airport environment would remain in its current state with no obstructions removed, which would avoid adverse effects to the historic property. However, the no-build alternative does not meet the project's objectives of providing an air transportation facility with FAA-compliant approaches.

Selectively clear/cut obstructions

Under this alternative, trees identified as current or future obstructions would be topped or trimmed to an elevation below the Approach Surface and Part 77 Surface of Runway 33 on the Pattengell-Milburn House property. A one-time monetary compensation associated with the purchase of the avigation easement would be included as part of this alternative. Easement values would be determined by a licensed independent property appraiser.

This approach is discouraged by the FAA and AERO as trimming or topping will eventually kill some trees and create an unsightly condition for the property owner. Trees that survive even though they have been trimmed or topped will require maintenance in a few years, thus causing unnecessary community disruptions and additional expense for the property owner as the FAA will only provide funding for the removal of obstructions one time. All additional future trimmings or removals would be at the expense of the property owner. This alternative would attempt to avoid tree removal, which would minimize the project's adverse effects on the historic property.

As this alternative only temporarily addresses the obstruction issue and puts the burden of future maintenance on the property owner, it has been removed from additional consideration because a more feasible alternative is available.

Selectively Clear and Grub Obstructions (Preferred Alternative)

Under this alternative, the Airport proposes to completely remove/clear all trees and vegetation identified as an existing or future obstruction to the Approach Surface and Part 77 Surface of Runway 33 found on the Pattengell-Milburn House property. A one-time monetary compensation associated with the purchase of the aviation easement would be included as part of this alternative. Replacement plantings of a low growing variety to compensate for the trees and vegetation removed is also included in this alternative as mitigation. Easement values would be determined by a licensed independent property appraiser. Replacement plantings would follow U.S. Department of Agriculture (USDA) accepted vegetation guidelines for use around airports and coordinated through a certified arborist. Recommendations for appropriate replacement plantings is provided in a Tree Mitigation Plan Recommendations report by Fernwood Botanical Garden's Executive Director Caroline Line and Director of Horticulture Steve Bornell, dated September 9, 2021 (see Appendix E).

This alternative is encouraged by the FAA and AERO and is the preferred alternative. This alternative permanently addresses identified current and future obstructions and is the least impactful to the property owner. Under this alternative, the property owner would be compensated for the aviation easement with no future responsibility to maintain the removed obstructions. By removing the obstructions and replanting a low growing variety, the site will recover its aesthetic setting more quickly versus trimming or topping that leaves behind unsightly stumps and dying trees. Additionally, this alternative would mitigate the adverse effects to the setting of the historic property over time.

This alternative is considered the preferred alternative because it meets the project's objectives of permanently addressing current and future obstructions, is the least impactful to the property owner, and is encouraged by the FAA and AERO.

Appendix A. Documentation of Consultation With Interested Parties



July 13, 2020

Brian Grennell
Michigan State Historic Preservation Office
300 N. Washington Sq.
Lansing, MI 48913

Subject: Section 106 Consultation
Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project
Niles, Cass County, Michigan

Dear Mr. Grennell:

The attached report is submitted as part of consultation for Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106), for the Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project in Niles, Cass County, Michigan. Mead & Hunt, Inc. (Mead & Hunt) has completed this Section 106 compliance report on behalf of the Michigan Department of Transportation (MDOT) Office of Aeronautics. Lawhon & Associates, Inc. (Lawhon & Associates) was retained by Mead & Hunt to complete the archaeological survey. The Section 106 report and supplemental materials are attached.

The Area of Potential Effects (APE) was defined to include parcels that will be impacted by removal of runway approach obstructions, which consist of trees of a particular height. Mead & Hunt identified two properties within the APE that are recommended as eligible for listing in the National Register of Historic Places (National Register), and qualify as Historic Properties for the purposes of Section 106 – the Pattengell-Milburn House at 2268 Yankee Street and a Colonial Revival-style house at 2302 Yankee Street.

A literature review and visual reconnaissance of the APE was completed as part of the archaeological survey. The literature review did not result in findings of previously identified archaeological sites, and the visual reconnaissance did not identify any surface indications of archaeological sites within the project area. While the presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing, an archaeological survey would likely not be warranted for the undertaking if the individual trees can be felled without significant ground disturbance.

Mr. Grennell
July 13, 2020
Page 2

Project activities were analyzed for the potential to impact Historic Properties under Section 106, and Mead & Hunt determined that the proposed Project activities may cause an Adverse Effect to both Historic Properties within the APE. If your office concurs with the eligibility recommendation and finding of Adverse Effect, MDOT will begin consultation and prepare a Memorandum of Agreement.


The MDOT Office of Aeronautics is acting as a federal agency for compliance with Section 106, and correspondence related to this project should be directed to:

Steve Houtteman
Aeronautics Environmental Specialist
Project Support Unit - Office of Aeronautics
Michigan Department of Transportation
(616) 299-2654
houttemans@michigan.gov

You may also contact Emily Pettis (Mead & Hunt) with any questions (emily.pettis@meadhunt.com, 608-443-0406), but request that Mr. Houtteman remains in copy on all correspondence.

Sincerely,

MEAD & HUNT, Inc.



Emily Pettis
Cultural Resources Department Manager

STATE HISTORIC PRESERVATION OFFICE Application for Section 106 Review

SHPO Use Only					
<input type="checkbox"/>	IN	Received Date	____ / ____ / ____	Log In Date	____ / ____ / ____
<input type="checkbox"/>	OUT	Response Date	____ / ____ / ____	Log Out Date	____ / ____ / ____
		Sent Date	____ / ____ / ____		

Submit one copy for each project for which review is requested. This application is required. Please type. Applications must be complete for review to begin. Incomplete applications will be sent back to the applicant without comment. Send only the information and attachments requested on this application. Materials submitted for review cannot be returned. Due to limited resources we are unable to accept this application electronically.

I. GENERAL INFORMATION

THIS IS A NEW SUBMITTAL THIS IS MORE INFORMATION RELATING TO ER#

- a. Project Name: Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project
- b. Project Address (if available): 12018 Lake Street, Niles, MI 49015 and nearby parcels
- c. Municipal Unit: City of Niles; Howard Township County: Berrien and Cass
- d. Federal Agency, Contact Name and Mailing Address (*If you do not know the federal agency involved in your project please contact the party requiring you to apply for Section 106 review, not the SHPO, for this information.*): Federal Aviation Administration
- e. State Agency (if applicable), Contact Name and Mailing Address: Michigan Department of Transportation, Office of Aeronautics (MDOT AERO)
- f. Consultant or Applicant Contact Information (if applicable) *including mailing address*: Mead & Hunt, Inc., 2440 Deming Way, Middleton, WI 5356

II. GROUND DISTURBING ACTIVITY (INCLUDING EXCAVATION, GRADING, TREE REMOVALS, UTILITY INSTALLATION, ETC.)

DOES THIS PROJECT INVOLVE GROUND-DISTURBING ACTIVITY? YES NO (If no, proceed to section III.)

Precise project location map (preferably USGS 7.5 min Quad with quad name, date, and location) with previously recorded archaeological sites visible (this site information is available to qualified archaeologists at the SHPO Office) Portions, photocopies of portions, and electronic USGS maps are acceptable as long as the location is clearly marked.

- a. USGS Quad Map Name: Niles East 7.5' Quadrangle
- b. Township: T7S Range: 16W Section: 30-31
- c. Site plan showing limits of proposed excavation. Description of width, length and depth of proposed ground disturbing activity: See archaeology report by Lawhon.
- d. Previous land use and disturbances: See archaeology report by Lawhon.
- e. Current land use and conditions: See archaeology report by Lawhon.
- f. Did you check the State Archaeological Site Files located at the SHPO? YES NO

III. PROJECT WORK DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Note: Every project has an APE.

- a. Provide a detailed written description of the project (plans, specifications, Environmental Impact Statements (EIS), Environmental Assessments (EA), etc. **cannot** be substituted for the written description): See continuation sheet.
- b. Provide a localized map indicating the location of the project; road names must be included and legible.
- c. On the above-mentioned map, identify the APE.
- d. Provide a written description of the APE (physical, visual, auditory, and sociocultural), the steps taken to identify the APE, and the justification for the boundaries chosen. See continuation sheet.

IV. IDENTIFICATION OF HISTORIC PROPERTIES

- a. List and date **all** properties 50 years of age or older located in the APE. **The [Section 106 Above-Ground Resources inventory form](#) is the preferred format for providing this information and a completed form should be included as an attachment to this application.** If the property is located within a National Register eligible, listed or local district it is only necessary to identify the district: See table of surveyed properties and attached inventory forms for all properties over 50 years of age. See attached Determination of Eligibility for the Pattengell-Milburn House.
 - b. Describe the steps taken to identify whether or not any **historic** properties exist in the APE and include the level of effort made to carry out such steps: See continuation sheet.
 - c. Based on the information contained in "b", please choose one:
 - Historic Properties Present in the APE
 - No Historic Properties Present in the APE
 - d. Describe the condition, previous disturbance to, and history of any historic properties located in the APE: See continuation sheet.
-

V. PHOTOGRAPHS

Note: All photographs must be keyed to a localized map.

- a. Provide photographs of the site itself.
 - b. Provide photographs of all properties 50 years of age or older located in the APE (faxed or photocopied photographs are not acceptable).
-

VI. DETERMINATION OF EFFECT

Note: you must provide a statement explaining/justifying your determination. Include statement as an attachment if necessary.

- No historic properties affected based on [36 CFR § 800.4(d)(1)], **please provide the basis for this determination.**
- No Adverse Effect [36 CFR § 800.5(b)] on historic properties, **explain why the criteria of adverse effect, 36 CFR Part 800.5(a)(1), were found not applicable.**
- Adverse Effect [36 CFR § 800.5(d)(2)] on historic properties, **explain why the criteria of adverse effect, [36 CFR Part 800.5(a)(1)], were found applicable.**

***Please print and mail completed form and required information to:
State Historic Preservation Office, Cultural Resources Management Section
Michigan Economic Development Corporation
300 North Washington Square, Lansing, MI 48913***

Section III. Project Work Description and Area of Potential Effects (APE)

- a. The Jerry Tyler Memorial Airport (Airport) and the City of Niles (City) are completing an obstruction analysis to determine which obstructions (trees and vegetation) limit pilot visibility on approach to Runway 15. The project is funded in part by the Federal Aviation Administration (FAA) and Michigan Department of Transportation (MDOT). Project work includes the complete and/or partial removal of obstructions determined to be within the runway approach sightline and will require acquisition of avigation easements from select property owners.

- d. The Area of Potential Effect (APE) was defined to include the parcels with proposed tree removal and avigation easements. The APE was defined as 14 parcels adjacent to the southeast corner of the Airport; these parcels contain identified Runway 15 approach obstructions. The parcels are residential properties located long Carberry Road (Blocks 900-1000) and Yankee Street (Blocks 2200-2300).

Section IV. Identification of Historic Properties

- b. Mead & Hunt, Inc. (Mead & Hunt) architectural historians conducted a reconnaissance-level survey in November 2019. They examined current and historic aerial photographs to identify above-ground resources located within the APE. Based on this information, they determined the threshold for historic survey should include all built environment features constructed prior to 1980. Field survey and photographic documentation of potentially affected resources followed. Affected built resources were inventoried on the Section 106 spreadsheet provided by the Michigan State Historic Preservation Office (SHPO), individual inventory forms were completed for each property.

Mead & Hunt architectural historians visited the Michigan SHPO to confirm whether any built resources within the APE had been previously surveyed. No properties within the project area had been previously surveyed. Research was conducted, which included review of available archival materials from online historical databases and a brief historic context developed. Two preliminary Determinations of Eligibility (DOEs) were performed for those properties that appear to have potential for National Register of Historic Places (National Register) eligibility. One property at 2268 Yankee Street, commonly known as the Pattengell-Milburn House, was evaluated and recommended eligible for listing in the National Register under *Criteria A* and *C*. The house is an early and rare example of brick residential architecture in the southwestern region of Michigan and a representative example of the Second Empire style, with periods of significance of c.1832 and c.1896, respectively. A second property at 2302 Yankee Street was evaluated and recommended eligible for listing in the National Register under *Criterion C*. The house is a representative example of the Colonial Revival style with a high level of design and

craftsmanship, with a period of significance of c.1945. The eligibility evaluations for both properties are included in the submission.

- d. The current condition of the historic property located at 2268 Yankee Street (Pattengell-Milburn House) appears to be good. Some materials have been replaced over time, but the property appears to retain sufficient integrity to convey its significance under *Criteria A* and *C*, including such character-defining features as the expansive rural lot, brick exterior, and wood molding at eaves.

The current condition of the property located at 2302 Yankee Street appears to be good. Available street-side imagery and photographs from a previous real estate listing suggests that the house was recently rehabilitated, with some materials appearing to have been restored or replaced in-kind. While some materials have been replaced with contemporary materials, most notably the sidelight adjacent to the main entry, the house appears to retain integrity to convey the property's significance under *Criterion C*.

Section V.

See photo log attachment.

Section VI. Determination of Effect

Field survey and research efforts undertaken by Mead & Hunt historians determined that historic properties adjacent to the Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project will be impacted by project activities, namely the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival-style house at 2302 Yankee Street, which were both recommended eligible for listing in the National Register as a result of this study. No buildings will be demolished as part of the project scope; however, the proposed removal of a substantial number of trees has the potential to alter the historic setting of each historic property, which may result in an Adverse Effect. The Criteria of Adverse Effects were applied to the proposed project as it relates to the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival-style house at 2302 Yankee Street.

Under Section 106 regulations—36 CFR Part 800.5(a)(1)—Adverse Effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the National Register. 36 CFR Part 800.5(a)(2) provides seven examples of adverse effects on historic properties. The seven examples of adverse effects include:

- (i) Physical destruction of or damage to all or part of the property;

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Jerry Tyler Memorial Airport
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Cass and Berrien Counties

- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

The proposed project will not cause a physical change to any buildings or structures on the property; therefore, examples (i) and (ii) do not apply. The proposed project will not remove either house from their respective historic locations; therefore, example (iii) does not apply. The proposed project will result in the removal of several trees on the subject parcels, potentially impacting the historic settings of each property; therefore, example (iv) applies. The proposed project will not result in neglect of the properties or a transfer of ownership; therefore, examples (vi) and (vii) do not apply.

Only example (iv) may apply to the proposed project and is discussed below as it relates to each property.

Pattengell-Milburn House at 2268 Yankee Street

Example (iv) Change of the character of the property's use or physical features within the property's setting that contribute to its historic significance

The proposed project includes the removal of several trees from the parcel, including areas near the Pattengell-Milburn House.

Analysis

First settled in 1832, the earliest-built properties along Yankee Street were farmsteads. Changes to the landscape occurred over time as settlers cleared the land to erect houses, sheds, and barns, practice agriculture, and tend livestock. The land was subdivided and new homes constructed into the late twentieth century, though census records classified Cass County and Howard Township as “rural” throughout most of this period.¹ As such, the surrounding natural landscape contributes to a sense of place as much as the built environment.

The Pattengell-Milburn House (2268 Yankee Street), the earliest building within the APE, retains its general agricultural setting and overall feeling of a rural farmstead, with some designed landscape elements added over time. A 1969 historic aerial shows several trees on the property, including a stand of trees planted in two neat rows along the parcel’s western edge.² Only some of these trees remain today. The numerous trees on the property, and adjacent to the Pattengell-Milburn House, contribute to the historic setting of the property as a rural farmstead.

The removal of a large number of mature trees from the property would change the physical features within the property’s setting that contribute to its historic significance, resulting in an Adverse Effect to the historic property.



Figure 1: Pattengell-Milburn House at 2268 Yankee Street north (front) and west elevations, view southeast.

Colonial Revival-style house at 2302 Yankee Street

Example (iv) Change of the character of the property’s use or physical features within the property’s setting that contribute to its historic significance

¹ U.S. Bureau of the Census, “Number of Inhabitants: Michigan,” 1952, <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37779850v2p22ch2.pdf>.

² U.S. Geological Survey, “AR1VCEV00010201, Roll 000001, Frame 201” (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

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The proposed project includes the removal of several trees from the parcel, including areas near the Colonial Revival-style house at 2302 Yankee Street.

Analysis

First settled in 1832, the earliest-built properties along Yankee Street were farmsteads. Changes to the landscape occurred over time as settlers cleared the land to erect houses, sheds, and barns, practice agriculture, and tend livestock. The land was subdivided and new homes constructed into the late twentieth century, though census records classified Cass County and Howard Township as “rural” throughout most of this period.³ As such, the surrounding natural landscape contributes to a sense of place as much as the built environment.

The Colonial Revival-style house at 2302 Yankee Street was not part of the earliest settlement of the Yankee Street area, but rather represented development on larger, subdivided parcels that occurred through the first half of the twentieth century. The property retains its general setting from c.1940, with only some later construction occurring along Carberry Road, south of Yankee Street. This setting of the house is defined by the rural neighborhood’s large wooded parcels, with the subject property exhibiting numerous trees throughout the parcel. The mature size and large number of trees on the parcel contributes to the historic character of the property, and conveys significance related to the relatively rural setting of the house.

The removal of large number of mature trees from the property would change the physical features within the property’s setting that contribute to its historic significance, resulting in an Adverse Effect to the historic property.






In all, the proposed project will result in an Adverse Effect to the two identified historic properties within the APE, as the removal of a large number of trees on each parcel would impact the historic settings of the respective properties.





³ U.S. Bureau of the Census, “Number of Inhabitants: Michigan,” 1952, <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37779850v2p22ch2.pdf>.



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Figure 2: Colonial Revival-style house at 2302 Yankee Street north (front) elevation, view south.

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
991 Carberry Road, Niles, Cass County	c.1970	Not known	Ranch	Brick, asphalt shingle roof	Vinyl double-hung and casement with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any associations with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under Criterion B. This house is an example of a common Ranch house that lacks distinctive architectural features and exhibits some replacement materials including vinyl windows and asphalt shingle roofing. Therefore, it is not eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
1008 Carberry Road, Niles, Cass County	c.1965	Not known	Ranch	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and sliding sash	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under Criterion B. The house is an altered example of the common Ranch form that lacks distinctive architectural characteristics. Therefore, it is not eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2268 Yankee Street, Niles, Cass County	c.1832; alterations: c.1896, c.1920	Not known	Second Empire	Brick with mansard shingle roof	Double-hung, some with divided lights, fixed	Y	Good	Fair	A, C	Exploration/Settlement; Architecture	c.1832, c.1896	Eligible	The Pattengell-Milburn House was evaluated for significance for representing the early period of settlement in Howard Township at the local level under Criterion A: Exploration/Settlement, for representing early brick residential architecture at the state level under Criterion C: Architecture, and for representing distinctive characteristics of the Second Empire style at the local level under Criterion C: Architecture. The Pattengell-Milburn House is recommended eligible for listing in the National Register under these themes. See the attached Preliminary Eligibility Assessment (September 2019) for additional information.	
2274 Yankee Street, Niles, Cass County	c.1925	Not known	Colonial Revival	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and fixed vinyl windows, some with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of the Colonial Revival architectural style, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2279 Yankee Street, Niles, Cass County	c.1945	Not known	Vernacular	Vinyl siding, vinyl shingle, asphalt shingle roof	Vinyl double-hung with faux divided lights	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under Criterion B. Constructed c.1945, the house is an altered example of a common Vernacular form and is lacking distinctive architectural characteristics that might qualify it as eligible under Criterion C. Additionally, the number of outbuildings has changed and those extant have experienced material alterations or are not of historic age. As a result, this property is recommended not eligible for listing in the National Register.	

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
2288 Yankee Street, Niles, Cass County	c.1900	Not known	Front gable	Vinyl siding, shingles, asphalt shingle roof	Vinyl double-hung with faux divided lights	N	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under Criterion B. The house is an altered example of a simple front-gable form and has experienced additions to its simple form, as well as replacement materials such as siding and windows. Additionally, the house does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2290 Yankee Street, Niles, Cass County	c.1920	Not known	Bungalow	Vinyl siding, concrete block foundation, asphalt shingle roof	Vinyl double-hung with faux divided lights in upper sashes	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of a bungalow form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2298 Yankee Street, Niles, Cass County	c.1900	Not known	Front gable	Vinyl lap siding, asphalt shingle roof	Vinyl double-hung and sliding sash	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of a turn-of-the-twentieth-century, front-gable form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2302 Yankee Street, Niles, Cass County	c.1940	Not known	Colonial Revival	Wood lap siding, brick chimney, asphalt shingle	Wood double-hung (12-over-12 and 8-over-12) and 4-light casement	N	Good	Good	C	Architecture	c.1945	Potentially eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events within any known context under Criterion A: History. Likewise, no evidence was found to suggest potential for significance under Criterion B: Significant Person. The house is a representative example of the American Colonial Revival style from the style's later period in the twentieth century, and displays the form and features that embody the Late American Colonial Revival style. The design displays a high level of skilled craftsmanship in patterns of punched wood siding, dentil molding, and a corbeled brick chimney, while displaying most of the character-defining features of the style: side-gable roof with wall dormers, horizontal wood siding, and a symmetrical facade. As such, the house appears to exhibit significance for its architectural style under Criterion C: Architecture, and possesses sufficient integrity to be recommended eligible for the National Register.	

Address (Street number, Street name, City, County)	Date of Construction/Alterations	Architect	Building style	Materials	Window types	Outbuilding	Current Conditions	Historic Integrity	NRHP Criteria	Area of Significance	Period of Significance	NRHP Eligibility Recommendation (eligible, not eligible)	Statement of Significance (provide justification for NRHP eligibility recommendation)	Photograph Thumbnail
2306 Yankee Street, Niles, Cass County	c.1920	Not known	Period Revival	Brick, composite siding, asphalt shingle roof	Vinyl double-hung, some with faux divided lights in upper sash, some with semi-lunar transoms	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is an altered example of Period Revival architecture, and with replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	
2310 Yankee Street, Niles, Cass County	c.1920	Not known	Bungalow	Brick, composite siding, metal roof	Wood fixed tripartite with divided light, vinyl double-hung with divided light	Y	Good	N/A	N/A	N/A	N/A	Not eligible	This property was evaluated for the National Register of Historic Places (National Register) under Criteria A, B, and C. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under Criterion A. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under Criterion B. The house is a common example of a Bungalow form and does not exhibit distinctive architectural characteristics that might qualify it as eligible under Criterion C. As a result, this property is recommended not eligible for listing in the National Register.	

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	991 Carberry Road				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-240-001-01				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.825721	Long: 86.214380			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1970
Architectural Style	Ranch
Building Form	Ell plan
Roof Form	Hip
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Brick
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and casement with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/One-car garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/>
Feeling <input type="checkbox"/>	Association <input type="checkbox"/>			
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 991 Carberry Road is a one-story, ell-plan Ranch house with white glazed brick exterior cladding and a low-pitch hip roof clad in asphalt shingles. Windows appear to be double-hung vinyl and casement with faux divided lights and false shutters. The front door, located at the corner of the ell, is framed by two sidelights. The ell serves as a two-car garage and an additional entrance along its south elevation. A detached one-car garage is located behind the house to the east and consists of a gambrel roof clad in asphalt shingles and an exterior of vinyl lap siding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aeriels suggests the house was constructed in c.1970.² Since construction, this house has served as a private residence and appears to have maintained its original form. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any associations with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. Cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under *Criterion B*. This house is an example of a common Ranch house that lacks distinctive architectural features and exhibits some replacement materials including vinyl windows and asphalt shingle roofing. Therefore, it is not eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	1008 Carberry Road				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-030-032-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.827277	Long: 86.215132			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1965
Architectural Style	Ranch
Building Form	Rectangular
Roof Form	Hip
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Poured concrete
Window Materials	Vinyl
Window Type	Double-hung and sliding sash
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 1008 Carberry Road is a one-story Ranch house with a rectangular plan and a hip roof clad in asphalt shingles. The exterior is clad in vinyl lap siding and windows appear to be replacements consisting of a combination of vinyl double-hung and vinyl sliding sash. The primary entrance is sheltered by a closed pediment overhang, supported by simple square posts. A one-story addition extends from the south elevation, and exhibits a relatively flat roof and a secondary entry at the east-facing facade. A small shed with a gable roof is located to the southwest of the house.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aerials suggest the house was constructed in c.1965.² Since construction, this house has served as a private residence and has undergone alterations, including replacement exterior siding and windows, and an addition along the primary elevation. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore the property is not eligible under *Criterion B*. The house is an altered example of the common Ranch form that lacks distinctive architectural characteristics. Therefore, it is not eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "ARB593512212325, Roll 000122, Frame 12325." U.S. Geological Survey, June 8, 1960. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "ARB593512212325, Roll 000122, Frame 12325" (U.S. Geological Survey, June 8, 1960), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2268 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-038-01				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826365	Long: 86.217721			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c. 1832
Architectural Style	Second Empire
Building Form	Three story
Roof Form	Gambrel, Mansard
Roof Materials	Asphalt shingle
Exterior Wall Materials	Brick
Foundation Materials	Masonry
Window Materials	Unknown
Window Type	Double-hung, some with divided lights, and fixed
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	2/Garage; 1/Barn

Eligibility

Individually Eligible	Criterion A <input checked="" type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input checked="" type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input type="checkbox"/>				
Area(s) of Significance	Exploration/Settlement			
Period(s) of Significance	c.1832-c.1896			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input checked="" type="checkbox"/>	Design <input checked="" type="checkbox"/>	Materials <input checked="" type="checkbox"/>	Workmanship <input checked="" type="checkbox"/>	Setting <input checked="" type="checkbox"/>
Feeling <input checked="" type="checkbox"/>	Association <input checked="" type="checkbox"/>			
General Integrity:	Intact <input checked="" type="checkbox"/>	Altered <input type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	Pattengell-Milburn House			
Current/Common Name	N/A			
Historic/Original Owner	Unknown			
Historic Building Use	Residential; Agricultural			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	6/26/2019, 11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #	
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

Please see attached Preliminary Eligibility Assessment.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Please see attached Preliminary Eligibility Assessment.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

Please see attached Preliminary Eligibility Assessment.

References

List references used to research and evaluate the individual property.

Please see attached Preliminary Eligibility Assessment.

Preliminary National Register of Historic Places Eligibility Assessment
Pattengell-Milburn House
2268 Yankee Street
Niles, Howard Township, Cass County, Michigan

Mead & Hunt, Inc.
December 2019

1. Architectural Description

The Pattengell-Milburn House is a three-story residence at 2268 Yankee Street in Niles, Cass County, Michigan. It has an asymmetrical plan comprised of an original c.1832 house and large historic-age additions. The house fronts Yankee Street and is surrounded by mature trees and overgrown shrubs. It is located on a large lot with a tree-lined perimeter. The parcel is surrounded to the west, south, and north (across Yankee Street) by farmland and to the east by residential use (see Figure 1). The property is accessible from the street by a winding, paved driveway to the east of the house.



Figure 1. Aerial view of the parcel at 2268 Yankee Street. Cass County GIS Parcel Report, June 7, 2019.

The house was constructed c.1832 with a large, c.1896, Second Empire-style addition on the side (west) elevation and a rear addition with an unknown construction date (see Figure 2).¹ The original c.1832 house has exterior brick walls of common bond of varied color. It has a gambrel roof with three prominent

¹ This addition is not clearly visible from the public right-of-way; therefore, an estimated construction date was not determined.

gable dormers. Fenestration consists of one-over-one windows with decorative wood sills and brick soldier course lintels (see Figure 3). The north-facing facade of the original c.1832 house features a central entrance situated between four one-over-one windows. The entry door features a boarded transom and a screen door. The side (east) elevation features a wood entry porch with a low-pitch, front-gable roof supported by decorative wood posts and spandrels (see Figure 4). A brick knee wall separates the brick walkway at the side entrance from the driveway.



Figure 2. North-facing facade, view facing south. The original c.1832 house is at left and the c.1896 Second Empire-style addition is at right.



Figure 3. Side (east) elevation and north-facing facade, view facing west/southwest.



Figure 4. Side (east) elevation and north-facing facade of the original c.1832 house, view facing southwest.

The c.1896, three-story addition has a mansard roof clad in asphalt shingles with molded cornices and wide overhanging eaves (see Figure 5). It sits on a masonry foundation with dark-red running bond exterior brick walls. Three chimneys are located on this addition: in the center of the roof, on the east side of the roof, and on the south elevation. Fenestration consists of one-over-one windows and a fixed picture window on the facade, a Queen Anne-style window on the east elevation, and a bay window on the west elevation with decorative corbels and dentils. The windows on the c.1896 addition feature stone sills and lintels. The third story also features gable wall dormers in the mansard roof. The facade features a covered portico with a slightly projecting sloped roof with decorative dentils beneath the eaves. It is supported by four Doric columns flanking the six-light double entry doors.



Figure 5. c.1896 addition, facing southeast, October 2018. Google Street View image.

A large two-story addition is located on the rear (south) elevation; the addition was not visible from public right-of-way during field survey. Based on photographs identified through research efforts, the addition has a side-gable roof and is clad in brick and replacement siding and appears to have been constructed c.1920 (see Figure 6 and Figure 7). An enclosed porch is present near where it meets the c.1896 addition.



Figure 6. South elevation from 2006 real estate advertisement.



Figure 7. South elevation, 1981. Photograph courtesy of Historical Reflection of Cass County.

The property includes at least five outbuildings, and the foundation of one demolished outbuilding is visible from aerial photographs. Outbuildings visible from the right-of-way include a rectangular outbuilding with a side-gable roof, one-over-one windows, and vinyl siding; an elongated rectangular outbuilding with a side-gable roof and fixed, three-over-five windows; a wood barn with a replacement gambrel roof (see Figure 8), and a brick silo.



Figure 8. Outbuildings located on the southwest corner of the lot, June 26, 2019.

2. History and Context

In order to assess the historical significance of the Pattengell-Milburn House, research was conducted at the Niles District Library, Cass District Library Howard Branch, Cass District Library Local History Branch in Cassopolis, and Niles Historical Society. Research was conducted using local history publications, Niles city directories, and the Michigan State Gazetteer Business Directories. A list of sources is provided in the bibliography at the end of this document. Tax assessment records were not available at the Niles City Hall to determine the exact dates of construction for additions to the property. Additional resources were used to research the property owners, including census records, pension requests, historic newspapers, and records on Ancestry.com, Newspapers.com, GenealogyBank.com, and Genealogy.com. The Niles District Library’s digital newspaper archives were also utilized. Research revealed little information on the property owners.

The Pattengell-Milburn House is in the northwest corner of Section 31 of Howard Township within Cass County, Michigan. The house was one of the early residences constructed during the settlement of Howard Township in the late 1820s and 1830s by migrants from the eastern United States. The exact date of construction could not be confirmed but was likely constructed c.1832. While a 1931 newspaper article inaccurately cites the house as “the first brick house erected in Michigan outside of Detroit,” the

Pattengell-Milburn House was nevertheless likely the first brick house constructed in Howard Township and greater southwest Michigan.²

A. History of Howard Township

Howard Township was named by a Niles resident and member of the Michigan Territorial Legislature with the surname of Green, who was pursuing a woman with the name Howard.³ Upon formally organizing on March 7, 1834, the township already had several residents, most of whom had arrived within the previous five years, and who were residing and farming on land granted via patents issued by the United States General Land Office (US General Land Office).⁴

The earliest group of settlers arrived in Howard Township in 1829 and consisted of five individuals who applied to the US General Land Office for land patents in the township. In the following three years there were 35 additional applications for land, with a total of 40 applications granted by 1832.⁵ The first frame barn in the township is said to have been constructed by William Young in 1833, and that same year the first school session was taught in a “discarded log house.”⁶ In 1834—three years before Michigan was admitted to the union—Howard Township organized and held elections for supervisors, treasurers, and town clerks.

By 1882 Howard Township was a community, but not of a size to be considered a “village,” nor did it have a post office. At that time the area had a population of 974 with 152 farms across 17,152 acres. Agricultural land use in 1879 consisted of 3,313 acres of wheat and 2,171 acres of corn, with 519 head of horses, 815 head of cattle, 1,037 hogs, 1,888 wool-producing sheep, and various small fruit production. Niles has since grown and expanded from its center, with the subject property situated approximately 1.75 miles east of the city center, near areas that are residential sprawl.

B. Yankee Street

Yankee Street was referenced by several names over the decades following the incorporation of Howard Township, including the Chicago-Detroit Road, the Barren Lake Road, and later, the M-60 Highway.⁷ The name “Yankee Street” first appears in an 1879 newspaper article, and was derived from the concentrated settlement of “yankee” migrants arriving in Howard Township from their home states on the East Coast.⁸

² “Niles Home Nearly Century Old,” *The South Bend Tribune*, November 5, 1931, sec. 2. Some sources attribute the Pattengell-Milburn House as the first brick residential building in Michigan to be constructed outside of Detroit; however, research has uncovered at least three brick houses in Michigan constructed earlier than the Pattengell-Milburn House: the Edward Loranger House (1825) in Frenchtown Charter Township, the Wing-Allore House (c. 1829) in Monroe, and the Ward-Holland House (1830) in Marine City.

³ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

⁴ Rogers, *History of Cass County, From 1825 to 1875*, 218.

⁵ Rogers, *History of Cass County, From 1825 to 1875*, 218–19.

⁶ Alfred Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers* (Chicago: Waterman, Watkins & Co., 1882), 342.

⁷ “Niles Home Nearly Century Old.”

⁸ Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*, 341.

This claim is substantiated by the 1860 census, which shows the heads of households of families surrounding the Pattengells having mainly been born in New York, Massachusetts, and Pennsylvania.⁹

While Yankee Street had been settled by 1832, the road was primitive and did not yet follow its current alignment westward into present-day Niles.¹⁰ At that time a large impassable swamp to the west hindered a direct route into Niles, and transport into town was limited to a road approximately two miles to the south.¹¹ In the 1840s, permanent buildings of higher quality materials replaced the majority of log structures in the area around Yankee Street, and around the same time, wagon roads were being routed through the township.¹²

C. Owner/occupancy history

The first owners of the subject property were John and Minvera Pattengell. John was originally from Erie County, New York, where he was born in 1793 to Oliver S. Pattengell and Mary Bennet. In 1810 John married Minerva Harding, a New York native born in 1798.¹³ In 1833 John petitioned the US General Land Office for two adjacent public land patents in Howard Township. One of the patent applications was for the southern half of the southwest quarter of Section 30, and another for the adjacent parcel at the western half of the northwest quarter of Section 31.¹⁴ The exact year the Pattengells moved to this property could not be confirmed, but likely coincides with the most-cited date of 1832.¹⁵

While the exact year could not be confirmed, it is likely the Pattengells constructed the original four-room portion of the brick house c.1832.¹⁶ According to John Abbott, a neighbor who was raised on the property to the north of the Pattengells in Section 30 during in the mid-nineteenth century, the materials used for making the bricks were hauled to the subject property, and the family was assisted by neighbors in

⁹ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1860), ancestry.com.

¹⁰ Rogers, *History of Cass County, From 1825 to 1875*, 219.

¹¹ “Niles Home Nearly Century Old.”

¹² Mathews, *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*, 342.

¹³ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

¹⁴ General Land Office: White Pigeon Prairie, “Land Grant To John Pattengell, File 747,” October 10, 1833, Federal Land Patents, State Volumes, Bureau of Land Management, General Land Office Records, https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__249&docClass=STA&sid=sInne0wp.iih; General Land Office: White Pigeon Prairie, “Land Grant To John Pattengell, File 748,” October 10, 1833, Federal Land Patents, State Volumes, Bureau of Land Management, General Land Office Records, https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__250&docClass=STA&sid=sInne0wp.iih.

¹⁵ The grant of a land patent by the US General Land Office did not necessarily provide immediate ownership of the property but was rather made after legal requirements of governing a land entry were met, including potential proof of residency or improvements on the land. According to this guidance, it is probable that the Pattengells constructed the house before being formally granted the land patent by the US General Land Office. Kenneth Hawkins, *Research in the Land Entry Files of the General Land Office* (National Archives and Records Administration, 2009).

¹⁶ “Niles Home Nearly Century Old.”

building the sidewalls with the finished bricks.¹⁷ In the subsequent years the Pattengells farmed the land surrounding the house, and John was considered to be the first farmer in the area to own a threshing machine, suggesting the land was used to grow grain.¹⁸ According to Abbott, John was one of the more prosperous farmers of the area during this early period of the township's history.¹⁹

By 1850 John and Minerva Pattengell continued to live at the subject property and farm the land, with their son William A., his spouse Nancy J., and grandson William W. living at the same property.²⁰ At the time William A. was 29 years old, and is described on the census as a farmer.²¹ By 1859 the Pattengells no longer owned the land in Section 30, but instead owned the entire northwest quarter of Section 31, consisting of 160 acres split between two parcels.²² According to an 1859 plat map, ownership of these two parcels was split between William A. Pattengell for the western half and John Pattengell for the eastern half.²³ The 1860 U.S. Census confirms this split, where John and Minerva are shown as living on one parcel and William A. and Nancy J. are on a nearby parcel.²⁴ According to these census records, John Pattengell continued to work as a farmer, with a property value of \$5,000 and a personal estate valued at \$500.²⁵

John Pattengell traded the house and land for a limestone mill in Niles c.1860, located on the riverbank of the St. Joseph River; however, it is not clear if this meant the entire 160 acres across both parcels, or just the portion that was attributed to John's ownership.²⁶ However, the mill failed after less than one year, and John and Minerva moved to Buchanan, Michigan.²⁷ John passed away in Niles in 1864 and Minerva continued to live in Buchanan at the home of her son and daughter-in-law.²⁸ Minerva's date of death could not be determined.

¹⁷ "Niles Home Nearly Century Old."

¹⁸ "Niles Home Nearly Century Old."

¹⁹ "Niles Home Nearly Century Old."

²⁰ U.S. Census Office, *1850 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1850), ancestry.com.

²¹ U.S. Census Office, *1850 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²² Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan" (Philadelphia: Geil, Harley & Siverd, 1859), Library of Congress.

²³ The eastern of the two parcels contained the subject house. Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan."

²⁴ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²⁵ U.S. Census Office, *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*.

²⁶ "Niles Home Nearly Century Old."

²⁷ "Niles Home Nearly Century Old."

²⁸ Janet Personette, "John Pattengell (1793-1864)," *Find-A-Grave*, July 4, 2013, <https://www.findagrave.com/memorial/113330613>.

The next recorded property owners were the Hinchmans, who purchased the property from the Pattengells after their departure c.1860.²⁹ Very little substantive information was uncovered on the lives of the Hinchmans, but it appears Franch Hinchman was a Justice of the Peace and was married to Mary Hinchman. Mary is shown as the owner of the property on an 1872 plat map of the township, but it is not clear if Franch had died before this time, and neither Franch nor Mary are listed in the 1870 census for the area.³⁰ By 1872 the parcel had been split, with the subject property downsized to 65 acres, with the eastern 22 acres of the original property shown as a separate parcel.³¹

The Hinchmans then sold the property to the Milburn family, headed by John Dickinson Milburn, Sr. and Katherine (Kate or Katy) M. Milburn.³² The exact date of ownership transfer could not be determined due to major differences in dates across various sources; however, it appears the Milburns may have taken ownership of the property in 1892.³³ Milburn, Sr. was born in Canada in 1842 and married Katherine May Bronson in 1869 in Berrien County, Michigan. The Milburns moved to Tennessee by 1880 and then returned to Michigan, where they settled in Howard Township in 1892. Newspaper articles from the period suggest that the Milburn family had been travelling to Niles, Michigan, as early as 1889, while still living in Tennessee.³⁴

In the 1890s, the Milburns lived in the house at the subject property with children Martha Louise, Kathyrine R., John D., Jr., and Edith B. The Milburns constructed the house's Second Empire-style addition, which consisted of 10 rooms and was likely completed in 1896.³⁵ At the same time, the Milburns may have altered the roof of the second story of the original portion of the house.³⁶ The Milburns lived at the subject property through at least 1910, though local historian John Ducey claims they lived in the house only during the summers.³⁷ John, Sr. died on August 7, 1915.³⁸

The next available plat map from 1897 shows Sheldon Bronson as the owner of the subject property, though all other sources suggest the Milburns continued to reside at the property through at least 1912. Born in 1815, Bronson was born in New York state and moved to the Niles area in 1869.³⁹ Bronson's obituary as published in the *Detroit Free Press* cited him as a "pioneer hotel man," but an associated

²⁹ "Niles Home Nearly Century Old."

³⁰ "Howard" (N.p.: C.O. Titus, 1872), Historic Map Works Rare Historic Maps Collection; U.S. Census Office, *1870 United States Federal Census, Population Schedule, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1870), ancestry.com.

³¹ "Howard."

³² "Niles Garden Club Tour October 6," *The News-Palladium*, October 1, 1966.

³³ "John D. Milburn Dies," *The South Bend Tribune*, August 9, 1915.

³⁴ "Social and Personal," *The Public Ledger*, July 24, 1889.

³⁵ "Niles Home Nearly Century Old."

³⁶ "Niles Home Nearly Century Old."

³⁷ U.S. Census Office, *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County* (Washington D.C.: National Archives and Records Administration, 1900), ancestry.com; U.S. Census Office, *1910 United States Federal Census, Population Schedule, District 0103, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1910), ancestry.com.

³⁸ "Death Certificate #672: John Dickinson Milburn," August 7, 1915, Death Records, Ancestry.com.

³⁹ "Obituary," *Detroit Free Press*, October 29, 1901.

hotel was not found, and the 1880 census lists hotel employees living with him in the La Grange Township.⁴⁰ By 1900 it appears Bronson was widowed and living with his sister-in-law within the Niles city limits.⁴¹ Bronson died in 1901.⁴² No additional information was found on the life of Bronson, and it is unclear if he was related to Katherine Milburn—whose maiden name was Bronson—or if he ever lived at the subject house.

The next owners were William White and Harriet (Hattie) E. White, who purchased the property in 1912 after moving with their family from Proviso in Cook County, Illinois.⁴³ William was born in Michigan in 1863 and worked as a manufacturer, marrying Harriet E. Trask in 1889. Harriett was born in Michigan in 1868. William and Harriet had three children: Stuart, Virginia, and Genieve. The Whites named the property “Harvirgen Farm,” which was derived from the names Harriet, Virginia, and Genieve, and several newspaper articles through the 1920s refer to the subject property as such.⁴⁴ In 1917 a *South Bend Tribune* newspaper article describes the property’s horse stable having been moved to the rear of the cow stable, and further from the house.⁴⁵ By 1920 Virginia was living at the subject property with her parents, as well as Genieve and her husband John Riley, and their two children John William Riley and Mary Joan Riley.⁴⁶ That same year William died, and shortly thereafter John and Genieve moved to South Bend.⁴⁷ Harriet continued to live at the subject property through at least the early 1940s with her brother Morris P. Trask (see Figure 9).⁴⁸ Harriet died in 1960 while living in Niles.⁴⁹

⁴⁰ “Obituary.”

⁴¹ U.S. Census Office, *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County* (Washington D.C.: National Archives and Records Administration, 1900), ancestry.com.

⁴² “Obituary.”

⁴³ “Niles Home Nearly Century Old”; U.S. Census Office, *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County* (Washington D.C.: National Archives and Records Administration, 1910), ancestry.com.

⁴⁴ “Niles Garden Club Tour October 6.”

⁴⁵ “Why Not Move the Cow Stable Behind the Horse Stable?,” *The South Bend Tribune*, January 26, 1917.

⁴⁶ U.S. Census Office, *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1920), ancestry.com.

⁴⁷ “Goes to Boston,” *The News-Palladium*, May 23, 1925.

⁴⁸ U.S. Census Office, *1940 United States Federal Census, Population Schedule, District 14-5A, Howard Township, Cass County* (Washington D.C.: National Archives and Records Administration, 1940), ancestry.com; Lorraine Cronin, “Niles Society,” *The South Bend Tribune*, October 19, 1941, sec. 4.

⁴⁹ “Michigan. Mrs. Harriet E. White,” *The South Bend Tribune*, November 27, 1960.

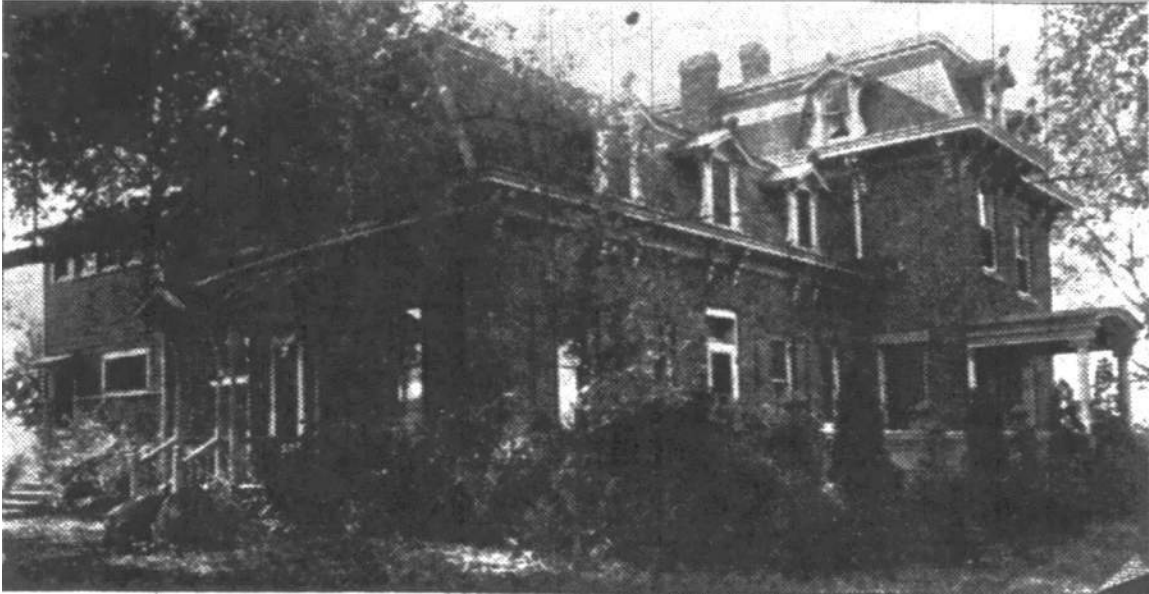


Figure 9. 1931 photograph of the subject property during ownership by Harriet (Hattie) E. White, from a newspaper article in the South Bend Tribune. Note the differences in fenestration at the east elevation of the rear addition from current appearance.

It is unclear when ownership of the subject property transferred from Harriet E. White to George A. and Mercedes C. Sutherland, but the Sutherlands are listed as the owners of the subject property in the Niles city directory beginning in 1952.⁵⁰ The subject property was locally known as Sutherland Farms, which produced grain as well as prize-winning cattle.⁵¹ George died in 1959 in an automobile accident, and Mercedes died in 2005.⁵² Historic plat maps are provided in Appendix A.

D. Second Empire style

The Second Empire style gained popularity in American residential architecture beginning in the 1850s and continued to be used in residential architecture in some regions of the country through the end of the century.⁵³ Imitating architecture of France following the French Revolution, the Second Empire style is defined by the distinctive mansard roof, which provided an additional upper floor or attic space within the roofline. The mansard roof was named for Francois Mansart, a French architect who practiced in the seventeenth century. It was popularized in England in the mid-nineteenth century and was quickly adopted for American residential architecture for the remainder of the century.⁵⁴ American pattern books provided homeowners with ready-made designs for houses in the Second Empire style, which had a

⁵⁰ Luedders' Directory Service, *Luedders' Historical and Pictorial City Directory of Niles, Michigan* (Coldwater, Mich.: Niles Office Supply Co., 1952), 56.

⁵¹ "Niles Garden Club Tour October 6"; "Niles Brown Swiss Wins State Honor," *The News-Palladium*, September 19, 1958, sec. 2.

⁵² "George Sutherland Dies After Virginia Auto Crash," *The South Bend Tribune*, December 4, 1959, sec. 2; "Mercedes C. Sutherland," *The South Bend Tribune*, July 14, 2005, sec. E.

⁵³ Virginia McAlester and Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf, 2006), 318.

⁵⁴ McAlester and McAlester, *A Field Guide to American Houses*, 318.

modern, fashionable character that struck contrast with the more Picturesque architectural styles of Italianate and Gothic Revival that nodded to a romantic view of the past.⁵⁵

E. Comparative properties

A review of comparative properties within Cass and Berrien Counties around Niles resulted in very few extant brick houses from the first half of the nineteenth century. In the city of Niles a brick house likely constructed in the mid-nineteenth century continues to stand at 714 North 5th Street, and to the southwest of Niles is a three-story, c.1840 brick house located at 2250 West Chicago Road.⁵⁶ While these two houses are likely not the only extant brick houses from this period in the area around the subject property, the dearth of extant brick houses from this period that were uncovered during this review suggests the subject property is one of very few extant brick houses in the Niles area completed prior to Michigan acquiring statehood in 1837.

3. Statement of Significance

A. Significance

The Pattengell-Milburn House was evaluated for National Register of Historic Places (National Register) eligibility under *Criteria A, B, and C*. Evaluation under each of the National Register Criteria and discussion of period and level of significance and historic integrity is provided below.

(1) Criterion A

Under *Criterion A*, “Properties can be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history.”

The earliest settlement on the public lands within Howard Township occurred in 1829 and continued over the next several years. The development of this area relied on settlement from individuals who applied for land patents from the US General Land Office. During this time most of the settled land was cultivated for agriculture, and these individuals and their families often improved their respective properties with a residential building and several auxiliary buildings to serve these functions. As settlers gained confidence in successfully cultivating the land, they constructed more permanent structures, one of the earliest being the c.1832 Pattengell-Milburn House. Several sources suggest the subject house was one of the first, or perhaps the first, brick house constructed in Cass County and certainly in Howard Township. The Pattengell-Milburn House is directly associated with this period of early permanent settlement and improvement of land in the area. For this reason, the Pattengell-Milburn House possesses significance for the National Register under *Criterion A* in the area of Exploration/Settlement.

⁵⁵ McAlester and McAlester, *A Field Guide to American Houses*, 318.

⁵⁶ In May 2019 the *South Bend Tribune* reported that the City of Niles was in the process of purchasing the property at 714 5th Street for the purpose of demolishing the house and constructing new housing on the parcel and on adjacent parcels. Mary Beth Spaulding, “City of Niles to Buy Lots for New 5th Street Housing Plan,” *South Bend Tribune*, May 15, 2019, https://www.southbendtribune.com/news/local/city-of-niles-to-buy-lots-for-new-th-street/article_03bc7e45-ccee-5603-a754-04f4ec7a05ad.html.

(2) Criterion B

Under *Criterion B*, “Properties may be eligible for the National Register if they are associated with the lives of persons significant in our past.”

The Pattengell-Milburn House is associated with several families who owned the property, lived in the house, and cultivated the surrounding land since its construction c.1832. The first owners of the property, John and Minerva Pattengell, constructed the original portion of the house as their own residence. While neighbor John Abbott recollected in 1931 about the relative success of the Pattengell’s agricultural activities compared with other farmers in the area, no particular events or contributions related to either John or Minerva appear to have had a substantial influence on the history and development of the area.

While subsequent owners, including the Milburns, seem to have been well known in Cass and Berrien Counties, no particular individual or family associated with the subject property appears to have made significant, identifiable contributions to local, state, or national history. For these reasons the Pattengell-Milburn House does not appear to be associated with the lives of persons significant in our past, and therefore does not possess significance under *Criterion B*.

(3) Criterion C

Under *Criterion C*, “Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”

Several sources suggest the Pattengell-Milburn House was one of the earliest brick houses constructed in Cass County, and certainly in Howard Township. Originally constructed c.1832 as a likely four-room, one-story building with a gambrel roof, the house experienced several alterations over time, including a three-story Second Empire addition to the building’s west elevation c.1896, a c.1920 addition to the south elevation, and subsequent alterations to the fenestration at the south elevation addition. As one of the earliest brick houses in the region, the Pattengell-Milburn House represents two periods and areas of significance related to its architecture. First, the subject house represents an early period of brick residential construction in the state, and second, it is an example of the Second Empire style, conveyed through distinctive characteristics of the period and style. Together the differences in design and form over these two periods represent this shift in architectural trends in America, and specifically in this southwest region of Michigan.

Brick residential construction had been implemented throughout the eastern United States since the seventeenth century; however, its use in Michigan was a turning point in residential architecture. The use of brick and other masonry construction in residential architecture represented the transition from rudimentary building materials and techniques to more permanent materials. The increased permanency of the architecture during this period physically embodies the intent of settling individuals and families to remain for the long-term. Early settlement in this area of Michigan gained permanency through the utilization of masonry and other building materials that were strong enough to withstand weathering. Additionally, a review of comparative properties in the immediate area and adjacent counties did not uncover any examples of brick residential architecture prior to the mid-1850s, suggesting the Pattengell-

Milburn House represents a rare example of a brick house constructed prior to Michigan's 1837 statehood.

The c.1896 Second Empire addition to the Pattengell-Milburn House is an excellent example of the Second Empire style and represents American residential architecture trends of the Victorian era. The addition has a three-story form, separate front entry, and front elevation that is set proud of the original c.1832 portion, giving the appearance of an entirely separate house from the original portion, with which it connects to the east. With its mansard roof, dentiled eaves, and canted bay at the west elevation, the c.1896 addition embodies distinctive characteristics of the Second Empire style.

For these reasons, the Pattengell-Milburn House possess National Register significance under *Criterion C* as an early and rare example of brick residential architecture in the southwestern region of Michigan and as a representative example of the Second Empire style.

(4) Period of significance

The period of significance under National Register *Criterion A* is c.1832, coinciding with the date of initial construction. The periods of significance under *Criterion C* are c.1832, coinciding with the date of initial construction, which represents early and rare brick residential architecture in southwest Michigan; and c.1896, coinciding with the construction of the Second Empire-style addition.

B. Integrity

To be eligible for listing in the National Register, a property must exhibit sufficient historic integrity to convey its significance. The Pattengell-Milburn House was evaluated under the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. The evaluation of integrity considered the two periods of significance: c.1832 and c.1896.

- **Location** – The Pattengell-Milburn House remains in its original location and therefore retains integrity of location.
- **Design** – The Pattengell-Milburn House evokes designs characteristics from various periods. In terms of retaining elements of its design from its c.1832 period of significance, the house continues to display many original design elements of the house, including the distinct, original plan that remains visually distinct from the additions in its overall form and massing. No physical indications of roof form alteration were noted, suggesting that the gambrel roof form was original to the c.1832 construction, with the exception being the potential addition of dormers c.1896. As such, the house retains sufficient design characteristics from c.1832 to convey local significance for early settlement in Howard Township and Cass County under *Criterion A*, and for early residential brick architecture in the southwestern region of Michigan under *Criterion C*.

The Second Empire-style addition to the subject house dates to c.1896 and not only conveys the changing trends in architectural styles over the nineteenth century, but also continues to display those distinctive characteristics of the Second Empire style for which the house is significant, including the mansard roof, dentiled eaves, and canted bay at the west elevation. While some features of the Second Empire style have been removed over time, including the entry porch on

the north elevation, the subject house retains sufficient design characteristics to represent the distinctive characteristics of the Second Empire style under *Criterion C*.

- **Setting** – The Pattengell-Milburn House retains its general setting from the periods of significance—c.1832 and c.1896—as the property continues to retain its rural appearance, despite construction of residential buildings on adjacent parcels. The property located directly to the north, across Yankee Street, retains its wooded, undeveloped natural state when viewed from the subject property. As such, the Pattengell-Milburn House retains integrity of setting.
- **Materials** – Some materials of the Pattengell-Milburn House have changed over time, but the principal materials that convey the property’s significance under *Criterion A* and *Criterion C* remain intact, including the brick exterior and wood molding at the eaves. While some materials have been replaced over time, including windows and roofing material, the Pattengell-Milburn House retains those materials that convey significance under both criteria.
- **Workmanship** – The Pattengell-Milburn House continues to display the original exterior brick used for the original c.1832 construction of the house, as well as the brick lintels that represent craftsmanship from this period. As such, the subject house retains integrity of workmanship to its c.1832 period of significance under both *Criterion A* and *Criterion C*.

The Second Empire-style addition does not appear to have undergone substantial alterations to any features that represent craftsmanship of the period, including the original brick exterior and the dentiled molding at the eaves of both the main mansard roof form and the canted bay at the west elevation. As such, the subject house retains integrity of workmanship to its c.1896 period of significance under *Criterion C*.

- **Feeling** – Due to the size and massing of the c.1896 addition, it does not appear the Pattengell-Milburn House retains a feeling of a c.1832 house representative of early settlement in Howard Township and Cass County nor representative of early brick residential architecture of the region. As such, the subject house does not retain integrity of feeling to its c.1832 period of significance under *Criterion A* or *Criterion C*.

The Second Empire-style addition represents changes to architectural styles and materials over time and conveys the intent of the late-nineteenth century property owners to upgrade the subject house to one of the most fashionable styles of the time. As such, the Pattengell-Milburn House retains a feeling of a c.1832 house that was modernized in c.1896 with a Second Empire-style addition and continues to convey this aspect of integrity under *Criterion C* for the period of significance of c.1896.

- **Association** – The Pattengell-Milburn House retains association with the early settlement period of Howard Township and Cass County that occurred in the second quarter of the nineteenth century, prior to Michigan statehood. The property retains its large acreage, agricultural use, and original c.1832 brick house, despite the two major additions to this original portion of the house

that occurred c.1896 and c.1920. As such, the Pattengell-Milburn House retains association to the period of significance of c.1832.

The Pattengell-Milburn House retains integrity of association for changes in architectural trends, with the introduction of the Second Empire style addition to the original c.1832 house. In this respect, the subject house retains those physical characteristics from both periods that convey this area of significance, including the original gambrel roof form of the original c.1832 portion of the house, as well as the mansard roof, brick exterior, dentiled molding, and canted bay at the west elevation from the c.1896 addition. As such, the Pattengell-Milburn House retains association to the period of significance of c.1896.

With regard to significance under *Criterion A* with the period of significance of c.1832, the Pattengell-Milburn house retains six of seven aspects of integrity and continues to convey significance of an early permanent settlement in the Howard Township. With regard to eligibility under *Criterion C* for both periods of significance, the Pattengell-Milburn house retains all seven aspects of integrity and continues to convey significance as an example of early brick architecture in southwest Michigan (c.1832) and as an example of the Second Empire style (c.1896). As such, the Pattengell-Milburn House retains sufficient integrity under *Criterion A* and *Criterion C* for all periods of significance.

C. Eligibility

The Pattengell-Milburn House possesses significance under National Register *Criterion A: Exploration/Settlement* and *Criterion C: Architecture* and retains sufficient integrity to convey significance under both criteria during both periods of significance. Therefore, the Pattengell-Milburn House is recommended eligible for listing in the National Register.

Bibliography

Cronin, Lorraine. "Niles Society." *The South Bend Tribune*. October 19, 1941, sec. 4.

"Death Certificate #672: John Dickinson Milburn," August 7, 1915. Death Records. Ancestry.com.

Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith. "Map of the Counties of Cass, Van Buren, and Berrien Michigan." Philadelphia: Geil, Harley & Siverd, 1859. Library of Congress.

General Land Office: White Pigeon Prairie. "Land Grant To John Pattengell, File 747," October 10, 1833. Federal Land Patents, State Volumes. Bureau of Land Management, General Land Office Records.

https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__.249&docClass=STA&sid=sInne0wp.iih.

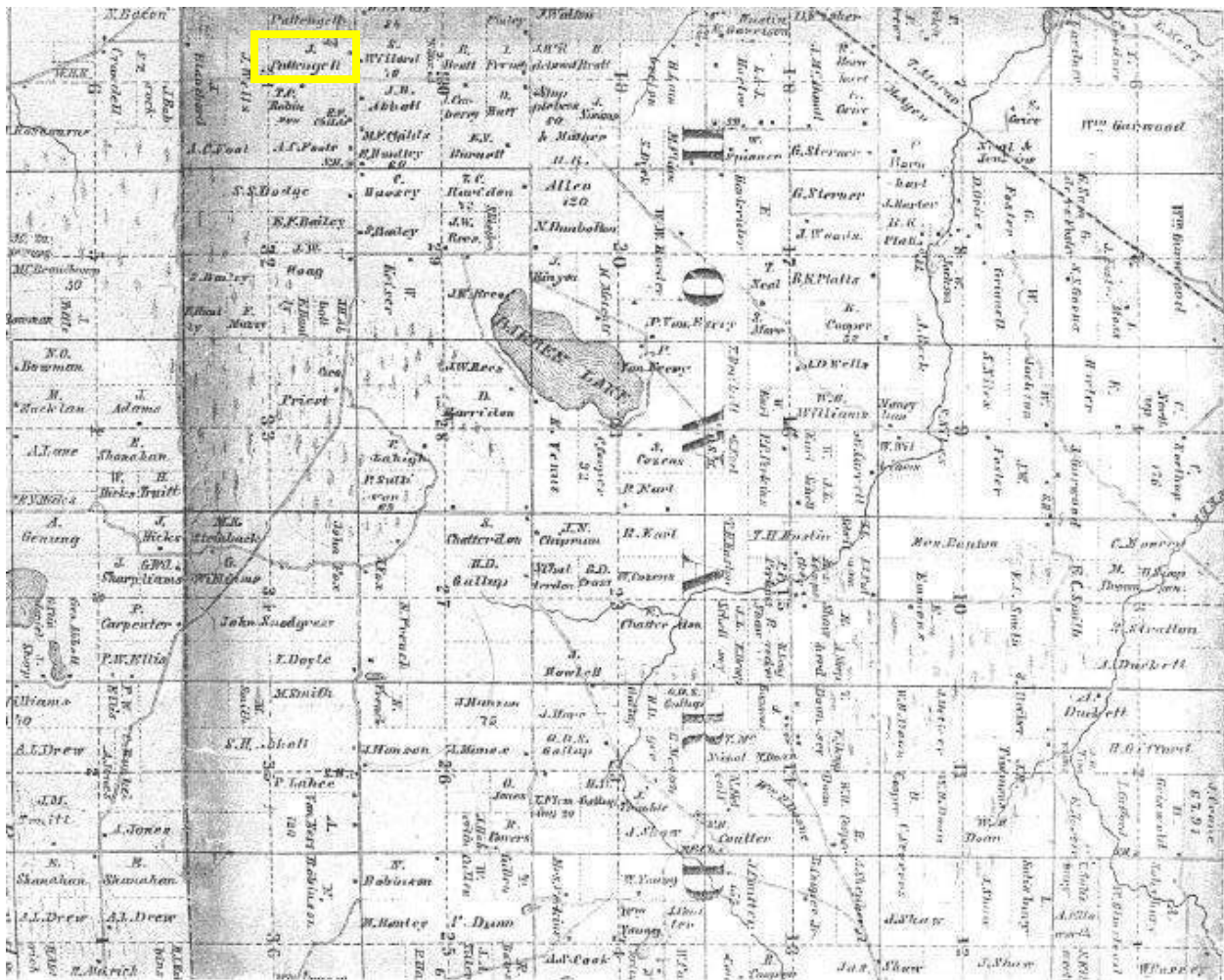
———. "Land Grant To John Pattengell, File 748," October 10, 1833. Federal Land Patents, State Volumes. Bureau of Land Management, General Land Office Records.

https://glorerecords.blm.gov/details/patent/default.aspx?accession=MI0530__.250&docClass=STA&sid=sInne0wp.iih.

- "George Sutherland Dies After Virginia Auto Crash." *The South Bend Tribune*. December 4, 1959, sec. 2.
- "Goes to Boston." *The News-Palladium*. May 23, 1925.
- Harmon, Chas. O. "Map of Cass County, Michigan." Battle Creek, Michigan: Home Publishing Co., 1897. Library of Congress.
- Hawkins, Kenneth. *Research in the Land Entry Files of the General Land Office*. National Archives and Records Administration, 2009.
- "Howard." N.p.: C.O. Titus, 1872. Historic Map Works Rare Historic Maps Collection.
- "John D. Milburn Dies." *The South Bend Tribune*. August 9, 1915.
- Luedders' Directory Service. *Luedders' Historical and Pictorial City Directory of Niles, Michigan*. Coldwater, Mich.: Niles Office Supply Co., 1952.
- "Map of Howard Township." George A. Ogle & Co., 1914. Historic Map Works Rare Historic Maps Collection.
- Mathews, Alfred. *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*. Chicago: Waterman, Watkins & Co., 1882.
- McAlester, Virginia, and Lee McAlester. *A Field Guide to American Houses*. New York: Alfred A. Knopf, 2006.
- "Mercedes C. Sutherland." *The South Bend Tribune*. July 14, 2005, sec. E.
- "Michigan. Mrs. Harriet E. White." *The South Bend Tribune*. November 27, 1960.
- "Niles Brown Swiss Wins State Honor." *The News-Palladium*. September 19, 1958, sec. 2.
- "Niles Garden Club Tour October 6." *The News-Palladium*. October 1, 1966.
- "Niles Home Nearly Century Old." *The South Bend Tribune*. November 5, 1931, sec. 2.
- "Obituary." *Detroit Free Press*. October 29, 1901.
- Personette, Janet. "John Pattengell (1793-1864)." *Find-A-Grave*, July 4, 2013. <https://www.findagrave.com/memorial/113330613>.
- Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.
- "Social and Personal." *The Public Ledger*. July 24, 1889.
- Spaulding, Mary Beth. "City of Niles to Buy Lots for New 5th Street Housing Plan." *South Bend Tribune*. May 15, 2019. https://www.southbendtribune.com/news/local/city-of-niles-to-buy-lots-for-new-5th-street/article_03bc7e45-ccee-5603-a754-04f4ec7a05ad.html.
- U.S. Census Office. *1850 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1850. [ancestry.com](https://www.ancestry.com).

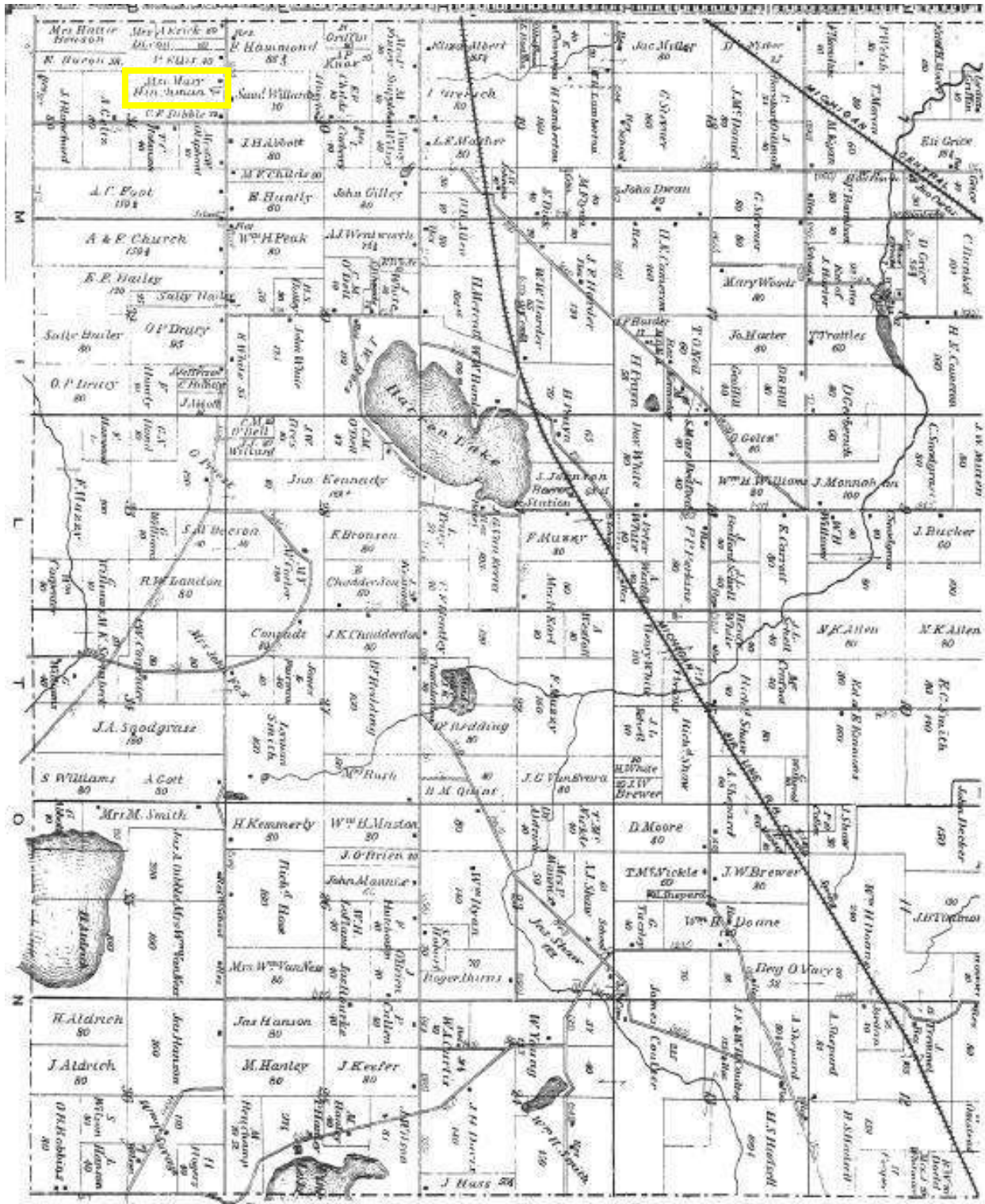
- . *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1860. [ancestry.com](#).
- . *1870 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1870. [ancestry.com](#).
- . *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](#).
- . *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](#).
- . *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](#).
- . *1910 United States Federal Census, Population Schedule, District 0103, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](#).
- . *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1920. [ancestry.com](#).
- . *1940 United States Federal Census, Population Schedule, District 14-5A, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1940. [ancestry.com](#).
- “Why Not Move the Cow Stable Behind the Horse Stable?” *The South Bend Tribune*. January 26, 1917.

Appendix A. Historic Plat Maps



1860 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁷

⁵⁷ Geil And Jones, Worley & Bracher, Harley & Siverd Geil, and Robert Pearsall Smith, "Map of the Counties of Cass, Van Buren, and Berrien Michigan."



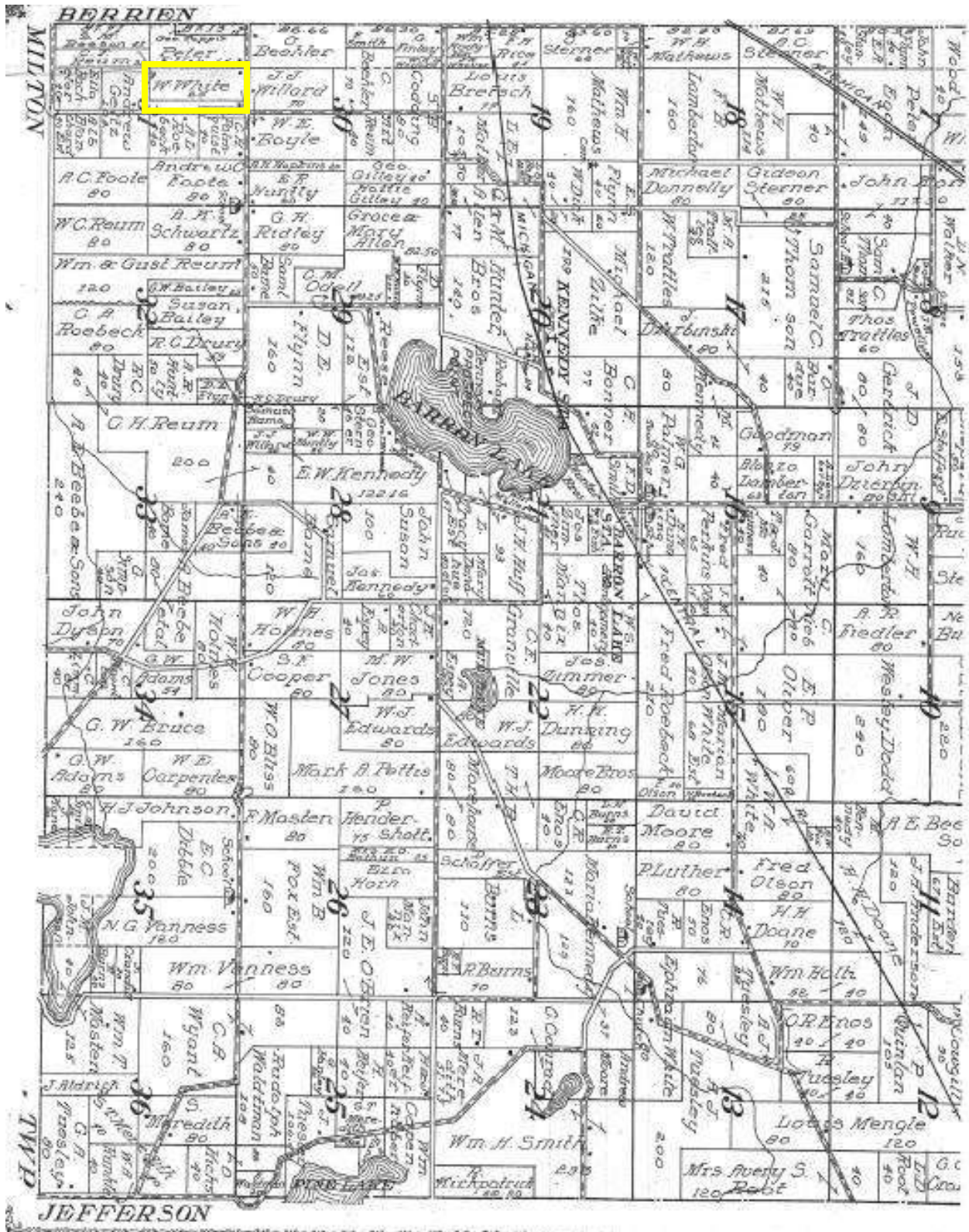
1872 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁸

⁵⁸ "Howard."



1897 plat map of Howard Township with the subject parcel bordered in yellow.⁵⁹

⁵⁹ Chas. O. Harmon, "Map of Cass County, Michigan" (Battle Creek, Michigan: Home Publishing Co., 1897), Library of Congress.



1914 plat map of Howard Township with the subject parcel bordered in yellow.⁶⁰

⁶⁰ "Map of Howard Township" (George A. Ogle & Co., 1914), Historic Map Works Rare Historic Maps Collection.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2274 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-037-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826174	Long: 86.217003			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1925
Architectural Style	Colonial Revival
Building Form	Irregular
Roof Form	Side gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and fixed vinyl windows, some with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage; 1/Barn or Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	Sutherland House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2274 Yankee Street is a one-and-one-half-story, irregular-plan, Colonial Revival house with additions at the west and south elevations. The house has a moderate-pitch, side-gable roof clad in asphalt shingles and exhibits gable dormers. The exterior is clad in vinyl lap siding and windows are vinyl replacements consisting of a combination of double-hung and fixed windows, many of which exhibit faux divided lights and false shutters. The front entry is centered on the original portion of the house and is framed by pilasters and flanked by two large, fixed, divided light windows (24 panes each) with green exterior false shutters. The addition that projects from the west elevation consists of a one-story, front-gable garage facing west, which is connected to the original building form via a shed-roof hyphen. A shed porch also extends from the east elevation. A one-story addition on the west side of the house is clad in white lap shingle and has a flat roof. A detached two-car garage is located to the east of the house and exhibits a front-gable roof and similar exterior vinyl lap siding. There appears to be a large gable barn or shed building located to the south of the detached garage. The house and its outbuildings are sited behind a series of picket fencing and metal chain-link fencing, with the gated driveway flanked by what appear to be contemporary brick posts topped by concrete and light fixtures.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s. Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. The house appears to have been constructed c.1925, and since construction it has served as a private residence. County tax assessor records available online did not document parcel improvement dates. Although the house address is 2274 Yankee Street, county assessor GIS records online list the parcel address as 2268 Yankee Street, associated with the adjacent c.1832 house to the west. A preliminary search of historic records available online did not identify occupants prior to 1952, with the earliest known resident being James Daniels.¹ The Sutherland Family is not recorded as residing at the property until at least 1993.²

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of the Colonial Revival architectural style, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

1993 *White Pages Niles, Michigan*. Little Rock, Arkansas: Acxiom Corporation, 1993.

Luedders' Directory Service. *Luedders' Historical and Pictorial City Directory of Niles, Michigan*. Coldwater, Mich.: Niles Office Supply Co., 1952.

¹ Luedders' Directory Service, *Luedders' Historical and Pictorial City Directory of Niles, Michigan* (Coldwater, Mich.: Niles Office Supply Co., 1952).

² 1993 *White Pages Niles, Michigan* (Little Rock, Arkansas: Acxiom Corporation, 1993).

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2279 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-030-037-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.827034	Long: 86.216513			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1945
Architectural Style	Vernacular
Building Form	Irregular
Roof Form	Gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl siding, vinyl shingle
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	2/Garage; 1/Barn

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input checked="" type="checkbox"/>
General Integrity:		Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	9/2019; 11/04/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #	
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2279 Yankee Street is a one-and-one-half-story Vernacular house with a moderate-pitch gable roof clad in asphalt shingles, with little to no eaves. The exterior is clad in vinyl siding with vinyl shingles that clad the gable ends. The original rectangular L-shape form of the house has been altered by two additions: one gabled addition projecting from the front (south) elevation, and a nearly flat-roofed addition projecting from the rear (north) elevation. Windows appear to be replacement and consist of vinyl double-hung with faux divided lights. There are two brick chimneys: one exterior chimney along the south elevation and one interior chimney at the center gable. An exterior wood deck is located along the east elevation. Adjacent outbuildings include a side-gable barn, a rear shed addition, a gable one-car garage, and a gable two-car garage. Each outbuilding exterior is clad in vinyl siding and vinyl shingles in the same style as the residence.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Since construction c.1945, the property has served as a personal residence and farm. Cass County tax assessor records available online did not document parcel improvement dates, however, historic aerials show changes to the number of outbuildings and the circular driveway in the 1960s and 1970s.²

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under *Criterion B*. Constructed c.1945, the house is an altered example of a common Vernacular form and is lacking distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. Additionally, the number of outbuildings has changed and those extant have experienced material alterations or are not of historic age. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

R. S. Thomas & Associates, Inc, and Harold Blake Co. "Appraisal of Real Estate: Jerry Tyler Memorial Airport Compliance Project, Runway 33 Obstruction Removal Project, Project: 0200.0037/APPR/Parcel #E18 (K)," September 17, 2019.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2288 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-036-00				
Latitude/Longitude (to the 6 th decimal point)	Lat:41.826328	Long: 86.216194			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1900
Architectural Style	Front gable
Building Form	Irregular
Roof Form	Gable
Roof Materials	Asphalt Shingle
Exterior Wall Materials	Vinyl siding and shingles
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights
Outbuildings	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Number/Type:	

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2288 Yankee Street is a one-and-one-half-story house with a moderate-pitch front-gable roof clad in asphalt shingles. The exterior appears to be clad in replacement materials that include a combination of vinyl siding and vinyl shingles. Windows appear to be replacement and mainly consist of vinyl double-hung windows with faux divided lights. A gabled one-story addition projects from the north-facing facade and contains the building's primary entrance, which is marked by a gabled stoop overhang. A one-story, side-gable addition projects from the west elevation of the original two-story building form and connects with the attached front-gable garage. A porch is located along the north elevation of this addition, with the roof supported by simple square posts.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1900, the house continues to serve as a private residence. Historic aerials appear to show that the house and garage began as separate structures, joined together by the side addition sometime after 1975.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history, and therefore, the property is not eligible under *Criterion B*. The house is an altered example of a simple front-gable form and has experienced additions to its simple form, as well as replacement materials such as siding and windows. Additionally, the house does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2290 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-035-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826298	Long: 86.215916			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Bungalow
Building Form	Rectangular
Roof Form	Side gable with gable wall dormer
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl siding
Foundation Materials	Concrete block
Window Materials	Vinyl
Window Type	Double-hung with faux divided lights in upper sashes
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage or Barn

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance	N/A			
Period(s) of Significance	N/A			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/>
Feeling <input type="checkbox"/>	Association <input type="checkbox"/>			
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2290 Yankee Street is a two-and-one-half-story house with a flared side-gable main roof form and a dominating front-gable wall dormer, all clad in asphalt shingle roofing. The exterior is clad in replacement vinyl lap siding, with a partial water-table clad in what appears to be a composite material with a rusticated appearance. Windows appear to be replacement, consisting of pairs and triplets of vinyl double-hung windows with faux divided lights in the upper sash. The original cutaway porch has been infilled but continues to exhibit portions of the original brick clad square piers. A shed-roof bumpout addition is located along the west elevation. A one-story hip roof addition projects from the rear, south elevation of the house. A large gabled outbuilding is located to the south of the house, and a second smaller outbuilding is located at the south end of the parcel. One concrete driveway provides access to the house and large outbuilding; a second provides direct access to the smaller outbuilding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. The house was constructed c.1920 and continues to serve as a private residence. Historic aerials show the outbuilding was constructed by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of a Bungalow form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2298 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-031-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826280	Long: 86.215053			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1900
Architectural Style	Front gable
Building Form	Rectangular
Roof Form	Front gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung and sliding sash
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage; 2/Shed

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Form date: 6/25/2019

Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2298 Yankee Street is a two-story house with a front gable clad in asphalt shingles. The exterior appears to be clad in replacement materials consisting of vinyl lap siding. Semi-lunar vents are located just below the gable apex. The house has an exterior concrete masonry unit chimney along the north-facing facade and a brick chimney along the east elevation. A canted bay along the east elevation is topped by what appears to be rolled asphalt roofing with standing seams. Concrete steps lead to an off-center entrance with double doors; a circular louvered vent accents the gable peak. Windows appear to be replacements and consist of vinyl double-hung and vinyl sliding sash. A gabled one-story addition with an enclosed shed porch projects from the rear, south elevation of the house. The enclosed porch has vinyl sliding sash windows and a vinyl sliding sash glazed door. A contemporary wood trellis is located immediately adjacent to the south elevation of this rear addition. Also located behind the house are a two-car garage clad in siding with a gable shingle roof, a gambrel roof shed, and a third outbuilding.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1900, this house continues to serve as a private residence. Historic aerials suggest the rear addition had been constructed by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produced any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of a turn-of-the-twentieth-century, front-gable form, and with additions and replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2302 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-018-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826230	Long: 86.214508			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1940
Architectural Style	Colonial Revival
Building Form	Rectangular
Roof Form	Side gable
Roof Materials	Asphalt shingle
Exterior Wall Materials	Wood siding
Foundation Materials	Not visible
Window Materials	Wood
Window Type	Double-hung (12-over-12 and 8-over-12) and 4-light casement
Outbuildings	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Number/Type:	

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input checked="" type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input type="checkbox"/>				
Area(s) of Significance	Architecture			
Period(s) of Significance	c.1940			
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input checked="" type="checkbox"/>	Design <input checked="" type="checkbox"/>	Materials <input checked="" type="checkbox"/>	Workmanship <input checked="" type="checkbox"/>	Setting <input checked="" type="checkbox"/>
Feeling <input checked="" type="checkbox"/>	Association <input checked="" type="checkbox"/>			
General Integrity:	Intact <input checked="" type="checkbox"/>	Altered <input type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/04/2019	Recorded By	Mead & Hunt., Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2302 Yankee Street is a two-story Colonial Revival-style house with a side-gable, asphalt shingle roof and painted brick exterior corbeled chimney. The exterior is clad in lapped wood siding, with flush wood siding at the second story north elevation that exhibits decorative punched holes in a scalloped design. Windows appear to be wood double-hung with divided light sashes; most appear to have exterior hinged storm windows. Gabled wall dormers at the second story exhibit dental molding along the window sills. The front door is accented by a decorative wrought iron-style lantern and a small side light. A one-story set-back addition on the west side of the house is clad in lap shingle and topped with a gable shingle roof.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Historic aerials and parcel data suggests the house was constructed c.1940.² Since construction, this house has served as a private residence and appears to have maintained its original form. Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

American Colonial Revival Style

The American Colonial Revival was a revival style that took hold primarily between 1895 and 1960 and was inspired by the architectural character of the elite classes in the American Colonies. Rather than a single style, the larger Colonial Revival style had subset styles that came about at various periods, including Georgian Revival, Early American Colonial Revival, Late American Colonial Revival, and Dutch Colonial Revival.³

The Philadelphia Centennial Exhibition in 1876 renewed the American common interest in distinctly American culture, including idealistic imagery of the eighteenth-century Colonies, which manifested in design trends for furniture, gardens, and domestic architecture.⁴ The first few years of the twentieth century experienced enthusiasm for houses that exhibited an "Old Colonial Style," which referred to "old-fashioned" character applied to a new, modern home.⁵ Originally a highly decorated style choice, the American Colonial Revival style showed shifts in domestic design ideals, which is split between two main periods: an early period, c.1900-c.1940, and a later period, c.1940-c.1960. This house represents the later period, which transitioned around the time of World War II

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

³ GPA Consulting, "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement" (City of Los Angeles Department of City Planning, Office of Historic Resources, December 2015), 3-4.

⁴ Resource Design Group, "City-Wide Historical and Architectural Survey, Ypsilanti, Michigan" (City of Ypsilanti, July 12, 1983), 20; Richard Guy Wilson, Shaun Eyring, and Kenny Marotta, eds., *Recreating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 5.

⁵ Jean Dunbar, "Candace Wheeler and the New Old-Fashioned Home," in *Re-Creating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 40.

to become a simpler composition of those earlier high-style designs.⁶ This latter period of the American Colonial Revival style sought to bring a simpler character to the more heavily Classical-inspired architecture prevalent in the revival style's earlier period.⁷ Design simplification was also partially influenced by lower wages during the Great Depression.⁸ Domestic architecture reflecting the Late American Colonial Revival style began to take more subtle, suggestive cues to the earlier period, utilizing fewer heavy Classical elements, with forms and plans that were more modest in size.

The American Colonial Revival style of the later period, between c.1940 and c.1960, was often defined by simple building forms with side-gable roofs, a symmetrical facade, clapboard or brick exteriors, multi-light wood windows flanked by shutters, gabled dormers, and sometimes with a built-in garage.⁹ The style continued beyond this period, with new construction utilizing variations of these simpler, Classical-inspired elements that are seen as traditional architecture expressive of American ideology.¹⁰

Evaluation

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events within any known context under *Criterion A: History*. Likewise, no evidence was found to suggest potential for significance under *Criterion B: Significant Person*. The house is a representative example of the American Colonial Revival style from the style's later period in the twentieth century, and displays the form and features that embody the Late American Colonial Revival style. The design displays a high level of skilled craftsmanship in patterns of punched wood siding, dentil molding, and a corbeled brick chimney, while displaying most of the character-defining features of the style: side-gable roof with wall dormers, horizontal wood siding, and a symmetrical facade. As such, the house appears to exhibit significance for its architectural style under *Criterion C: Architecture*, and possesses sufficient integrity to be recommended eligible for the National Register.

References

List references used to research and evaluate the individual property.

City of Detroit City Council, Historic Designation Advisory Board. "Proposed Rosedale Historic District Final Report." City of Detroit City Council, Historic Designation Advisory Board, 2006.

"County Baseball League." *The Herald-Press*. April 7, 1909.

Dunbar, Jean. "Candace Wheeler and the New Old-Fashioned Home." In *Re-Creating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

"Fatal Accident at Niles." *Detroit Free Press*. March 13, 1879.

GPA Consulting. "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement." City of Los Angeles Department of City Planning, Office of Historic Resources, December 2015.

"Hartford Couple Will Mark Golden Wedding on Monday." *The News-Palladium*. February 1, 1935.

Mathews, Alfred. *History of Cass County Michigan: With Illustrations and Biographical Sketches of Some of Its Prominent Men and Pioneers*. Chicago: Waterman, Watkins & Co., 1882.

⁶ Virginia McAlester et al., *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*, Revised and expanded edition/second edition (New York: Alfred A. Knopf, 2013), 414.

⁷ GPA Consulting, "Context: Architecture and Engineering, Theme: American Colonial Revival, 1895-1960, SurveyLA, Los Angeles Citywide Historic Context Statement," 16.

⁸ City of Detroit City Council, Historic Designation Advisory Board, "Proposed Rosedale Historic District Final Report" (City of Detroit City Council, Historic Designation Advisory Board, 2006), 10.

⁹ McAlester et al., *A Field Guide to American Houses*, 411–12.

¹⁰ William B. Rhoads, "The Long and Unsuccessful Effort to Kill Off the Colonial Revival," in *Re-Creating the American Past: Essays on the Colonial Revival* (Charlottesville, Va.: University of Virginia Press, 2006), 14.

McAlester, Virginia, Lee McAlester, Lauren Jarrett, and Juan Rodriguez-Arnaiz. *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture*. Revised and expanded edition/second edition. New York: Alfred A. Knopf, 2013.

"Niles May Re-Route Colgrove Highway." *The Herald-Press*. August 3, 1921.

"Ptomaine Poison." *The Herald-Press*. July 13, 1908.

"R. C. Atkinson Takes Over Road Contract." *The Herald-Press*. September 2, 1916.

Resource Design Group. "City-Wide Historical and Architectural Survey, Ypsilanti, Michigan." City of Ypsilanti, July 12, 1983.

Rhoads, William B. "The Long and Unsuccessful Effort to Kill Off the Colonial Revival." In *Re-Creating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Census Office. *1860 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1860. [ancestry.com](https://www.ancestry.com).

———. *1870 United States Federal Census, Population Schedule, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1870. [ancestry.com](https://www.ancestry.com).

———. *1900 United States Federal Census, Population Schedule, District 0070, Niles, Berrien County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](https://www.ancestry.com).

———. *1900 United States Federal Census, Population Schedule, District 0088, Howard, Cass County*. Washington D.C.: National Archives and Records Administration, 1900. [ancestry.com](https://www.ancestry.com).

———. *1910 United States Federal Census, Population Schedule, District 0092, Proviso Township, Cook County*. Washington D.C.: National Archives and Records Administration, 1910. [ancestry.com](https://www.ancestry.com).

———. *1920 United States Federal Census, Population Schedule, District 0124, Howard Township, Cass County*. Washington D.C.: National Archives and Records Administration, 1920. [ancestry.com](https://www.ancestry.com).

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VECL00120029, Roll 000012, Frame 29." U.S. Geological Survey, April 10, 1977. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "ARB593512212325, Roll 000122, Frame 12325." U.S. Geological Survey, June 8, 1960. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "Cassopolis, MICH.-IND." 1:24000. Washington DC: U.S. Department of the Interior, Geological Survey, 1945.

———. "Cassopolis, MICH.-IND." 1:24000. Washington DC: U.S. Department of the Interior, Geological Survey, 1945.

Wilson, Richard Guy, Shaun Eyring, and Kenny Marotta, eds. *Recreating the American Past: Essays on the Colonial Revival*. Charlottesville, Va.: University of Virginia Press, 2006.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2306 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-025-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826218	Long: 86.214174			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Period Revival
Building Form	Irregular
Roof Form	Side gambrel
Roof Materials	Asphalt shingle
Exterior Wall Materials	Brick, vinyl lap siding
Foundation Materials	Not visible
Window Materials	Vinyl
Window Type	Double-hung, some with faux divided lights in upper sash, some with semi-lunar transoms
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/> Feeling <input type="checkbox"/> Association <input type="checkbox"/>
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2306 Yankee Street is a two-story Period Revival house with a side gambrel roof clad in asphalt shingles. The exterior consists of a combination of brick and what appears to be replacement vinyl lap siding. A steep-pitch gable intersects with the main roof form and forms a central, primary entrance flanked by two shed-roof dormers. An exterior brick chimney is located along the east elevation. Windows mainly consist of vinyl double-hung windows with faux divided lights. A grouping of three, vinyl, double-hung windows with semi-lunar transoms is located at the northeast corner of the north-facing facade in an area that appears to have been an infilled cutaway porch. A detached, one-and-one-half-story, two-car garage clad in vinyl lap siding is located just behind the house to the southwest.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Constructed c.1920, the house continues to serve as a private residence. Historic aerials show the adjacent garage was constructed by 1975.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produced any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is an altered example of Period Revival architecture, and with replacement siding and windows does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Michigan SHPO Architectural Properties Identification Form

Property Overview and Location



Street Address	2310 Yankee Street				
City/Township, State, Zip Code	Niles, Michigan 49120				
County	Cass				
Assessor's Parcel #	14-020-031-024-00				
Latitude/Longitude (to the 6 th decimal point)	Lat: 41.826193	Long: 86.213787			
Ownership	Private <input checked="" type="checkbox"/>	Public-Local <input type="checkbox"/>	Public-State <input type="checkbox"/>	Public-Federal <input type="checkbox"/>	Multiple <input type="checkbox"/>

Property Type

(Insert primary photograph below.)

Building <input checked="" type="checkbox"/> select sub-type below	Structure <input type="checkbox"/>
Commercial <input type="checkbox"/>	Object <input type="checkbox"/>
Residential <input checked="" type="checkbox"/>	
Industrial <input type="checkbox"/>	
Other <input type="checkbox"/>	



Architectural Information

Construction Date	c.1920
Architectural Style	Bungalow
Building Form	Rectangular
Roof Form	Side gable
Roof Materials	Metal standing seam
Exterior Wall Materials	Brick
Foundation Materials	Not visible
Window Materials	Wood, vinyl
Window Type	Fixed tripartite with divided light, double-hung with divided light
Outbuildings	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number/Type:	1/Garage

Eligibility

Individually Eligible	Criterion A <input type="checkbox"/>	Criterion B <input type="checkbox"/>	Criterion C <input type="checkbox"/>	Criterion D <input type="checkbox"/>
Criteria Considerations:	a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> g. <input type="checkbox"/>			
Component of a Historic District	Contributing to a district <input type="checkbox"/>	Non-contributing to a district <input type="checkbox"/>	Historic District Name:	
Not Eligible <input checked="" type="checkbox"/>				
Area(s) of Significance				
Period(s) of Significance				
Integrity – Does the property possess integrity in all or some of the 7 aspects?				
Location <input type="checkbox"/>	Design <input type="checkbox"/>	Materials <input type="checkbox"/>	Workmanship <input type="checkbox"/>	Setting <input type="checkbox"/>
Feeling <input type="checkbox"/>	Association <input type="checkbox"/>			
General Integrity:	Intact <input type="checkbox"/>	Altered <input checked="" type="checkbox"/>	Moved <input type="checkbox"/>	Date(s):
Historic Name	House			
Current/Common Name	House			
Historic/Original Owner	Unknown			
Historic Building Use	Residential			
Current Building Use	Residential			
Architect/Engineer/Designer	Unknown			
Builder/Contractor	Unknown			

Survey Date	11/4/2019	Recorded By	Mead & Hunt, Inc.	Agency Report #
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For SHPO Use Only	SHPO Concurrence?: Y / N	Date:
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Narrative Architectural Description

Provide a detailed description of the property, including all character defining features and any accessory resources.

The house at 2310 Yankee Street is a one-and-one-half-story, brick Bungalow with a side-gable, metal standing seam roof, a gabled dormer clad in shingles, and a full-width front porch at the north-facing facade. The shed porch roof is also clad in metal standing seam roofing, is bordered by a closed brick parapet, and is supported by brick columns at the outer ends and tapered wood columns flanking the centered concrete entry stairs. An interior brick chimney is located along the east elevation. First-story windows appear to be wood, fixed, tripartite divided light (12 lights each), while the second-story window in the gabled dormer appears to be a vinyl, six-over-one, double-hung window. A detached garage clad in lap siding and with a hip roof is located directly behind the house.

History of the Resource

Provide information on previous owners, land use, construction and alteration dates in a narrative format. This is required for all intensive level surveys and designation and recommended for other identification efforts.

Howard Township formally organized in 1834, with the earliest residents farming on land granted via patents issued by the United States General Land Office in the 1820s and 1830s.¹ Development in this southwest corner of the township, and specifically along Yankee Street, first occurred with agriculture during this early period. Over time residential infill further developed along Yankee Street around intersections with cross streets into the 1970s. Since its construction c.1920, this house has served as a private residence. Historic aerials show the rear outbuilding was built by 1969.² Cass County tax assessor records available online did not document parcel improvement dates. A preliminary search of historic records available online did not produce any information on the property or its residents.

Statement of Significance/Recommendation of Eligibility

Provide a detailed explanation of the property's eligibility for the National Register, including an evaluation under at least one of the four criteria, discussion of the seven aspects of integrity, and recommendations about eligibility. This is required for all properties.

This property was evaluated for the National Register of Historic Places (National Register) under *Criteria A, B, and C*. Research did not reveal any association with historically significant events or the specific development or growth history of Yankee Street or Howard Township, nor within any other known context under *Criterion A*. cursory research did not produce any evidence of associations with persons who made significant, identifiable contributions to local, state, or national history. Therefore, the property is not eligible under *Criterion B*. The house is a common example of a Bungalow form and does not exhibit distinctive architectural characteristics that might qualify it as eligible under *Criterion C*. As a result, this property is recommended not eligible for listing in the National Register.

References

List references used to research and evaluate the individual property.

Rogers, Howard S. *History of Cass County, From 1825 to 1875*. Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875.

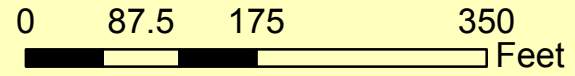
U.S. Geological Survey. "AR1VCEV00010201, Roll 000001, Frame 201." U.S. Geological Survey, April 20, 1969. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.

———. "AR1VDQT00030055, Roll 000003, Frame 55." U.S. Geological Survey, May 1, 1975. U.S.G.S. Earth Explorer. <https://earthexplorer.usgs.gov/>.




¹ Howard S. Rogers, *History of Cass County, From 1825 to 1875* (Cassopolis, Mich.: W. H. Mansfield, Vigilant Book and Job Print, 1875), 218.

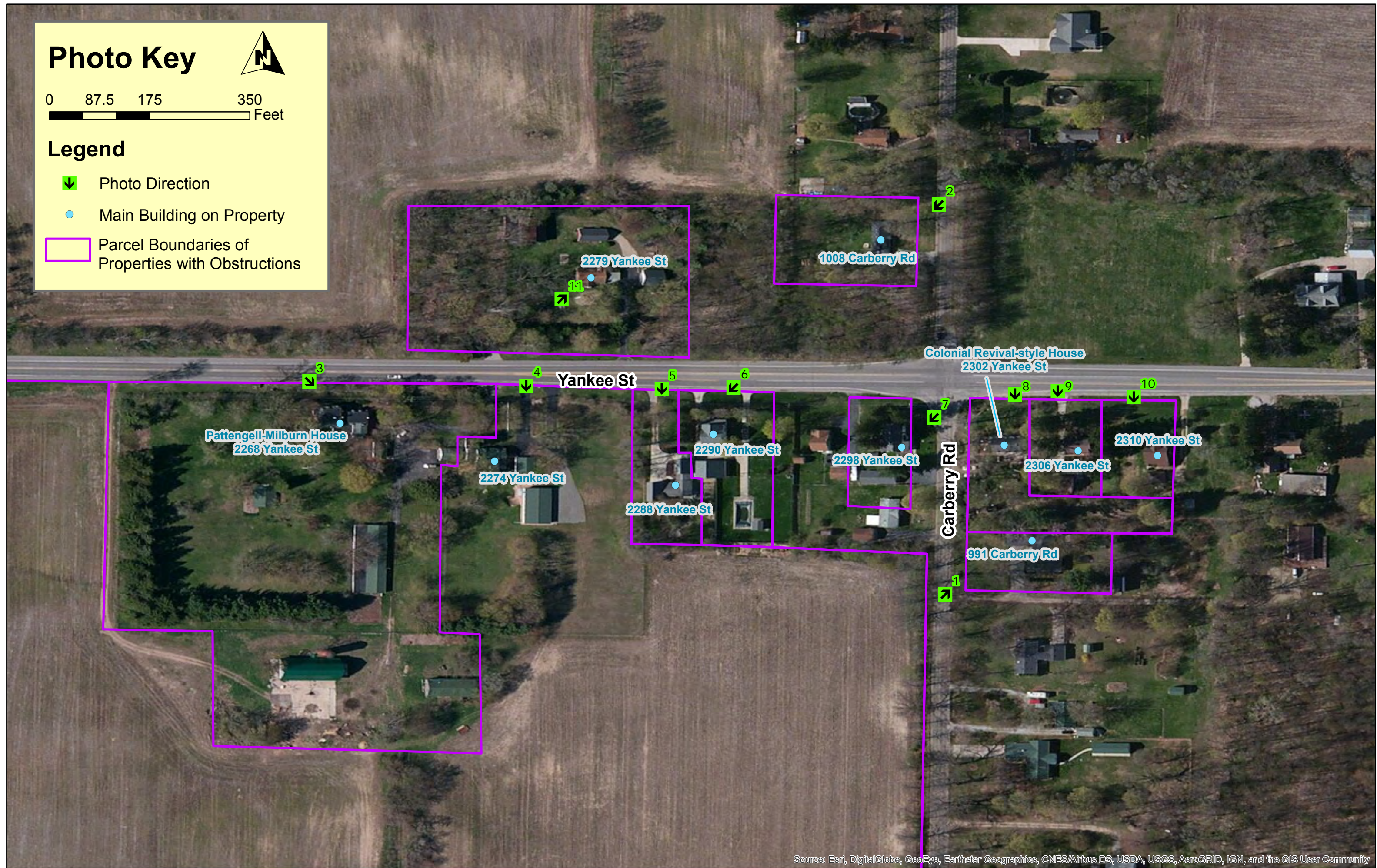
² U.S. Geological Survey, "AR1VCEV00010201, Roll 000001, Frame 201" (U.S. Geological Survey, April 20, 1969), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>; U.S. Geological Survey, "AR1VDQT00030055, Roll 000003, Frame 55" (U.S. Geological Survey, May 1, 1975), U.S.G.S. Earth Explorer, <https://earthexplorer.usgs.gov/>.

Photo Key



Legend

-  Photo Direction
-  Main Building on Property
-  Parcel Boundaries of Properties with Obstructions



Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 1. 991 Carberry Road, view facing northeast.



Photo 2. 1008 Carberry Road, view facing southwest.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 3. Pattengell-Milburn House, 2268 Yankee Street, view facing southeast.



Photo 4. 2274 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 5. 2288 Yankee Street, view facing south.



Photo 6. 2290 Yankee Street, view facing southwest.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 7. 2298 Yankee Street, view facing southwest.



Photo 8. 2302 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



Photo 9. 2306 Yankee Street, view facing south.



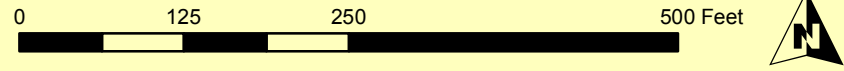
Photo 10. 2310 Yankee Street, view facing south.

Section V. Photographs
Jerry Tyler Memorial Airport
Cass and Berrien Counties



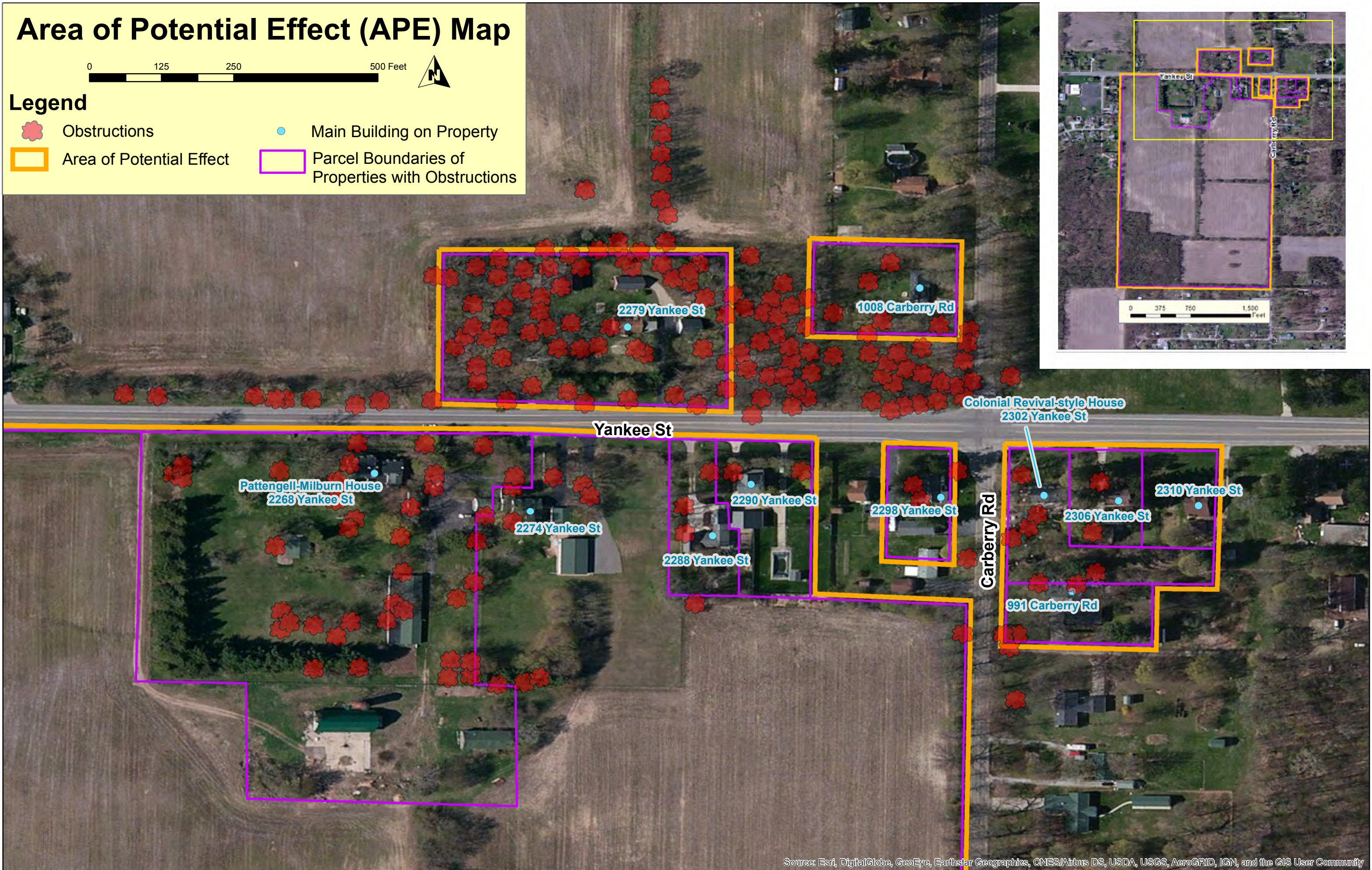
Photo 11. Photo of 2279 Yankee Street from Appraiser Report, view facing northeast.

Area of Potential Effect (APE) Map



Legend

- Obstructions
- Main Building on Property
- Area of Potential Effect
- Parcel Boundaries of Properties with Obstructions



ARCHAEOLOGICAL RECONNAISSANCE
Runway 33 Approach Clearing
Jerry Tyler Memorial Airport
Cass County, Michigan
L&A Project No: 20-0245



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June 22, 2020



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**Archaeological Reconnaissance for the Runway 33 Approach Clearing
Project at the Jerry Tyler Memorial Airport in Cass County, Michigan**

by

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0.1 ABSTRACT

In May of 2020, Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan. L&A conducted the reconnaissance at the request of Mead & Hunt, Inc. for inclusion in a 3TR Short Form Environmental Assessment for the project. The Michigan Department of Transportation, Office of Aeronautics is the lead agency for the undertaking. The area subjected to archaeological reconnaissance consisted of an area at the southeast end of Runway 33 where trees must be cleared to meet updated FAA requirements for runway clearance zones. The reconnaissance involved a literature review and visual inspection of the project area. No excavations were authorized for the reconnaissance. The literature review did not indicate the presence of previously identified archaeological sites within the project area. The visual reconnaissance did not identify any surface indications of archaeological sites within the project area. The presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing. However, if the individual trees can be felled without significant ground disturbance (e. g. stump removal, grubbing, etc.), archaeological survey would likely not be warranted for the undertaking.

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Appendix A: Project Plans

1.0 INTRODUCTION

Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan, just outside the City of Niles. L&A conducted the reconnaissance at the request of Mead & Hunt, Inc. for inclusion in a 3TR Short Form Environmental Assessment for the project. The Michigan Department of Transportation, Office of Aeronautics is the lead agency for the undertaking.

The Area of Potential Effects (APE) is different for each project. According to 36 CFR 800, the area of potential effects is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” The APE considers the effect that the proposed project will have on the project area itself (direct effect) and on the areas surrounding the project (indirect effect). The APE for direct effects is typically equivalent with the construction footprint of the project. The APE for indirect effects involves areas in the vicinity of the project that might be visually impacted by the proposed project. Archaeological surveys are typically concerned with the APE for direct effects; however, any project action that may result in an indirect effect to an archaeological site outside the construction limits would need to be considered by a survey.

The APE for this project consists of an approximately 46-acre area situated at the southeast end of Runway 33 at the Jerry Tyler Memorial Airport. This area extends from the terminus of the runway to the southeast, crossing Yankee Street. The area consists largely of agricultural field and treed residential lots. There are several trees within this area that required removal for the approach area to meet FAA regulations. The APE for direct effects includes the locations of these trees. At the request of Mead & Hunt, L&A performed a reconnaissance of the APE for direct effects to identify any previously recorded archaeological sites and to visually inspect the APE for signs of unrecorded archaeological sites. Subsurface testing is not authorized at this stage of work. Mead & Hunt has conducted a survey of the project for effects on historical resources; this report thus does not account for them except to note if any previously recorded historical resources are within the APE for direct effects.

L&A conducted the archaeological reconnaissance on May 28, 2020. The field crew included Justin Zink and Samuel Plent. Justin Zink served as the Principal Investigator. Andrew Sewell served as the primary report author. The following report describes the research design, methods, and results of the literature review and field inspection for this project. The results presented in this report are based on information collected from various literature review resources as well as photographs and field records resulting from this study.

2.0 RESEARCH DESIGN

This research design presents a framework within which the archaeological reconnaissance was conducted. The purpose of the reconnaissance is to identify any previously identified archaeological resources that will be affected by the proposed project and to determine through visual inspection the potential for previously unidentified archaeological resources to exist within the APE.

The principal investigator designed the reconnaissance to answer the following general set of questions:

1. Has the project been subjected to previous cultural resources investigations and are there any previously recorded sites or resources located within or immediately adjacent to the project?
2. What is the likelihood of identifying previously unrecorded cultural resources within the project? Where are these cultural resources most likely to occur?
3. Will the proposed project affect any archaeological resources?
4. If cultural resources will be affected, are any of those affected resources listed, eligible, or require further study for inclusion on the National Register of Historic Places?

3.0 ENVIRONMENTAL SETTING

The environmental setting contextualizes the cultural investigations within the natural environment. Since environmental factors influenced much of prehistoric activity, either directly or indirectly, the environmental setting contributes to the understanding of behaviors exhibited by the former inhabitants of an archaeological site. Environmental and geographical conditions affected the function, social status, and productivity of historical sites as well, among other factors. Understanding the environmental setting is a key element of the interpretation of archaeological sites.

3.1 CLIMATE

The climate in Cass County is continental, having relatively cold winters and hot summers. The annual precipitation in the county is approximately 37 inches, with most rainfall occurring in August. The county receives an average of 85 inches of snowfall a year, with most occurring in December and January (US Climate Data 2020).

3.2 PHYSIOGRAPHY AND GEOLOGY

The project area in Cass County is in the Niles-Thornapple Spillway section of the Southern Lower Peninsula Hills and Plains Region in southwest Michigan (WMU 2020). The topography within this part of the county contains rolling glacial landscapes. The geology of the region is the Ellsworth Shale, a Late Devonian shale with minor inclusions of siltstone and sandstone (USGS 2020). The glacial till that dominates the area generally consisted of sandy outwash from the melting of the last ice sheets.

3.3 SOILS

The project area is located within the Spinks-Oshtemo-Ormas soil association (USDS SCS 1991). The association contains nearly level to steep, well drained soils formed in glacial outwash, and mainly consists of the Spinks soil series, with lesser amounts of Oshtemo and Ormas soils. Minor soils include Coloma and Kalamazoo series.

Five individual soil types are present within the APE (Table 1). Soil descriptions are from the USDA NRCS web soil survey (2020).

Table 1. Soils encountered within the project area

Soil Symbol	Soil Name	Landform	Drainage	Parent Material
4B	Oshtemo sandy loam, 2–6% slopes	Moraines and outwash plains	Well	Loamy drift over sandy/gravelly drift
5B	Spinks loamy sand, 0–6% slopes	Outwash plains and glacial drainage channels	Well	Sandy drift
9B	Kalamazoo loam, 2–6% slopes	Outwash plains	Well	Loamy outwash over sandy/gravelly outwash
16B	Ormas loamy sand, 0–6% slopes	Outwash plains	Well	Sandy and/or loamy outwash
41C	Spinks-Oshtemo complex, 6–12% slopes	Outwash plains, moraines, and glacial drainage channels	Well	Sandy drift/ loamy drift

3.4 HYDROLOGY

The major drainage in southwestern Michigan is the St. Joseph River. The project area drains to the northwest, through an unnamed tributary of the Dowagiac River that has its headwaters roughly a mile north of the project.

3.5 FLORA AND FAUNA

Prior to settlement in the region, natural phenomenon such as glaciations during the Pleistocene and the associated climate changes had a major effect on plant and animal communities (Anderson and King 1976). As the glaciers retreated and the climate warmed, tundra ecosystems with their characteristic plant and animal life retreated north, and forests covered much of Ohio, bringing with them an entirely different community of life. Some areas of Ohio developed into prairies or vast marshes. Small pockets of typically boreal plant and animal communities

persisted in some areas, such as ravine habitats in the Hocking Hills and northern Ohio.

The modern animal and plant life in the county bears little resemblance to those present prior to wide-scale nineteenth century settlement in the region. These changes are attributable to habitat loss and change, purposeful extirpation of predators, unchecked hunting, and introduction of non-native species. Early settler accounts of the region provide useful information on the original ecosystem of this part of the state, supplemented by information from the archaeological record. The earliest recorded land surveys classified the natural vegetation in this region as an oak-hickory savanna with patches of swamp forest (WMU 2020).

The modern pattern of land use has altered historical animal and plant community distributions and populations. The fauna historically inhabiting the general region of the survey area included several species of mammals, birds, reptiles, amphibians, and fish. Many species are no longer present due to the drastic habitat changes in the region, competition with invasive species, and historical periods of overhunting (Anderson and King 1976).

In summary, the environmental information indicates a rich prehistoric environment with a variety of resources. A variety of plants characterized a diverse floral environment exploitable by humans and animals. Animal life provided a source of protein and raw material for clothing and tools. All these factors indicate that this area possesses potential for the presence of archaeological sites within the project area.

4.0 LITERATURE REVIEW

The literature review study radius is 2 km (1.2 mi) from each exterior corner of the proposed project limits. This size is usually adequate to provide the necessary contextual information regarding previously identified cultural resources and historical information on the project area. The report author examined following sources from the State Historic Preservation Office (SHPO) and various online resources. Because of restrictions associated with the global COVID-19 pandemic, in-person research trips to repositories were not possible and all research was conducted remotely. Thus, the information from sources maintained by the Michigan SHPO is necessarily limited from what would normally be available.

1. Hinsdale's (1931) *Archaeological Atlas of Michigan*
2. Michigan Archaeological Site Files
3. Contract Cultural Resource Management reports
4. Michigan Architectural Site Files
5. National Historic Landmark listings
6. NRHP listings and nomination form files
7. USGS 7.5' and 15' series topographic maps, historical aerial photographs, and Cass County historic atlases

The *Archaeological Atlas of Michigan* (Hinsdale 1931) does not indicate any prehistoric resources within or adjacent to the project (Figure 5). Hinsdale tallied 3

village sites, 1 burying ground, 22 mounds, 1 circular enclosure, 1 rectangular enclosure, and 1 garden bed in the county, with 40 villages, 12 burying grounds, 20 mounds, 1 garden bed, and 1 dance circle in neighboring Berrien County. These resources will not be impacted by the proposed project; however, they indicate that this part of Michigan is very archaeologically sensitive.

The Michigan Archaeological Site Files indicate that there are no previously recorded archaeological sites within and/or adjacent to the project. There are two previously recorded archaeological sites within the 2 km study radius for the project, but these will not be impacted by the undertaking. The two sites include 20BE211 and 20BE391. According to Michigan SHPO mapping, 20BE211 is actually located in Cass County, not Berrien County, and is northeast of the project area. It is a reported collection of artifacts from a local avocational archaeologist. 20BE391 is within the City of Niles to the northwest. It is associated with a historic-period Native American camp and identified through the documentary record. Neither site appears to have been field verified and their locations are tenuous.

A review of the SHPO contract CRM reports indicated that the project area has not previously been surveyed (Figure 6). There is one previously conducted archaeological survey within the literature review study radius, associated with the Enbridge Line 6 project (Project ID ER10-579). However, we could not determine which specific report associated with this massive project covers this small survey area, so it is not included in the references cited. It is apparent from the information provided by SHPO that this part of the overall survey did not result in the identification of any cultural resources. One architectural history survey has been conducted within the literature review study area (Henry and Henry 2001), which crosses through the project area where the project area intersects M-60.

A review of the Michigan Architectural Site Files did not indicate any previously recorded above ground resources within the APE with MASF identification numbers. This report does not address above ground resources, which will be covered by Mead & Hunt in a separate report.

There are no NRHP listings or nomination form files located within or adjacent to the project area, or within the literature review study radius.

Examination of available historical maps dating to the mid-nineteenth century allows for a reconstruction of landscape history and can identify the potential for historical sites within a project area. The earliest township map is from the 1896 atlas of Cass County and shows the APE within the properties of F. Hammond and J. J. Willard (Figure 7). Willard's residence is shown within the APE on the north side of M-60, where a modern residence is located. It is unclear if the residence is the historical house or a replacement. South of M-60, the property owners in the APE were Sheldon Bronson, Andrew Gulty, and W. C. Bliss. A house is shown on Gulty's property in the APE, although he also had a house further south on his property along Carberry Road. The 1914 plat shows O. Beehler owning the former Hammond property, with J. J. Willard still present on the other property within the APE north of M-60. South of M-60, property owners in the APE include W. White, Andrew Geltz, and C. H. Palmquist (Figure 8). Geltz may be the same person as

the Andrew Gulty on the 1896 map, and the same two houses are shown on his property. The 1920 plat shows ownership only, with no buildings indicated (Figure 9). Ownership in the APE north of M-60 was the same as in 1914, and White and Geltz are still shown south of M-60. M. J. Hunzilter acquired the Palmquist property. The 1945 USGS topographic map shows several houses lining M-60 east of Niles, all of which appear to correlate to existing houses in the APE. The airport is not depicted on this map (Figure 10).

Aerial photographs dating back to 1955 showing the project area available online (NETR 2020) show that the only major change to the landscape is the airport itself, which first shows up in a 1969 aerial. Otherwise, only minor changes are visible between 1955 and the latest aerial photograph of 2016. These changes include the removal of some older houses supplemented by the construction of new buildings, maturing tree growth in woodlots and residential lots, and some light commercial development.

5.0 CULTURAL SETTING

The historic context provides a framework for evaluating the integrity and significance of any identified cultural resources. The principal investigator uses the context to assess a sites' ability to contribute to the existing historic knowledge of a region. The report authors derived the following contexts from previously reported information from throughout the region and identified in the immediate area through previous archaeological and historical research. While not all of these contexts may be identified within the project area during the survey, the established contexts are presented in chronological order to understand the relationships between different temporal periods and the continuum of cultural development that occurred in this area. It should be noted that these periods are defined through cultural expressions, and that the ranges of time associated with each period will likely overlap in different parts of the region, as some prehistoric groups may not have adapted a new cultural expression at the same time as other groups, or indeed even at all.

5.1 PREHISTORIC CONTEXT

The prehistoric cultural development of the region began with the influx of the first post-glacial populations and continued throughout prehistory until the arrival of Europeans and settlers from east of the Appalachians. Archaeologists developed temporal periods to distinguish cultural and/or technical advances over time, divided into the Paleoindian; Early, Middle, and Late Archaic; Early, Middle, and Late Woodland; Late Prehistoric and Protohistoric. The temporal ranges given here for each period may differ from other presented material. This should not be construed as either a challenge to, or perceived error on the part of earlier material, but reflects the rather fluid nature of defining temporal periods based on current dating techniques, selective regional data comparisons, and differing opinions on when and where to divide prehistory into arbitrary periods.

5.1.1 PALEOINDIAN PERIOD

Archaeologists estimate that occupation of the Lower Peninsula of Michigan would have been possible by approximately 11,500 B.C. to 11,000 B.C. By this time, the glacial front that had once covered the peninsula had retreated into the Upper Peninsula/Lake Superior region. The Paleoindians, the first known prehistoric population to occupy Michigan, were highly mobile, small-band hunters moving on a seasonal basis in order to more fully exploit available natural resources (Dragoo 1976), and carbon dated evidence for their presence in the Lower Great Lakes region suggests occupations as far back as far as 10,500 B.C. (Carr 2012). The Paleoindians were opportunists willing to use a broad spectrum of animal and plant resources, and with a fluctuating post-glacial environment, both in terms of climate and ecological communities, they had to adapt to exploit a variety of environments from tundra to wetlands. Analysis of pollen data and plant macrofossils suggest that tundra conditions in the late Pleistocene Midwest were constricted to the glacier margins, with differing ecological regimes advancing quickly northward as the glaciers retreated. Specifically, spruce-sedge parkland environments dominated the immediate post-glacial landscape for about 2000 years after the last glacial maximum, then rather quickly replaced by pine and then oak forests in the Lower Peninsula. Within this set of environmental conditions, a great diversity of animal species flourished, including several species that would have represented important game animals for human predation, such as mastodon, mammoth, ground-sloths, musk-ox, elk, caribou, and smaller game species.

One popular hypothesis about Paleoindian subsistence strategies is that they were primarily herd-followers, tracking caribou across the post-glacial landscape. Carr (2012) points out that such hypotheses are largely based on ethnographic analogy and not on hard data reflecting actual Paleoindian subsistence strategies. He points out that there is a general lack of such data for the lower Great Lakes and posits that this reflects Paleoindian site selection strategies that correspond to locations with poor long-term preservation characteristics. Instead, Carr lays out a hypothesis that Paleoindian hunters employed a herd-intercept strategy oriented along lake shores, moving to key locations where caribou herds would be found at certain points of a season, rather than seasonal relocation of a group to be within the summer and winter ranges of a single herd. People practicing the herd-intercept strategy would rely on storage and secondary protein resources when caribou were scarce. Carr suggests Paleoindian bands were residentially mobile within large territories exceeding 20,000 km², and notes the absence in the archaeological record for definitive evidence of periodic large aggregations of individual bands, which has occurred elsewhere in the Eastern Woodlands (Bull Brook, Massachusetts, for example).

Specific Paleoindian complexes in the lower Great Lakes include Gainey (9500–9000 B.C.), Parkhill (9000–8400 B.C.), Crowfield, and Holcombe (both occurring after 8400 B.C.). Shott and Wright (1999) also note the ephemeral presence of a Mid-Atlantic Paleoindian phase contemporary with Clovis called the Enterline phase, which is known in Michigan only from one site in Saginaw County, and is

quite possibly a local variant of Gainey instead of representing Enterline. The Gainey complex, taking its name from an important site in southeast Michigan, is represented by large fluted points with parallel sides, similar to western Folsom points, and accompanied by triangular end scrapers, side scrapers, and gravers (Carr 2012; Shott and Wright 1999). The Parkhill complex was identified from a series of sites in southern Ontario and are identified through the presence of Barnes fluted points. Groups associated with the Parkhill complex are thought to have had a residential preference for the shore margins of Glacial Lake Algonquian, and occupied much smaller territories than Gainey people; southwest Michigan is posited to have been one such territory, albeit without much supporting evidence (Shott and Wright 1999). Parkhill toolkits show an increasing diversity of tool forms over preceding Gainey kits. The Crowfield and Holcombe complexes represent the end of the Paleoindian period, with many Holcombe points being either poorly fluted or in some cases, simply being basally thinned in place of fluting. Few examples of the Crowfield complex have been identified in Michigan, being more of an eastern Great Lakes phenomenon. Holcomb complex sites are mainly restricted to southeastern Michigan (Shott and Wright 1999).

Small lithic scatters and isolated finds of diagnostic fluted projectile points characterize the archaeological record of Michigan's Paleoindian period; such points including Clovis, Holcombe, Cumberland, Plainview, and Agate Basin types. Unfluted Hi-Lo points are also a diagnostic point for the period in Michigan (Justice 1987; Carr 2012); although some archaeologists prefer to assign these points to the initial Early Archaic (Shott 1999). Paleoindian groups in Michigan are noted for a heavy reliance on Onondaga, Bayport, and Fossil Hill cherts, with early Gainey phase people also using exotic Upper Mercer chert from east-central Ohio (Carr 2012; Shott and Wright 1999). Notably, Paleoindian groups appear to have focused on single sources of lithic raw material, so that lithic types may be an identifier for a band territory.

5.1.2 ARCHAIC

A period of significant environmental change ensued as the glaciers retreated northward at the end of the Pleistocene. The climate became temperate. Large-game species, such as mastodon, became extinct, and the deciduous forest common today developed, replacing the boreal-coniferous forests. The Archaic period encompasses the notable human adaptations and settlement practices developed in response to the changing environment (Ford 1974). Artifact assemblages from Archaic sites show a wider range of tool types in comparison to the preceding Paleoindian period, some of which have specialized functions for the processing of a wider variety of plant and animal resources (Griffin 1967). Although all Archaic-period human groups exhibited characteristics of classic hunter-gathering lifestyles, environmental differences led to regionally distinctive artifact assemblages by the end of the period, which might reflect the evolution of culturally distinct human social groups (Dragoo 1976).

Changes in human social organization occurred concurrently with expanding food procurement strategies. In eastern North America, organizational changes

generally included restricted group mobility, larger aggregations of individuals, development of ritual behavior, development of inter-regional exchange systems, and the first attempts at plant domestication (Ford 1974). Other results included smaller group territories, sites occupied for longer periods, reuse of sites at more frequent and probably more regular intervals, and the use of a wider variety of plants and animals. Storage facilities and vessels also appeared more frequently in Archaic sites, as well as evidence for early cultivation of some plant species. Archaic developed burial ceremonialism and other ritual behavior and showed signs of becoming formalized in some regions. Ritual activity might be linked to the establishment of social group identities, the maintenance of territorial boundaries, and the regulation of intergroup alliances and trade. However, archaeologists are still trying to adequately test this proposition.

Research has shown the progression of these adaptations through the Archaic period (ca. 8000 B.C. to 1000 B.C.), resulting in the subdivision of time into three distinct temporal periods: Early, Middle, and Late Archaic. Some general traits, such as basal styles of projectile points, are common throughout all three Archaic sub-periods, so some Archaic sites cannot be classified to one of these three periods.

Early and Middle Archaic sites are somewhat rare in Michigan, which was once attributed to an actual general absence of people during that time in the region. However, recent studies suggest that fluctuations in glacial meltwater lake levels in the early Holocene may have resulted in contemporary sites being either flooded or deeply buried under alluvium, as lake levels were considerably lower than at present.

5.1.2.1 EARLY ARCHAIC

During the Early Archaic period (8000 B.C. to 6000 B.C.), small mobile groups gradually became more geographically restricted as seasonally oriented hunting-and-gathering activities were focused on smaller, well-exploited territories. This reduction in territory size and mobility is a direct link to the expansion of the deciduous forests that produced a more favorable habitat for game species (Chapman 1975). Although hunting was the major subsistence activity, Early Archaic people also used a narrow spectrum of nutritious plant foods (Chapman 1975; Cleland 1966). This expansion of the subsistence base correlates with a change in material culture. Early Archaic hunters switched from lanceolate spear points, ideal for hunting larger animals, to a series of smaller, more diversified notched and stemmed projectile points, scrapers, knives, drills, and ovoid blades. Woodworking and food preparation tools first appear in the tool assemblage during the Early Archaic period. These tools included axes, adzes, mortars and pestles, awls, gouges, and grinding stones (Chapman 1975; Jennings 1968). Sites were small and scattered, largely discovered through surface collection, and usually located in uplands near secondary stream valleys (Benchley 1975).

Early on, Early Archaic bands in Michigan practiced a lifeway fairly like preceding Paleoindian groups, and sites from this part of the period are classified as the Plano tradition. Indeed, some archaeologists place Plano as a Paleoindian

manifestation characterized by a loss of fluting in projectile point technology (Justice 1987). It seems likely that Plano and Dalton types of points are reflective of gradual change, rather than demarking any sharp divisions between the Paleoindian and Early Archaic periods, and thus may best be discussed as Paleoindian/Early Archaic. The Plano tradition dates to ca. 8000–7500 B.C. and is characterized by Hi-Lo projectile points (Shott 1999).

The succeeding Kirk tradition dates to ca. 7500–6000 B.C. and is notable for the first occurrence of notched and stemmed bifaces, variously attributable to Palmer, Kirk Corner-notched, Kirk-stemmed, St Albans, Kanawha, and LeCroy types (Shott 1999). This change represents an abrupt change in lithic technology from preceding lanceolate forms, with a concurrent increase in use of exotic Ohio lithic materials. This change may be correlated with movement of new groups into Michigan from Ohio, although such interpretations do not suggest what happened with the Plano people already present. Shott (1999) posits a viewpoint that suggests bands belonging to the Plano and Kirk traditions overlapped in territory and interacted with each other. Indeed, he notes that while there is a relative explosion in biface form diversity, the overall toolkit for Early Archaic peoples share many characteristics with late Paleoindian and subsequent Archaic groups.

5.1.2.2 MIDDLE ARCHAIC

During the Middle Archaic period (6000 B.C. to 3000 B.C.), floral communities diversified as the overall climate warmed and stabilized, allowing for a broader selection of food and material for use. However, Middle Archaic people still appear to have emphasized hunting within an increasingly sedentary lifestyle (Cleland 1966). In lower Michigan, there is a debate as to whether the local environment could support a large population of hunter-gatherers. Boreal forests may not have developed sufficient mast-bearing species to support a new regime of large mammals, and stream flows may have been too rapid to support large fish populations. However, extensive, productive marshes along the relict margins of Lake Algonquin in southeastern Michigan may have been well-exploited by Middle Archaic bands, and many of Michigan's Middle Archaic sites are found in the that region (Lovis 1999). As well, pollen studies indicate that oak, maple, and elm had begun to establish themselves in southern Michigan by 5000 B.C. It may simply be that Michigan Middle Archaic populations were largely focused on shoreline habitats that are now underwater, thus introducing a significant bias in typical survey results. In addition, Middle Archaic groups are suggested to have practiced a long-distance logistic mobility strategy that would spread evidence of Middle Archaic people thinly over a landscape, moving between shoreline residential camps and upland logistical sites (Lovis et al. 2005); such a strategy, where people are normally occupying sites on a very short-term basis, would also help to explain the low density of Middle Archaic sites.

Middle Archaic material cultural reflects the change in economy as well, adapted to intensive exploitation of forest and riverine environments. Some researchers divide the Middle Archaic in the Great Lakes into two horizons based on projectile point morphology (Stothers et al. 2001). The first horizon is the Weak-Stemmed

Point Horizon (6000–3800 B.C.), with points such as Morrow Mountain and Stanly Stemmed; the second horizon is the Side-notched Point Horizon (3800–2000 B.C.), associated with points similar to the Raddatz, Matanzas, Otter Creek, and Brewerton styles (Lovis 1999). Of note is the overlap of Brewerton points between the Middle and Late Archaic periods. Plant-processing tools included a variety of ground stone implements, grooved axes, metates, and nutting stones. Bone tools such as awls and fishhooks also appear in Middle Archaic assemblages. Atlatl weights and bone tools first appear in the archaeological record elsewhere in the Midwest and Northeast (Broyles 1971; Lewis and Lewis 1961). These types of groundstone tools are curiously absent from Michigan Middle Archaic sites, but this may be a bias resulting from the overall scarcity of Middle Archaic sites formally excavated in the state (Lovis 1999; Stothers et al. 2001).

Although Middle Archaic sites tend to be rare, one important site in Michigan is the Weber I Site (20SA581) in the Saginaw River Valley (Lovis 1999). This site exhibited stratified Middle Archaic and Late Archaic deposits and provided evidence for Middle Archaic subsistence strategies, specifically focusing on hunting elk and deer while gathering nuts and berries (Smith and Egan 1990).

5.1.2.3 LATE ARCHAIC

In contrast to the preceding Middle Archaic period, the Late Archaic (3000 B.C. to 500 B.C.) is a highly visible manifestation in Michigan's archaeological record. Group ceremonialism increased in importance, as demonstrated by more elaborate, formalized burial practices and the presence of exotic materials obtained from emerging trade networks. Scheduled harvesting of seasonal, available plant and animal resources climaxed in the Late Archaic (Caldwell 1964). Coinciding with an increase in territorial permanence was the first appearance of regionally distinct human culture groups in Michigan (Cleland 1966). Late Archaic lifeways in the northern parts of the state (the Upper Peninsula and northern Lower Peninsula) persisted well into what would be considered the Early Woodland period in more southerly regions, with pottery only appearing around A.D. 0. Late Archaic people were organized into seasonally mobile bands, likely in the range of 25-30 people. There likely were population aggregations in the winter months with dispersal in the warmer seasons, perhaps down to single-family groups. There is limited evidence for Late Archaic houses available in the archaeological record of Michigan.

In Michigan, the levels of the Great Lakes were much higher than today, but also fluctuated considerably over the course of the period. In the Late Archaic period, the expansion of deciduous forests reached its northernmost limit (Cleland 1966). The vegetation communities present in the state had become more or less modern (Roberston et al. 1999). Late Archaic people responding to the diverse and evolving ecosystems adapted varying ways of exploiting natural resources. Fishing was an important component of faunal exploitation. The Late Archaic period marks the first appearance of cultigens in the archaeological record. Archaeologists recovered chenopodium, sunflower, and gourd seeds dated to approximately 1500 B.C. from the Salts Cave site in Kentucky (Yarnell 1974), while other researchers

have dated squash seed as early as 2300 B.C. in Missouri and Kentucky (Yarnell 1963). However, these Eastern Agricultural Complex (EAC) cultigens are not often found in Late Archaic contexts in Michigan (Robertson et al. 1999). Exploitation of local plant and animal resources, including aquatic species, became more efficient and broad-based in the Late Archaic period. The success of this subsistence strategy is shown by the recovery of charred botanical remains of a variety of nuts, including acorn, hazel, hickory, and black walnut. Fruit also was an important food resource, as demonstrated by the diversity of fruit seeds in archaeobotanical assemblages, such as wild grape, blueberry, raspberry, and strawberry (Dye 1977; Yarnell 1974). Late Archaic people exploited these resources as a seasonal round, with either longer, more extensive occupations or higher seasonal site fidelity only occurring in the Terminal Late Archaic. Specifically, spring occupations may have focused on fish runs, followed by summer camps for berry exploitation, fall camps for mast resources, and winter camps with a broad-based hunting focus. A general lack of sedentism may be attributable to the largely unreliable nature of the fluctuating environmental conditions that typify most of this period (Robertson et al. 1999). It should be noted that caution must be taken with applying general statements about Late Archaic lifeways in Michigan, as the database of Late Archaic site information is heavily skewed towards the well-scrutinized Saginaw Valley region of southeastern Michigan.

Late Archaic people developed a wide array of specialized objects, including steatite and sandstone bowls, stone tubes and beads, polished plummets, net sinkers, whistles and rattles, birdstones, and boatstones, as well as awls, needles, and perforators made of bone (Chapman 1975). Brewerton series points are characteristic of this period (Ritchie 1961; Witthoft 1953; Robertson et al. 1999). In Michigan, broad-bladed stemmed points, such as Susquehanna, Adder Orchard, Perkiomen, and Genesee types, also are associated with the Late Archaic (Robertson et al. 1999). Interestingly, narrow projectile point styles that occur at Late Archaic sites in the eastern Great Lakes (Lamoka, Normanskill) are not associated with Michigan Late Archaic assemblages. By the end of the Late Archaic, projectile point style diversity increased, with the introduction of small, broad-bladed point types. In southwest Michigan, these points are associated with types including Berrien Corner-notched, Oronoko Side-notched, Sodus Expanding Stemmed (Robertson et al. 1999). Turkey-tail points also occur in ceremonial contexts and in buried caches. By the very end of the period, Meadowood points begin to occur in Terminal Late Archaic contexts. Meadowood points do not occur with pottery on Michigan sites, although sites with Meadowood points are contemporary with Early Woodland sites in Ontario and elsewhere, suggesting that Meadowood points are associated with the end of the Late Archaic here. In southwest Michigan, the transition to the Early Woodland is typified by Terminal Late Archaic point types showing up in association with Early Woodland deposits (Robertson et al. 1999).

Trade is demonstrated through the appearance of exotic materials in Late Archaic assemblages, and through the dating of certain prehistoric Lake Superior copper mining pits to this period. In addition, foreign cherts such as Wyandotte/Indiana

Hornstone and Onondaga appear in Lower Peninsula assemblages, and ritual objects made from marine shell appear for the first time. However, the occurrence of such exotic materials is rare on Late Archaic sites, suggesting that trade was not intensive. Trade was likely a key component of maintaining social ties among related but widely dispersed groups. Trade may also have been one response to uncertain availability of resources related to subsistence, including food and animal hides for clothing. Notably, exotic trade items often are found in mortuary contexts. There are three distinct burial complexes associated with the Michigan Late Archaic: Old Copper, Glacial Kame, and Red Ochre (previously thought to represent entire cultures, but now more properly classified as distinct subcomponents of larger Late Archaic cultural practices). Old Copper Complex burials are largely found in the western Great Lakes, primarily Wisconsin, although there are documented occurrences in Ontario and Quebec to the east. The complex is eponymously named for the occurrence of copper artifacts with burials. Old Copper Complex burials are not documented from the Lower Peninsula. Glacial Kame burials are associated with exotic shell beads and gorgets, copper beads, stone pipes, and birdstones, among other items. As the name indicates, Glacial Kame burials have commonly been found interred in kame landforms. Largely a southern Midwest expression, Glacial Kame burials are documented as far north as Cheboygan County. Evidence from Wisconsin documents interactions between people practicing Old Copper and Glacial Kame burial traditions. Finally, the Red Ochre burial complex is associated with the Terminal Archaic Meadowood cultural expression, which elsewhere is associated with the initial stages of the Early Woodland period (there are very few Early Woodland mounds in Michigan, obscuring the boundary even further between the Terminal Archaic and Early Woodland periods). Red Ochre burials take their name from the use of red ochre to cover the grave. Interments are flexed, accompanied by Turkey-tail blades, small ovate cache blades, copper artifacts, and tubular marine shell beads. As with Glacial Kame, Red Ochre burials have been documented in association with Old Copper culture burials at cemetery sites. It should be noted that not all Late Archaic burials conform to one of the three complexes, which are regional and may be sequentialized cultural expressions (Robertson et al. 1999). Of considerable interest is the observation that the increase in mortuary ceremonialism appears to halt with the commencement of the subsequent Early Woodland period.

5.1.3 WOODLAND PERIOD

W. C. McKern first described the Woodland period as an archaeological manifestation within the McKern Taxonomic System (McKern 1939), initially distinguishing it from the preceding Archaic period by pottery and ceremonial construction of earthworks and mounds. Griffin's work (1952) on the Woodland period defined three sub-periods: Early Woodland (1000 B.C.–100 B.C.), Middle Woodland (100 B.C.–A.D. 500), and Late Woodland (A.D. 500–1200). Archaeologists still use the same basic system today, although current research suggests that adaptations and cultural traits assigned to each period are quite variable in both time and location. For example, in some regions of the Midwest, the cultural expressions associated with the Middle Woodland are not present, with

Early Woodland practices persisting through time. Some Woodland period sites are identified solely through the presence of pottery or burial mounds; these sites are typically not assigned to one of the three sub-periods. Specifically to Michigan, the Woodland period spans 800 B.C. to A.D. 1650 (Chivis 2003). Late Prehistoric cultural manifestations, such as Mississippian cultures, did not occur widely in Michigan; instead, Late Woodland cultural practices persisted to the Contact Period in large portions of the state, and Late Prehistoric groups appear confined to the southwestern Lower Peninsula, contemporary with Late Woodland people elsewhere in the state.

5.1.3.1 EARLY WOODLAND

The Early Woodland period in Michigan begins at different times in different regions in Michigan. In the southern Lower Peninsula, it extends from approximately 800 B.C. to A.D. 1, overlapping somewhat with the Middle Woodland period. Research in the Midwest demonstrates a general continuum from the end of the Archaic through the Middle Woodland for the intensification of horticulture and the formalization and elaboration of mortuary practices (Dragoo 1976). However, Woodland people did not uniformly adapt these traits at the same general time, and some practices associated with Woodland people (such as mound building) are largely absent in Michigan. There are few Early Woodland mound sites in Michigan, Croton Carrigan Mounds in Newaygo County being one (Garland and Beld 1999). In general, Early Woodland peoples maintained a largely foraging-focused economy with gradual incorporation of plant cultivation, specifically sunflower and squash. Early Woodland sites are somewhat rare in Michigan, and often occur as part of multicomponent sites, with subsequent Woodland-period occupations.

To the south, archaeologists most closely associate the Early Woodland period with the Adena Culture. The Adena culture dominated much of the northern Eastern Woodlands from upstate New York into the Ohio and Mississippi Valleys, characterized by conical earthen mounds and elaborate burials with ornamental grave goods. The Adena culture may have developed as early as 500 B.C., based on the dating of burial mounds in the central Ohio River Valley region (Seeman 1992:25). Notably, the Adena culture did not expand into Michigan. However, there is one Early Woodland earthworks in central Michigan, 20IA37, which bear similarities to Adena earthworks to the south (Garland and Beld 1999). 20IA37 represents a unique occurrence of a ceremonial aggregation site associated with the Early Woodland period in the state. Mortuary processing at the site is suggested through the recovery of fragmentary human bones, but no actual burials are known to be present.

In southwestern Michigan, research indicates a strong continuity between Late Archaic and Early Woodland cultural practices. Horticulture likely became more important in the subsistence strategy of Early Woodland people, but how important this adaptation was to different groups varies across time and space within this period. Some areas do not show much evidence of domesticated plants until near the end of the Early Woodland period, coinciding with the beginning of the Middle

Woodland period (Fritz 1990:403). Sunflower cultivation is demonstrated at the Eidson Site, being a continuous tradition with the preceding Late Archaic occupation (Garland and Beld 1999). Seasonal mast crops continued to be an important resource, and Early Woodland groups still depended on wild versions of plants that would become cultivars, such as squash, sumpweed, gourd and goosefoot.

Although there may have been some tendency for limiting residential mobility in the Early Woodland period, settlement patterns generally resemble those of the preceding Late Archaic period, with large summer base camps in the flood plains and upland resource extraction camps occupied in the fall and winter (Garland and Beld 1999; Yerkes 1988:319). Clay (1992:80) suggests that Early Woodland groups were likely practicing a semi-sedentary, hunter-gatherer lifestyle organized into egalitarian groups, rather than having a more hierarchical tribal system. This certainly seems to be the case in Michigan.

Projectile point/knife forms diagnostic of the Early Woodland period include Kramer, Cresap, Meadowood and Adena Stemmed types (Chivis 2003; Justice 1987). As noted previously, Meadowood points are also associated with the Terminal Archaic in Michigan. Early Woodland pottery first appears around 500 B.C. and tends to exhibit coil construction with cordmarked surfaces. Pottery types associated with the Early Woodland period includes Marion Thick (also known as Schultz Thick), Shiawassee Ware (found in the Saginaw Valley), and Mushroom Cordmarked, a late Early Woodland type (Garland and Beld 1999; Chivis 2003). Marion Thick is similar to types in other regions of the Midwest, such as Vinette in Ontario and Fayette and Leimbach Thick in Ohio. The production of Marion Thick appears to have persisted into the Middle Woodland period. Exotic materials are indicative of long-distance trade networks, including copper and high-quality cherts from Ohio and Illinois.

5.1.3.2 MIDDLE WOODLAND

The Middle Woodland period (ca. 100 B.C. – A.D.400) saw a gradual expansion in the general patterns of the Early Woodland. Elaborate burials and distinct ceremonialism increased, and mound construction became increasingly complex, with huge, precisely arranged geometric earthworks being the hallmark of the Hopewell cultural manifestation that flourished to the south in Ohio, with its influence spreading throughout the Midwest. Like the Adena, the Hopewell manifestation likely does not represent a single monolithic culture, but rather a shared worldview among many different groups of people across the mid-continent. Elaborate mound construction and an increased reliance on fishing are hallmarks of the Middle Woodland in Michigan.

In southwest Michigan, the Norton Tradition is the main regional expression of the Hopewell cultural manifestation, although Havana Hopewell is present in sites along the Michigan-Indiana border. Chivis (2003) notes that current research suggests many of the Middle Woodland vessels recovered archaeologically from western Michigan show influence from Illinois populations, with several probably representing imported or trade items. Pottery types associated with Middle

Woodland groups in southwest Michigan include Norton Ware, Havana Ware, Western Basin Ware, Crockery Ware, and Hacklander Ware (Chivis 2003). In southeast Michigan, near Saginaw Bay, the local Hopewell expression is the Saginaw Tradition. Hopewell cultural expressions were not adopted by Woodland groups occupying the area beginning roughly at the Muskegon River and northwards, and additionally do not seem to be present in the southeastern corner of the state south of Saginaw Bay (Kingsley et al. 1999). It appears that while migration of Hopewell people into southwestern Michigan may be the best explanation for the cultural development observed there, the Saginaw Bay tradition may have developed in situ. Middle Woodland period sites have been identified along the northwest coast of the Lower Peninsula, some with Hopewellian materials. However, it is not clear that these sites represent a Hopewell population; instead, they may be a contemporary Middle Woodland population that traded with Hopewell groups to the south but did not adopt their practices.

The Norton Tradition is thought to have evolved from the Havana Hopewell tradition to the southwest and is contemporaneous with the later expressions of Havana Hopewell. The Norton Tradition is divided into the Norton Phase, ca. 10 B.C.–A.D. 200, and the Converse Phase, ca. A.D. 200–400. However, due to a lack of datable material from sites and phase-sensitive artifacts, the Converse Phase is considered problematic at best, as the dual Norton/Converse phases were actually created to serve as an analogue to Illinois phases, and may not be actually warranted as an accurate interpretation of the cultural manifestation of Hopewell in southwest Michigan (Kingsley et al. 1999). The earliest expressions of the Norton Phase appear to be highly correlated to Havana Hopewell groups to the southwest, albeit on a smaller scale. Norton people buried their dead in mounds, with practices like the Havana Hopewell, the parent group. Norton groups appear to have focused their territory on the Muskegon, Grand and St. Joseph River valleys, with several mound groups present. Domestic sites associated with the mounds are rare, however, and the settlement system for Norton Tradition Hopewell is poorly understood. The constriction of Hopewell to these three river valleys in southwest Michigan is somewhat of a puzzle, and may indicate that the Hopewell people, possibly being an immigrant group, settled in areas sparsely occupied by other Woodland people practicing a different cultural system. Supporting this view of long-term sedentism without expansion is the fact that each of the three river systems have major mound group sites composed of numerous mounds, suggesting a long period of settlement adding to the ceremonial mound centers over time.

An important component of understanding the Middle Woodland period in Michigan is the presence of cultural systems unrelated to the Hopewell phenomenon. Some of these societies may simply be groups continuing cultural practices first developed in the Late Archaic and Early Woodland periods. In southeast Michigan, the Western Basin Tradition is recognized as a non-Hopewell Middle Woodland-Late Woodland cultural expression. Several researchers interpret Western Basin material as representing an in situ cultural evolution of Woodland traits culminating in Late Woodland cultural expressions, such as the Younge Phase in northwest

Ohio and the Wayne Tradition in southeast Michigan. Another resident, non-Hopewell Middle Woodland population is posited in southwest Michigan, in between the Havana Hopewell and the Norton Hopewell areas. These people are known from locally derived ceramic forms, some of which are similar to Point Peninsula cultures to the east. Some Hopewellian material also occurs at sites thought to be Non-Hopewell Middle Woodland, interpreted as the result of contact with Hopewell groups to the north and south (Kingsley et al. 1999). In northern Michigan and the Upper Peninsula, groups are classified as belonging to the Lake Forest Middle Woodland, a cultural expression that is contemporary and interacted with other Middle Woodland cultures, such as people associated with Laurel, Hopewell, Point Peninsula, and North Bay cultural traditions.

The current understanding of settlement and subsistence behaviors of the Hopewell and other Middle Woodland populations is unclear at best, with a variety of opinion to explain the data collected to date. Using information from non-mound excavations (e.g., Prufer 1964), Ford (1979) suggested a basic hunting-and-gathering economy with limited horticulture. Subsistence data from Michigan sites is scarce, unfortunately, complicating the development of a robust theory on Middle Woodland subsistence and settlement, like that developed for Ohio, Indiana, and Illinois Hopewell societies. A settlement pattern has been developed for the Norton Tradition, based upon a system known as Intensive Harvest Collecting associated with Havana Hopewell groups. The Norton settlement pattern consists of villages located on terraces or levees along the main river associated with the group's territory, and always are near large floodplains with backwater and mudflat habitats. Villages were also located near reliable sources of mast. Interestingly, the environmental requirements of this system match well with known Norton site distribution. In particular, the Kalamazoo River Valley lacks such requirements, and correspondingly also lacks any major Hopewell settlements. In contrast, the Saginaw Tradition settlement pattern includes warm-weather base camps with a heavy reliance on fishing for subsistence, likely also serving as population aggregation centers. In the winter months, Saginaw Tradition people dispersed into smaller winter hunting camps. This system is more in line with northern Lake Forest Middle Woodland cultures, and indeed, even with historic-period Ojibwa practices (Kingsley et al. 1999).

Mortuary Traditions

Most information about Middle Woodland burial practices are from Norton Tradition internments. Norton Tradition people interred individuals in tombs covered by burial mounds, like Illinois Hopewell traditions. Norton Tradition mound sites include the Norton Mounds, Schumaker Mound, Converse Mounds, Mallon Mound, Hardy Dam Mound, Grattan Mounds, Parsons Mound, Marantette Mounds, McNeal Mound, Paggeot Mound, Spoonville Mound, Scott Mounds, Palmiter Mounds, and Summerville Mounds. Norton burials tend to occur within the subfloor tomb of a mound, and consist of secondary bundle burials and more rarely, rearticulation of formerly bundled individuals. Burials are accompanied by exotic Hopewell Interaction Sphere artifacts; in fact, these artifacts rarely occur

outside of mortuary contexts on Norton sites. Finely made pottery vessels specifically made for mortuary use, either imported Hopewell Ware from Illinois or the local Sumnerville Ware variant of that type, accompany most burials. These vessels are often accompanied by turtle shell dishes and mussel shell spoons. Individual burials are also found with clusters of artifacts that appear to represent toolkits for use in the afterlife. Exotic, non-local goods include conch shells from the Gulf of Mexico, copper tools from the Lake Superior copper region, native silver (also probably from the upper Great Lakes), and mica. Of special note are copper and silver panpipes, which mainly occur with Norton burials, although one specimen is associated with a Saginaw Tradition internment. Curiously, one type of Hopewellian artifact that is common in mortuary contexts elsewhere in the Midwest but largely absent in Michigan is the copper earspool. Only one burial with earspools is documented in the state. Another way that Michigan Hopewell burials differ from other regions is the inclusion of slate gorgets, an apparent continuation of a Late Archaic artifact type that does not occur elsewhere in the Hopewell region. It is uncertain if the gorgets were manufactured by Norton Hopewell people or were a trade item originating with groups in the region that were still practicing Late Archaic cultural traditions (Kingsley et al. 1999).

Social Structure

The social structure of Hopewell groups is one that numerous archaeologists across the continent have studied and argued over for years, with little consensus. Information from mortuary contexts holds up tantalizing evidence for the existence of complex societal structures, yet this data can be interpreted in varying ways and widely different hypotheses can be generated from the same data set. One way of approaching the problem of teasing out social structures from limited mortuary data is to examine variation in burial types. If there seems to be differing treatment of individual burials, with some receiving more lavish ministrations than others, then some form of equivalent social ranking was probably practiced by that society. Ranking can be teased out in the form of analysis of how different age groups and genders are treated in burials. If there is a difference in burial types, but the difference does not apply to age groups or gender, then a social hierarchy is present in the living population. Such conditions do not appear present in Norton Tradition burials. Rather, status seems to be associated with age, and to some degree gender. Older male Norton internments tend to have higher quantities of exotic grave goods, and often display a treatment where a section of the skull is removed. Most of these male burials are also rearticulated in the submound tomb. In contrast, few female or subadult burials show such lavish treatment, although they do exist. These burial characteristics suggest Norton Tradition groups were egalitarian in structure, with status assigned mainly through the male gender, age, and personal achievement, although some form of basic ranking system cannot be ruled out (Kingsley et al. 1999).

Late Woodland Transition

The transition from Middle Woodland to Late Woodland cultural practices in Michigan appears to reflect an in-situ development, rather than a population

displacement. One possible population movement in Michigan involves the development of the Wayne Mortuary Complex of eastern Michigan, which does not have any clear precedents in the local archaeological record, but has some defining features (Jack's Reef points, use of exotic Upper Mercer chert) that have been documented in late Hopewell burials in the Grand River valley. A tentative hypothesis is that this Late Woodland mortuary complex evolved out of Hopewell antecedents in western Michigan and moved east with a band of people at the end of the Middle Woodland period (Kingsley et al. 1999).

5.1.3.3 LATE WOODLAND

The Late Woodland period (ca. A.D. 400–1650) can be defined as a period of complex social change, and there are competing theories about the various cultural sequences associated with the period in the southern Lower Peninsula. The early part of the Late Woodland period is characterized by a subsistence economy almost wholly devoted to wild food sources (ca. A.D. 600-1000), while the latter part of the period sees the increasing importance of horticulture and domesticates (ca. A.D. 1000-1650). However, Muhammad (2010) characterizes certain Late Woodland groups as practicing a “middle ground” subsistence system, with mingled aspects of hunter-gatherer and agriculturalist strategies. She further posits a fluid network of resource exchange between groups practicing different subsistence strategies as a form of societal risk management for dealing with periodic episodes of regional resource scarcity. During this later part as well, southwestern Michigan saw the influx of Upper Mississippian peoples, an event that surely was important in the cultural development of resident Late Woodland groups. Defensive earthworks appear for the first time, a reflection of the rate of change and the reactions of Michigan Late Woodland people to this change (Holman and Brashler 1999:213). Late Woodland people appear to have rather abruptly stopped the practice of mound construction and elaborate mortuary traditions of the preceding Hopewell culture. In the early Late Woodland period, there is evidence of regional adaptations, development of formal kinship systems tied to exchange of different kinds of chert, food storage intensification, and seasonal migrations. Ceramic types were similar between disparate groups, suggesting close relationships between them. After about A.D. 1000, group territories were more strictly observed, and chert gift-giving ceased to occur. Rock art and earthwork construction began to appear. The Late Woodland sites in the Upper Peninsula show a general continuity with Middle Woodland cultural behaviors, with small bands of people relying on wild rice, mammal hunting, and fishing for their economic base. Lake Phase sites are found in the western Upper Peninsula, while Mackinac Phase, Bois Blanc Phase, and Juntunen Phase sites are associated with the eastern Upper Peninsula. One notable characteristic that differentiates Upper Peninsula Late Woodland from the preceding period is an increase in site fidelity (Martin 1999).

Late Woodland groups in western Michigan are divided into two traditions. The Allegan Tradition encompasses people living in the St. Joseph and Kalamazoo river valleys, and the Spring Creek Tradition is associated with groups in the Grand

and Muskegon river valleys. Each river valley has its distinct phases within its affiliated tradition. The St. Joseph River phases include the Brems Phase (ca. A.D. 500-1000) and the Moccasin Bluff Phase (A.D. 1000-1200). In the Kalamazoo River Valley, the Allegan Tradition is divided into an Early Allegan Phase (ca. A.D. 600-900) and a Late Allegan Phase (ca. A.D. 900-1650). The Spring Creek Tradition of the Grand and Muskegon river valleys are divided into the Zemaitis Phase (ca. A.D. 600-1000) and the Spring Creek Phase (ca. A.D. 1000-1200). The Spring Creek Tradition disappears after this, perhaps an indication of cultural disruption from encroaching Upper Mississippian people (Holman and Brashler 1999). Late Woodland diagnostic artifacts for southwest Michigan include small triangular projectile points associated with the introduction of the bow and arrow, and ceramic types such as Skegemog Ware, Mackinac Ware, Bowerman Ware, Allegan Ware, and Spring Creek Ware (Chivis 2003).

Late Woodland Spring Creek Tradition people were seasonally mobile along the Grand River valley, moving from summer gathering regions to interior winter hunting camps, although specific subsistence strategies are poorly understood for southwestern Michigan due to a lack of preserved biological remains at Late Woodland sites. Late Woodland people practiced economic systems that were flexible and adapted to regional environments. Evidence for agriculture is somewhat scarce and seems to have only been a major part of subsistence for the people in the Saginaw Valley. Fishing may have been a primary spring/summer activity, switching to large mammal hunting in the fall and winter. Food storage was an important component of Late Woodland subsistence strategies. Deep pits with organic residue are associated with sites interpreted as winter camps. Some areas, such as the Grand River, lack sites with storage pit features, although this may be more a result of survey bias than archaeological reality. Large ceramic vessels also likely served a storage function. Certain locations may have served as seasonal aggregation points, such as the Moccasin Bluff site (20BE8) in Berrien County for southwest Michigan groups (Holman and Brashler 1999).

The appearance of high-quality Bayport and Norwood cherts across the southern Lower Peninsula suggests the exchange of this material as part of social relationship maintenance in the early Late Woodland. Distribution of ceramic wares suggests that groups from different traditions could rely on the use of each other's territories in times of scarcity. A maintenance of the social network affiliated with the Middle Woodland is suggested through the appearance of exotic cherts from Illinois and Ohio (specifically Upper Mercer chert), and there is a continuity of projectile point styles from the Middle Woodland into the Late Woodland as well. There is evidence as well for a small population movement into Michigan from the east. A non-locally derived ceramic type called Hacklander Ware appears in southwest Michigan during the late Middle Woodland and early Late Woodland, bearing similarities to wares from New York and southern Ontario. Analysis of this pottery on Michigan sites suggest it does not represent a trade item (Holman and Brashler 1999).

After about A.D. 1000, southern Michigan saw a major change in Late Woodland behaviors. Ceramic types and lithic material choices indicate that inter-regional exchange and contact declined within the state. Exotic cherts become uncommon in assemblages. About this time is when Mississippian people appear to have begun interacting with Late Woodland groups in southwest Michigan, with evidence for interaction with Upper Mississippian people by 1100, and another such incursion in 1400 by makers of Huber Ware (Holman and Brashler 1999). It appears that certain indigenous Late Woodland groups began adopting Mississippian practices (including corn-bean-squash agriculture), while others continued Late Woodland lifestyles.

In the early part of the Late Woodland period, burial practices continued to be characterized by the inclusion of “rich grave goods” with high-status individuals (Halsey 1999:234). In the southern Lower Peninsula, the Wayne Mortuary Complex is predominant, and Halsey places it within a larger group of similar burial traditions extending from the Mid-Atlantic to North Dakota. Burial mound construction like the Middle Woodland period still occurred in the early Late Woodland period, but this burial system was soon abandoned for individual graves in cemeteries, isolated graves, and intrusive burials into pre-existing mounds. Towards the middle of the period, clay elbow pipes began to be included in graves, although most other forms of grave goods were no longer used in mortuary contexts. However, a very late cemetery excavated by pot hunters dating to the 1500s or early 1600s was very well preserved, with numerous organic artifacts that suggests grave goods were still numerous within Late Woodland internments but likely were too perishable to survive in earlier excavated graves. Some Late Woodland burial practices switched to the use of ossuaries. St

Earthworks in Michigan are a Late Woodland phenomenon, and usually consist of circles or horseshoe-shaped constructions with adjacent ditches. Zurel estimated that over 100 such earthworks probably existed in Michigan; only a handful remain intact today. The earliest carbon-dated earthwork is from southwest Michigan, the Whorley Earthwork (20BR6), dated to ca. A.D.1080+100. Other carbon dated earthworks fall in the date range of about A.D. 1275-1550, with a late date of A.D. 1700+60 for the Graham-Vogt site (20MB78). Many enclosures seem to be associated with wooden palisades. However, the exact nature of these earthworks is unclear. In southeast Michigan, the locations of earthworks all seem to be about a day’s walk apart, suggesting a possible affiliation of individual bands to individual earthworks. A defensive nature is suggested by the palisades and by evidence of occupation zones within the earthworks that have been archaeologically tested (Zurel 1999).

5.1.3 UPPER MISSISSIPPIAN

The Upper Mississippian period is one of the least well-known prehistoric expressions in Michigan, partly due to a scarcity of sites and limited geographical distribution of Upper Mississippian sites. Archaeological evidence places Upper Mississippian people in southwest Michigan beginning ca. A.D. 1050, persisting until ca. 1600. The Upper Mississippian development is thought to be an in-situ

development of groups adopting practices developed by Middle Mississippian groups centered on the St. Louis region. Specifically in Michigan, Upper Mississippian traits are overlain on a Late Woodland cultural base (McAllister et al. 1999). Upper Mississippian people in southwest Michigan practiced corn-bean-squash agriculture, aggregating in a few summer villages, and then dispersing in smaller, family-based groups to winter hunting camps. However, some village sites may have been occupied year-round, such as Moccasin Bluff. Evidence for specialized camps in southwest Michigan includes site types focused on the spring sturgeon run and wetland resources.

The Moccasin Bluff Phase of southwest Michigan (ca. A.D. 1050-1300) corresponds to the Fisher and Huber phases located to the south and southwest in Indiana and Illinois. Ceramics diagnostic to this phase include Moccasin Bluff Impressed Exterior Lip (a grit-tempered, cordmarked ware) and shell-tempered wares that appear related to Fisher phase ceramics. Of interest is that Late Woodland vessel forms co-occur with Mississippian vessel forms in Moccasin Bluff Phase assemblages, specifically with grit-tempered ceramics. Following the Moccasin Bluff Phase is the Berrien Phase (ca. A.D. 1400–1600), which was also first described at the Moccasin Bluff site. Ceramics remain a mixture of grit- and shell-tempered wares, including Berrien (shell), Moccasin Bluff Scalloped (grit), and Moccasin Bluff Notched Applique Strip (grit) types (McAllister et al. 1999). The Berrien Phase shows strong relationships to the Huber Phase in northern Indiana. Other characteristics of southwestern Mississippian assemblages include Madison projectile points, predominant use of local cherts (but supplemented with exotics) in lithic assemblages, and occasionally trade items such as catlinite pipes (McAllister et al. 1999).

Evidence for Upper Mississippian house types is lacking in Michigan. However, early historical descriptions of Miami and Potawatomi villages, considered to be good analogues for Mississippian lifeways (if not actually representing the direct descendants of these groups), consisted of clusters of small wigwam-like buildings, constructed from bent saplings and covered with bark. Such buildings may not leave much in the way of posthole patterns at sites.

Elsewhere in Michigan, evidence of Mississippian influence and occupation is much less prevalent. The Saginaw Valley region has sites with Mississippian-style pottery present in small amounts, and a few burials are highly similar to those documented in Mississippian societies elsewhere. However, the evidence is too scant to conclusively state that people practicing a primarily Mississippian lifestyle occupied this region in any significant numbers. In the Upper Peninsula, the rare sites showing Mississippian influence are mainly related to Oneota cultural expressions found primarily to the south in Wisconsin and are identified through the presence of shell-tempered pottery. Middle Mississippian wares, such as Ramsey, have also been found in the Upper Peninsula. The Menominee River Basin has perhaps the most evidence for occupation by Upper Mississippian people, while the presence of Mississippian artifacts elsewhere is as equally explainable as trade items versus the actual presence of people practicing

Mississippian lifeways. No evidence for Mississippian agriculture has been found at any Upper Peninsula sites; indeed, the environmental conditions of the peninsula may have actively discouraged such practices. Instead, Mississippian people may have been temporary visitors or seasonal occupants exploiting resources at the very northern edge of their territories (McAllister et al. 1999)

5.2 HISTORICAL PERIOD CONTEXT

There is scant evidence for the direct presence of Europeans in Michigan prior to the mid-seventeenth century. However, some protohistoric Native American sites do show indirect contact through the presence of European trade items, such as the Cloudman Site on Drummond Island, dating to ca. 1615 and including glass beads, iron, and copper artifacts made using Native methods but mimicking French knife forms. This site is interpreted as likely being an Ottawa occupation, whose residents had trade relations with other Native people to the east that had been directly in contact with early French explorers (Cleland 1999).

5.2.1 EARLY HISTORIC PERIOD, CA. 1630–1800

Early European presence in the Great Lakes is linked to French exploration and missionary activity. The first documented European explorer in the Michigan region is Jean Nicolet in 1634. Seven years later, the Raymbault Mission was established at Sault Ste. Marie by Jesuit missionaries. This mission first served Ojibwa groups moving west to get away from raiding Iroquois bands, with Ottawa people subsequently settling around it. While the French also established the fur trade, it did not become the dominant focus of activity in the region due to the conservatism of the French court, which placed greater emphasis on conversion of Native groups and exploration (Heldman et al. 1999). However, competition with other European nation-states forced a change in emphasis for the French to commerce, beginning about 1700. The French Bourbon court largely viewed its North American activities in terms of wealth extraction rather than colonial expansion and settlement. The lack of any substantial French immigration to the New World (in contrast to British policies) meant that Native alliances were highly important to the success of French activities on the continent.

The French established settlements at the Straits of Mackinac beginning in 1671, first on the north shore near St. Ignace and then at Fort Michilimackinac in 1715 (the latter of which is arguably the most important early historical archaeological site in the Great Lakes). The French traded with local Huron, Petun, and Ottawa people here, and established a Jesuit mission headed by Father Jacques Marquette, who had moved the focus of missionary activity here from Sault Ste. Marie in recognition of the primacy of the Straits as a Native transportation route. The Native tribes had settled here just prior to the French, having been forced out of their former territories to the east and southeast during the Iroquois Wars, ca. 1640–1660 (Cleland 1999; Heldman et al. 1999). Other Native tribes that were present in the state in the seventeenth century include the Mascouten, Potawatomi, Miami, and Menominee. In particular, the Ottawa, Ojibwa, and Potawatomi formed a loose alliance called “The Three Fires” (Rubenstein and Ziewacz 2014). Native American sites of the Early Historic Period consist of

villages and burials. Village sites can show reconstruction episodes for the longhouses, which can confuse interpretation. European trade goods are diagnostic, as are traditional Native technologies using European artifacts as raw material (e.g., glass projectile points, brass tinkler cones). An important corollary is that there do not appear to be any types of diagnostic Native artifacts that would allow identification of tribal identity; this situation is largely due to the disruptive effects of colonization and contact that led to rapid changes in material culture and mixing of previously separate tribal bands in single villages in some cases. One exception to this rule is the Marquette Mission Huron Village site (20MK82 and 20MK99), where artifacts do show an Iroquoian affiliation (Cleland 1999). Also of important note is that a drastic change in technology and raw material use does not indicate an equivalent change in cultural traditions. Ethnohistorical accounts support the continuation of cultural traditions with likely roots far back into the prehistoric period among Michigan tribal groups (Heldman et al. 1999).

In southwest Michigan, Rene-Robert Cavalier, Sieur de la Salle, established Fort Miami at modern St. Joseph in 1679, named after the Miami tribe that was the focus of missionary efforts in that location. In 1686, the French established Fort St. Joseph in the Port Huron area (the second fort by the name; the first was near Fort Miami). These forts protected French interests in the fur trade against the expanding British. In 1701, Antoine de la Mothe, Sieur de Cadillac, built Fort Pontchartrain between Lake Huron and Lake Erie, at a spot he called “le Detroit,” meaning “the strait.” Because of its strategic location, the fort and the surrounding community of Detroit became the most important French settlement in the first half of the eighteenth century (Rubenstein and Ziewacz 2014; Heldman et al. 1999). By the 1750s, numerous small French farms were present in the southeast Lower Peninsula.

The mid-1700s were a period of war between the two major colonizing powers in eastern North America, the French and British. King George’s War broke out in 1744, followed by the French and Indian War of 1754–1763. The British were slowly expanding and forming new alliances with tribes, forcing the French to react with increased fortifications. British blockades during the war years severely hindered the French’s ability to conduct trade. In 1760, all French forces surrendered, and in 1763, the French ceded claim to all their lands to the victorious British in the Treaty of Paris (Rubenstein and Ziewacz 2014). Soon after the surrender, British forces moved into the Great Lakes and took over important forts at the Straits of Mackinac and Detroit, although many French inhabitants of the associated settlements remained. Some stayed and lived alongside the British, while others relocated to new communities to preserve some sense of autonomy and cultural traditions, such as at River Raisin. British settlement outside of the forts is not well documented, but there are several archaeological sites known that represent British-era settlement.

The change from French to British occupation was drastic in terms of cultural approaches to interactions with Native groups. The British lost their chance to capitalize on goodwill with their Native allies by appointing Lord Jeffery Amherst

as Governor General of North America. Amherst refused to listen to other British officials who understood Native customs and his actions, including ignoring pledges made during the war and a cessation of gift-giving, led to increasing hostilities, such as Pontiac's War of 1763. French traders encouraged the division between Native Americans and their former allies. The efforts of the French were successful in helping make up the minds of Great Lakes tribes to revolt against the British (Rubenstein and Ziewacz 2014). This conflict was a major, if temporary, setback to the British, who lost control of all their western forts apart from those at Detroit, Niagara, and Pitt. However, the British soon regained control of the territory (Heldman et al. 1999). The Proclamation of 1763, drafted in response to Pontiac's Rebellion, stated that all land west of the Allegheny Mountains as permanent Native territory, with land sales only by permission of the British government.

The next major event during the British period in Michigan was the American Revolution. Being on the periphery of British territory in North America, the British military outposts in Michigan did not result in any direct response to the outbreak of hostilities until 1778 and 1779, when American actions in Illinois prompted the building of new forts and strengthening of some of the older forts. In 1780-1781, the British dismantled Fort Michilimackinac and relocated to a new fort on Mackinac Island to better defend the Straits. Britain directed Native raids against American settlements from Detroit, which served as a major source of war supplies for such raids (Rubenstein and Ziewacz 2014). An interesting bit of Revolutionary War history is the taking of Fort St. Joseph at Niles by a combined force of Spanish, French, and Native soldiers, who briefly raised a Spanish flag over the fort before looting and abandoning it. Niles thus has the distinction of the only city in Michigan that has had the flags of four nations flying over it (Rubenstein and Ziewacz 2014). The British period in Michigan ended with their signing of the Jay Treaty in 1794, and American forces took over the major British forts at Detroit and Mackinac in 1796. A British fort on Drummond Island was built in 1815 and remained until 1828, when the United States formally acquired the island.

5.2.2 AMERICAN ACQUISITION AND STATEHOOD, 1800–1837

Although American forces occupied forts in Michigan in 1796, American expansion and settlement in Michigan did not occur with any frequency until the nineteenth century, largely after the War of 1812. Landscapes within Michigan retained a frontier character until their resources became important to the economic development of the state and nation, such as the mineral ranges of the Upper Peninsula, which were not developed until later in the nineteenth century. The Michigan Territory was created by Congress in 1805 after the admittance of Ohio to the Union. However, prior to 1812, most of the white residents of the territory were French, with several British traders still operating out of the territory.

The War of 1812 broke out when the Michigan Territory was under control of territorial governor William Hull, who proved to be completely inept in military matters. Despite a brief foray into Canada, Hull's leadership was disorganized and British forces soon took over the primary forts in the territory, and Hull himself surrendered Detroit. Initial British success was short-lived, and American victory in

1814 marked the last active hostilities in Michigan between white and Native forces, while cementing the Michigan Territory as a part of the United States (Rubenstein and Ziewacz 2014). Native rights to land in Michigan were slowly chipped away in a series of land cessations, beginning with the Treaty of Detroit in 1807 and culminating in the Treaty of La Pointe in 1842 (Rubenstein and Ziewacz 2014). By the 1870s, most of the state's Native population were living on reservations.

By 1833, Michigan's population was over 60,000 people, more than enough to be admitted into the Union as a state. However, Congress refused to consider the matter until a boundary dispute with Ohio was resolved. Both the State of Ohio and the Michigan Territory considered a strip of land at the northwest corner of Ohio as their rightful possession. This area, called the Toledo Strip, was controversial because Ohio had a provision in its constitution that its northern boundary, delineated in the Ordinance of 1787, could be adjusted if it did not include the mouth of the Maumee River. However, when the Michigan Territory was set up in 1805, Congress either was unaware of or ignored this provision and gave this land to the new territory. While militias on both sides were formed and Michigan militiamen made incursions into Ohio, the so-called "Toledo War" mainly consisted of political bluster, and was resolved without a shot being fired through a compromise bill in Congress that admitted Michigan as a state if it ceded the Toledo strip. As a consolation prize, the Upper Peninsula was included as part of the new state's territory (a transaction that subsequent generations of Michiganders now recognize as getting the best part of the deal). Still, various attempts down through the years have been made on Michigan's behalf to regain Toledo, all ending in failure. On January 26, 1837, Michigan was formally admitted to the Union (Rubenstein and Ziewacz 2014).

5.2.3 EXPANSION AND ECONOMIC GROWTH, 1837–1860

The initial settlement after statehood was achieved focused mainly on the southern tier of counties in the state, largely due to proximity to transportation routes, but also because of the presence of good farmland, especially in the southwestern prairie habitats. Settlers moved north at a slower rate, as transportation routes were nearly non-existent and there was a considerable effort required to clear land for agriculture. Too, the climate became harsher the farther north one went, with fewer growing days per year. The early settlers to the southeastern part of the state were largely from New England and New York, while people from Indiana and Ohio moved into the southwestern quarter, giving each area a distinct set of traits related to the settlers' origins. Improving transportation was the first priority for the new state legislature, and an elaborate proposal to build two canals running across the state and three railroads, all extending east-west across the southern half of the Lower Peninsula was funded by a public improvement act in 1837. Unfortunately, financial troubles ultimately meant that these projects could never actually be funded through the sale of bonds (Rubenstein and Ziewacz 2014).

A new source of profit for the state was needed. Eyes turned towards the Upper Peninsula, especially the copper country of the Keweenaw Peninsula. The copper

wealth of this region was first recognized back in the era of French exploration, when massive chunks of float copper were described on the surface. The expedition of Douglass Houghton and Henry Rowe Schoolcraft in 1837 confirmed for the state the vast potential of this area. However, exploiting this resource was hampered by the fact that the state did not technically possess this part of the Upper Peninsula, which was still recognized by the United States as Ojibwa territory. The Federal Government quickly entered negotiations with Ojibwa representatives, extracting the rights to the tribe's Lake Superior territory in exchange for \$800,000 and the right to occupy portions of the area for a temporary period of time. With the signing of the Treaty of La Pointe in 1842, the Upper Peninsula mineral rush began. After problems with issuing mining permits was ironed out between the state and the Federal governments, people began flooding into the western Upper Peninsula. Numerous mining companies financed by Eastern businessmen, especially from Boston, set up mines and attendant communities across the landscape. Soon after the establishment of copper mining, large iron ore deposits were discovered along the southern Lake Superior shore in the central Upper Peninsula near present-day Negaunee. As with the Keewenaw region, several iron mining companies quickly developed to exploit this valuable resource, with new communities springing up around the mine locations. For a brief period around 1880, Michigan led the nation in both copper and iron production. Many of the towns and villages of the western and central Upper Peninsula today are directly related to the mining boom of the last half of the nineteenth century (Rubenstein and Ziewacz 2014).

In 1847, Lansing became the state capital, which previously was held at Detroit. A new state constitution was approved in 1850, which raised the question of suffrage for non-white men. Ultimately, the constitution approved extending the vote to immigrants who pledged to attain full citizenship and Native Americans who renounced tribal membership. Suffrage for Black people was placed on a separate ballot and soundly defeated. This event was typical for early civil rights in the state, which had early on addressed the issue during the territorial government days by passing a law that, while protecting free blacks from Southern slave catchers, denied them any semblance of civil rights or equality. Still, the abolitionist movement grew in Michigan, bolstered by immigrants from states with large numbers of abolitionists. The Underground Railroad had several routes leading across the state and slowly, anti-slavery sentiment grew in strength, until antebellum newspapers were bold enough to print statistics on the number of escaped enslaved people that made it to freedom in Canada through Michigan. As part of this movement, the Republican party saw a surge in electoral success in the 1850s, turning the state into one of the first strongholds for the party in the nation (Rubenstein and Ziewacz 2014).

5.2.4 THE CIVIL WAR YEARS AND POSTBELLUM DEVELOPMENTS, 1860–1900

Michigan was a vocal supporter of the Union cause in the months leading up to the Civil War, and put deeds to words by sending an infantry company for the Union

Army to Washington, D.C., just over a month after Confederate forces fired on Fort Sumter. The Michigan legislature recognized the key issue of the conflict in an 1862 resolution calling for the complete abolishment of slavery. As the war ground on, however, northern Democrats saw a chance to push back and rallied against abolitionism. While seeing some short-term gains, a party platform explicitly supporting white supremacy was too much for many of the so-called “War Democrats” who switched affiliation to the Republicans, and the Michigan Democratic Party was essentially neutered. Republicans swept the 1864 election, buoyed by the success of Sherman’s Atlanta campaign. Outside of the state government’s actions, Michigan’s support for the Union cause is seen in the number of men it sent to the war. Nearly a quarter of the male population of the state served in the war, including half of all military-aged men. Over 90,000 men in total went to war, including 1,600 free Black men who served in units like the First Michigan Colored Infantry. One of the most famous Michigan citizens tied to the Civil War is George Armstrong Custer, who rose to the rank of Major General and was known as one of the most talented cavalry officers on either side of the conflict. Michigan’s economy boomed during the war years, as its copper and iron were vital to the war effort. Too, the state’s farmers rapidly adopted mechanization into their labor practices, due to a labor shortage of farmhands who had gone off to war. This development was supported by increasing prosperity for farmers, who were making good money off providing food supplies for the war effort. This development was key in the change from primarily subsistence farming to large-scale commercial farming in the state. Although hampered during the war years because of labor shortages, the Michigan timber industry became one of the state’s predominant industries, with a yearly average of 33,000 acres of timberland cleared during this period. This period was also the golden age of rail in the state, with nearly 7,000 miles of track crisscrossing the state by 1900 (Rubenstein and Ziewacz 2014).

The post-war years showed that Michigan, while strongly anti-slavery during the war, was hesitant to grant full civil rights to Black people afterwards. An act to grant suffrage to Black men barely passed in 1870, with fear among segments of the white populace that passage would result in a mass migration to the state of former slaves. The same year, Michigan’s first women’s suffrage societies formed, although their goals would not be reached until the twentieth century. Politically, the Republican party dominated control of both the governor’s seat and the State House during this period, although the Democrats made steady advances in eroding their control.

Ironically, while white Michiganders feared an influx of Black immigrants from the South, it was experiencing massive population growth during this period of other immigrants, primarily from Europe. Over half of the 700,000 people who moved to the state between 1860 and 1900 were foreign nationals. Indeed, foreign immigration to the state was actively encouraged by the state legislature as early as 1845. Special focus of these efforts was on the Germanic region of Europe, whose residents were ideal immigrants due to their perceived conservatism, education, work ethic, and religious values. Many towns in Michigan still boast a

strong Germanic culture, such as Frankenmuth and Gaylord. Canadians, especially French *Canadiens*, were another significant source of newcomers. An influx of Dutch settlers to western Michigan influenced cultural development in that region, including the development of a town called Holland, an annual tulip festival, and even a few traditional Dutch windmills. In the Upper Peninsula, the mining companies actively recruited skilled Cornish miners from the United Kingdom. Large numbers of Irish also came to the mining districts, followed at the end of the nineteenth century by Italians, Swedes, Eastern Europeans, and Finns. While many of these immigrants moved further west to follow mining booms, the Finns stayed put and Finnish heritage remains a key component of Upper Peninsula culture (Rubenstein and Ziewacz 2014).

5.2.5 INDUSTRIAL BOOM YEARS AND THE DEPRESSION, 1900–1940

Michigan's industrial base developed greatly in the first two decades of the twentieth century. The copper and iron mining regions were still experiencing success, even with the contraction of active copper mines to the Portage Lake region and major competition with western mines. It was the automobile industry, however, that would define Michigan industry in the twentieth century. By 1900, Ransom Olds had already established Michigan's first automobile manufacturing company, and thanks in part to a mass-market advertising campaign, became rather successful. Olds' success inspired many others to enter the automobile industry. The most famous name in the industry is that of Henry Ford, who founded the Ford Motor Company in 1903. Ford is credited with the introduction of many innovations to the industry, including the assembly line and providing a living wage for his workers, based on the idea that the people who made his products should also be able to afford them. Other Michigan-based automobile companies that sprang up at the turn of the century include General Motors, created in 1908 out of an amalgamation of 30 different car companies purchased by William Durant.

The Great Depression had a tremendous effect on Michigan. The automobile industry was hard-hit, as cars were still viewed as a luxury item. The mining districts were devastated, and the copper mines never recovered. State efforts to provide relief were hampered by a Red Scare that occurred in the 1920s, lending a stigma to state welfare programs. Numerous strikes occurred during this period of labor disruption and unrest. Towards the end of the depression years, however, federal programs such as the Civilian Conservation Corps and Works Progress Administration had hired thousands of out-of-work Michigan residents, resulting in what has been described as 20 years' worth of infrastructure and societal improvements in the span of three years (Rubenstein and Ziewacz 2014).

5.2.6 WORLD WAR II AND THE POST WAR YEARS, 1941–1967

Michigan was a major player in materiel supply during World War II. Its industries were well-positioned to convert to production of vehicles, ammunition, and other supplies for the war, while its mines provided valuable copper and iron. Indeed, World War II is likely responsible for the survival of the copper industry in Michigan past the mid-century mark. Ten percent of all federal war contracts went to Michigan companies, second only to New York. After the war, numerous

developments, such as middle-class families with substantial savings to spend and the development of the interstate highway system, helped grow the automobile industry even more. The copper industry essentially collapsed completely after the war, with only two major mining companies barely managing to struggle along. Many of the rural counties in Michigan, especially in the Upper Peninsula, saw drastic population declines as families moved elsewhere to take advantage of better economic opportunities.

The development of a car-centric culture is a key factor in suburban growth, with a more negative contribution coming from systematic racism, as white families fled cities like Detroit with rising Black populations. Race relations were always a simmering issue in Michigan, with a surge in the Ku Klux Klan in the 1920s and a major race riot in Detroit in 1943. Because of its large Black population, Detroit was a hotbed of civil rights activity in the postwar years. In 1963, the city was the location of a national civil rights conclave attended by key figures in the movement, including Reverend Martin Luther King, Jr. Despite efforts to improve social and economic conditions, unemployment reached 11 percent by 1967, and civil discontent reached the boiling point in July of that year, with the infamous 1967 Detroit Riot. Sparked by a police raid on a night club during a severe heat wave, riots spread uncontrollable throughout the city, with entire city blocks destroyed by fire, the deaths of 44 people, and over \$50 million in property damage. The city is still trying to recover from the effects of this event to this day (Rubenstein and Ziewacz 2014).

5.2.7 THE MODERN ERA

Beginning in the 1970s, Michigan has experienced a series of declines in its industrial base. The automobile industry in the state has been affected through enticements by southern states to relocate factories with the promise of tax abatements and an anti-union governmental stance, while increased automation in the auto plants reduced the need for large workforces. The oil embargo of the early 1970s and governmental efforts to mandate fuel efficiency and emissions reductions also challenged the industry. By the 1980s, the state had one of the highest unemployment rates in the nation. The state economy has begun to diversify in recognition that depending largely on one dominant economic sector was not sustainable. New sources of business development appeared in the form of wineries and tourism. A series of political reforms of varying strategies helped pull the state out of severe economic woes by the 1990s, although it still lags much of the rest of the nation in key areas (Rubenstein and Ziewacz 2014).

5.2.1 CASS COUNTY HISTORY

Cass County was organized by an act of legislature on November 4, 1829, and named after General Lewis Cass, Governor of Michigan from 1813 to 1831 (Discover Cass County Michigan 2020). It is surrounded by the counties of Berrien to its west, Van Buren to its north, St. Joseph to its east, and borders the state of Indiana to its south. The county seat lays in the village of Cassopolis. Prior to the arrival of Europeans, several tribes of Native Americans lived in the area, such as the Pokagon and the Weesaw (Glover 1906). The Miami tribe controlled the area

when the French missionaries and explorers entered the area and were succeeded by the Potawatomi tribe. The settlers regarded the Potawatomi people as being particularly friendly compared to other tribes in the surrounding area. The Potawatomi people also took more of an interest in the teaching of French missionaries than other Native American groups. Perhaps due in small part to the Potawatomi tribe's friendly demeanor, three distinct treaties were made between them and the United States Government that encompassed Cass County. The first treaty made in 1821 included the Potawatomi tribe but also the Ottawa and Chippewa tribes, ceding their territory to the U.S. government except a portion of Berrien county between the St. Joseph River and Lake Michigan (Coolidge 1906). However, later treaties would see the Native groups lose the rest of the land they occupied to the US government and they were relocated to lands west of the Mississippi Rieve (Discover Cass County Michigan 2020, Glover 1906, Coolidge 1906).

The French were the first Europeans to enter Cass County. Their friendship with Algonquian tribes in the Great Lakes allowed them to access the area and trade freely. Yet, these explorers and traders were not permanent settlers to Cass County, and they moved frequently in and out of the area. Of early note was the Carey Mission, in which many Baptist missionaries moved into the wilderness of Cass county to convert members of the Potawatomi tribe (Mathews 1882). The mission was founded on a site just west of Niles and developed into a settlement that weary travelers could come to. Schools were erected as well as many other buildings for the religious mission. The Carey Mission became very important to the history of southwestern Michigan because it was the center of early settlement (Mathews 1882). It supplied early settlers from its mill and made crossing the wilderness a little easier. The first permanent American resident to Cass County was Uzziel Putnam, who settled in the Pokagon prairie with his family in 1825 (Glover 1906). Others soon followed and settlement started to begin in the prairie region, followed by surrounding townships. However, there were multiple incidents that happened around the time of settlement that discouraged settlers to continue gradually settling the area. Many settlers were still worried about the many Native American groups still in the area and conflicts happening in nearby areas. It would not be until 1834 that the county would become more accessible for easier settlement because of the proximity of the Erie Canal and Chicago Road (Coolidge 1906). These transportation systems allowed an important influx of settlers to come from places like New York, New England, and Pennsylvania. Throughout the years of 1836 to 1840, immigration increased, and the area of the county became more developed (Mathews 1882). Forests were cut back, log houses became more numerous, frame houses and barns appeared, and finally society started to be established with churches and schoolhouses (Mathews 1882, Glover 1906, Coolidge 1906).

When settlers came in higher numbers after the county was established in November 1829, and four original townships were organized the day after the county was founded. These original townships were Pokagon, Penn, La Grange and Ontwa (Mathews 1882). Early communities founded in Cass County included

Cassopolis, Dowagiac, Edwardsburg, Marcellus, and Vandalia, many of which started to be settled slightly before the major influx of settlers from 1836 to 1840. Cassopolis was platted in 1831 with the intention of it becoming the county seat because of its geographic location in the center of the county (Discover Cass County Michigan 2020). Railroads came slightly slower to Cass County than in other areas of southern Michigan because of the financial crash in 1837, followed by a period of depression that destroyed plans of constructing a railroad from Constantine to Niles (Rogers 1875). The first railroad in Cass County was the Michigan Central Railroad, built through Dowagiac to Kalamazoo in 1846, followed by several other lines. The completion of the Michigan Central Railroad helped with the development of Dowagiac but slowed the development of Cassopolis because Dowagiac's rail access made it a more attractive market (Mathews 1882, Discover Cass County Michigan 2020, Rogers 1875).

The Underground Railroad was very active in Cass County by 1840, ran largely by Quakers. Stephen Bogue and Zachariah Shugert were two prominent men in Cass County who ran stations on the Underground Railroad (Rogers 1875). By 1846 it was estimated that there were at least one hundred formerly enslaved people in Cass County, creating the East and Osborn settlements (Rogers 1875). They ended up being industrious and sturdy pioneers that helped improve the county. Eventually word reached ears of southern slave owners who sought to reclaim the freed enslaved people. A series of disputes and sometimes violent instances between Quakers, the freed fugitives, and "Kentuckians" became known as the "Kentucky Raid" (Rogers 1875). Most of the fugitives, being mainly from Bourbon County in Kentucky, fled to Canada, thanks to the actions of Commissioner McIlvain, who delayed the Kentuckians long enough to allow the escape. Later, Kentuckians would file suits against the Quakers for reimbursement (Rogers 1875).

As population increased, so did the industry of Cass County. The first grist mill was at the Carey Mission, and several other mills were eventually established. Sawmills were very numerous in the county as well, with woolen mills coming slightly later. Several tanneries once operated here as well, one of them being in Brownsville (Glover 1906). Cassopolis never became a center for manufacture but had a few industrial concerns, like the Cassopolis Manufacturing Company for the manufacture of grain drills built in 1900 (Glover 1906). Due to its early connection to a rail line, Dowagiac became the industrial center for the county with several factories and the Round Oak Stove Works, the drill works, the Colby mills, and many other industrial businesses (Glover 1906). Cassopolis was more agriculturally based than Dowagiac and so would have been numerous other villages and towns throughout the county. Today agriculture is still very prevalent and helps provide for many of the county's inhabitants but not in the same capacity as manufacturing, still the largest employer in the county, followed by health care and retail trade (Data USA 2020). The county today has a population of 51,397 and is still mainly rural in nature (Data USA 2020, Glover 1906).

5.2.2 HOWARD TOWNSHIP HISTORY

Howard Township was not as readily settled as other townships in Cass county due to its very dense woods. Settlers usually chose the open prairies to first establish their homes. However, eventually a pioneer was bold enough to try the task. William Kirk, a native of Virginia, was the first to settle in Howard Township around 1826 (Mathews 1882). In 1830, Joseph Harter was next to move to the township and is important to mention for his improvements that he made to the township. He ended up building the first and only water-powered sawmill in the township on his property around 1833 (Mathews 1882). Henley C. Lybrook would teach at one of the first schools near Joseph Harter's house in 1833 during the winter (Rogers 1875). After the first improvements were made to the township, more settlers moved to the area. On March 7th, 1834, Howard Township was organized by the Territorial Legislature, with the first meeting to be held at John Fosdick's house (Mathews 1882, Rogers 1875).

With the organization of the township came many positions to maintain governmental affairs. Ezekial C. Smith is of note in his service to that purpose. He was elected justice of the peace and maintained the position for thirty-six years and went to the state legislature in 1850 (Glover 1906). Howard Township developed slowly, with no formally organized villages or even a post office for most of the nineteenth century, and its population around 1882 was only around 974 (Mathews 1882). The only church in the township by the 1880s was the Methodist Episcopal church built in 1858 (Mathews 1882). Of note regarding Howard Township were multiple prehistoric mounds once present within its bounds. E. C. Smith excavated one of the mounds in 1835 with the help of his family (Mathews 1882). Today the township still maintains many of its rural characteristics, but its original forested condition has been altered to accommodate farms and pastures (Glover 1906, Mathews 1882).

5.2.3 HISTORY OF THE PROJECT AREA

The project area after settlement in the nineteenth century developed an agricultural character, which it still retains to a small extent. Increased residential development occurred in the twentieth century along M-60, especially as automobile ownership became more common and allowed for people to live farther away from their places of employment. The major development in the project area is the construction of the Jerry Tyler Memorial Airport, a municipal airfield built in 1929 (*The Herald-Press* 1929). The airport was one of many such small municipal airfields built across the nation at this time as air traffic increased and having an airport was a municipal point of pride, not to mention a potential economic boost. The airport features two paved runways in the form of an X.

5.3 RESEARCH QUESTIONS 1 AND 2 DISCUSSION

The first two research questions address the relationship of previous surveys and previously recorded sites/resources to the proposed project and the likelihood of encountering previously recorded cultural resources within the proposed project. These questions can be answered using the information collected from the

literature review and application of the environmental and cultural contexts to the specific ecological history of the project location.

1. *Has the project been subjected to previous cultural resources investigations, and are there any previously recorded resources located within or immediately adjacent to the project?*

The project area has not been subjected to previous archaeological investigations. The portion of the project area that crosses over M-60 overlaps the survey corridor of a previously conducted historic resources survey (Henry and Henry 2001). No previously recorded cultural resources are within the project area.

2. *What is the likelihood of identifying previously unrecorded cultural resources within the project?*

The likelihood to encounter previously unrecorded archaeological sites within the project area appears low to moderate in probability. For prehistoric sites, the project area is well drained but also does not contain or is adjacent to a permanent water source, nor does it appear that attractive habitats such as wetlands were in or near the project area that would have supplied specialized resources for exploitation. Prehistoric sites, if present, are projected to occur as isolated finds or low-density lithic scatters. Historical artifact scatters may be present around some of the houses within the project area, associated with residential use of yard spaces and potentially agricultural activities at any house associated with a farm.

6.0 METHODS

6.1 ARCHAEOLOGICAL FIELD METHODS

The field crew used visual inspection for the reconnaissance of the project area. More intensive testing was not included in the scope of work at this phase of project development.

6.1.1 VISUAL INSPECTION

The crew visually inspected the APE to identify readily apparent archaeological resources, such as mounds, earthworks, buildings, or structural remnants of such. The crew also documented areas of disturbance, steep slope, and any inundated areas (i.e. wetlands, streams, ponds, etc.), which would preclude physical testing in the future.

7.0 RESULTS OF THE ARCHAEOLOGICAL RECONNAISSANCE

The crew conducted the reconnaissance in late May of 2020. The weather was overcast and warm (75° F). The weather did not hinder the completion of the fieldwork. The crew used visual inspection to inspect the APE for above ground indications of archaeological resources (Figure 11, Photo 1–Photo 12). Most of the APE was in residential yards due to the nature of the project (tree clearing from a runway approach), while some portions represent treelines serving as agricultural

field borders. The reconnaissance did not result in the identification of any archaeological resources through visual inspection.

7.6 RESEARCH QUESTIONS 3 AND 4 DISCUSSION

After completing analysis of the results of fieldwork, the second two research questions regarding whether the proposed project will affect any cultural resources and if so, are those affected resources listed, eligible, or potentially eligible for the NRHP can be addressed.

3. *Will the proposed project affect any cultural resources (archaeological or above ground structures)?*

It is uncertain if the project will affect archaeological resources, as no subsurface testing was included in the reconnaissance. No surface indications of buried resources was observed, but given the lightly developed nature of the APE, visual inspection cannot rule out the potential for archaeological deposits. This reconnaissance only focused on archaeological resources and the potential effect on above ground structures will be addressed in a forthcoming report by Mead and Hunt.

4. *If cultural resources will be affected, are any of those affected resources listed, eligible, or require further study for inclusion on the National Register of Historic Places?*

It does not appear from this initial reconnaissance that there will be any significant archaeological resources present that would be National Register-eligible; however, this cannot be confirmed without further investigation of the APE.

8.0 SUMMARY AND CONCLUSIONS

Lawhon & Associates, Inc. (L&A) conducted an archaeological reconnaissance for a proposed clearing project at Runway 33 of the Jerry Tyler Memorial Airport in Howard Township, Cass County, Michigan, just outside the City of Niles. The APE for the project consists of the individual locations where trees will be removed to provide a clear approach to the southeast end of one of the runways at the airport. The reconnaissance involved a literature review and visual inspection to give a preliminary assessment of the probability for archaeological resources within the APE.

The literature review revealed that the project area has not been previously surveyed for archaeological resources. A 2001 history/architecture survey crossed the project area along M-60 but did not identify any significant architectural resources within the project area. The visual inspection of the APE did not result in the identification of any surface indicators for archaeological sites. The presence of archaeological sites cannot be completely ruled out for the APE without subsurface testing. However, if the individual trees can be felled without significant ground disturbance (e. g. stump removal, grubbing, etc.), archaeological survey would likely not be warranted for the undertaking.

9.0 REFERENCES

Benchley, E. D.

1975 *Final Report of an Archaeological Survey of the Franklin Sanitary Landfill Site, Milwaukee County, Wisconsin*. University of Wisconsin – Milwaukee Archaeological Research Laboratory Reports of Investigation No. 6. Submitted to Metro Disposal Service. Copies on file at the University of Wisconsin – Milwaukee Archaeological Research Laboratory, Milwaukee.

Brashler, J. G., J. R. Halsey, M. B. Holman, J. J. Krakker, S. R. Martin, D. M. Stothers, and R. I. Zurel

1999 *The Late Woodland: Prehistory's Finale, History's Prelude*. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp.193–252. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Broyles, B. J.

1971 *Second Preliminary Report: The St. Albans Site, Kanawha County, West Virginia*. Report of Archaeological Investigations No. 3. West Virginia Geological and Economic Survey, Morgantown.

Caldwell, J. R.

1964 *Trend and Tradition in the Prehistory of the Eastern United States*. Memoir of the American Anthropological Association No. 88. American Anthropological Association, Washington, D.C.

Carr, D. H.

2012 *Paleoindian Economic Organization in the Lower Great Lakes Region: Evaluating the Role of Caribou as a Critical Resource*. Unpublished Ph.D dissertation, Department of Anthropology, Michigan State University, East Lansing.

Chapman, J.

1975 *The Rose Island Site and Bifurcate Point Tradition*. Report of Investigations 14. Department of Anthropology, University of Tennessee, Knoxville.

Chivis, J.

2003 *Understanding Prehistoric Ceramic Technology from the Grand River Valley*. *McNair Scholars Journal* 7(1):49–59.

Clay, R. B.

1992 *Chief, Big Men, or What? Economy, Settlement Patterns, and Their Bearing on Adena Political Models*. In *Cultural Variability in Context: Woodland Settlement Patterns of the Mid-Ohio Valley*, edited by M. F. Seeman, pp. 77–80. Kent State University Press, Kent, Ohio.

Cleland, C. E.

1966 *The Prehistoric Animal Ecology and Ethnozoology of the Upper Great Lakes Region*. Anthropological Papers No. 29. Museum of Anthropology, University of Michigan, Ann Arbor.

1999 Cultural Transformation: The Archaeology of Historic Indian Sites in Michigan, 1670–1940. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 279–290. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Coolidge, O. W.

1906 *A Twentieth Century History of Berrien County, Michigan*. Lewis Publishing Company, Chicago.

Data USA

2020 Cass County, MI. datausa.io/profile/geo/cass-county-mi, accessed May 12, 2020.

Discover Cass County Michigan

2020 History of Cass County. discovercasscounty.com/history-of-cass-county/, accessed May 12, 2020.

Dragoo, D. W.

1976 Some Aspects of Eastern North American Prehistory: A Review 1975. *American Antiquity* 4:3–27.

Dye, D.

1977 Model for Late Archaic Subsistence Systems in the Western Middle Tennessee Valley During the Bluff Creek Phase. *Tennessee Anthropologist* 2(1):63–80.

Ford, R. I.

1974 Northeastern Archaeology: Past and Future Directions. *American Antiquity* 3:385–413.

1979 Gathering and Gardening: Trends and Consequences of Hopewell Subsistence Strategies. In *Hopewell Archaeology*, edited by D. S. Brose and N. Greber, pp. 234–238. The Kent State University Press, Kent, Ohio.

Fritz, G. J.

1990 Multiple Pathways to Farming in Precontact Eastern North America. *The Journal of World Prehistory* 4(4):387–426.

Garland, E. B., and S. G. Beld

1999 The Early Woodland: Ceramics, Domesticated Plants, and Burial Mounds Foretell the Shape of the Future. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 125–146. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Glover, L. H.

1906 *A Twentieth Century History of Cass County, Michigan*. Lewis Publishing Company, Chicago.

Griffin, J. B.

1952 Culture Periods in Eastern United States Archaeology. In *Archaeology of Eastern United States*, edited by J. B. Griffin, pp. 352–364. University of Chicago Press, Chicago.

-
- 1967 Eastern North American Archaeology: A Summary. *Science* 156:175–191.
- Halsey, J. R.
1999 Late Woodland Burial Practices. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 234-243. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Henry and Henry
2001 *Intensive Level Survey of Above-Ground Resources, M-60 BR, Niles, Berrien and Cass Counties, Michigan CS #11041/14061, JN #45637*. Submitted by Henry and Henry, Eagle, Michigan. Submitted to Michigan Department of Transportation, Lansing. Copy on file at Michigan State Historic Preservation Office, Lansing.
- Herald-Press*
1929 "Begin Work On Niles Airport." *The Herald-Press*, St. Joseph, Michigan. April 19.
- Hinsdale, W. B.
1931 *Archaeological Atlas of Michigan*. University of Michigan Press, Ann Arbor.
- Holloway, C.
2012 Late Woodland Period Settlement Organization in Southeast Michigan. Unpublished Senior Honors Thesis, Eastern Michigan University, Ypsilanti.
- Jennings, J. D.
1968 *Prehistory of North America*. 2nd ed. McGraw-Hill, New York.
- Justice, N. D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington and Indianapolis.
- Kingsley, R. G., D. S. Brose, and M. J. Hambacher.
1999 The Middle Woodland: A Golden Age of Mound Builders and Fishermen. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 147–192. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Lewis, T. M. N., and M. K. Lewis
1961 *Eva: An Archaic Site*. University of Tennessee Press, Knoxville.
- Lovis, W. A.
1999 The Middle Archaic: Learning to Live in the Woodlands. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 83–94. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Lovis, W. A., R. E. Donahue, and M. B. Holman
2005 Long-Distance Logistic Mobility as an Organizing Principle among Northern Hunter-Gatherers: A Great Lakes Middle Holocene Settlement System. *American Antiquity* 70(4):669–693.
-

Martin, S. R.

1999 A Site For All Seasons: Some Aspects of Life in the Upper Peninsula during Late Woodland Times. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 221–227. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Mathews, A.

1882 *History of Cass County, Michigan. With illustrations and biographical sketches of some of its prominent men and pioneers*. Waterman, Watkins & Company, Chicago.

McAllister, P. W., W. M. Cremin, and J. R. Halsey

1999 Upper Mississippian/Oneota: People on the Margins of Michigan and the Fringes of History. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 253–279. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

McKern, W. C.

1939 The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study. *American Antiquity*4(4):301–313.

Muhammad, A. J.

2010 A Bioarchaeological Study of a Late Woodland Population from Michigan: Frazer-Tyra Site (20SA9). Unpublished Ph.D. dissertation, Wayne State University, Detroit, Michigan.

National Environmental Title Research (NETR)

2016 *Historic Aerials*. <http://www.historicaerials.com/>, accessed May 18, 2020.

Prufer, O. H.

1964 The Hopewell Complex of Ohio. In *Hopewellian Studies*, edited by J. R. Caldwell and R. L. Hall, pp. 35–84. Scientific Papers No. 12. Illinois State Museum, Springfield.

Robertson, J. A., W. A. Lovis, and J. R. Halsey

1999 The Late Archaic: Hunter-Gatherers in an Uncertain Environment. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 95–124. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Rogers, H. S.

1875 *History of Cass County, from 1825 to 1875*. W. H. Mansfield, Vigilant book and job print. Cassopolis, Michigan.

Rubenstein, B. A., and L. E. Ziewacz

2014 *Michigan: A History of the Great Lakes State*. John Wiley & Sons, Chichester, West Sussex, United Kingdom.

Seeman, M. F.

1992 Woodland Traditions in the Midcontinent: A Comparison of Three Regional Sequences. In *Long-term Subsistence Change in Prehistoric North*

- America*. D. Croes, R. Hawkins, and B. Isaac, eds., pp. 3–46. Ohio Archaeological Council, Columbus.
- Shott, M. J.
1999 The Early Archaic: Life After the Glaciers. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 71–82. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Shott, M. J. and H. T. Wright
1999 The Paleo-Indians: Michigan's First People. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 59–70. Cranbrook Institute of Science, Bloomfield Hills, Michigan.
- Smith, B. A., and K. C. Egan
1990 Middle and Late Archaic Faunal and Floral Exploitation at the Weber I Site (20SA581), Michigan. *Ontario Archaeology* 50:39–54.
- Stothers, D. M., T. J. Abel, and A. M. Schneider
2001 Archaic Perspectives in the Western Lake Erie Basin. In *Archaic Transitions in Ohio & Kentucky Prehistory*, edited by O. H. Prufer, S. E. Pedde, and R. S. Meindl, pp. 233–289. Kent State University Press, Kent, Ohio.
- Tanner, H. H.
1987 *Atlas of Great Lakes Indian History*. University of Oklahoma Press, Norman.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS)
2020 *Web Soil Survey*. <http://websoilsurvey.nrcs.usda.gov>, accessed May 14, 2020.
- United States Department of Agriculture, Soil Conservation Service (USDA SCS)
1991 *Soil Survey of Cass County, Michigan*. U.S. Government Printing Office, Washington, D.C.
- US Climate Data
2020 *Climate Eau Claire-Michigan*. <https://www.usclimatedata.com/climate/eau-claire/michigan/united-states/usmi0255>, accessed May 14, 2020.
- United States Geological Survey
2020 Geologic Units of Michigan. Geospatial database, <https://mrdata.usgs.gov/geology/state/state.php?state=MI>, accessed May 14, 2020.
- Western Michigan University
2020 Physiographic Map of Michigan. Geospatial database, <https://www.esrs.wmich.edu/mgs/webmgs/physiography/physio.html>, accessed May 14, 2020.
- Witthoft, J.
1953 Broad Spearpoints and the Transitional Period Cultures in Pennsylvania. *Pennsylvania Archaeologist* 23(1):4–31.

Yarnell, R. A.

1963 Comments on Struever's Discussion of an Early "Eastern Agricultural Complex." *American Antiquity* 28: 547–548.

1974 Plant Food and Cultivation of the Salts Caves. In *Archaeology of the Mammoth Cave Area*, edited by P. J. Watson, pp. 113–122. Academic Press, New York.

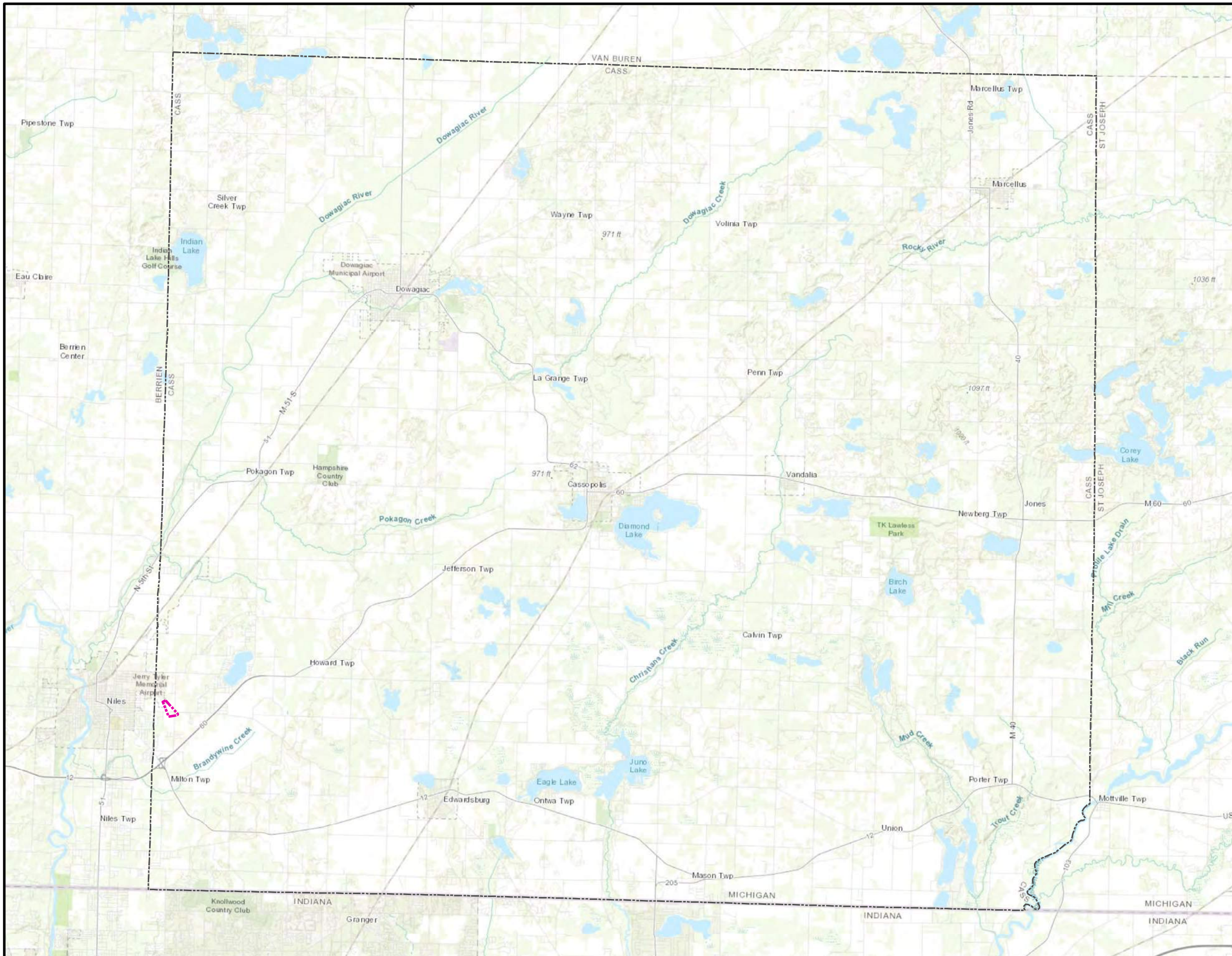
Yerkes, R. W.

1988 The Woodland and Mississippian Traditions in the Prehistory of Midwestern North America. *Journal of World Prehistory* 2(3):307–358.

Zurel, R. L.

1999 Earthwork Enclosure Sites in Michigan. In *Retrieving Michigan's Buried Past: The Archaeology of the Great Lakes State*, edited by J. R. Halsey, pp. 244-248. Cranbrook Institute of Science, Bloomfield Hills, Michigan.

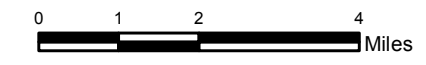
10.0 FIGURES



Overview of Michigan

Legend

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- Study Area

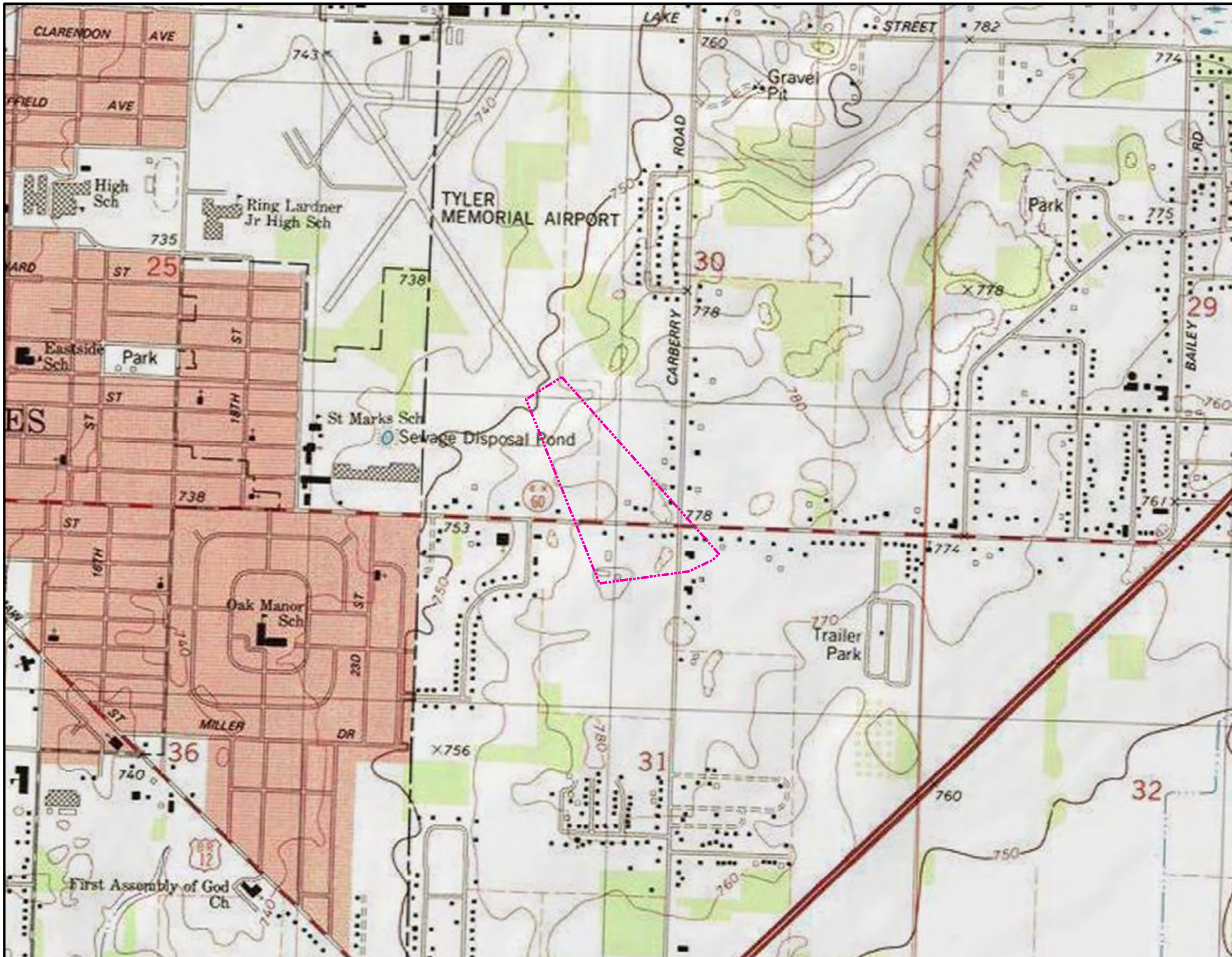


Jerry Tyler Memorial Airport

Cass County Map with an Overview of Michigan

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Site Location Map

Legend


 Study Area

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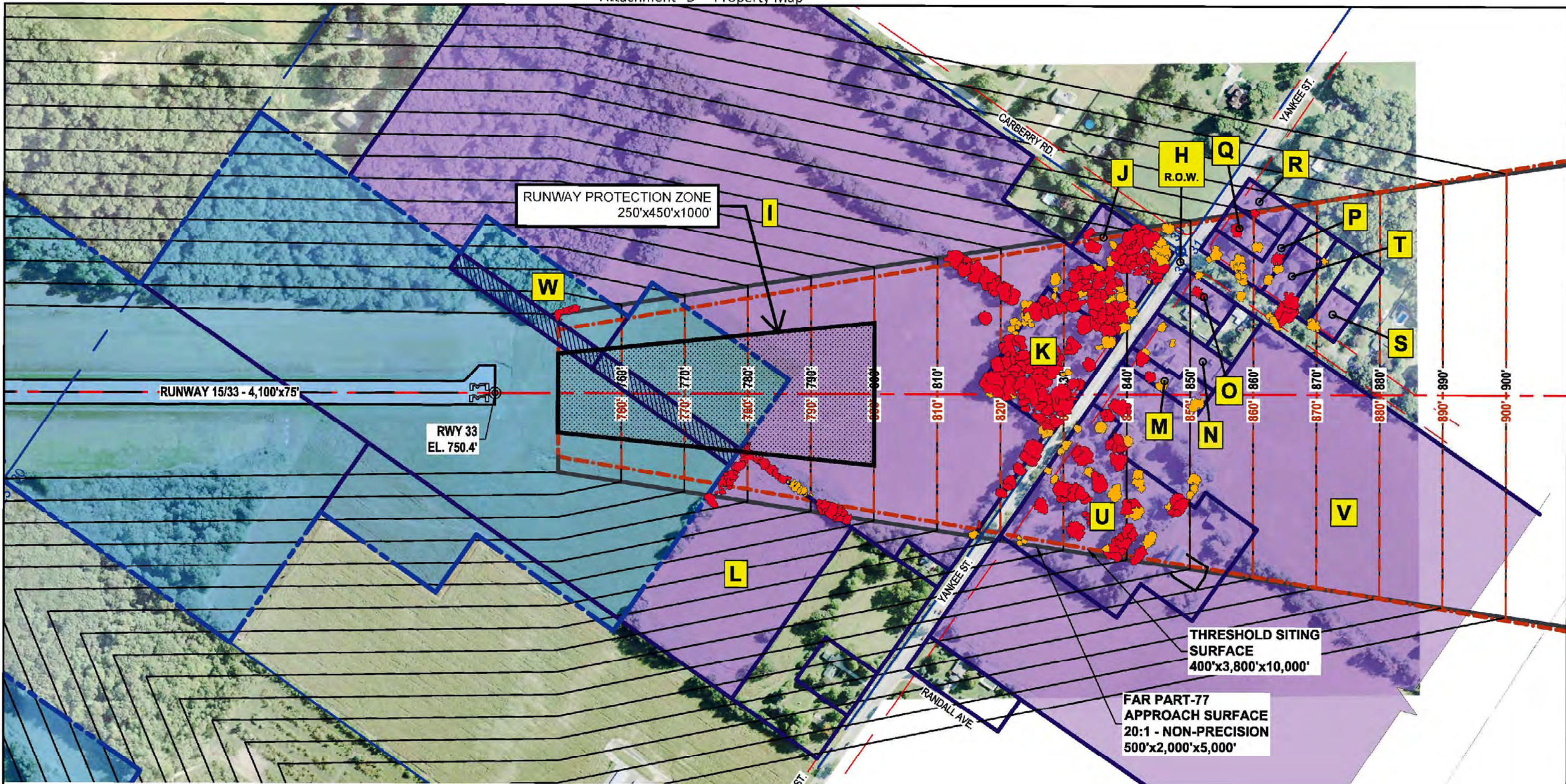

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Feet

Jerry Tyler Memorial Airport

USGS Topographic Map
Niles East Quad


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DATE: 03/16/17

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	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

Jerry Tyler
Memorial Airport



Project Plans

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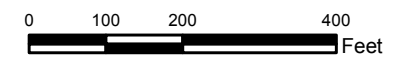
Site Location Map

Legend

Study Area

Soil Type

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- 41C
- 4B
- 5B
- 9B



**Jerry Tyler
Memorial Airport**

Soils Map



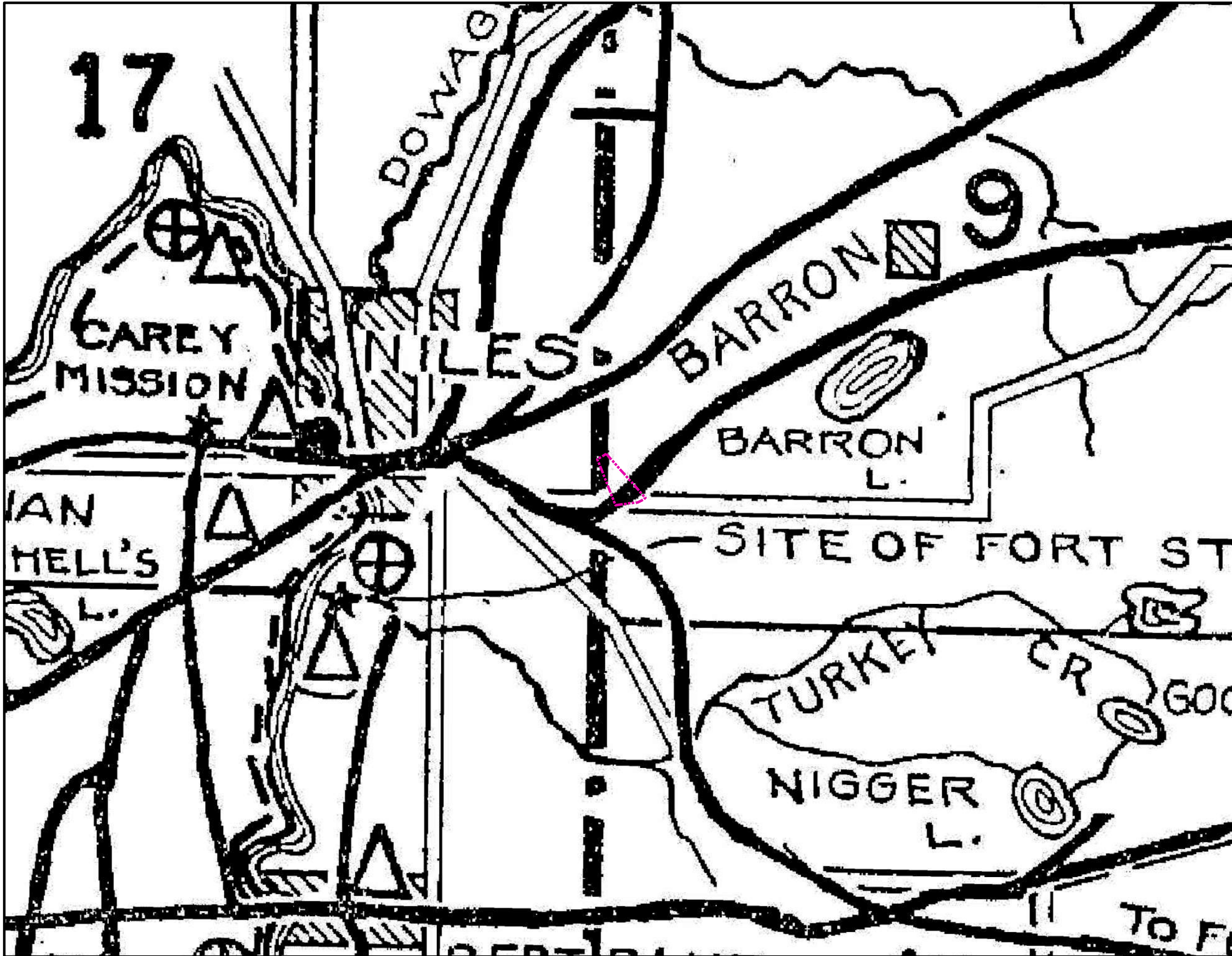
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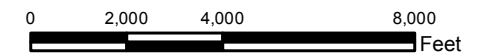
Figure
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Site Location Map

Legend

 Study Area



Jerry Tyler Memorial Airport

Detail of Cass County
Map from Hinsdale 1931

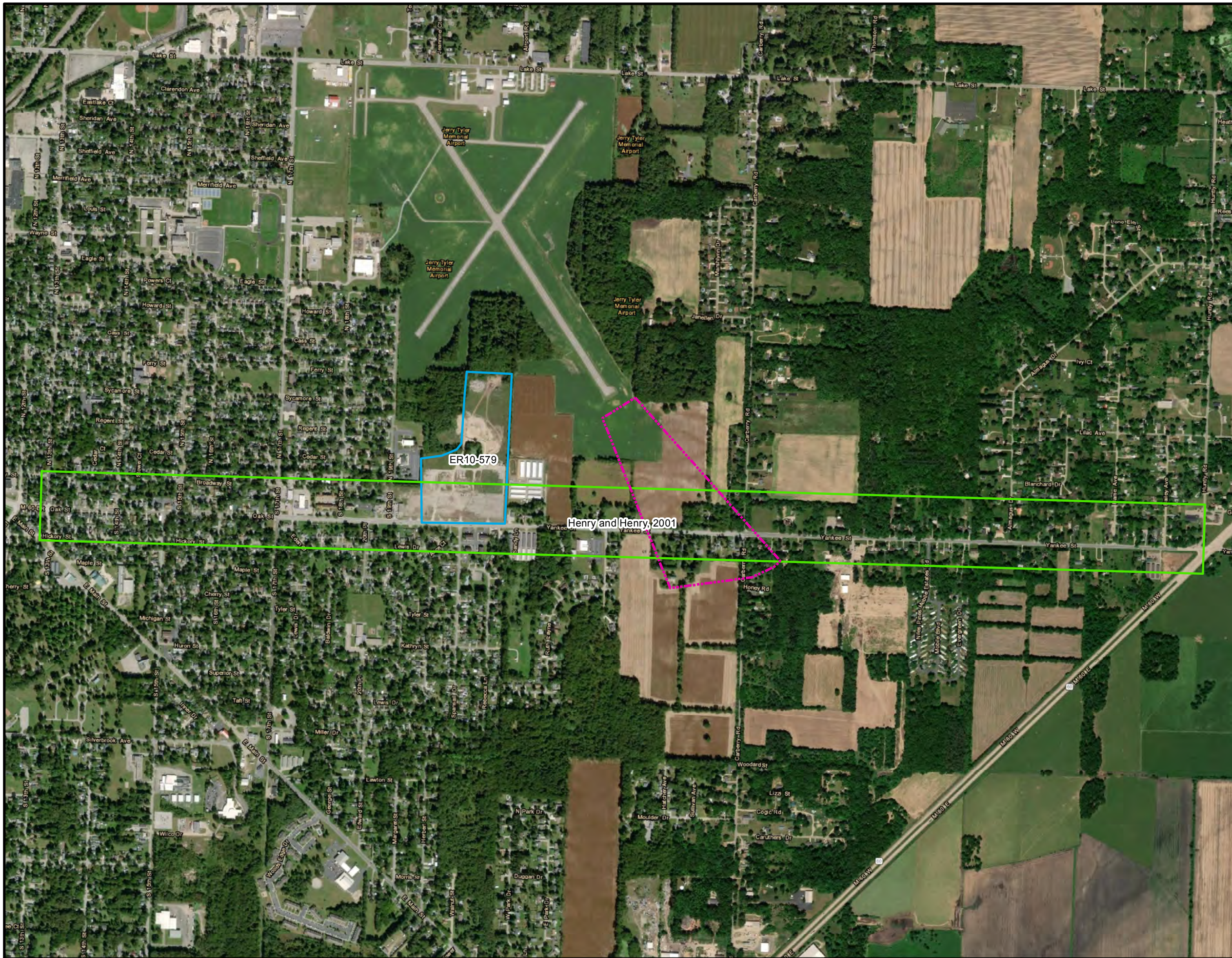


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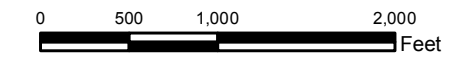
Figure
5



Site Location Map

Legend

- Study Area
- Archaeology Survey Area
- History/Architecture Survey Area



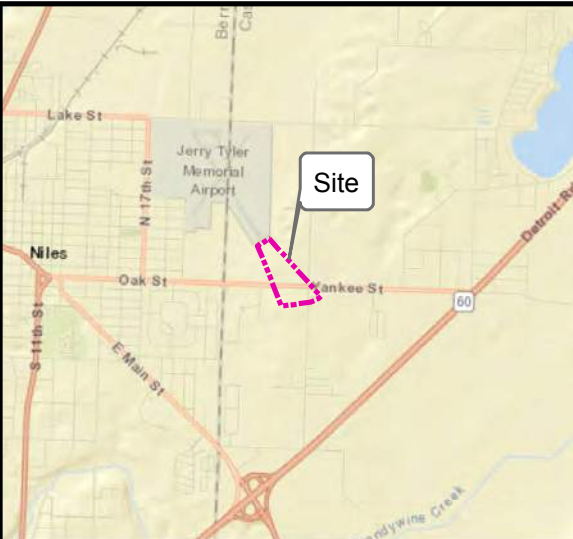
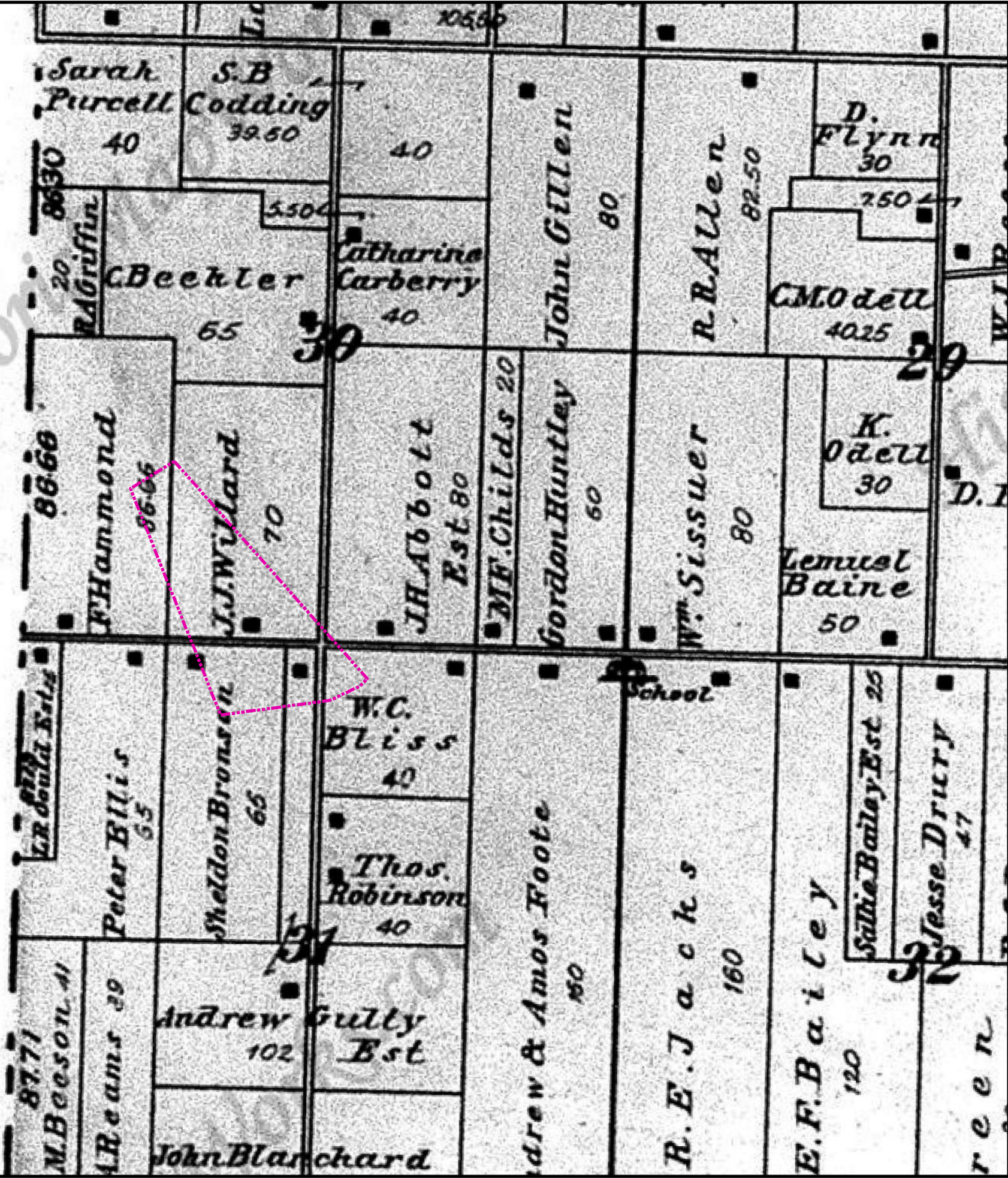
Jerry Tyler Memorial Airport

Previously Identified Cultural Resources Surveys



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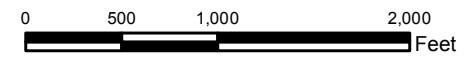
Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 6
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Site Location Map

Legend

- Study Area



Jerry Tyler Memorial Airport
 Detail of 1896
 Howard Township Plat



Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 7
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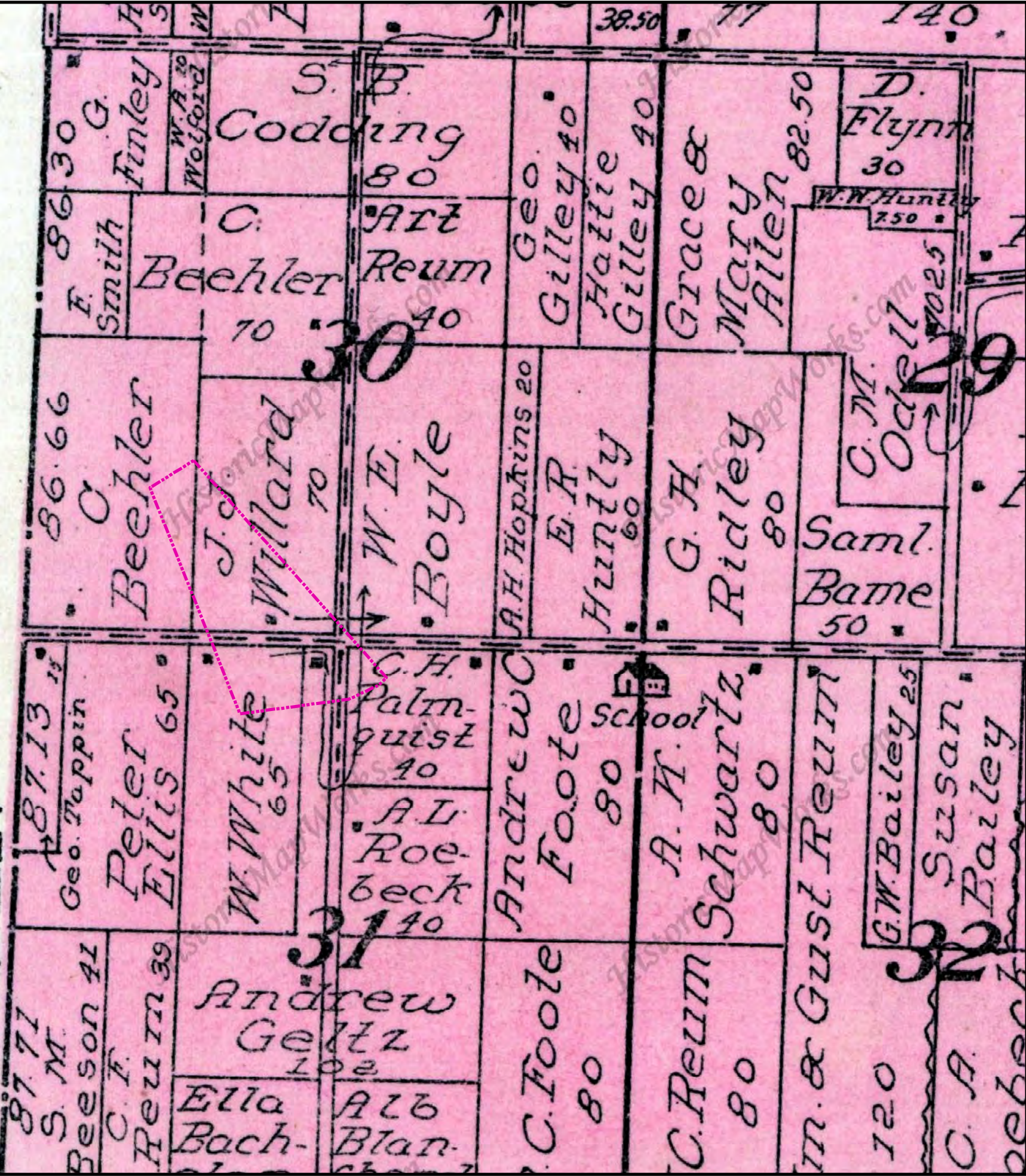
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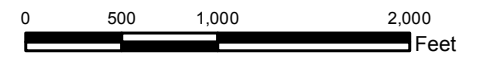
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Site Location Map

Legend

Study Area



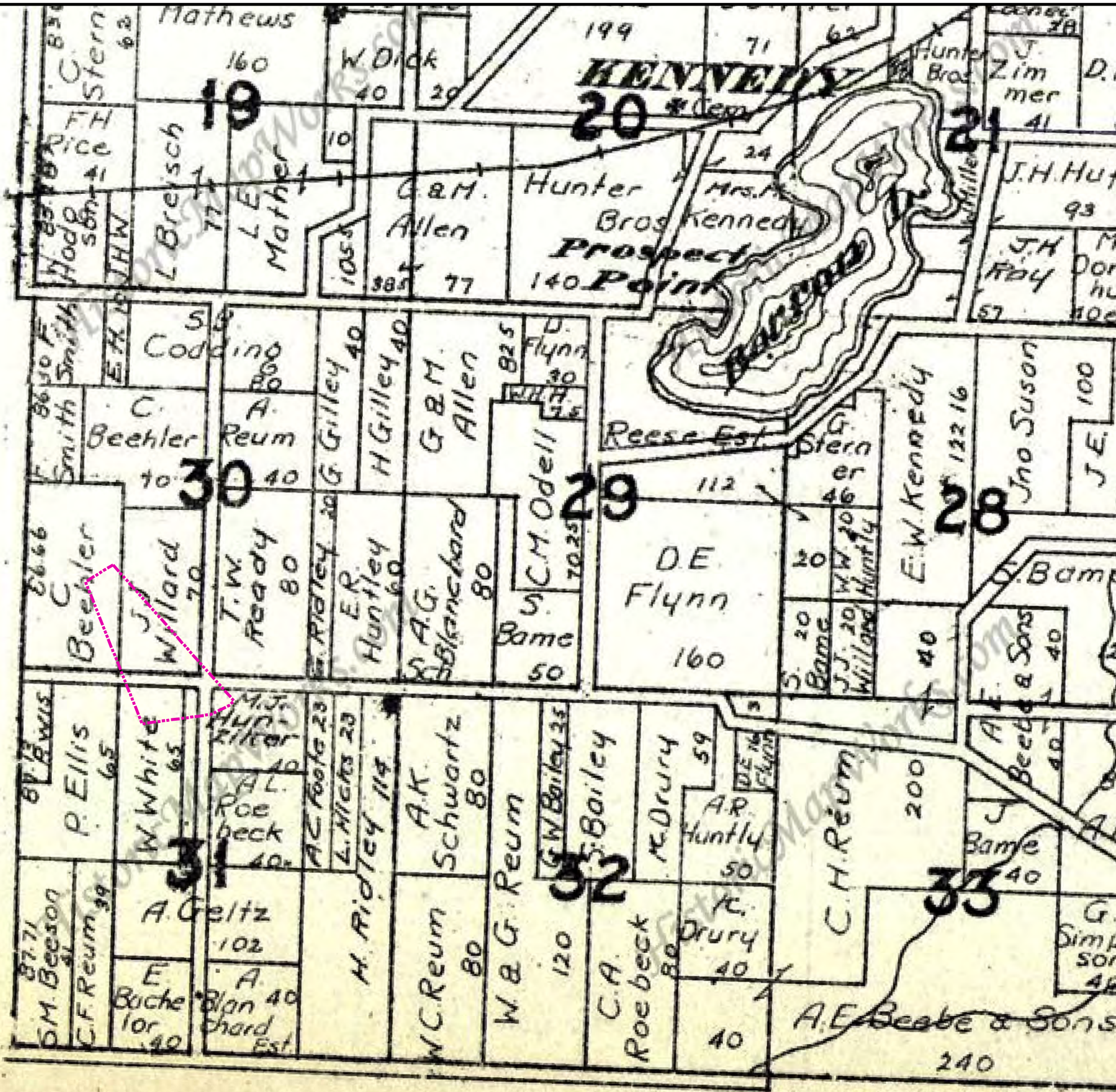
Jerry Tyler Memorial Airport

Detail of 1914 Plat of Howard Township



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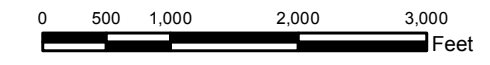
Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 8
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Site Location Map

Legend

-  Study Area

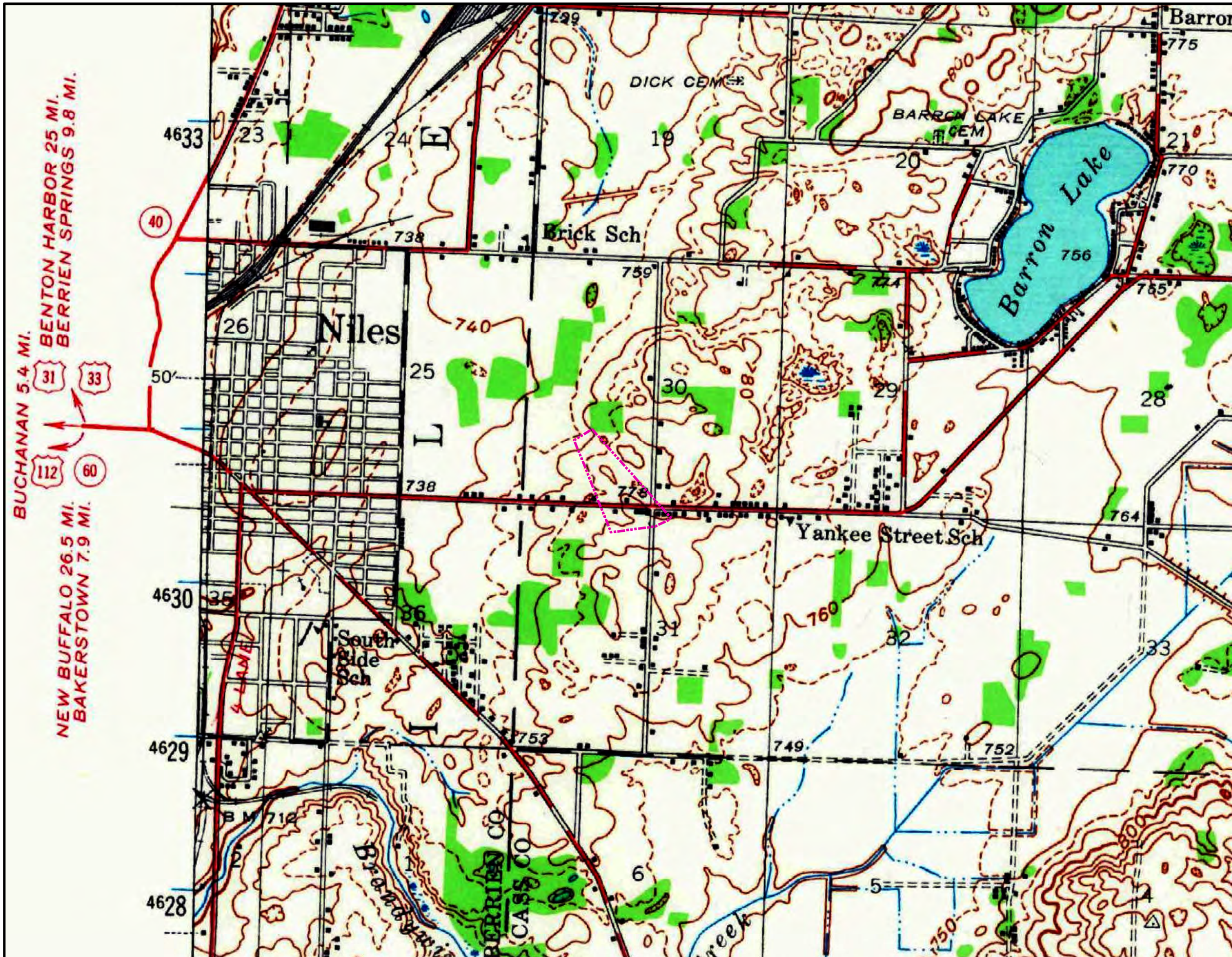


Jerry Tyler Memorial Airport
 Detail of 1920 Plat of Howard Township



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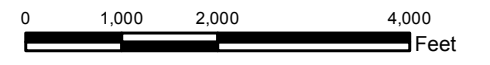
BUCHANAN 5.4 MI.
 BENTON HARBOR 25 MI.
 BERRIEN SPRINGS 9.8 MI.
 NEW BUFFALO 26.5 MI.
 BAKERSTOWN 7.9 MI.



Site Location Map

Legend

- Study Area

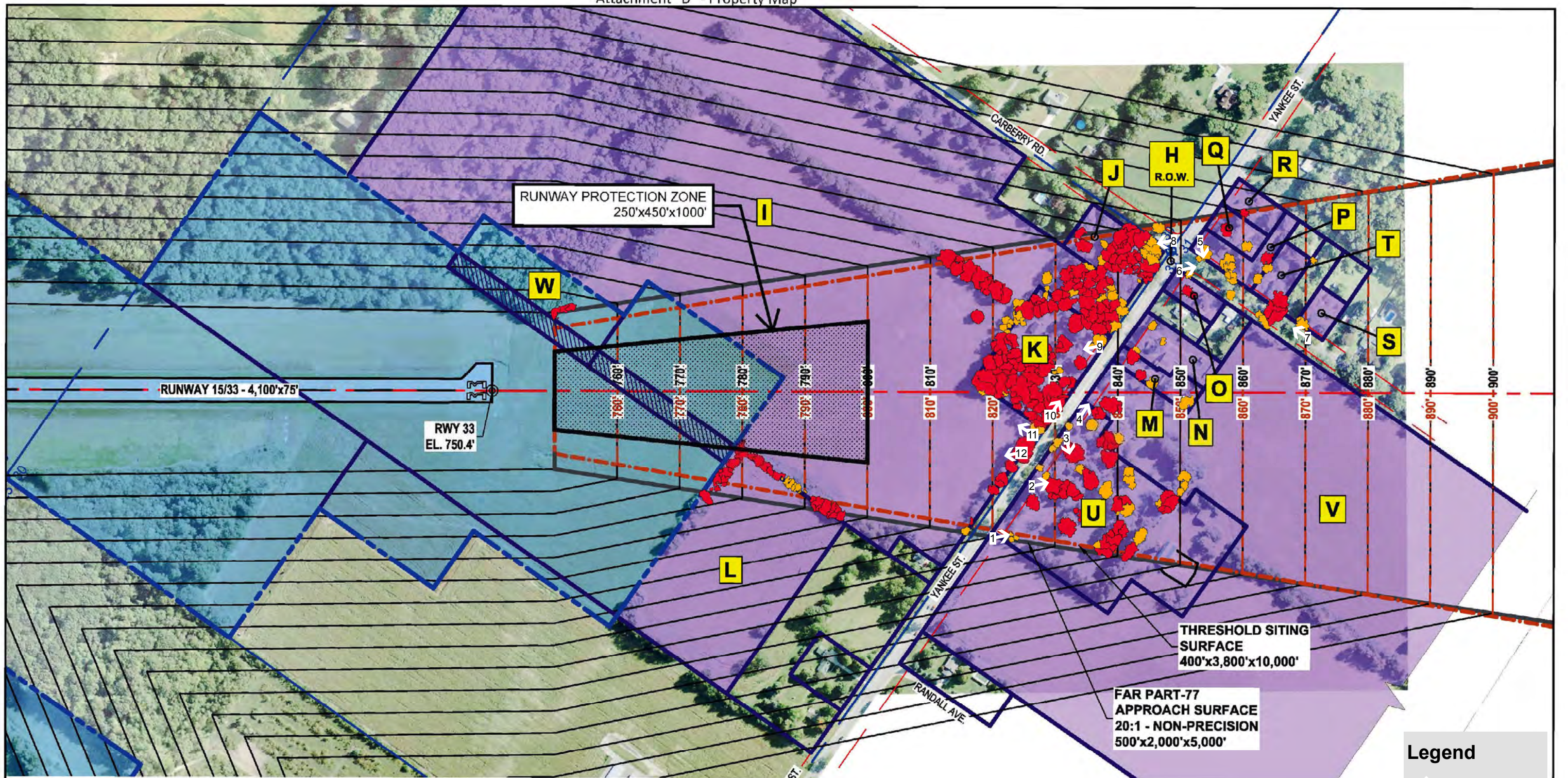


Jerry Tyler Memorial Airport
 1945 Cassopolis, Michigan
 15' Series Topographic Map



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Legend
 ↑ Photo Location

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	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

Jerry Tyler Memorial Airport

Photo Orientation Map

Lawhon & Associates, Inc

Date: June 2020	Approved by: CM	L&A No. 20-0245	Figure 11
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11.0 PHOTOS



Photo 1. APE conditions along the south side of M60, facing southeast



Photo 2: Historic-period house and yard in APE south of M60, facing southeast



Photo 3. Residential yard of historic-period house south of M60, facing southwest



Photo 4. APE conditions along south side of M60, facing east



Photo 5. Historic-period house with large tree in APE south of M60, facing southwest



Photo 6. Residential lot with large trees in APE, facing southwest



Photo 7. Conditions in APE looking north along Carberry Road towards M60



Photo 8. Mature trees in APE at M60/Carberry Road intersection, facing northwest



Photo 9. Residential lot with mature trees north of M60, facing northwest



Photo 10. Conditions along north side of M60 in APE, facing east

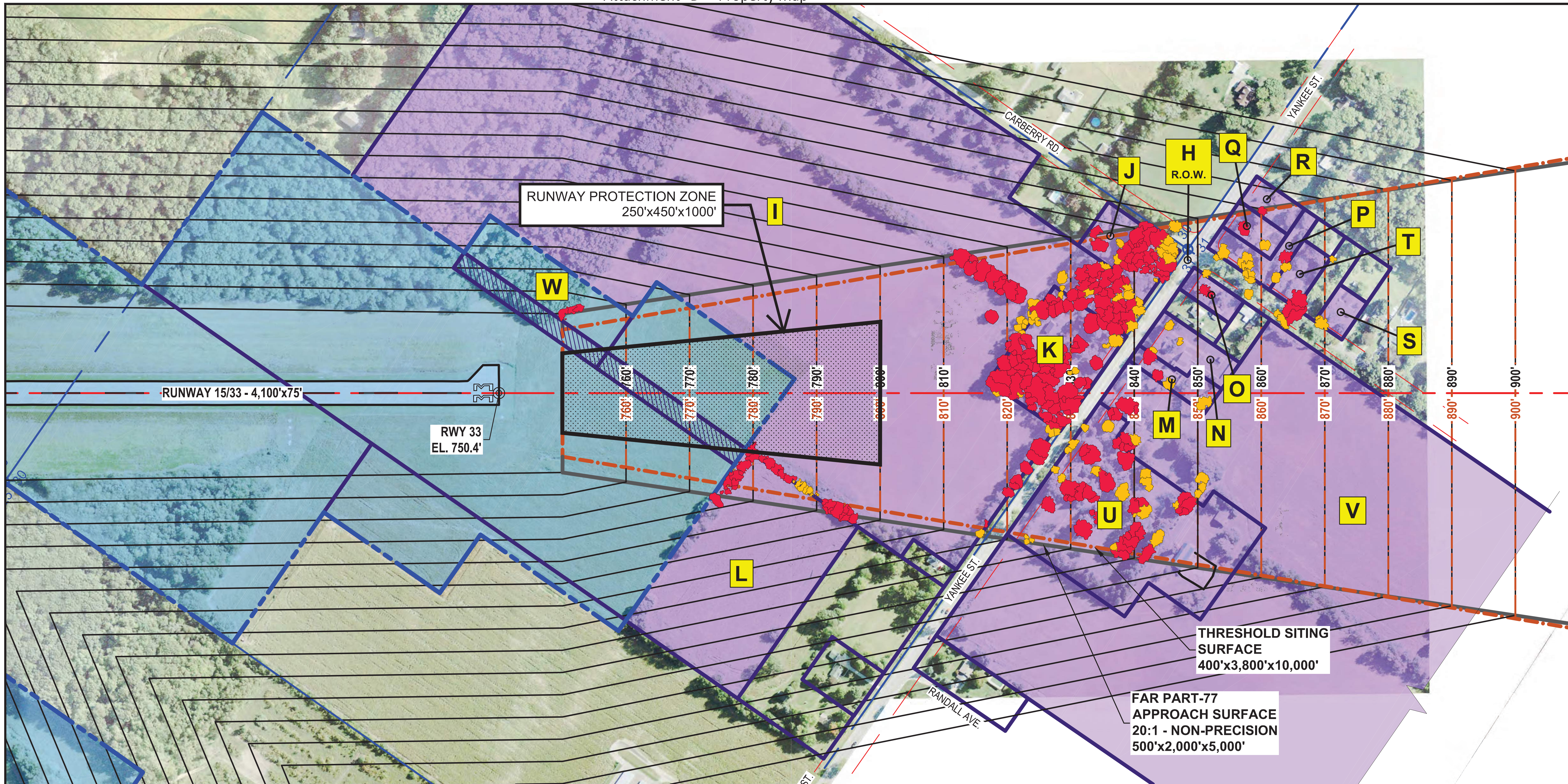


Photo 11. Agricultural field in project area, facing north
Tree line in center rear of photograph within APE for this project.



Photo 12. Agricultural field in project area, facing northwest
Tree line in center rear of photograph within APE for this project.

APPENDIX A. PROJECT PLANS



0 150 300 600

DATE: 03/16/17

These documents shall not be used for any purpose or project for which it is not intended. Mead & Hunt shall be indemnified by the client and held harmless from all claims, damages, liabilities, losses, and expenses, including attorneys' fees and costs, arising out of such misuse or reuse of the documents. In addition, unauthorized reproduction of these documents, in part or as a whole, is prohibited.

LEGEND			
	AIRPORT PROPERTY LINE		THRESHOLD SITING SURFACE
	FAR PART-77 APPROACH SURFACE		THRESHOLD SITING OBSTRUCTIONS
	FAR PART-77 BACKSLOPES		PROPERTY PARCEL
	FAR PART-77 APPROACH OBSTRUCTIONS		EXISTING AVIGATION EASEMENT
	FAR PART-77 OBJECTS WITHIN 10 FT		OVERLAP IN DEEDS

RUNWAY 33		Mead & Hunt
OBSTRUCTION ANALYSIS - PARCEL IDENTIFICATION		
JERRY TYLER MEMORIAL AIRPORT NILES, MICHIGAN		2605 Port Lansing Road Lansing, MI 48906 phone: 517-321-8334 meadhunt.com



STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GRETCHEN WHITMER
GOVERNOR

PAUL AJEGBA
DIRECTOR

January 11, 2021

Brian G. Grennell
Cultural Resource Management Coordinator
Michigan State Historic Preservation Office
300 North Washington Square
Lansing, MI 48913

Subject: Jerry Tyler Memorial Airport (3TR)
Runway 15 Approach Clearing Project - Section 106 Consultation
Niles, Cass County, Michigan

Dear Mr. Grennell,

This letter is meant to provide follow-up to your October 15, 2020 email to me and Emily Pettis at Mead & Hunt, regarding the Section 106 consultation for the Jerry Tyler Memorial Airport, Runway 15 Approach Clearing Project, in Niles, Michigan. It provides responses to specific questions, and requests, for the subject project. Each question, or request for additional information, is provided below in italics, directly followed by our response.

- ***Please provide one map that shows the entire above-ground survey area.***
A revised map showing the Area of Potential Effect (APE) with a scale that shows all parcels surveyed, and the APE boundaries, on a single map is included (Attachment A). The APE boundaries remain unchanged from the original submittal.
- ***Provide the acreage surveyed.***
The total acreage surveyed, which corresponds with the area of the APE, is 93 acres.
- ***Provide a brief explanation for why these resources were not assessed as part of a potential historic district. There appears to be some potential for a small historic district along Yankee Street, but this was not included in the report.***
The area of Yankee Street, east of the current Niles city limits, was developed gradually over time, with the first settlers in the area arriving around the 1830s. These earliest settlers lived on large parcels that were mainly tended for agricultural purposes. This pattern of development continued through the latter half of the nineteenth century, with some parcels subdivided to create a denser, though still agricultural, area. In the early twentieth century, many parcels fronting Yankee Street were subdivided, and subsequently developed with more residential buildings. This infill occurred over several decades, between the 1900s and 1960s, along both Yankee Street and along cross streets near intersections.

Brian Grennell
Page 2
January 11, 2021

During fieldwork, Mead & Hunt considered the area for a potential historic district, with a focus on both early settlement around the middle of the nineteenth century, as well as, later development and infill that occurred in the early to mid-twentieth century. Today, the properties along Yankee Street do not evoke any significant theme for a particular historical period related to early settlement, patterns of development, or architecture. With widely varying property uses, styles, and ages, properties along this section of Yankee Street do not comprise a unified entity that relates to any area of significance through local, state, or national contexts, that would be applicable under any National Register of Historic Places (NRHP) eligibility criteria.

- ***We request that you submit specific information (photos keyed to site plans, etc.) regarding the number and location of trees to be removed.***

Additional maps specific to the two properties we recommended eligible for individual listing in the NRHP are included (Attachment B: Pattengell-Milburn House at 2268 Yankee Street & Attachment C: Colonial Revival House at 2302 Yankee Street). Both maps are keyed to additional photographs showing the setting of the respective properties, which can be viewed on the pages that directly follow each map.

Please let us know if you concur with our recommendation of adverse effect to the Pattengell-Milburn House at 2268 Yankee Street and the Colonial Revival House at 2302 Yankee Street, or if you need any additional information to complete your review of this project.

Sincerely,

Steve

Houtteman

Digitally signed by: Steve
Houtteman
DN: CN = Steve Houtteman
email =
houttemans@michigan.gov C
= US O = State of Michigan
Date: 2021.01.11 14:53:34 -
05'00'

Steve Houtteman

Aeronautics Environmental Specialist

Project Support Unit

MDOT – Office of Aeronautics

houttemans@michigan.gov

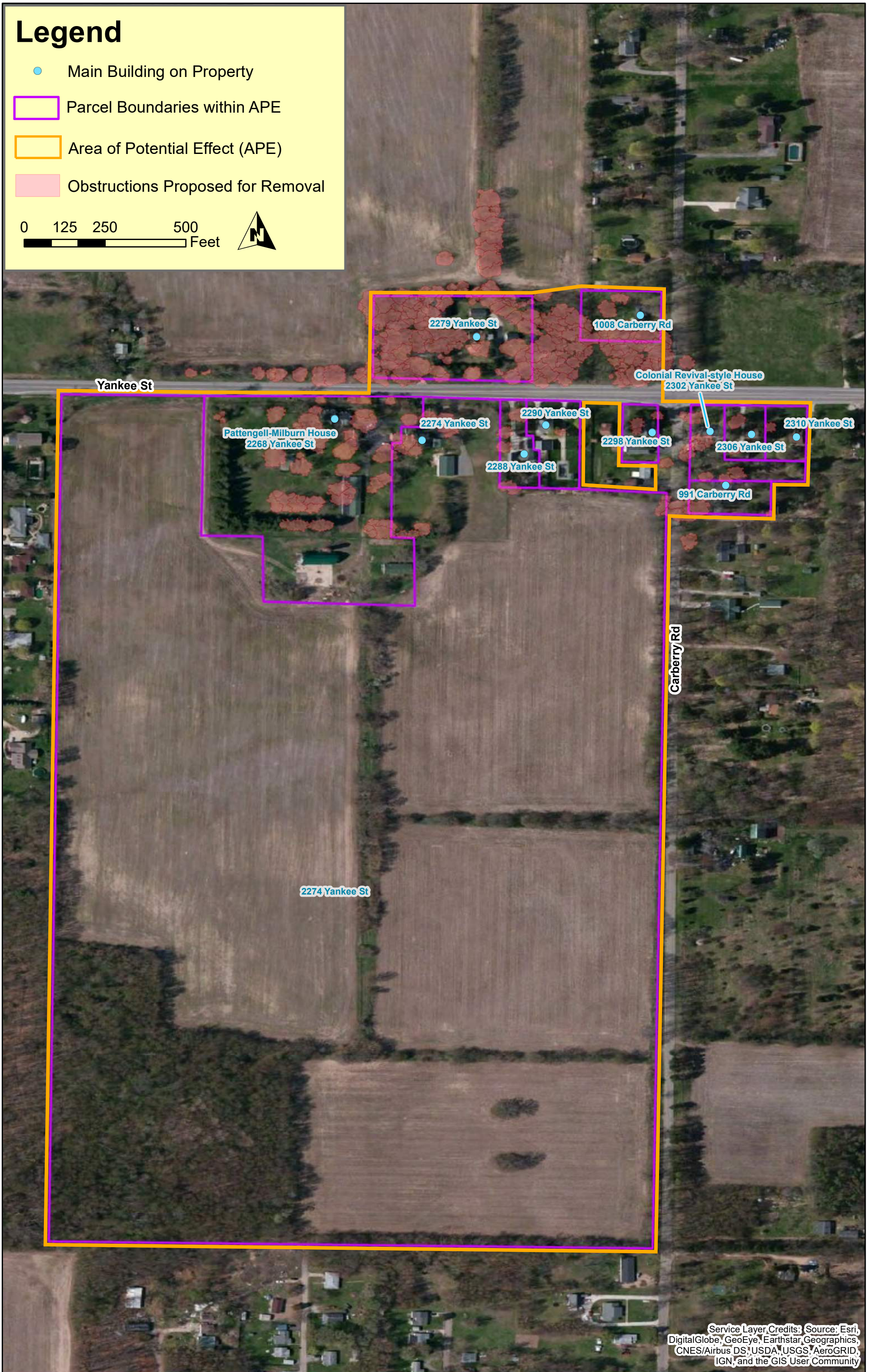
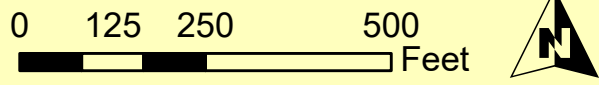
616-299-2654

Attachments

Appendix A. Area of Potential Effects (APE) Map

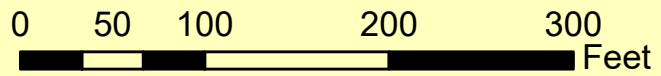
Legend







- Main Building on Property
- ▭ Parcel Boundaries within APE
- ▭ Area of Potential Effect (APE)
- ▭ Obstructions Proposed for Removal



**Appendix B. Additional Map Keyed to Photographs
Pattengell-Milburn House, 2268 Yankee Street**

Pattengell-Milburn House 2268 Yankee Street



-  2268 Yankee St Parcel Boundaries
-  Area of Potential Effect (APE)
-  Main Building on Property
-  Keyed Photos
-  Parcel Boundaries within APE
-  Obstructions Proposed for Removal

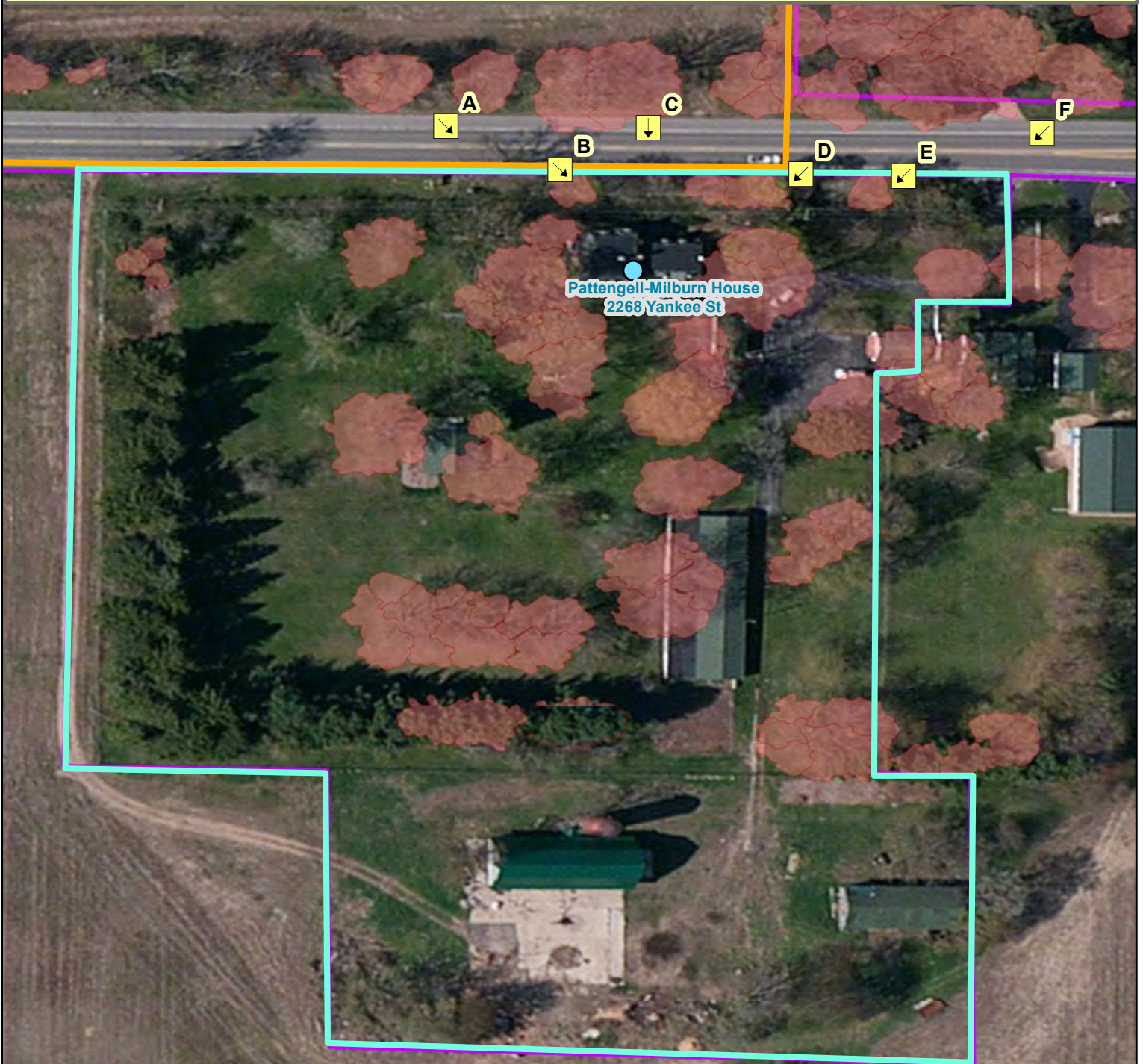




Photo A: View southeast from Yankee Street.



Photo B: View southeast from Yankee Street.



Photo C: View south from Yankee Street.



Photo D: View southwest from Yankee Street.



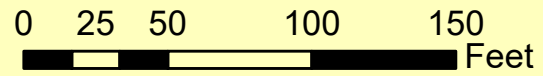
Photo E: View southwest from Yankee Street.





Photo F: View southwest from Yankee Street.


**Appendix C. Additional Map Keyed to Photographs
Colonial Revival House, 2302 Yankee Street**


Colonial Revival House 2302 Yankee Street





 2302 Yankee St Parcel Boundaries

 Area of Potential Effect (APE)

 Main Building on Property

 Keyed Photos

 Parcel Boundaries within APE

 Obstructions Proposed for Removal

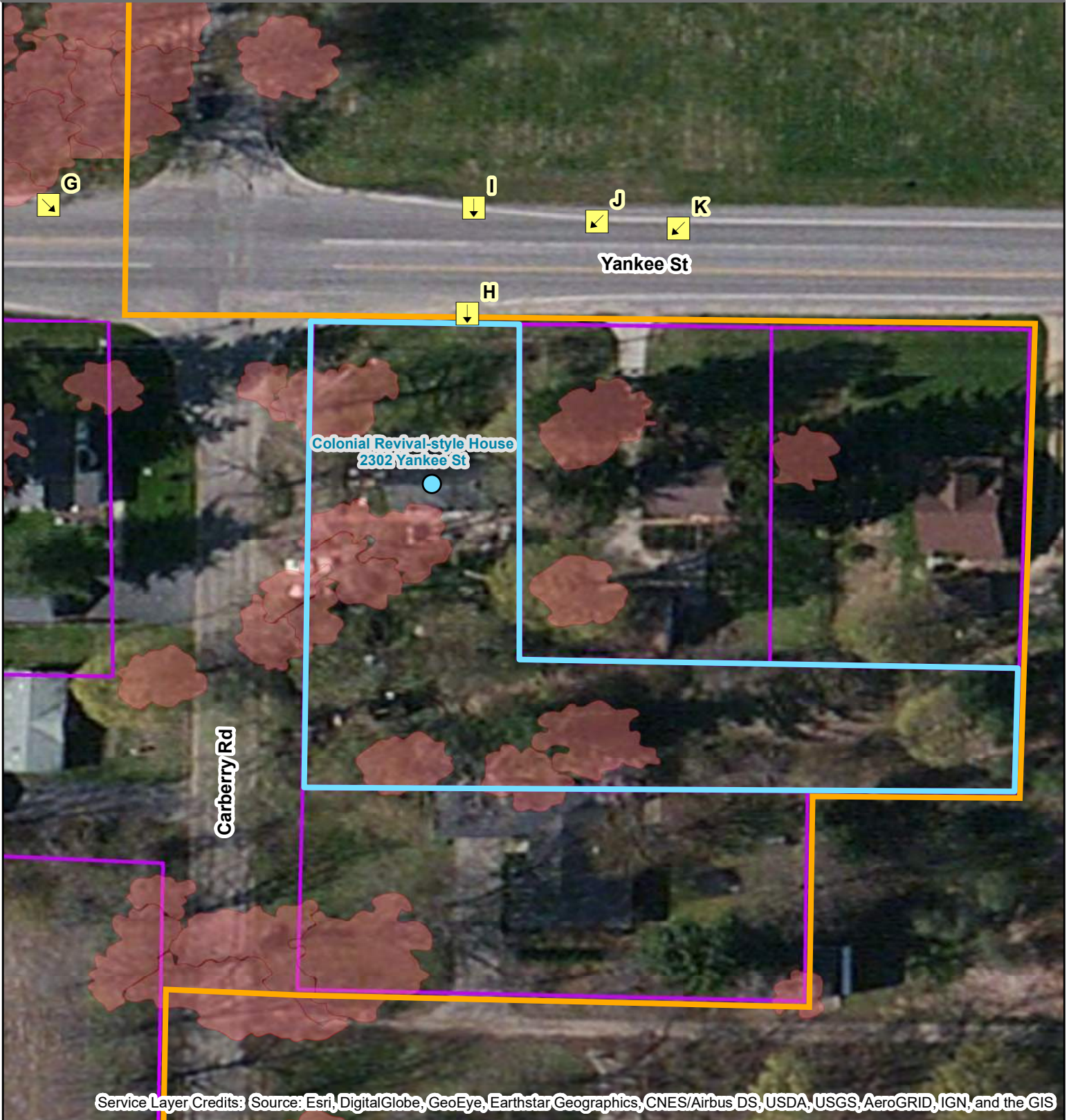




Photo G: View southeast from Yankee Street. Carberry Road is visible in foreground.



Photo H: View south from Yankee Street.



Photo I: View south from Yankee Street.



Photo J: View southwest from Yankee Street.



Photo K: View southwest from Yankee Street.

Appendix B. State Historic Preservation Office Concurrence



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
MICHIGAN STRATEGIC FUND
STATE HISTORIC PRESERVATION OFFICE

MARK A. BURTON
PRESIDENT

March 1, 2021

ERNEST P GUBRY
FEDERAL AVIATION ADMINISTRATION
DETROIT AIRPORTS DISTRICT OFFICE
11677 SOUTH WAYNE ROAD SUITE 107
ROMULUS MI 48174

RE: ER20-948 Jerry Tyler Memorial Airport Runway 15 Approach Clearing Project, Sec. 30-31,
T7S, R16W, Howard Township, Cass County (FAA)

Dear Mr. Gubry:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the proposed undertaking at the above-noted location. Based on the information provided for our review, the State Historic Preservation Officer (SHPO) concurs with the determination that the proposed undertaking will have an **adverse effect** on the Pattengill-Milburn House, located at 2268 Yankee Street, which appears to meet the criteria for listing in the National Register of Historic Places.

This undertaking meets the criteria of adverse effect because: *the undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association*, 36 CFR § 800.5(a)(1). Specifically, the undertaking will result in a change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.

More specifically, the undertaking includes the removal of a large number of mature trees which contribute to the historic character within the landscape of this rural farmstead. Removal of these elements will diminish the setting and overall historic integrity of the historic property.

Federal agencies are required to avoid, minimize, or mitigate adverse effects. Please note that if the federal agency and the SHPO concur that the adverse effect cannot be avoided, the Section 106 process will not conclude until the consultation process is complete, an MOA is developed, executed, and implemented, and, if applicable, the formal comments of the Advisory Council have been received, 36 CFR § 800.6. For more information on your responsibilities and obligations for projects that will have an adverse effect on historic properties under 36 CFR § 800.6, please review the enclosed materials.

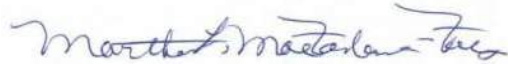
We remind you that federal agency officials or their delegated authorities are required to involve the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties per 36 CFR § 800.2(d). The National Historic Preservation Act also requires that federal agencies consult with any Indian tribe and/or Tribal Historic Preservation Officer (THPO) that attach religious and cultural significance to historic properties that may be affected by the agency's undertakings per 36 CFR § 800.2(c)(2)(ii).



The opinion of the SHPO is based on the materials provided for our review. If you believe that there is material that we should consider that might affect our finding, or if you have questions, please contact Brian Grennell, Cultural Resource Management Specialist, at (517) 335-2721 or by email at GrennellB@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.**

Finally, the State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking. Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Martha MacFarlane-Faes". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Martha MacFarlane-Faes
Deputy State Historic Preservation Officer

MMF:KAK:BGG

Enclosures

copy: Steve Houtteman, MDOT
Emily Pettis, Mead & Hunt

Appendix C. ACHP Response Letter to Invitation to Consult



May 4, 2022

Mr. Steve Houtteman
Supervisor
Airport Planning & Environmental Unit
MDOT - Office of Aeronautics
2700 Port Lansing Road
Lansing, MI 48906-2160

Ref: *Proposed Jerry Tyler Memorial Airport Runway 33 Approach Clearing Project
Howard Township, Cass County, Michigan
ACHP Project Number: 18260*

Dear Mr. Houtteman:

On April 21, 2022, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the State Historic Preservation Officer, Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the Michigan State Historic Preservation Office and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Mr. Anthony Guy Lopez at (202) 517-0220 or by e-mail alopez@achp.gov and reference the ACHP Project Number above.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

Appendix D. Correspondence

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Monday, March 29, 2021 11:52 AM
To: Stephon Bagne
Cc: Batcho, Julie M.
Subject: City of Niles - Dickinson

Stephon:

Good morning and I hope you enjoyed the weekend. I would like to set a call to discuss the status of the above referenced project. In short, we have to proceed with a historical mitigation plan and it is my hope that we can collaborate to create an appropriate mitigation plan in advance of submitting to SHIPO. I know you're out of the office this week and I will be gone for spring holiday next week. As such, let's coordinate a call for the week of April 12. Let me know if you are agreeable to proceeding in that fashion.

Mitt

Mowitt S. Drew, III | Managing Director Southwestern Michigan Kotz Sangster Wysocki P.C.
12 Longmeadow Village Dr. | Suite 100
Niles, MI 49120
269.591.6915 Main | 269.684.4026 Fax
www.kotzsangster.com

Batcho, Julie M.

From: /O=KOTZ EXCH ORG/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JULIE WRIGHT on behalf of Drew, Mitt S.
Sent: Wednesday, May 26, 2021 2:49 PM
To: Stephon Bagne
Cc: Batcho, Julie M.
Subject: Dickenson Site Visit

Stephon:

It was a pleasure speaking with you this morning and I'm looking forward to finally meeting you in person next week. As I mentioned, my goal is to respect your clients' privacy throughout this process and ensure that we do not encounter any difficulties with communication moving forward. Mr. Norm Thomas will be joining us at 10 a.m. on Wednesday to complete the appraisal process. As part of his investigation, he will need to measure all structures on the property plus examine their interiors. Total site time will be two hours and I would expect approximately one hour or less dedicated to the physical inspection of the primary residential structure. Based on our prior conversations, it was my intention to work with you, Mr. Thomas, and Mr. and Mrs. Dickinson to facilitate the entire inspection and ensure that our collective objectives were met; however, I'm not certain that we all need to be involved in the measuring process or inspection of the accessory buildings. Please review with your clients and let me know how they would like to proceed in this regard.

In addition to Mr. Thomas participating for purposes of the appraisal, the following individuals will be on site in order to provide an overview of the environmental issues which are being impacted by the historical designation of the property:

- Joseph Ray, Public Works Director, and attending on behalf of the City of Niles;
- Stephanie Ward, Manager of Aviation Planning, and attending on behalf of Mead & Hunt, Inc. as lead on the land acquisition;
- William Ballard, Environmental Specialist, and attending on behalf of Mead & Hunt, Inc. as lead on the environmental assessment; and
- Steve Houtteman, Environmental Specialist, and attending on behalf of MDOT Office of Aeronautics.

To facilitate the presentation of the environmental along with historical issues and the mitigation plan that will be required by SHPO, it was my hope that we would be able to gather at a conference table in order to facilitate the overview of the aforementioned issues. Recognizing your clients' desire to maintain their privacy and in the event that you and I fully participate in the two-hour appraisal process set forth above, I am willing to host this component of the site visit at my office in Niles and would be pleased to cater in a boxed lunch since we would be working through the noon hour. In the alternative, this meeting could be conducted on site while Mr. Thomas is gathering the exterior data referenced above if Mr. and Mrs. Dickinson are willing to move forward in that fashion. Finally and since we are still working through COVID related issues, I wanted you to be aware that all but one of the attendees on our side has been fully vaccinated. As such, I'm proposing that masks are worn and social distancing is maintained at all times.

Please review these points with your clients and let me know your thoughts. As I mentioned, I'm looking forward to a productive site visit next week and starting a collaborative dialogue as it relates to the necessary mitigation plan plus amicable resolution of this matter. Your ongoing intention is appreciated and I look forward to hearing from you.

Mitt

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Wednesday, June 23, 2021 6:01 PM
To: Stephon Bagne
Cc: Batcho, Julie M.
Subject: Re: Status

Stephon:

Good evening and I hope you're well. We are in the process of engaging Stephenson Land Surveying (SLS) to conduct the survey work which will include the updated timber inventory plus the boundary survey. Subject to your client's availability, SLS has blocked time for the first week in August to conduct these tasks. As I understand it, that was actually the first slot they were available to complete the work so I am kindly requesting that you speak with Mr. and Mrs. Dickinson to confirm their availability. I know summer is a busy time and I can't remember if they mentioned having vacation travel during that month. Also, I have reached out to Fernwood Botanical Gardens in Buchanan to confirm their ability to assist us with the mitigation plan surrounding the re-plantings. I suspect that your client's are familiar with Fernwood as it is a very popular local botanical garden with a well respected staff of horticulturists. If possible, I would like to arrange a brief site visit so that the experts from Fernwood could physically view the exterior of the property and current landscaping so that they can start to generate thoughts as it relates to the project before our next group meeting. If this is acceptable, perhaps that event could be coordinated with the survey work in August; however, I don't anticipate that the lawyers or other folks would have to be involved in that event. Kindly review with Mr. and Mrs. Dickinson and let me know your thoughts on this approach. Thanks and I look forward to hearing from you.

Mitt

Mowitt S. Drew, III | Managing Director Southwestern Michigan Kotz Sangster Wysocki P.C.
12 Longmeadow Village Dr. | Suite 100
Niles, MI 49120
269.591.6915 Main | 269.684.4026 Fax
www.kotzsangster.com

> On Jun 6, 2021, at 8:22 AM, Drew, Mitt S. <mdrew@kotzsangster.com> wrote:

>

> Stephon:

>

> Good morning and I hope you are enjoying the weekend. I meant to get this note out sooner; however, the week got away from me. I wanted to extend my personal and professional gratitude to Mr. and Mrs. Dickinson for opening their home to me and my team this past week. They have a beautiful property and we understand their desire to maintain the integrity of what they have worked so hard to create/preserve. I also appreciate your ongoing willingness to be creative and maintain a collaborative dialogue so that we can fashion the unique resolution that is likely required for this project. Kindly share my gratitude with your clients and I will be in touch shortly regarding logistics for the survey, etc.

>

> Mitt

>

> PS - Hoping that the possum made its way out of the work shed one way or the other.

>

>> On Jun 2, 2021, at 9:35 AM, Drew, Mitt S. <mdrew@kotzsangster.com> wrote:

>>

>> Stephon:

>>

>> Good morning. Just wanted to give you a quick update that I am stuck in a hearing that was scheduled to begin at 9 AM, but I expect to be on site shortly around or after 10 AM. My apologies if I'm running late.

>>

>> Mitt

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Thursday, July 1, 2021 9:24 PM
To: Bagne, Stephon B.
Cc: Batcho, Julie M.
Subject: Re: Niles/Dickinson

Thanks for the note, Stephon. I think we need to get on the phone as this shift in position/change in tenor is inconsistent with what we have been discussing from the beginning of this project. When I left our site meeting, I thought we were on the same page and heading towards a collaborative approach to these issues. Delaying the conversation on the mitigation plan does not make any sense to me and ultimately impacts the timing which is a priority for my client. Although I recognize none of our conversations were binding, I thought that professionally we were aligned and committed to the process. If that is no longer the case and everyone is simply returning to their respective corners of the ring, then let's make that clear right now and this will just play out per the statutory process. I'm scheduled out of the office on vacation next week, but will make myself available to speak with you. Kindly confirm your availability.

Mitt

KOTZ SANGSTER
ATTORNEYS AND COUNSELORS AT LAW

Mowitt S. Drew, III | Managing Director Southwestern Michigan
Kotz Sangster Wysocki P.C.
12 Longmeadow Village Dr. | Suite 100
Niles, MI 49120
269.591.6915 Main | 269.684.4026 Fax
www.kotzsangster.com



On Jun 29, 2021, at 10:52 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

Good Morning Mitt,

In terms of the survey, August 2 or 3 would be convenient dates. Please confirm that we are on the same page and that there will be no discussions about the taking between the surveyors and my clients and if there are any communications, they will not be admissible by either party.

At this time, my clients are not comfortable with the horticulturalist beginning to address the mitigation plan. We would like to have the good faith offer issued first. We would also like to see the communications between the City or MDOT Aeronautics with SHPO so that we can better understand those issues.

Thanks.

Stephon B. Bagne

Member

Clark Hill

151 South Old Woodward Avenue, Suite 200, Birmingham, MI 48009
+1 313.965.8897 (office) | +1 248.854.7837 (cell) | +1 313.309.6897 (fax)
sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>
Sent: Wednesday, June 23, 2021 6:01 PM
To: Bagne, Stephon B. <sbagne@clarkhill.com>
Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>
Subject: Re: Status

[External Message]

Stephon:

Good evening and I hope you're well. We are in the process of engaging Stephenson Land Surveying (SLS) to conduct the survey work which will include the updated timber inventory plus the boundary survey. Subject to your client's availability, SLS has blocked time for the first week in August to conduct these tasks. As I understand it, that was actually the first slot they were available to complete the work so I am kindly requesting that you speak with Mr. and Mrs. Dickinson to confirm their availability. I know summer is a busy time and I can't remember if they mentioned having vacation travel during that month. Also, I have reached out to Fernwood Botanical Gardens in Buchanan to confirm their ability to assist us with the mitigation plan surrounding the re-plantings. I suspect that your client's are familiar with Fernwood as it is a very popular local botanical garden with a well respected staff of horticulturists. If possible, I would like to arrange a brief site visit so that the experts from Fernwood could physically view the exterior of the property and current landscaping so that they can start to generate thoughts as it relates to the project before our next group meeting. If this is acceptable, perhaps that event could be coordinated with the survey work in August; however, I don't anticipate that the lawyers or other folks would have to be involved in that event. Kindly review with Mr. and Mrs. Dickinson and let me know your thoughts on this approach. Thanks and I look forward to hearing from you.

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in error, please immediately notify the sender by telephone and return this message to the sender at the above address via the United States Postal Service. Thank you.

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>>

>> Mitt

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Thursday, July 22, 2021 9:08 AM
To: Stephon Bagne
Subject: City of Niles - Dickinson

Stephon:

Good morning and I hope you are well. Pursuant to our telephone conference earlier this week, I believe we are proceeding as follows:

- Communication with SHPO: You have requested that we provide you with copies of communication with SHPO regarding the historical designation of the property. We are in the process of securing that communication and I will provide in a separate email upon receipt. As discussed, there is no reason for you to submit a formal FOIA request for this information as we are pleased to provide as part of our ongoing efforts to collaborate on this project.
- Site Inspections: As I indicated, Stephenson Land Surveying has been engaged to complete an updated inventory of the trees that are located within the runway approach. In addition, they have been engaged to conduct a boundary survey of the property. The survey work will be conducted on July 29th and access is being provided voluntarily. Stephenson may need more than one day on site to complete all of the survey effort. Obviously they will not need access to the home and will not be communicating with your clients during this process. In addition, we have engaged Fernwood Botanical Gardens to assist with the formation of a mitigation plan to address the removal plus replantings that may be required by SHPO. Carol Line is the Executive Director and primary horticulturist who will be taking the lead on behalf of Fernwood. Carol and her team will also be present on the 29th to assess the property in its current condition and would be pleased for the opportunity to meet your clients, but we understand if that isn't feasible at this juncture. Let me know in that regard. This would be an initial visit for Carol to familiarize herself with the property. She has reviewed the preliminary data that we've shared with the Dickinson's are our on-site visit to begin her assessment of the property. Once the Stephenson data is collected, Carol will have a more comprehensive understanding of the amount of impact on each tree and would likely want to review that with the property owners once we have that data and can discuss individual tree options. Although I could obtain a court order to facilitate all of these tasks pursuant to MCL 213.54(3), we have agreed that engaging in such formal process is not necessary; especially as we continue to collaborate on these issues. Note that access by Fernwood might be required on multiple occasions, but we will work through those additional site visits as they become necessary.
- SHPO Mitigation Plan: As we discussed, it would be my desire to have this plan agreed-upon and in place prior to the valuation work being completed. It is my understanding that your client is in the process of engaging their own expert for purposes of this process. Once that expert has been engaged, please share their contact information so that the experts themselves can begin communicating and collaborating to develop an appropriate plan. As contemplated and discussed previously, another meeting at the site with all experts present might be necessary in an effort to keep everyone aligned as it relates to this issue. Completion of the mitigation plan may or may not impact our ability to issue the good faith offer and we can revisit that specific point after we have confirmed how we are proceeding on the 29th.

Please contact me to confirm your position regarding these points once you've had an opportunity to review status with your clients. Your ongoing attention is appreciated and I look forward to hearing from you.

Mitt

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Friday, July 23, 2021 2:42 PM
To: stephanie.ward@meadhunt.com; Joseph Ray
Cc: Batcho, Julie M.
Subject: Fwd: City of Niles - Dickinson

Steph and Joe:

I don't see any reason to respond to this today. Let me know your thoughts.

Mitt

KOTZ SANGSTER

ATTORNEYS AND COUNSELORS AT LAW

Mowitt S. Drew, III | Managing Director: Southwestern Michigan

Kotz Sangster Wysocki P.C.

12 Longmeadow Village Dr. | Suite 100

Niles, MI 49120

269.591.6915 Main | 269.684.4026 Fax

www.kotzsangster.com



Begin forwarded message:

From: "Bagne, Stephon B." <sbagne@clarkhill.com>
Date: July 23, 2021 at 2:27:36 PM EDT
To: "Drew, Mitt S." <mdrew@kotzsangster.com>
Cc: "Bostice, Antoinette T." <abostice@clarkhill.com>
Subject: RE: City of Niles - Dickinson

Dear Mitt:

Thank you for your email. I have discussed it with my clients.

Just to clarify, during our telephone conversation, I did not agree that the arborist could be on the property simultaneously with a surveyor because that required client input. I indicated that I would recommend it and as I indicated earlier today, the Dickinsons have accepted my recommendation. As we discussed, in exchange for eliminating unnecessary procedural formalities, I will be provided the SHPO documents relating to the determination that the home is subject to a mitigation plan and the communications between SHOP, the City of Niles, and the Michigan Department of Transportation, Bureau of Aeronautics with the need of FOIA requests.

As to the larger negotiations, your email below deviates substantially from the process that we originally discussed. We originally discussed the issuance of a good-faith offer and our willingness begin discussing a mitigation plan while the GFO was being prepared to accelerate that process. We did not discuss completing a mitigation plan prior to issuance of the good faith offer. Our meeting Dickinson property and Norm Thomas completing the interior inspections were the first steps in that process. The process that you now describe involves attempting to complete a mitigation plan before a good-faith offer is submitted. This process is not acceptable to my clients. As we discussed in our call last week, if there is a significant difference in the parties' respective positions as to the value of the home, the likelihood of a pre-suit resolution is slim. We need the good-faith offer to know whether these discussions have a reasonable likelihood of success before litigation, the issuance of the good faith offer is necessary to establish the baseline for attorney fee reimbursement so that I can proceed on a contingent basis, and it will secure the Dickinsons' reimbursement rights under MCL 213.66.

I remain committed to attempting to resolve this matter absent litigation because I recognize that is in the best interest of all parties. We do not desire litigation for litigation's sake. However, the process that was described in your email differs significantly from the process that we originally discussed prior to our meeting at the Dickinsons' home and we need to return to the initial process. I see no reason why Norm cannot complete his appraisal, taking into account the information obtained by the survey and with input from Fernwood.

Thanks.

Stephon B. Bagne

Member

Clark Hill

151 South Old Woodward Avenue, Suite 200, Birmingham, MI 48009
+1 313.965.8897 (office) | +1 248.854.7837 (cell) | +1 313.309.6897 (fax)
sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Thursday, July 22, 2021 9:08 AM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Subject: City of Niles - Dickinson

[External Message]

Stephon:

Good morning and I hope you are well. Pursuant to our telephone conference earlier this week, I believe we are proceeding as follows:

- Communication with SHPO: You have requested that we provide you with copies of communication with SHPO regarding the historical designation of the property. We are in the process of securing that communication and I will provide in a separate email upon receipt. As discussed, there is no reason for you to submit a formal FOIA request for this information as we are pleased to provide as part of our ongoing efforts to collaborate on this project.
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Batcho, Julie M.

From: Drew, Mitt S.
Sent: Tuesday, July 27, 2021 8:14 AM
To: Bagne, Stephon B.
Cc: Batcho, Julie M.
Subject: Re: City of Niles - Dickinson - Fernwood Site Inspection

The inquiry demonstrates that collaboration is unlikely, but perhaps I'm mistaken. I will be in touch.

KOTZ SANGSTER

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On Jul 27, 2021, at 7:59 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

I don't think that we are creating a difficulty by asking a question that you answered with one sentence.

Stephon B. Bagne

Member

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Tuesday, July 27, 2021 7:54 AM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>

Subject: Re: City of Niles - Dickinson - Fernwood Site Inspection

[External Message]

Not sure how or why this simple task has become so difficult, Stephon. The drone is being used in conjunction with the work that's will be done on the ground. If each one of these steps is going to be this difficult, then maybe we just need to avail ourselves of legal process.

<image001.png>

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On Jul 27, 2021, at 7:45 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

I interpreted the word "commencing" as meaning that the drone is preliminary work being done in anticipation of the primary, on the ground survey. As we discussed at the meeting, the survey work will include identifying the highest point on the house, capturing the trees individually as opposed to the canopy view from above, marking the trees so that it is clear which will be removed, and evaluating the impact of topping trees. Please confirm because this is causing consternation with my clients who fear that the City is deviating from what we agreed upon at the meeting by substituting the drone.

Thanks.

Stephon B. Bagne

Member

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Monday, July 26, 2021 4:14 PM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>

Subject: Re: City of Niles - Dickinson - Fernwood Site Inspection

[External Message]

SLS is commencing the survey tomorrow via use of the drone only. This will not require access to the site, but the drone will be in use above the tree line. Please update your

client. I'm still working through your other note and will provide a response by the end of the week.

<image001.png>

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On Jul 23, 2021, at 10:00 AM, Bagne, Stephon B.
<sbagne@clarkhill.com> wrote:

I have a more detailed email to you in dictation after conferring with my clients last night and part of it indicates that this inspection can occur as requested. Given the timing, confirming that now.

Stephon B. Bagne

Member

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>
Sent: Friday, July 23, 2021 9:58 AM
To: Bagne, Stephon B. <sbagne@clarkhill.com>
Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>
Subject: City of Niles - Dickinson - Fernwood Site Inspection

[External Message]

Stephon:

Good morning. Pursuant to my recent note, this will confirm that Carol

Line of Fernwood would like to conduct an initial site inspection on July 29th at 10:30 am. She and another employee would appear to walk the site and evaluate current conditions plus obtain photographs. As discussed previously, none of the experts will have contact with your clients. Please confirm this is acceptable.

Mitt

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Batcho, Julie M.

From: Drew, Mitt S.
Sent: Tuesday, October 5, 2021 9:20 AM
To: Bagne, Stephon B.
Cc: Batcho, Julie M.
Subject: Re: City of Niles - Dickinson

Stephon:

There remains a disconnect surrounding how we were proceeding and I know we covered these issues over the phone. In short, it was my expectation/understanding that there would be full cooperation and collaboration surrounding the mitigation plan. Unfortunately, that hasn't occurred. Regardless, I will work with my team to provide the SHPO documents that you have requested.

KOTZ SANGSTER

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On Oct 5, 2021, at 9:16 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

When we started down the path, it was with an understanding that a GFO would be issued. I was waiting for that to happen. But I do need those documents, which were promised to be sent without a formal request in exchange for allowing all the access that was sought without a formal request. Thanks.

Stephon B. Bagne

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Monday, October 4, 2021 8:21 PM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>

Subject: Re: City of Niles - Dickinson

[External Message]

Thanks for the note, Stephon. Quite frankly, I thought we were simply proceeding under the statute given our inability to find common ground on all of the points below; however, I will dust off my notes and circle back shortly.

Mitt

<image001.png>

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On Sep 28, 2021, at 4:01 PM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

Good Afternoon Mitt,

Pursuant to the email below, Owners were promised that communications with SHPO would be provided. We have not received those communications. I fear what will happen if more is asked of Owners without that material having first been provided and I request that you provide it before that happens.

Thanks.

Stephon B. Bagne

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Thursday, July 22, 2021 9:08 AM

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Thursday, November 4, 2021 12:29 PM
To: Bagne, Stephon B.
Cc: Batcho, Julie M.
Subject: Re: City of Niles - Dickinson

Good afternoon, Stephon. Reaching out to confirm that you have received the information that you requested. My team sent everything over, but I never received confirmation back from you that it was received. Kindly let me know in that regard.

Also, writing again to confirm that your client's are not interested in collaborating with us at this time regarding the mitigation plan that needs to be submitted to SHPO. In order to move this process forward, we intend to submit the request and mitigation plan to SHPO shortly so wanted to provide a final opportunity to participate in the creation of that plan. Please let me know if their position is changed in this regard.

Mitt

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On Oct 5, 2021, at 9:16 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

When we started down the path, it was with an understanding that a GFO would be issued. I was waiting for that to happen. But I do need those documents, which were promised to be sent without a formal request in exchange for allowing all the access that was sought without a formal request. Thanks.

Stephon B. Bagne

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From: Drew, Mitt S. <mdrew@kotzsangster.com>
Sent: Monday, October 4, 2021 8:21 PM

Batcho, Julie M.

From: Drew, Mitt S.
Sent: Friday, November 12, 2021 10:59 AM
To: Bagne, Stephon B.
Cc: Batcho, Julie M.
Subject: Re: City of Niles - Dickinson

Appreciate the prompt response, Stephon. We will simply continue to disagree as to what was discussed surrounding the sequence of these events. As I've indicated to you repeatedly, timing is incredibly important to my client and therefore moving forward with the mitigation plan (since it is tied to the EA approval) is critical. Although your client's participated initially, there has been no further participation since the meeting at the site. A good faith offer will be published when the valuation work is complete. In the meantime, we will note that your client's are electing not to participate in the creation of the mitigation plan at this time.

Mitt

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On Nov 12, 2021, at 10:54 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

Thanks for following up on the documents, Mitt. In terms of the mitigation plan, my position is the same that it always was. We discussed issuance of a good faith offer before that happened and not that we would do a substantial part of the work to address just compensation that would normally occur during an eminent domain case before issuance of the good faith offer.

Stephon B. Bagne

Member

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sbagne@clarkhill.com | www.clarkhill.com

From: Drew, Mitt S. <mdrew@kotzsangster.com>
Sent: Friday, November 12, 2021 10:50 AM

To: Bagne, Stephon B. <sbagne@clarkhill.com>; Batcho, Julie M. <jbatcho@kotzsangster.com>
Subject: Re: City of Niles - Dickinson

[External Message]

Let me check with my team, Stephon. Kindly also confirm your position regarding collaboration surrounding the mitigation plan.

Mitt

<image001.png>

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On Nov 12, 2021, at 10:46 AM, Bagne, Stephon B. <sbagne@clarkhill.com> wrote:

Hi Mitt, unless I missed something (and I'm not saying that I didn't), I don't recall receiving the documents. Thanks.

Stephon B. Bagne

Member

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From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Tuesday, October 5, 2021 9:20 AM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Cc: Batcho, Julie M. <jbatcho@kotzsangster.com>

Subject: Re: City of Niles - Dickinson

[External Message]

Stephon:

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<image001.png>

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From: Drew, Mitt S. <mdrew@kotzsangster.com>

Sent: Thursday, July 22, 2021 9:08 AM

To: Bagne, Stephon B. <sbagne@clarkhill.com>

Subject: City of Niles - Dickinson

[External Message]

Stephon:

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and primary horticulturist who will be taking the lead on behalf of Fernwood. Carol and her team will also be present on the 29th to assess the property in its current condition and would be pleased for the opportunity to meet your clients, but we understand if that isn't feasible at this juncture. Let me know in that regard. This would be an initial visit for Carol to familiarize herself with the property. She has reviewed the preliminary data that we've shared with the Dickinson's and our on-site visit to begin her assessment of the property. Once the Stephenson data is collected, Carol will have a more comprehensive understanding of the amount of impact on each tree and would likely want to review that with the property owners once we have that data and can discuss individual tree options. Although I could obtain a court order to facilitate all of these tasks pursuant to MCL 213.54(3), we have agreed that engaging in such formal process is not necessary; especially as we continue to collaborate on these issues. Note that access by Fernwood might be required on multiple occasions, but we will work through those additional site visits as they become necessary.

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Mitt

<image001.png>

**Mowitz S. Drew, III | Managing Director
Southwestern Michigan**

Kotz Sangster Wysocki P.C.

12 Longmeadow Village Dr. | Suite 100

Niles, MI 49120

269.591.6915 Main | 269.684.4026 Fax

www.kotzsangster.com

<image002.png>

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Brian Matuk

From: Christina Arseneau <HCdirector@nilesmi.org>
Sent: Monday, September 13, 2021 6:37 AM
To: Joseph Ray; Stephanie Ward
Cc: Emily Pettis; William Ballard; Brian Matuk
Subject: RE: 3TR Niles Airport and Historic Property

You don't often get email from hcdirector@nilesmi.org. [Learn why this is important](#)

Either Sept. 27 or Oct. 1 work for me.

Sincerely,

Christina

Christina H. Arseneau
Director, Niles History Center
508 E. Main Street
Niles, MI 49120
269-845-4054 ext. 4010
www.nileshistorycenter.org

Join the Friends of the Niles District Library and History Center today!

From: Joseph Ray
Sent: Saturday, September 11, 2021 10:02 AM
To: Stephanie Ward <stephanie.ward@meadhunt.com>
Cc: Christina Arseneau <HCdirector@nilesmi.org>; Emily Pettis <emily.pettis@meadhunt.com>; William Ballard <william.ballard@meadhunt.com>; Brian Matuk <Brian.Matuk@meadhunt.com>
Subject: Re: 3TR Niles Airport and Historic Property

I can make either of them work, just let me know.

Thanks,
Joe

Please excuse typos and misspelled words as the above has been sent from my iPhone.

On Sep 11, 2021, at 3:50 AM, Stephanie Ward <stephanie.ward@meadhunt.com> wrote:

All

We'd like to propose a meeting to discuss the historical property (Pattengell-Milburn House at 2268 Yankee Street) and discuss the input we'd like from the Niles History Center.

Would any of the following work for Joe and Christina for a call?

Sept. 27, 1-3 PM

Sept. 29 11 – 12:30 PM
Oct. 1 1-2 PM
All times are eastern.

Thanks,
Stephanie

STEPHANIE WARD, AICP
DEPARTMENT MANAGER, AVIATION
Mead & Hunt
Direct: 517-908-3121 | Cell: 517-819-6170 | Transfer Files
meadhunt.com | LinkedIn | Twitter | Facebook | Instagram



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Brian Matuk

From: Christina Arseneau <HCdirector@nilesmi.org>
Sent: Thursday, August 5, 2021 7:09 AM
To: Stephanie Ward; Brian Matuk
Cc: Emily Pettis; houttemans; Ric Huff
Subject: RE: Pattengell-Milburn House - Suggestions for mitigation

Thank you for the emails. The Niles History Center is a division of the City of Niles. I will work directly with City administration on this project.

From: Stephanie Ward <stephanie.ward@meadhunt.com>
Sent: Thursday, August 05, 2021 7:22 AM
To: Christina Arseneau <HCdirector@nilesmi.org>; Brian Matuk <Brian.Matuk@meadhunt.com>
Cc: Emily Pettis <emily.pettis@meadhunt.com>; houttemans <houttemans@michigan.gov>
Subject: Re: Pattengell-Milburn House - Suggestions for mitigation

Christina
I apologize for the repeated emails. I just wanted to clarify that we are NOT planning for a runway extension. Brain was incorrect in his original email. The airport is working on obstruction removal to provide a clear approach to meet FAA and State of Michigan airport licensing standards.

We'd be happy to speak with you if you'd like additional details on the project.

Stephanie

Please excuse typos, this was sent from my cell phone with a teeny tiny keyboard.

STEPHANIE WARD, AICP
DEPARTMENT MANAGER, AVIATION
Mead & Hunt
Direct: 517-908-3121 | Cell: 517-819-6170 | Transfer Files
meadhunt.com | LinkedIn | Twitter | Facebook | Instagram

 120 YEARS OF SHAPING THE FUTURE

From: Stephanie Ward <stephanie.ward@meadhunt.com>
Sent: Wednesday, August 4, 2021 2:30:47 PM
To: HCdirector@nilesmi.org <HCdirector@nilesmi.org>; Brian Matuk <Brian.Matuk@meadhunt.com>
Cc: Emily Pettis <emily.pettis@meadhunt.com>; houttemans <houttemans@michigan.gov>
Subject: Re: Pattengell-Milburn House - Suggestions for mitigation

Christina
We should have mentioned that Mead & Hunt, along with the MDOT Office of Aeronautics are working with the property owner and their attorney, however, we also usually coordinate with local historical societies as well for possible mitigation options.

Thanks,
Stephanie

Please excuse typos, this was sent from my cell phone with a teeny tiny keyboard.

STEPHANIE WARD, AICP

DEPARTMENT MANAGER, AVIATION

Mead & Hunt

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120 YEARS OF SHAPING THE FUTURE

From: Brian Matuk <Brian.Matuk@meadhunt.com>

Sent: Tuesday, August 3, 2021 1:26:39 PM

To: HCdirector@nilesmi.org <HCdirector@nilesmi.org>

Cc: Emily Pettis <emily.pettis@meadhunt.com>; Stephanie Ward <stephanie.ward@meadhunt.com>; houttemans <houttemans@michigan.gov>

Subject: Pattengell-Milburn House - Suggestions for mitigation

Good afternoon Christina,

Mead & Hunt is working with the Michigan Department of Transportation (MDOT) Aeronautics Division to complete the Section 106 process for the upcoming runway extension project at Jerry Tyler Memorial Airport. The proposed runway extension will require tree removal at the property which contains the Pattengell-Milburn House at 2268 Yankee Street, which has been determined eligible for listing in the National Register of Historic Places. As part of the Section 106 process, the Michigan State Historic Preservation Office (SHPO) has determined that this project activity will result in an "adverse effect" to the historic property, as the loss of mature trees would diminish the agricultural farmstead setting that characterizes the Pattengell-Milburn House. Mead & Hunt is now developing potential mitigation measures to lessen this impact.

I am reaching out to you to ask if the Niles History Center has any suggestions for mitigation items that should be considered. We would be happy to schedule a telephone call to talk with you further. We would appreciate a response by August 24.

Please feel free to contact me if you have any questions and thank you for your participation.

Best regards,

Brian Matuk

BRIAN MATUK

HISTORIAN, CULTURAL RESOURCES

(Pronouns He, Him, His)

Mead & Hunt

Direct: 916-993-4603 | Transfer Files

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120 YEARS OF SHAPING THE FUTURE

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Mead & Hunt, Inc.

Telephone memo

To: Christina Arseneau, Director

Company: Niles History Center

Recorded by: Brian Matuk

Time: 1:00pm EST

Date: September 27, 2021

Conference call via Microsoft Teams

Project: 3TR Niles

Project No.: R1414400-192818.01

Subject: Discussion of potential mitigation development for tree removal at Pattengell-Milburn House at 2268 Yankee Street

This call was attended by the following individuals:

- Christina Arseneau, Director, Niles History Center
- Joseph Ray, Director, City of Niles Department of Public Works
- Stephanie Ward, Aviation Department Manager, Mead & Hunt
- William Ballard, AICP, Aviation Project Manager, Mead & Hunt
- Emily Pettis, Cultural Resources Department Manager, Mead & Hunt
- Brian Matuk, Cultural Resources Specialist, Mead & Hunt

Members of the Mead & Hunt team started by describing the proposed project at the Jerry Tyler Memorial Airport, the progress with Section 106 compliance, the anticipated adverse effect on the Pattengell-Milburn House, and current ideas for mitigation. The Mead & Hunt team then explained the purpose of the call to solicit mitigation ideas from the Niles History Center for lessening the adverse effect. Christina Arseneau responded that the Niles History Center collection has very limited information regarding the house and its history, but expressed the desire to obtain the historical information Mead & Hunt gathered as part of the Section 106 Phase II report on the Pattengell-Milburn House for their collection. Emily Pettis suggested that submitting this information could be part of the project's mitigation actions, and Christina agreed. Christina added that the Niles History Center does not have any specific ideas for mitigation at that time.

cc:

**Appendix E. Fernwood Botanical Garden Report (dated
September 9, 2021)**

FERNWOOD BOTANICAL GARDEN
13988 Range Line Road
Niles Michigan 49120
September 9, 2021

Recommendations for Tree Mitigation Plan
2268 Yankee Street, Niles, Michigan

ANALYSIS and OBSERVATIONS

Staff from the Fernwood Botanical Garden (Carol Line, Executive Director and Steve Bornell, Director of Horticulture) visited the property on July 29, 2021, and found a beautiful property with mature trees. Staff had hoped to find trees that could be saved with selective pruning to the appropriate height. However, the overall canopy was found to be mature and at a height that would make pruning an unlikely option without compromising the look, integrity, and health of the trees.

The predominant tree species is silver maple (*Acer saccharinum*), a faster growing tree that is not considered a tree of high value due to weaker branching and often subsequent loss of limbs in wind and storms. Nevertheless, many are tall, mature trees.

Large, mature trees of particular note included one of each of the following located near the house:

- Sycamore *Platanus occidentalis*
- Sweet Gum *Liquidambar styraciflua*
- Sugar Maple *Acer saccharum*
- Tulip Tree *Liriodendron tulipifera*
- Norway Maple *Acer platanoides*

The information collected from the Stephenson Land Survey (SLS) site inventory provided data on the heights of the trees on the property and the amount of penetration of each into the runway approach surface. The attached graphic illustrates the location and penetrations of the trees on the property. Based upon that data, the possibility of pruning the existing trees to the required height of ten feet below the surface is limited for many of the trees. Once pruning is conducted, to the required height and with appropriate arboriculture standards, there would be minimal viable tree left to continue to grow and provide aesthetic vegetation.

RECOMMENDATIONS

The following are general recommendations, based upon the site visit and SLS survey information:

- Lower the height of the stand of white pines near the southernmost livestock pens to maintain cover for the animals. While not an aesthetic solution, it would be less impactful for the livestock and at the far corner of the property. White pines in nature, after sustaining wind damage, typically regenerate a new leader. The stand could be on an every-three-year maintenance plan to keep height in line.
- Due to the mature nature of the remaining deciduous trees, remove them to ground to remove the penetrations to the allowable surface and the ten-foot buffer and provide new plantings to replace those trees to be removed.
 - Recommended species for replanting may include the following and natives are suggested when possible.

- *Acer miyabei* Miyabe Maple 30' to 60' non-native
- *Amelanchier arborea* Serviceberry 25' to 30' seasonal interest including fall color
- *Carpinus caroliniana* American hornbeam 25' to 30' good fall color
- *Cercis canadensis* Eastern Redbud 20' to 30' spring color
- *Cladrastis kentukea* Yellowwood 30' to 50'
- *Cornus florida* Flowering Dogwood 15' to 30' spring color
- *Cornus alternifolia* Pagoda Dogwood 15' to 30' seasonal color
- *Halesia carolina* Carolina Silverbell 30' to 40' spring color
- *Hamamelis vernalis* Vernal Witch Hazel 6' to 10' good fall color and spring bloom.
- *Hamamelis virginiana* Common Witch Hazel 15' to 20' fall/winter flowering, fall color, birds.
- *Ilex opaca* American Holly 15' to 30' birds
- *Juniperus virginiana* Red Cedar 30' to 65'
- *Magnolia stellata* Star Magnolia 15' to 20' non-native spring color
- *Magnolia x soulangeana* Saucer Magnolia 20' to 25' spring color
- *Ostrya virginiana* Eastern Hop Hornbeam 25' to 40' good fall color
- *Quercus muehlenbergii* Chinkapin Oak 40' to 60'
- *Thuja occidentalis* American Arborvitae 20' to 40'

Of the trees suggested above, the oak and maple will provide the allowable mature height yet the feel of traditional canopy trees, however each of these has a mature height that is approaching a height that would place them near the approach surface in the future. Consequently, use of these should be placed toward the south side of the parcel, farther away from Yankee Street.

The abovementioned holly, juniper, and arborvitae are recommended evergreens for screening/windbreaks. The holly may sustain some occasional winter burn or winter leaf drop but typically recover and flush out new foliage by early summer. Holly would be good for bird habitat.

Although our initial recommendation was to plant trees with as large a caliper as possible for immediate maximum impact, tree experts suggest a trunk diameter caliper range of 2" or 2.5" for more immediate establishment and growth.

To address possible historic elements that may be raised by the State Historic Presentation Office (SHPO), plantings that mimic the gardens that maybe have established during the period of construction of the home may also be considered but are not subject to this recommendation at this time.

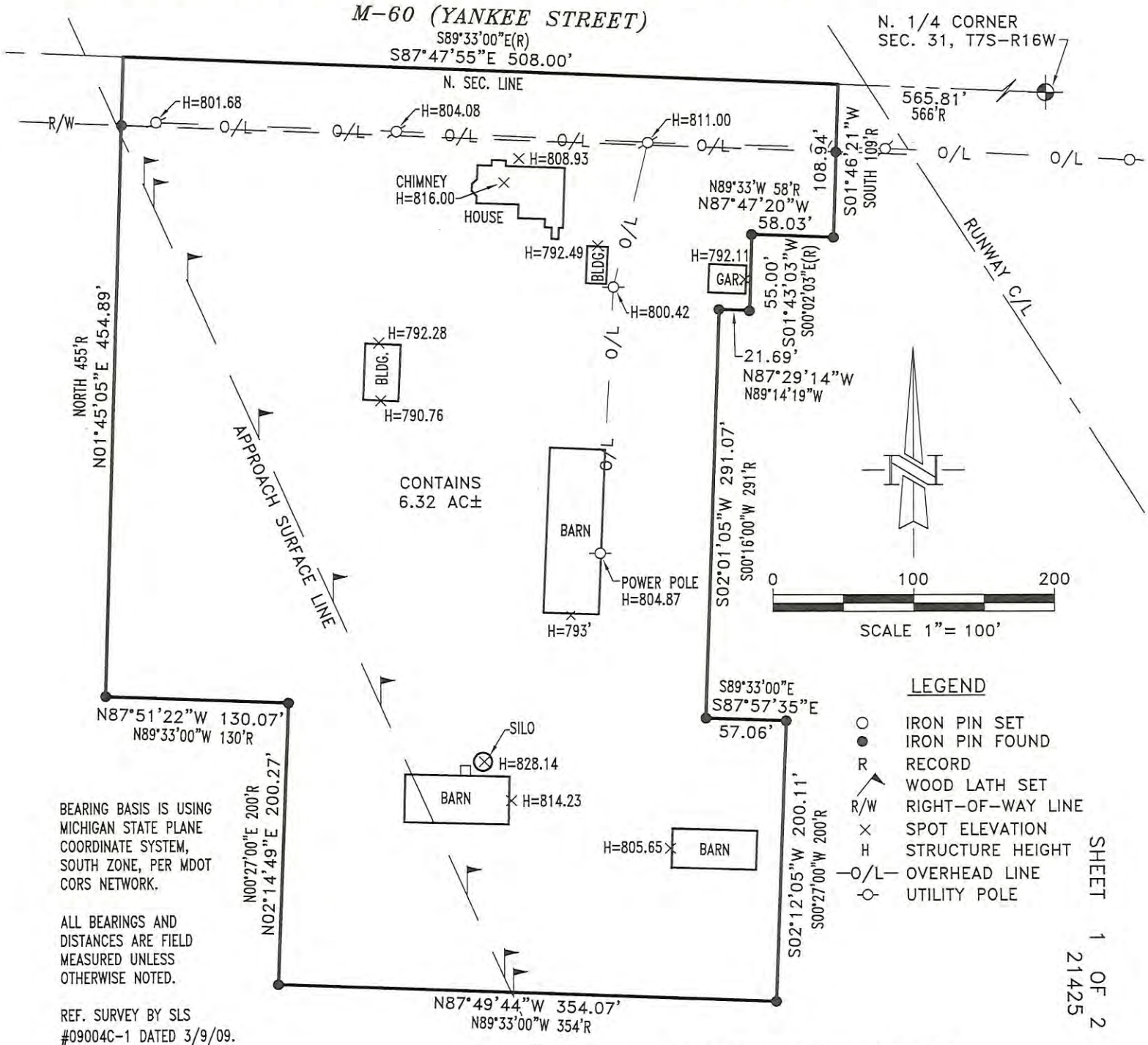
Replacement perennials may also be required in some locations since the removal of the taller trees may create more sunlight in areas that are currently shade gardens. As an example, there are a number of hosta planted near the house which may find these sunnier areas less ideal for growing.

CERTIFICATE OF SURVEY:~

DESCRIPTION:

LAND SITUATED IN THE TOWNSHIP OF HOWARD, COUNTY OF CASS, STATE OF MICHIGAN AND IS DESCRIBED AS FOLLOWS:

FROM THE NORTH QUARTER CORNER OF SECTION 31, TOWN 7 SOUTH, RANGE 16 WEST, MEASURE N89°33'00"W, ALONG THE NORTH LINE OF SAID SECTION, 566.00 FEET TO THE POINT OF BEGINNING OF THE LAND HEREIN DESCRIBED; THENCE SOUTH 109.00 FEET; THENCE N89°33'00"W 58.00 FEET; THENCE S00°02'03"E 55.01 FEET; THENCE N89°14'19"W 21.69 FEET; THENCE S00°16'00"W 291.07 FEET; THENCE S89°33'00"E 57.06 FEET; THENCE S00°27'00"W 200.00 FEET; THENCE N89°33'00"W, PARALLEL WITH THE NORTH LINE OF SAID SECTION, 354.00 FEET; THENCE N00°27'00"E 200.00 FEET; THENCE N89°33'00"W, PARALLEL WITH THE NORTH LINE OF SAID SECTION, 130.00 FEET; THENCE NORTH 455.00 FEET TO THE NORTH LINE OF SAID SECTION; THENCE S89°33'00"E, ALONG THE NORTH LINE OF SAID SECTION, 508.00 FEET TO THE POINT OF BEGINNING.



BEARING BASIS IS USING MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, PER MDOT CORS NETWORK.

ALL BEARINGS AND DISTANCES ARE FIELD MEASURED UNLESS OTHERWISE NOTED.

REF. SURVEY BY SLS #09004C-1 DATED 3/9/09.

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TO: KOTZ SANGSTER WYSOCKI P.C.

I, THOMAS A. STEPHENSON, A PROFESSIONAL SURVEYOR IN THE STATE OF MICHIGAN HEREBY CERTIFY THAT THIS SURVEY WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION.

ADDRESS: 2268 YANKEE STREET
DATE: 7/2021
SCALE: 1" = 100'
DRAWN BY: DMS
TC: NONE

LEGEND

- IRON PIN SET
- IRON PIN FOUND
- R RECORD
- ▲ WOOD LATH SET
- R/W RIGHT-OF-WAY LINE
- × SPOT ELEVATION
- H STRUCTURE HEIGHT
- /L OVERHEAD LINE
- UTILITY POLE

SHEET 1 OF 2 SHEETS
21425



Thomas A. Stephenson
THOMAS A. STEPHENSON, PS #4001046689



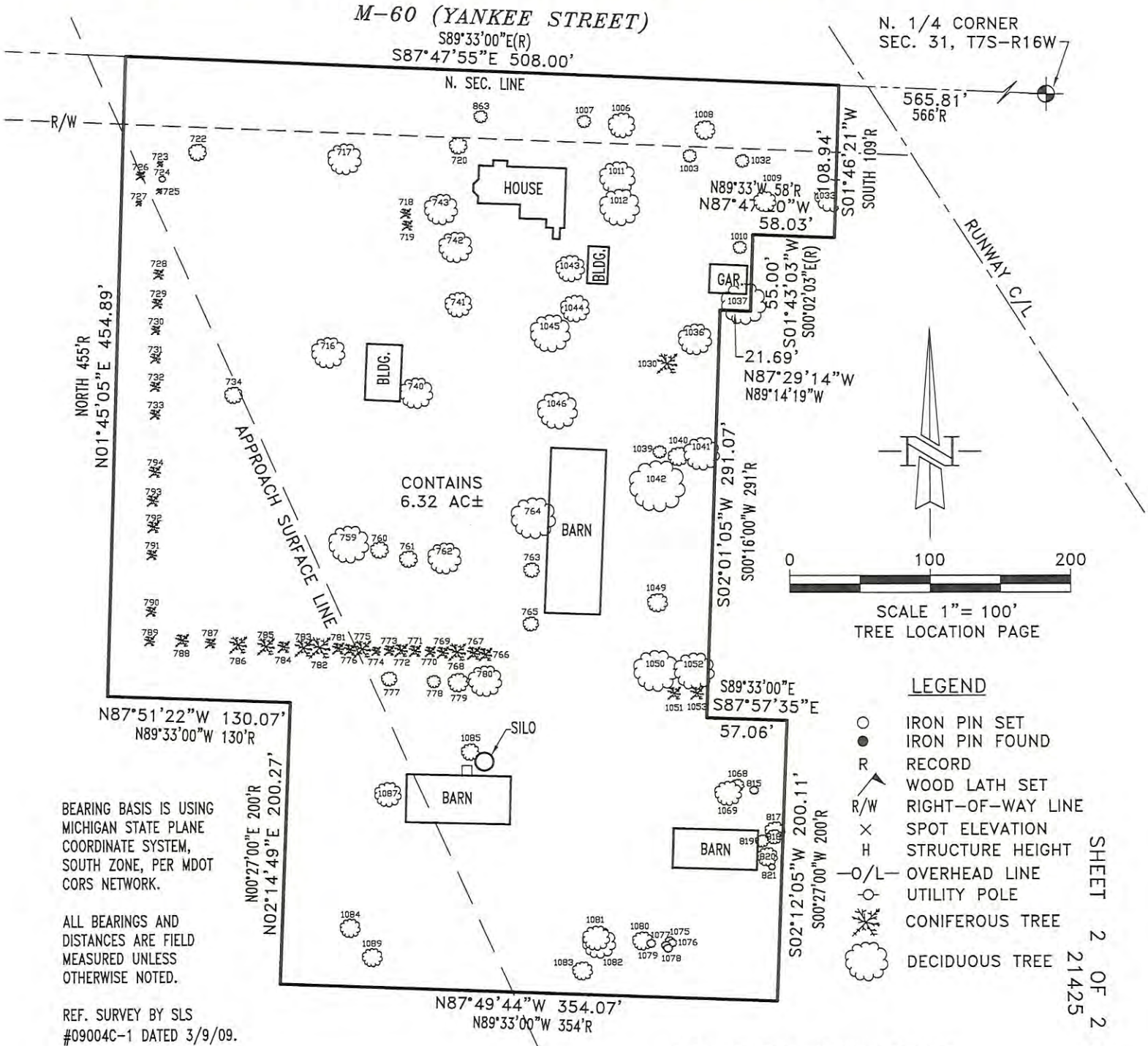
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email: sls@stephensonls.com

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ADDRESS: 2268 YANKEE STREET
DATE: 7/2021
SCALE: 1" = 100'
DRAWN BY: DMS
TC: NONE

SHEET 2 OF 2 SHEETS
21425



Thomas A. Stephenson
THOMAS A. STEPHENSON, PS #4001046689



www.stephensonsls.com
email: sls@stephensonsls.com

PNT #	X	Y	LATITUDE	LONGITUDE	TOP ELEV.	HEIGHT	GROUND ELEV.
716	124359.83	12618703.39	N41.8260075683	W86.2182213660	844.23	69.05	775.18
717	124497.473	12618715.22	N41.8263858844	W86.2181890840	841.45	66.35	775.10
718	124458.803	12618759.02	N41.8262824416	W86.2180253378	845.60	68.19	777.41
719	124450.26	12618760.02	N41.8262590658	W86.2180209626	849.38	71.35	778.03
720	124507.001	12618796.28	N41.8264169132	W86.2178925715	825.62	47.55	778.08
722	124502.226	12618610.73	N41.8263926176	W86.2185727324	795.02	21.56	773.46
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725	124474.755	12618583.63	N41.8263156197	W86.2186699052	816.66	43.93	772.73
726	124485.606	12618570.27	N41.8263445815	W86.2187197750	824.58	52.03	772.56
727	124466.071	12618569.12	N41.8262909206	W86.2187224349	812.39	39.52	772.87
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729	124394.412	12618582.1	N41.8260951186	W86.2186690484	834.36	60.92	773.44
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734	124329.515	12618636.07	N41.8259203414	W86.2184658336	804.75	29.46	775.29
740	124330.935	12618765.82	N41.8259320662	W86.2179900570	853.16	76.29	776.87
741	124393.578	12618796.16	N41.8261057478	W86.2178838446	846.32	68.22	778.10
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760	124219.102	12618739.51	N41.8256236820	W86.2180775490	841.75	66.03	775.73
761	124212.69	12618760.13	N41.8256073357	W86.2180014104	848.34	71.24	777.10
762	124213.276	12618785.7	N41.8256104860	W86.2179076699	854.35	76.79	777.56
763	124204.826	12618847.8	N41.8255910513	W86.2176792036	809.51	33.56	775.95
764	124241.741	12618848.94	N41.8256923907	W86.2176779996	844.26	68.66	775.60
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766	124144.656	12618814.96	N41.8254240029	W86.2177948174	844.11	63.67	780.44
767	124145.594	12618806.61	N41.8254260724	W86.2178255149	847.33	66.78	780.56
768	124146.309	12618794.79	N41.8254273206	W86.2178689435	850.46	69.30	781.16
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779	124124.595	12618795.24	N41.8253677791	W86.2178655159	814.60	33.52	781.08
780	124125.682	12618814.32	N41.8253719123	W86.2177956161	816.75	36.51	780.24
781	124149.212	12618710.16	N41.8254301784	W86.2181795773	845.46	67.50	777.96

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783	124149.531	12618685.38	N41.8254295587	W86.2182704600	848.60	71.48	777.13
784	124150.306	12618671.3	N41.8254308349	W86.2183221824	846.98	70.30	776.68
785	124150.721	12618658.7	N41.8254312130	W86.2183684329	847.87	71.31	776.56
786	124151.872	12618639	N41.8254331817	W86.2184407837	843.90	67.63	776.27
787	124153.148	12618619.24	N41.8254354898	W86.2185133536	833.96	59.06	774.91
788	124155.259	12618599.1	N41.8254400654	W86.2185873992	839.06	64.36	774.70
789	124154.913	12618575.95	N41.8254377191	W86.2186722719	836.87	63.30	773.57
790	124176.064	12618577.06	N41.8254958104	W86.2186699184	835.73	63.02	772.71
791	124216.032	12618577.68	N41.8256054939	W86.2186708659	829.18	57.21	771.97
792	124235.771	12618578.9	N41.8256597189	W86.2186679583	836.57	63.79	772.78
793	124254.439	12618578.52	N41.8257109086	W86.2186708658	837.10	63.44	773.66
794	124275.003	12618580.02	N41.8257674134	W86.2186670162	833.92	59.35	774.58
815	124047.527	12619005.78	N41.8251690538	W86.2170871109	829.67	45.52	784.15
817	124018.422	12619020.5	N41.8250900967	W86.2170307573	844.78	60.09	784.69
818	124014.256	12619019.87	N41.8250786296	W86.2170327505	844.93	59.41	785.52
819	124011.247	12619011.3	N41.8250698581	W86.2170639438	844.12	59.55	784.57
820	123999.993	12619014.89	N41.8250392012	W86.2170498547	834.49	49.83	784.66
821	123992.781	12619018.3	N41.8250196215	W86.2170367848	830.23	45.16	785.07
863	124527.615	12618812.29	N41.8264744310	W86.2178354799	824.82	46.85	777.97
1003	124500.194	12618961.24	N41.8264081898	W86.2172869775	818.31	41.22	777.09
1006	124521.707	12618912.63	N41.8264642755	W86.2174670106	834.65	56.08	778.57
1007	124524.304	12618885.96	N41.8264697918	W86.2175650070	826.94	48.48	778.45
1008	124518.371	12618971.98	N41.8264587035	W86.2172490401	826.17	48.20	777.97
1009	124467.683	12619014.57	N41.8263222171	W86.2170887497	837.74	61.00	776.74
1010	124434.673	12618996.75	N41.8262305845	W86.2171514590	819.22	43.17	776.06
1011	124484.565	12618909.48	N41.8263621921	W86.2174755690	838.20	59.63	778.57
1012	124463.49	12618911.05	N41.8263044711	W86.2174680927	845.24	67.30	777.95
1030	124352.007	12618945	N41.8260006824	W86.2173345785	847.70	72.25	775.46
1032	124496.756	12618998.54	N41.8264010081	W86.2171498699	821.18	44.17	777.01
1033	124472.008	12619062.38	N41.8263369649	W86.2169137528	845.22	68.71	776.50
1036	124369.309	12618964.68	N41.8260493344	W86.2172638104	838.97	62.86	776.11
1037	124394.421	12618999.11	N41.8261203018	W86.2171395467	849.65	73.17	776.47
1039	124288.866	12618939.37	N41.8258271251	W86.2173501439	843.40	68.58	774.82
1040	124285.613	12618952.52	N41.8258189940	W86.2173016544	840.06	65.55	774.51
1041	124287.646	12618969.12	N41.8258255725	W86.2172409300	830.05	55.30	774.75
1042	124264.613	12618937.17	N41.8257604583	W86.2173562426	837.93	61.95	775.98
1043	124419.557	12618875.91	N41.8261818283	W86.2175934244	831.51	53.28	778.22
1044	124390.87	12618879.29	N41.8261033338	W86.2175787138	844.82	68.02	776.80
1045	124373.536	12618861.56	N41.8260547112	W86.2176423453	841.90	64.29	777.61
1046	124318.541	12618866.45	N41.8259041356	W86.2176199894	840.74	64.29	776.45
1049	124181.654	12618937.41	N41.8255328876	W86.2173486693	834.88	57.47	777.42
1050	124132.798	12618935.88	N41.8253987659	W86.2173503707	859.11	79.25	779.86
1051	124116.667	12618949.23	N41.8253553186	W86.2173000802	845.49	64.88	780.61
1052	124132.454	12618963.31	N41.8253994766	W86.2172497373	859.21	78.98	780.23
1053	124116.696	12618965.54	N41.8253563818	W86.2172402657	843.70	62.72	780.98
1067	124058.444	12619030.71	N41.8252005063	W86.2169965549	833.67	49.51	784.16

1068	124051.041	12618993.82	N41.8251779727	W86.2171312600	839.56	55.96	783.60
1069	124045.348	12618987.19	N41.8251619548	W86.2171551290	838.15	54.18	783.98
1075	123940.517	12618945.23	N41.8248718369	W86.2173005550	835.47	51.66	783.81
1076	123938.9	12618947.02	N41.8248675089	W86.2172938595	832.46	48.69	783.77
1077	123937.22	12618942.6	N41.8248626336	W86.2173099315	833.37	49.71	783.66
1078	123935.156	12618944.09	N41.8248570610	W86.2173043113	834.22	50.51	783.72
1079	123938.658	12618932.06	N41.8248659429	W86.2173486977	832.92	49.11	783.81
1080	123940.542	12618925.88	N41.8248707381	W86.2173715489	847.08	62.91	784.17
1081	123942.665	12618892.86	N41.8248745708	W86.2174928164	839.52	56.26	783.26
1082	123939.193	12618894.72	N41.8248651585	W86.2174856925	841.13	58.09	783.05
1083	123919.064	12618883.06	N41.8248092343	W86.2175268382	822.95	40.02	782.93
1084	123950.361	12618717.68	N41.8248851154	W86.2181359475	831.95	49.90	782.05
1085	124075.433	12618803.78	N41.8252334260	W86.2178302284	830.48	47.41	783.07
1087	124045.201	12618744.88	N41.8251469353	W86.2180438365	836.13	54.09	782.04
1089	123929.35	12618733.33	N41.8248284191	W86.2180768569	834.28	52.23	782.04

OBSTRUCTION SUMMARY FOR DICKINSON PROPERTY - 2268 Yankee Street

PNT #	LATITUDE	LONGITUDE	TOP ELEV.	HEIGHT	GROUND ELEV.	ALLOWABLE ELEV.	BUFFER (feet)	AMOUNT OF PENTRATION w/Buffer	AMOUNT OF PRUNE	FINAL HEIGHT OF OBJECT	DISPOSTION	REQUIRES CUTTING	
												Yes	No
716	N41.8260075683	W86.2182213660	844.23	69.05	775.18	832	10	12.23	22.23	46.83		1	
717	N41.8263858844	W86.2181890840	841.45	66.35	775.10	827	10	14.45	24.45	41.90		1	
718	N41.8262824416	W86.2180253378	845.60	68.19	777.41	829	10	16.60	26.60	41.59		1	
719	N41.8262590658	W86.2180209626	849.38	71.35	778.03	830	10	19.38	29.38	41.97		1	
720	N41.8264169132	W86.2178925715	825.62	47.55	778.08	828	10	-2.38	7.62	39.92		1	
722	N41.8263926176	W86.2185727324	795.02	21.56	773.46	824	10	-28.98	0.00	21.56	NO PRUNE		1
723	N41.8263687775	W86.2186693001	818.51	45.29	773.23	823	10	-4.49	5.51	39.78		1	
724	N41.8263387448	W86.2186631619	808.65	35.60	773.06	824	10	-15.35	0.00	35.60	NO PRUNE		1
725	N41.8263156197	W86.2186699052	816.66	43.93	772.73	824	10	-7.34	2.66	41.28		1	
726	N41.8263445815	W86.2187197750	824.58	52.03	772.56	823	10	1.58	11.58	40.45		1	
734	N41.8259203414	W86.2184658336	804.75	29.46	775.29	832	10	-27.25	0.00	29.46	NO PRUNE		1
740	N41.8259320662	W86.2179900570	853.16	76.29	776.87	835	10	18.16	28.16	48.14		1	
741	N41.8261057478	W86.2178838446	846.32	68.22	778.10	833	10	13.32	23.32	44.90		1	
742	N41.8262183402	W86.2178948281	838.65	59.91	778.73	831	10	7.65	17.65	42.27		1	
743	N41.8262922932	W86.2179345089	859.05	80.86	778.19	830	10	29.05	39.05	41.81		1	
759	N41.8256337462	W86.2181586660	843.79	68.59	775.21	838	10	5.79	15.79	52.80		1	
760	N41.8256236820	W86.2180775490	841.75	66.03	775.73	839	10	2.75	12.75	53.28		1	
761	N41.8256073357	W86.2180014104	848.34	71.24	777.10	840	10	8.34	18.34	52.90		1	
762	N41.8256104860	W86.2179076699	854.35	76.79	777.56	841	10	13.35	23.35	53.44		1	
763	N41.8255910513	W86.2176792036	809.51	33.56	775.95	842	10	-32.49	0.00	33.56	NO PRUNE		1
764	N41.8256923907	W86.2176779996	844.26	68.66	775.60	841	10	3.26	13.26	55.40		1	
765	N41.8254861889	W86.2176783409	807.53	30.13	777.40	844	10	-36.47	0.00	30.13	NO PRUNE		1
766	N41.8254240029	W86.2177948174	844.11	63.67	780.44	844	10	0.11	10.11	53.57		1	
767	N41.8254260724	W86.2178255149	847.33	66.78	780.56	844	10	3.33	13.33	53.45		1	
768	N41.8254273206	W86.2178689435	850.46	69.30	781.16	843	10	7.46	17.46	51.84		1	
769	N41.8254263293	W86.2179065157	846.35	64.78	781.57	843	10	3.35	13.35	51.43		1	
770	N41.8254274084	W86.2179395216	843.66	62.57	781.09	843	10	0.66	10.66	51.91		1	
771	N41.8254283029	W86.2179790867	845.83	64.64	781.19	842	10	3.83	13.83	50.81		1	
772	N41.8254287757	W86.2180154140	847.62	66.52	781.10	842	10	5.62	15.62	50.90		1	
773	N41.8254280820	W86.2180465697	847.81	67.13	780.69	842	10	5.81	15.81	51.31		1	
774	N41.8254262318	W86.2180807957	847.55	67.75	779.80	842	10	5.55	15.55	52.20		1	
775	N41.8254298878	W86.2181169928	846.29	66.93	779.35	842	10	4.29	14.29	52.65		1	
776	N41.8254280564	W86.2181493993	842.85	64.40	778.44	843	10	-0.15	9.85	54.56		1	
777	N41.8253720546	W86.2180455938	819.94	39.17	780.77	843	10	-23.06	0.00	39.17	NO PRUNE		1
778	N41.8253686325	W86.2179289352	812.01	30.67	781.34	844	10	-31.99	0.00	30.67	NO PRUNE		1
779	N41.8253677791	W86.2178655159	814.60	33.52	781.08	844	10	-29.40	0.00	33.52	NO PRUNE		1

780	N41.8253719123	W86.2177956161	816.75	36.51	780.24	845	10	-28.25	0.00	36.51	NO PRUNE		1
815	N41.8251690538	W86.2170871109	829.67	45.52	784.15	853	10	-23.33	0.00	45.52	NO PRUNE		1
817	N41.8250900967	W86.2170307573	844.78	60.09	784.69	855	10	-10.22	0.00	60.09	NO PRUNE		1
818	N41.8250786296	W86.2170327505	844.93	59.41	785.52	855	10	-10.07	0.00	59.41	NO PRUNE		1
819	N41.8250698581	W86.2170639438	844.12	59.55	784.57	855	10	-10.88	0.00	59.55	NO PRUNE		1
820	N41.8250392012	W86.2170498547	834.49	49.83	784.66	856	10	-21.51	0.00	49.83	NO PRUNE		1
821	N41.8250196215	W86.2170367848	830.23	45.16	785.07	856	10	-25.77	0.00	45.16	NO PRUNE		1
863	N41.8264744310	W86.2178354799	824.82	46.85	777.97	828	10	-3.18	6.82	40.03		1	
1003	N41.8264081898	W86.2172869775	818.31	41.22	777.09	833	10	-14.69	0.00	41.22	NO PRUNE		1
1006	N41.8264642755	W86.2174670106	834.65	56.08	778.57	831	10	3.65	13.65	42.43		1	
1007	N41.8264697918	W86.2175650070	826.94	48.48	778.45	830	10	-3.06	6.94	41.55		1	
1008	N41.8264587035	W86.2172490401	826.17	48.20	777.97	833	10	-6.83	3.17	45.03		1	
1009	N41.8263222171	W86.2170887497	837.74	61.00	776.74	836	10	1.74	11.74	49.26		1	
1010	N41.8262305845	W86.2171514590	819.22	43.17	776.06	837	10	-17.78	0.00	43.17	NO PRUNE		1
1011	N41.8263621921	W86.2174755690	838.20	59.63	778.57	832	10	6.20	16.20	43.43		1	
1012	N41.8263044711	W86.2174680927	845.24	67.30	777.95	833	10	12.24	22.24	45.05		1	
1030	N41.8260006824	W86.2173345785	847.70	72.25	775.46	839	10	8.70	18.70	53.54		1	
1032	N41.8264010081	W86.2171498699	821.18	44.17	777.01	834	10	-12.82	0.00	44.17	NO PRUNE		1
1033	N41.8263369649	W86.2169137528	845.22	68.71	776.50	837	10	8.22	18.22	50.50		1	
1036	N41.8260493344	W86.2172638104	838.97	62.86	776.11	839	10	-0.03	9.97	52.89		1	
1037	N41.8261203018	W86.2171395467	849.65	73.17	776.47	839	10	10.65	20.65	52.53		1	
1039	N41.8258271251	W86.2173501439	843.40	68.58	774.82	841	10	2.40	12.40	56.18		1	
1040	N41.8258189940	W86.2173016544	840.06	65.55	774.51	842	10	-1.94	8.06	57.49		1	
1041	N41.8258255725	W86.2172409300	830.05	55.30	774.75	842	10	-11.95	0.00	55.30	NO PRUNE		1
1042	N41.8257604583	W86.2173562426	837.93	61.95	775.98	842	10	-4.07	5.93	56.02		1	
1043	N41.8261818283	W86.2175934244	831.51	53.28	778.22	834	10	-2.49	7.51	45.78		1	
1044	N41.8261033338	W86.2175787138	844.82	68.02	776.80	835	10	9.82	19.82	48.20		1	
1045	N41.8260547112	W86.2176423453	841.90	64.29	777.61	836	10	5.90	15.90	48.39		1	
1046	N41.8259041356	W86.2176199894	840.74	64.29	776.45	838	10	2.74	12.74	51.55		1	
1049	N41.8255328876	W86.2173486693	834.88	57.47	777.42	846	10	-11.12	0.00	57.47	NO PRUNE		1
1050	N41.8253987659	W86.2173503707	859.11	79.25	779.86	848	10	11.11	21.11	58.14		1	
1051	N41.8253553186	W86.2173000802	845.49	64.88	780.61	849	10	-3.51	6.49	58.39		1	
1052	N41.8253994766	W86.2172497373	859.21	78.98	780.23	849	10	10.21	20.21	58.77		1	
1053	N41.8253563818	W86.2172402657	843.70	62.72	780.98	849	10	-5.30	4.70	58.02	NO PRUNE		1
1067	N41.8252005063	W86.2169965549	833.67	49.51	784.16	850	10	-16.33	0.00	49.51	NO PRUNE		1
1068	N41.8251779727	W86.2171312600	839.56	55.96	783.60	853	10	-13.44	0.00	55.96	NO PRUNE		1
1069	N41.8251619548	W86.2171551290	838.15	54.18	783.98	853	10	-14.85	0.00	54.18	NO PRUNE		1
1075	N41.8248718369	W86.2173005550	835.47	51.66	783.81	856	10	-20.53	0.00	51.66	NO PRUNE		1
1076	N41.8248675089	W86.2172938595	832.46	48.69	783.77	856	10	-23.54	0.00	48.69	NO PRUNE		1
1077	N41.8248626336	W86.2173099315	833.37	49.71	783.66	855	10	-21.63	0.00	49.71	NO PRUNE		1
1078	N41.8248570610	W86.2173043113	834.22	50.51	783.72	856	10	-21.78	0.00	50.51	NO PRUNE		1

1079	N41.8248659429	W86.2173486977	832.92	49.11	783.81	856	10	-23.08	0.00	49.11	NO PRUNE		1
1080	N41.8248707381	W86.2173715489	847.08	62.91	784.17	856	10	-8.92	1.08	61.83		1	
1081	N41.8248745708	W86.2174928164	839.52	56.26	783.26	855	10	-15.48	0.00	56.26	NO PRUNE		1
1082	N41.8248651585	W86.2174856925	841.13	58.09	783.05	855	10	-13.87	0.00	58.09	NO PRUNE		1
1083	N41.8248092343	W86.2175268382	822.95	40.02	782.93	855	10	-32.05	0.00	40.02	NO PRUNE		1
1085	N41.8252334260	W86.2178302284	830.48	47.41	783.07	847	10	-16.52	0.00	47.41	NO PRUNE		1
											Total	50	33

OUTSIDE OF APPROACH AREA													
727	N41.8262909206	W86.2187224349	812.39	39.52	772.87	825	10	-12.61	0.00	39.52	NO PRUNE		
728	N41.8261520581	W86.2186672996	832.09	59.22	772.87	829	10	3.09	13.09	46.13			
729	N41.8260951186	W86.2186690484	834.36	60.92	773.44	831	10	3.36	13.36	47.56			
730	N41.8260437702	W86.2186716149	829.79	56.23	773.56	833	10	-3.21	6.79	49.44			
731	N41.8259894785	W86.2186707372	820.20	46.32	773.88	835	10	-14.80	0.00	46.32	NO PRUNE		
732	N41.8259339812	W86.2186700735	822.28	48.15	774.14	837	10	-14.72	0.00	48.15	NO PRUNE		
733	N41.8258796684	W86.2186691438	831.51	57.29	774.21	839	10	-7.50	2.51	54.79			
781	N41.8254301784	W86.2181795773	845.46	67.50	777.96	843	10	2.46	12.46	55.04			
782	N41.8254307595	W86.2182281713	843.02	65.45	777.57	844	10	-0.98	9.02	56.43			
783	N41.8254295587	W86.2182704600	848.60	71.48	777.13	845	10	3.60	13.60	57.87			
784	N41.8254308349	W86.2183221824	846.98	70.30	776.68	847	10	-0.02	9.98	60.32			
785	N41.8254312130	W86.2183684329	847.87	71.31	776.56	848	10	-0.13	9.87	61.44			
786	N41.8254331817	W86.2184407837	843.90	67.63	776.27	850	10	-6.10	3.90	63.73			
787	N41.8254354898	W86.2185133536	833.96	59.06	774.91	852	10	-18.04	0.00	59.06	NO PRUNE		
788	N41.8254400654	W86.2185873992	839.06	64.36	774.70	854	10	-14.94	0.00	64.36	NO PRUNE		
789	N41.8254377191	W86.2186722719	836.87	63.30	773.57	856	10	-19.13	0.00	63.30	NO PRUNE		
790	N41.8254958104	W86.2186699184	835.73	63.02	772.71	854	10	-18.27	0.00	63.02	NO PRUNE		
791	N41.8256054939	W86.2186708659	829.18	57.21	771.97	850	10	-20.82	0.00	57.21	NO PRUNE		
792	N41.8256597189	W86.2186679583	836.57	63.79	772.78	848	10	-11.43	0.00	63.79	NO PRUNE		
793	N41.8257109086	W86.2186708658	837.10	63.44	773.66	846	10	-8.90	1.10	62.34			
794	N41.8257674134	W86.2186670162	833.92	59.35	774.58	844	10	-10.08	0.00	59.35	NO PRUNE		
1084	N41.8248851154	W86.2181359475	831.95	49.90	782.05	862	10	-30.05	0.00	49.90	NO PRUNE		
1087	N41.8251469353	W86.2180438365	836.13	54.09	782.04	850	10	-13.87	0.00	54.09	NO PRUNE		
1089	N41.8248284191	W86.2180768569	834.28	52.23	782.04	863	10	-28.72	0.00	52.23	NO PRUNE		

PARCEL DATA

8/27/21

TAX ID
14-020-031-038-01

ACREAGE
 PARCEL TOTAL: 6.32 AC
 INSIDE RPZ: 0.00 AC
 OUTSIDE RPZ: 6.32 AC

DESCRIPTION
 FROM THE NORTH QUARTER CORNER OF SECTION 31, TOWNSHIP 7 SOUTH, RANGE 16 WEST, MEASURE NORTH 89°33'00" WEST, ALONG THE NORTH LINE OF SAID SECTION, 566.00 FEET TO THE POINT OF BEGINNING OF THE LAND HEREIN DESCRIBED; THENCE SOUTH 109.00 FEET; THENCE NORTH 89°33'00" WEST 58.00 FEET; THENCE SOUTH 00°02'03" EAST 55.01 FEET; THENCE NORTH 89°14'19" WEST 21.69 FEET; THENCE SOUTH 00°16'00" WEST 291.07 FEET; THENCE SOUTH 89°33'00" EAST 57.06 FEET; THENCE SOUTH 00°27'00" WEST 200.00 FEET; THENCE NORTH 89°33'00" WEST PARALLEL WITH THE NORTH LINE OF SAID SECTION, 354.00 FEET; THENCE NORTH 00°27'00" EAST 200.00 FEET; THENCE NORTH 89°33'00" WEST, PARALLEL WITH THE NORTH LINE OF SAID SECTION; THENCE SOUTH 89°33'00" EAST, ALONG THE NORTH LINE OF SAID SECTION, 508.00 FEET TO THE POINT OF BEGINNING. SUBJECT TO THAT PORTION ALONG THE NORTH SIDE THEREOF AS BEING USED FOR HIGHWAY PURPOSES.

GENERAL NOTES

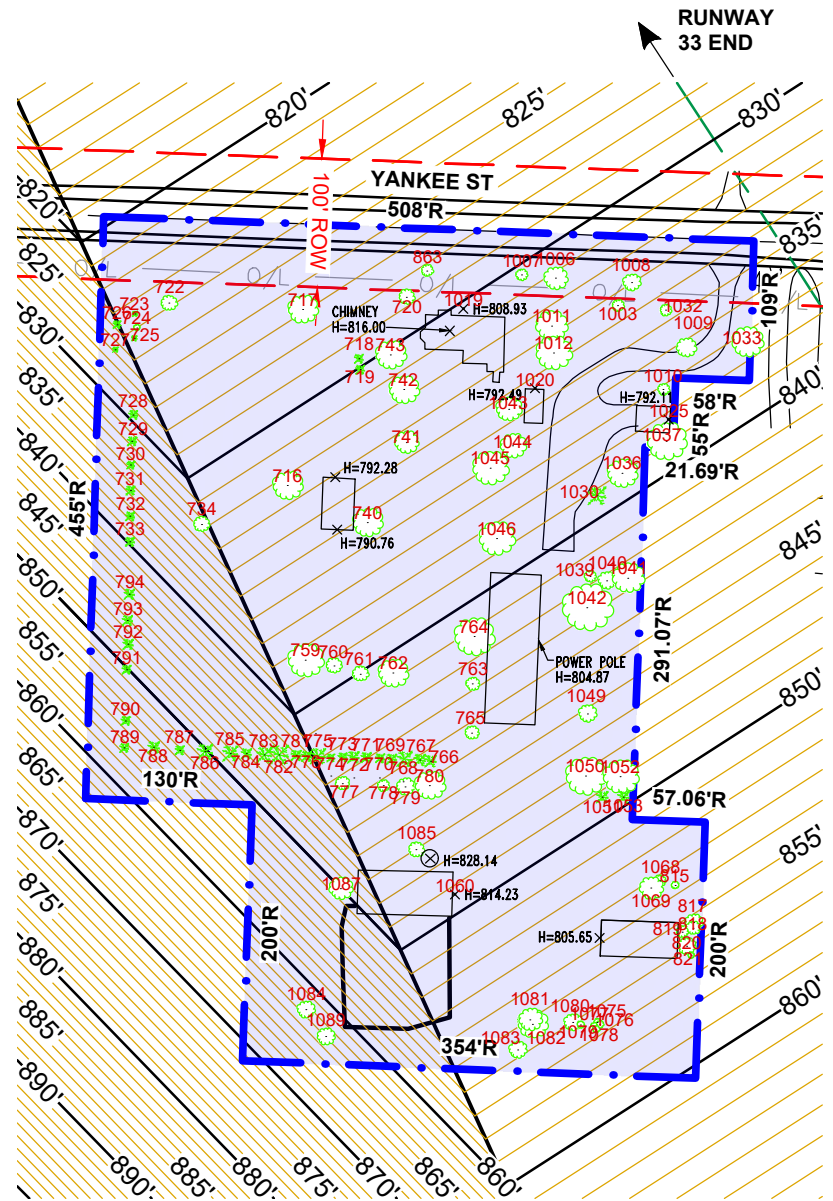
- BASE FIELD SURVEY INFORMATION PROVIDED BY: STEPHENSON LAND SURVEYING (JANUARY 2018).
- VEGETATION WITHIN AVIGATION EASEMENT SHALL BE REMOVED TO CREATE A CLEAR APPROACH SURFACE. PRUNING OR REMOVAL OF NATURAL VEGETATION MAY BE NECESSARY OVER THE LIFETIME OF THE AVIGATION EASEMENT AND IS NOT SPECIFICALLY ILLUSTRATED IN THIS DRAWING.
- DECISION TO PRUNE, LOWER OR REMOVE NATURAL VEGETATION WILL BE AT THE DISCRETION OF THE AIRPORT OWNER.
- IF PRUNING OF NATURAL VEGETATION IS CONDUCTED, IT WILL BE AT LEAST 10' BELOW THE ALLOWABLE HEIGHTS TO AVOID YEARLY MAINTENANCE.
- RUNWAY 33 END INFORMATION (RUNWAY LENGTH 4,100 FT):
 LATITUDE: N 41° 49' 51.03"
 LONGITUDE: W 086° 13' 14.53"
 END EL: 750.4' AMSL
- 'AS' IS DEFINED AS 'FAR PART-77 APPROACH SURFACE'. THE SIZE IS 500 FT X 2000 FT X 5000 FT WITH A SLOPE OF 20:1 AND BEGINS 200 FT FROM THE RUNWAY END, CENTERED ON THE EXTENDED RUNWAY CENTERLINE.
- ACREAGE IN THE RUNWAY PROTECTION ZONE INCLUDED IN AVIGATION EASEMENT ACREAGE TOTAL.
- STRUCTURES LOCATED WITHIN THE AVIGATION EASEMENT ARE EXPECTED TO REMAIN, AS LONG AS THE HIGHEST POINT OF THE STRUCTURE IS BELOW WHAT IS ALLOWED AT THAT LOCATION.
- APPROXIMATELY 0.57 ACRES OF PROPERTY LOCATED WITHIN ROAD RIGHT OF WAY.

LEGEND

	PARCEL BOUNDARY
(R)	PARCEL RECORDED DISTANCE
	AVIGATION EASEMENT
	ROAD RIGHT OF WAY (R.O.W.)
	FAR PART-77 APPROACH SURFACE ALLOWABLE HEIGHTS (AMSL)
	EXTENDED RUNWAY CENTERLINE
	OVERHEAD POWER LINE
	TREES WITH OBJECT LABEL

PARCEL

NOTE: ALL FAR PART-77 APPROACH SURFACE ALLOWABLE HEIGHTS, BUILDING HEIGHTS, TREE HEIGHTS, AND GROUND ELEVATIONS ARE SHOWN ABOVE MEAN SEA LEVEL (AMSL).



Appendix D – Air Quality

Attainment Status for the National Ambient Air Quality Standards

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

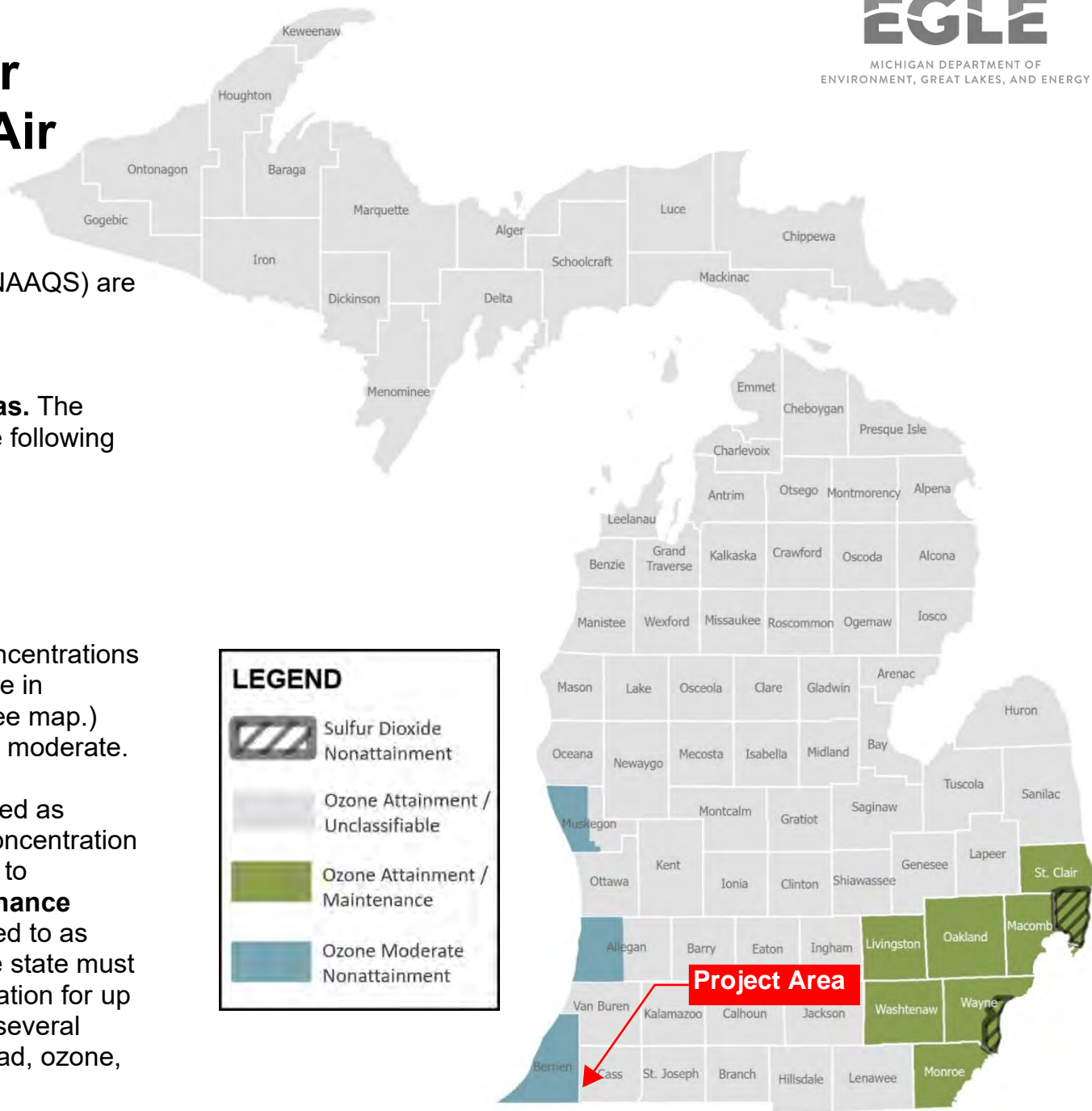
Areas of the state that are below the NAAQS concentration level are called **attainment areas**. The entire state of Michigan is in attainment for the following pollutants:

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

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

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

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



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

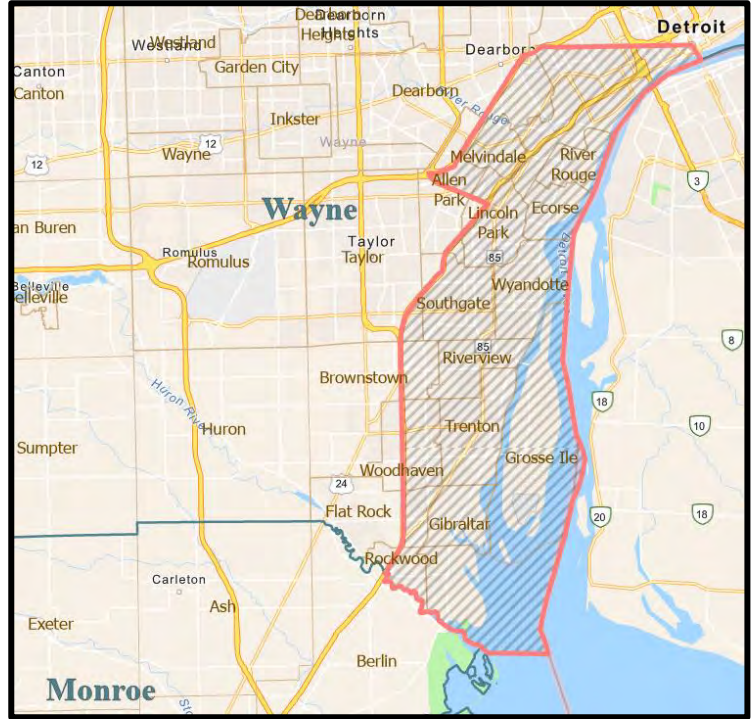
Close-Up Maps of Partial County Nonattainment Areas

Sulfur Dioxide Nonattainment Areas

St. Clair County



Wayne County

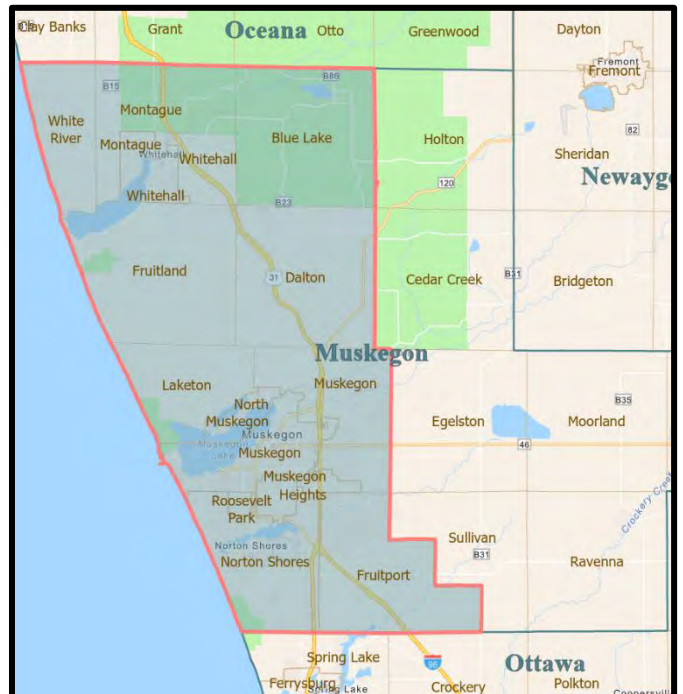


Ozone Moderate Nonattainment Areas

Allegan County



Muskegon County



USEPA Green Book National Area and County-Level Multi-Pollutant Information for Michigan Counties



You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >Michigan Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Michigan Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of December 31, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

MICHIGAN

Important Notes

Download National Dataset: [dbf](#) | [xls](#) | [Data dictionary \(PDF\)](#)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/Part County	Population (2010)	State/County FIPS Codes
MICHIGAN								
Allegan County	1-Hour Ozone (1979)-NAAQS revoked	Allegan County, MI	929394959697989900	01/16/2001	Incomplete Data	Whole	111,408	26/005
Allegan County	8-Hour Ozone (1997)-NAAQS revoked	Allegan County, MI	040506070809	09/24/2010	Former Subpart 1	Whole	111,408	26/005
Allegan County	8-Hour Ozone (2015)	Allegan County, MI	181920212223	//	Moderate	Part	46,615	26/005
Bay County	1-Hour Ozone (1979)-NAAQS revoked	Saginaw-Bay City-Midland, MI	929394959697989900	01/16/2001	Incomplete Data	Whole	107,771	26/017
Benzie County	8-Hour Ozone (1997)-NAAQS revoked	Benzie County, MI	040506	05/16/2007	Former Subpart 1	Whole	17,525	26/019
Berrien County	8-Hour Ozone (1997)-NAAQS revoked	Benton Harbor, MI	040506	05/16/2007	Former Subpart 1	Whole	156,813	26/021

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Berrien County	8-Hour Ozone (2015)	Berrien County, MI	181920212223	//	Moderate	Whole	156,813	26/021
Calhoun County	8-Hour Ozone (1997)-NAAQS revoked	Kalamazoo-Battle Creek, MI	040506	05/16/2007	Former Subpart 1	Whole	136,146	26/025
Cass County	8-Hour Ozone (1997)-NAAQS revoked	Cass County, MI	040506	05/16/2007	Marginal	Whole	52,293	26/027
Clinton County	8-Hour Ozone (1997)-NAAQS revoked	Lansing-East Lansing, MI	040506	05/16/2007	Former Subpart 1	Whole	75,382	26/037
Eaton County	8-Hour Ozone (1997)-NAAQS revoked	Lansing-East Lansing, MI	040506	05/16/2007	Former Subpart 1	Whole	107,759	26/045
Genesee County	1-Hour Ozone (1979)-NAAQS revoked	Flint, MI	929394959697989900	01/16/2001	Section 185A	Whole	425,790	26/049
Genesee County	8-Hour Ozone (1997)-NAAQS revoked	Flint, MI	040506	05/16/2007	Former Subpart 1	Whole	425,790	26/049
Huron County	8-Hour Ozone (1997)-NAAQS revoked	Huron County, MI	040506	05/16/2007	Former Subpart 1	Whole	33,118	26/063
Ingham County	8-Hour Ozone (1997)-NAAQS revoked	Lansing-East Lansing, MI	040506	05/16/2007	Former Subpart 1	Whole	280,895	26/065
Ionia County	Lead (2008)	Belding, MI	111213141516	07/31/2017		Part	1,890	26/067

Appendix E – Biological Resources



United States Department of the Interior



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

In Reply Refer To:
Project code: 2024-0046105
Project Name: NILES (3TR) OBSTRUCTION CLEARING

February 07, 2024

Subject: Verification letter for the project named 'NILES (3TR) OBSTRUCTION CLEARING' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Brauna Hartzell:

The U.S. Fish and Wildlife Service (Service) received on **February 07, 2024** your effect determination(s) for the 'NILES (3TR) OBSTRUCTION CLEARING' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

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

Species	Listing Status	Determination
Copperbelly Water Snake (<i>Nerodia erythrogaster neglecta</i>)	Threatened	No effect
Eastern Massasauga (=rattlesnake) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Threatened	No effect
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Mitchell's Satyr Butterfly (<i>Neonympha mitchellii mitchellii</i>)	Endangered	No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Whooping Crane (*Grus americana*)

Experimental No effect
Population, Non-
Essential

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

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

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

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

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

Bats of Conservation Concern:

Implementing protective measures for bats, including both federally listed and non-listed species, indirectly helps to protect Michigan’s agriculture and forests. Bats are significant predators of nocturnal insects, including many crop and forest pests. For example, Whitaker (1995) estimated

that a single colony of 150 big brown bats (*Eptesicus fuscus*) would eat nearly 1.3 million pest insects each year. Boyles et al. (2011) noted the “loss of bats in North America could lead to agricultural losses estimated at more than \$3.7 billion/year, and Maine and Boyles (2015) estimated that the suppression of herbivory by insectivorous bats is worth >1 billion USD globally on corn alone. In captive trials, northern long-eared bats were found to significantly reduce the egg-laying activity of mosquitoes, suggesting bats may also play an important role in controlling insect-borne disease (Reiskind and Wund 2009). Mosquitoes have also been found to be a consistent component of the diet of Indiana bats and are eaten most heavily during pregnancy (6.6%; Kurta and Whitaker 1998). Taking proactive steps to help protect bats may be very valuable to agricultural and forest product yields and pest management costs in and around a project area. Such conservation measures include limiting tree clearing during the bat active season (April through October varies by location) and/or the non-volant period (June through July), when young bats are unable to fly, and minimizing the extent of impacts to forests, wetlands, and riparian habitats.

Bald and Golden Eagles:

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

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

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

Monarch butterfly and other pollinators

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

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

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

Monarch and Pollinator BMP Recommendations

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

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

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

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

Resources:

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

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

Wetland impacts:

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

Bat References

Boyles, J.G., P.M. Cryan, G.F. McCracken, T.H. Kunz. 2011. Economic Importance of Bats in Agriculture. *Science* 332(1):41-42.

Kurta, A. and J.O. Whitaker. 1998. Diet of the Endangered Indiana Bat (*Myotis sodalis*) on the Northern Edge of Its Range. *The American Midland Naturalist* 140(2):280-286.

Reiskind, M.H. and M.A. Wund. 2009. Experimental assessment of the impacts of northern long-eared bats on ovipositing *Culex* (Diptera: Culicidae) mosquitoes. *Journal of Medical Entomology* 46(5):1037-1044.

Whitaker, Jr., J.O. 1995. Food of the big brown bat *Eptesicus fuscus* from maternity colonies in Indiana and Illinois. *American Midland Naturalist* 134(2):346-360.

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

Eastern massasauga

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

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

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

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

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

Listed bats

Any cutting/trimming of potential roost trees for Indiana bat (trees ≥ 5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark) must occur OUTSIDE the non-volant ("pup") season for Indiana bat (June 1 through July 31). Prescribed fire and/or pesticide application must also occur outside June-July where potential roost trees are present.

Tree cutting/trimming and/or prescribed burning will not clear ≥ 20 contiguous acres of forest or fragment a connective corridor between 2 or more forest patches of at least 5 acres.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

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

1. Name

NILES (3TR) OBSTRUCTION CLEARING

2. Description

The following description was provided for the project 'NILES (3TR) OBSTRUCTION CLEARING':

As a part of the on-going safety improvements at the Airport, obstructions (trees) to the Federal Aviation Regulation (FAR) Part 77 approach surface of Runway 33 were identified during a 2016 Airport Layout Plan (ALP) Update. To maintain a safe and FAA compliant approach surface free of obstructions, aviation easements must be acquired, and the trees removed. Tree clearing is anticipated to occur in winter 2025.

Major development actions covered in this Short Form Environmental Assessment (EA) include:

- Obtain aviation easements to remove the trees that are obstructions to the FAR Part 77 approach surface of Runway 33
- Clear and grub obstructions which penetrate the FAR Part 77 approach surface of Runway 33

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.827772749999994,-86.21772534191769,14z>



QUALIFICATION INTERVIEW

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

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

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

Yes

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

Yes

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

No

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

Yes

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

No

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

Yes

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

No

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

No

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

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

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

No

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

No

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

Yes

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

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?

Automatically answered

Yes

17. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary. If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project. Are you making a "no effect" determination for monarch?

Yes

18. [Hidden Semantic] Does the action intersect the Eastern massasauga rattlesnake area of influence?

Automatically answered

Yes

19. Does your action involve prescribed fire?

No

20. Will this action occur entirely in the Eastern massasauga rattlesnake inactive season (October 16 through April 14)?

Yes

21. Will the action result in permanent loss of more than one acre of wetland or conversion of more than 10 acres of uplands of potential Eastern massasauga rattlesnake habitat (uplands associated with high quality wetland habitat) to other land uses?

No

22. Will you use [wildlife safe materials](#) for erosion control and site restoration and eliminate the use of erosion control products containing plastic mesh netting or other similar material that could ensnare Eastern massasauga rattlesnake?

Yes

23. Will you watch MDNR's ["60-Second Snakes: The Eastern Massasauga Rattlesnake \(EMR\)"](#) video, review the [EMR factsheet](#) or call 517-351-2555 to increase human safety and awareness of EMR?

Yes

24. Will all action personnel report any Eastern massasauga rattlesnake observations, or observation of any other listed threatened or endangered species, during action implementation to the Service within 24 hours?

Yes

25. [Hidden Semantic] Does the action area intersect the Mitchell's satyr area of influence?

Automatically answered

Yes

26. Does your project include alteration or fill of 3 or more acres of wetland?

No

27. [Hidden Semantic] Does the action area intersect the whooping crane (ex. Pop) area of influence?

Automatically answered

Yes

28. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?

Yes

29. [Hidden Semantic] Does the action area intersect copperbelly water snake area of influence?

Automatically answered

Yes

30. [Hidden Semantic] Does the action area intersect the area of influence for Eastern prairie fringed orchid?

Automatically answered

Yes

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

No

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

No

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

No

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

No

35. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?

No

36. Does the action include one or more of the following: (1) tree cutting/trimming, (2) prescribed fire, (3) pesticide (including insecticide and/or rodenticide), and/or (4) herbicide/fungicide application?

Yes

37. Does the action include herbicide application?

No

38. Will the action clear >10 acres of contiguous forest (i.e., connected by 1,000 feet or less) or fragment a riparian or other connective forested corridor (e.g., tree line) between 2 or more forest patches of at least 5 acres? For more information, see [Appendix II](#).

No

39. Does the action area contain potential NLEB bat roost trees (trees ≥ 3 inches in diameter [at breast height] with cracks, crevices, cavities and/or exfoliating bark)? For more information, see [Appendix IV](#).

Yes

40. Does the action area contain potential Indiana bat roost trees (trees ≥ 5 inches in diameter [at breast height] with cracks, crevices and/or exfoliating bark)? For more information, see [Appendix III](#).

Yes

41. Does the action include emergency cutting/trimming of hazard trees in order to prevent imminent loss of human life and/or property?

No

42. [Semantic] Is any portion of the action area within 5 miles of a known Indiana or northern long-eared bat hibernaculum?

Automatically answered

No

43. Will all tree cutting/trimming, prescribed fire, and/or pesticide application occur OUTSIDE the non-volant ("pup") season for bat (that is, no cutting/trimming, prescribed fire, or pesticide application during June 1 through July 31)?

Note: that based on the project's location, conducting these activities outside the months of June and July may be sufficient to avoid adverse effects to/take of bat.

Yes

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

Automatically answered

Yes

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

Automatically answered

Yes

46. [Hidden semantic] Does the action intersect the Tricolored bat AOI/SLA/range?

Automatically answered

Yes

47. The tricolored bat was proposed for listing as endangered on September 13, 2022. In Michigan, the tricolored bat was rare pre-white nose syndrome (WNS) and is exceedingly rare post-WNS. The species has been observed in 12 Michigan counties to date, largely during the fall or winter. With very few exceptions, the species has not been observed in Michigan in the summer months, and no maternity colonies have been found. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

Are you making a no effect determination on this project for the tricolored bat?

Yes

IPAC USER CONTACT INFORMATION

Agency: Federal Aviation Administration
Name: Brauna Hartzell
Address: 2440 Deming Way
City: Middleton
State: WI
Zip: 53562
Email: brauna.hartzell@meadhunt.com
Phone: 6082736380



United States Department of the Interior



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

In Reply Refer To:
Project Code: 2024-0046105
Project Name: NILES (3TR) OBSTRUCTION CLEARING

February 07, 2024

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

To Whom It May Concern:

Official Species List

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

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

Consultation requirements and next steps

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

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

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in making determinations for listed species for some projects. In many cases, the determination key

will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit <https://www.fws.gov/media/mifo-ipac-instructions> (and click on the attachment). Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

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

For all **wind energy projects** and **projects that include installing communications towers >450 feet that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

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

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

We appreciate your consideration of threatened and endangered species during your project

planning. Please include a copy of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

PROJECT SUMMARY

Project Code: 2024-0046105

Project Name: NILES (3TR) OBSTRUCTION CLEARING

Project Type: Clearing Land

Project Description: As a part of the on-going safety improvements at the Airport, obstructions (trees) to the Federal Aviation Regulation (FAR) Part 77 approach surface of Runway 33 were identified during a 2016 Airport Layout Plan (ALP) Update. To maintain a safe and FAA compliant approach surface free of obstructions, aviation easements must be acquired, and the trees removed. Tree clearing is anticipated to occur in winter 2025.

Major development actions covered in this Short Form Environmental Assessment (EA) include:

- Obtain aviation easements to remove the trees that are obstructions to the FAR Part 77 approach surface of Runway 33
- Clear and grub obstructions which penetrate the FAR Part 77 approach surface of Runway 33

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.827772749999994,-86.21772534191769,14z>



Counties: Cass County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

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

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

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

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VMEMZO4SGNDDZHBS4MOZG5AIHU/documents/generated/6982.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: 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) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

REPTILES

NAME	STATUS
Copperbelly Water Snake <i>Nerodia erythrogaster neglecta</i> Population: Indiana north of 40 degrees north latitude, Michigan, Ohio No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7253	Threatened
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ For all Projects: Project is within EMR Range Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VMEMZO4SGNDDZHBS4MOZG5AIHU/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Mitchell's Satyr Butterfly <i>Neonympha mitchellii mitchellii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8062	Endangered
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

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

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

There are bald and/or golden eagles in your project area.

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

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

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

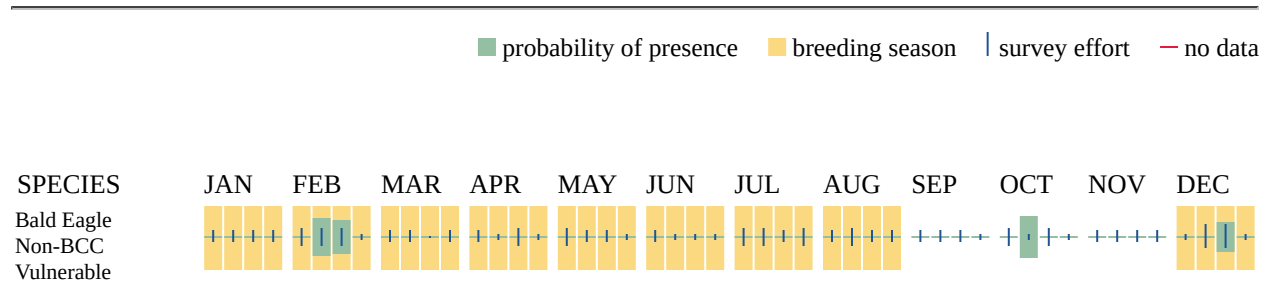
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

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



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE

SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p>https://ecos.fws.gov/ecp/species/1626</p>	Breeds Dec 1 to Aug 31
<p>Cerulean Warbler <i>Dendroica cerulea</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/2974</p>	Breeds Apr 22 to Jul 20
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Wood Thrush <i>Hylocichla mustelina</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9431</p>	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

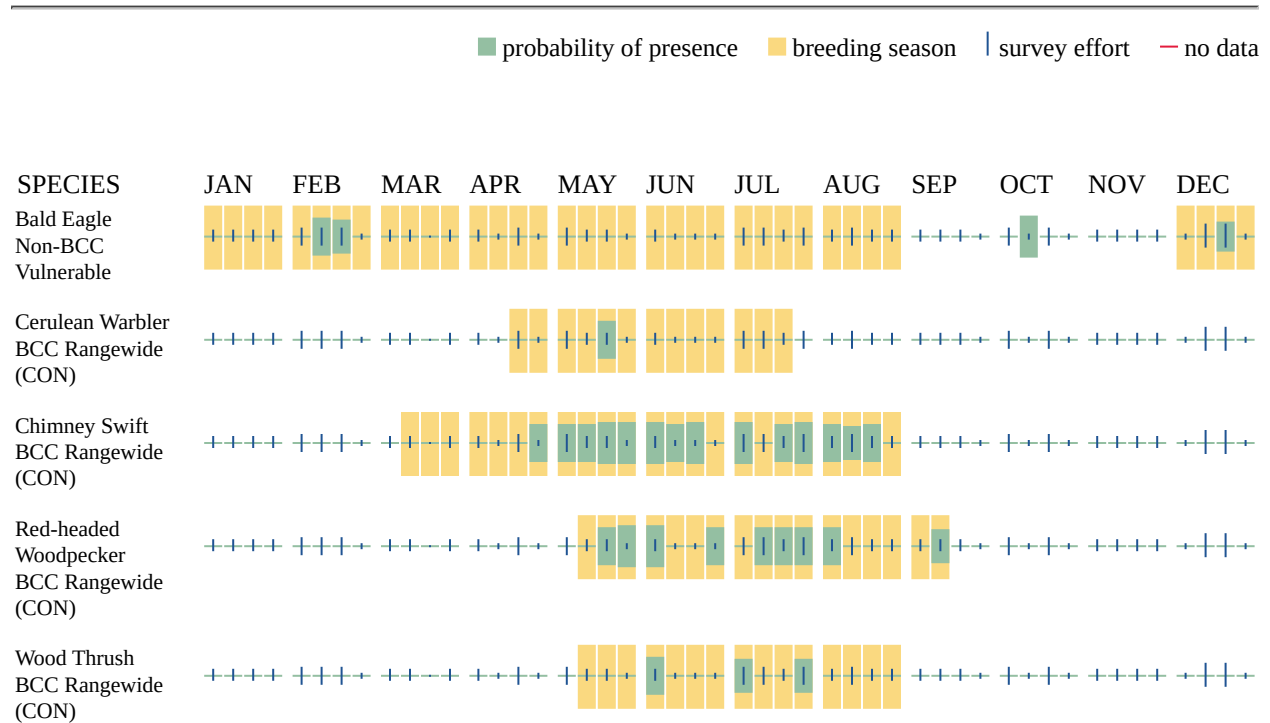
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

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



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

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

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

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Federal Aviation Administration
Name: Brauna Hartzell
Address: 2440 Deming Way
City: Middleton
State: WI
Zip: 53562
Email: brauna.hartzell@meadhunt.com
Phone: 6082736380



GRETCHEN WHITMER
GOVERNOR

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



LIESL EICHLER CLARK
DIRECTOR

October 16, 2020

VIA E-MAIL

Mr. Joseph Ray
Jerry Tyler Memorial Airport
333 N 2nd Street
Niles, Michigan 49120

Dear Mr. Ray:

SUBJECT: Transportation Preliminary Database Search
Project Name: Environmental Assessment
Site Name: 14 - 3TR Niles Short Form EA
Submission Number: HP3-GB0D-5ZVR5
Location: T07S, R16W, Section 30

This letter provides the results of the Transportation Preliminary Database Search that was requested on October 14, 2020, for the above subject project (two locations) The Transportation Preliminary Map/Database Review includes a database search for the following concerns within 500-feet of each project location:

- Historical occurrences of state-listed threatened or endangered (T&E) species within the MNFI database*
- Tier 1 Eastern Massasauga Rattlesnake (EMR) designated habitat
- Michigan Mussel Protocol Group 1/Group 2 (state) and Group 3 (federal) T&E Mussels
- Known contamination locations
- State-regulated 303 wetlands
- Section 10 regulated waterways

Location 1: All Noted Parcels (except Parcel W)

The database search did not indicate any occurrences for state-listed T&E species, EMR habitat, mussels, contaminated sites, mapped wetlands (note wetlands may still be present), and Section 10 waterways.

Location 2: Parcel W – Area approximately 310 LF ESE of RW Approach 33

Mapped 303 regulated wetlands were noted in the database as being observed within 500 feet of your project area at the following location:

- Northwest portion of project buffer zone beginning approximately 250 LF northwest of the project site and 210 LF east of RW 33 approach.

The database search did not indicate any occurrences for state-listed T&E species, EMR habitat, mussels, contaminated sites, and Section 10 waterways

Both Locations:

The database did not indicate the presence of the Northern long-eared bat or the Indiana bat which are federally listed as an endangered species. Indiana bats, however, are considered potentially present wherever suitable habitat exists within their range. Your project location is within the range of the Indiana bat in Michigan. You should consult with the United States Fish & Wildlife Service (USFWS) prior to performing work or applying for permits

** Historical occurrence data for state-listed T&E species were provided to the Water Resources Division (WRD) by the Michigan Natural Features Inventory (MNFI). These data are not based on a comprehensive inventory of the state. The lack of data for any geographical area shall not be construed to mean that no significant features are present. In addition, although the MNFI maintains high standards of quality control, there is no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete.*

The only way to obtain a definitive statement on the status of threatened and endangered species is to have a qualified biologist perform a complete field survey of the proposed project area. Under Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, "a person shall not take, possess, transport, . . . fish, plants, and wildlife indigenous to the state and determined to be endangered or threatened," unless first receiving an endangered species permit from the Michigan Department of Natural Resources (MDNR). The presence of threatened or endangered species does not preclude activities or development but may require alterations to the project. To obtain or submit an endangered species permit, please contact Ms. Casey Reitz, MDNR, at 517-284-6210 or reitzc@michigan.gov.

This review does not include a comprehensive search for federally listed species. The project location must be screened using the self-service USFWS IPaC website. If your project will potentially impact a federally listed T&E species, you should contact USFWS Ecological Services Field Office at 517-351-2555 or eastlansing@fws.gov to begin the consultation process. If your project requires a permit from the WRD, the application submission should include documentation from USFWS of concurrence/approval.

This letter does not include a review of potential lake, stream, wetland, or floodplain impacts caused by your project that may require a permit from our office. A copy of this letter should be provided as an attachment to any future Joint Permit Application submitted for this location. If you have any further questions, please feel free to contact me at prysby1@michigan.gov or 517-899-7316.

Sincerely,

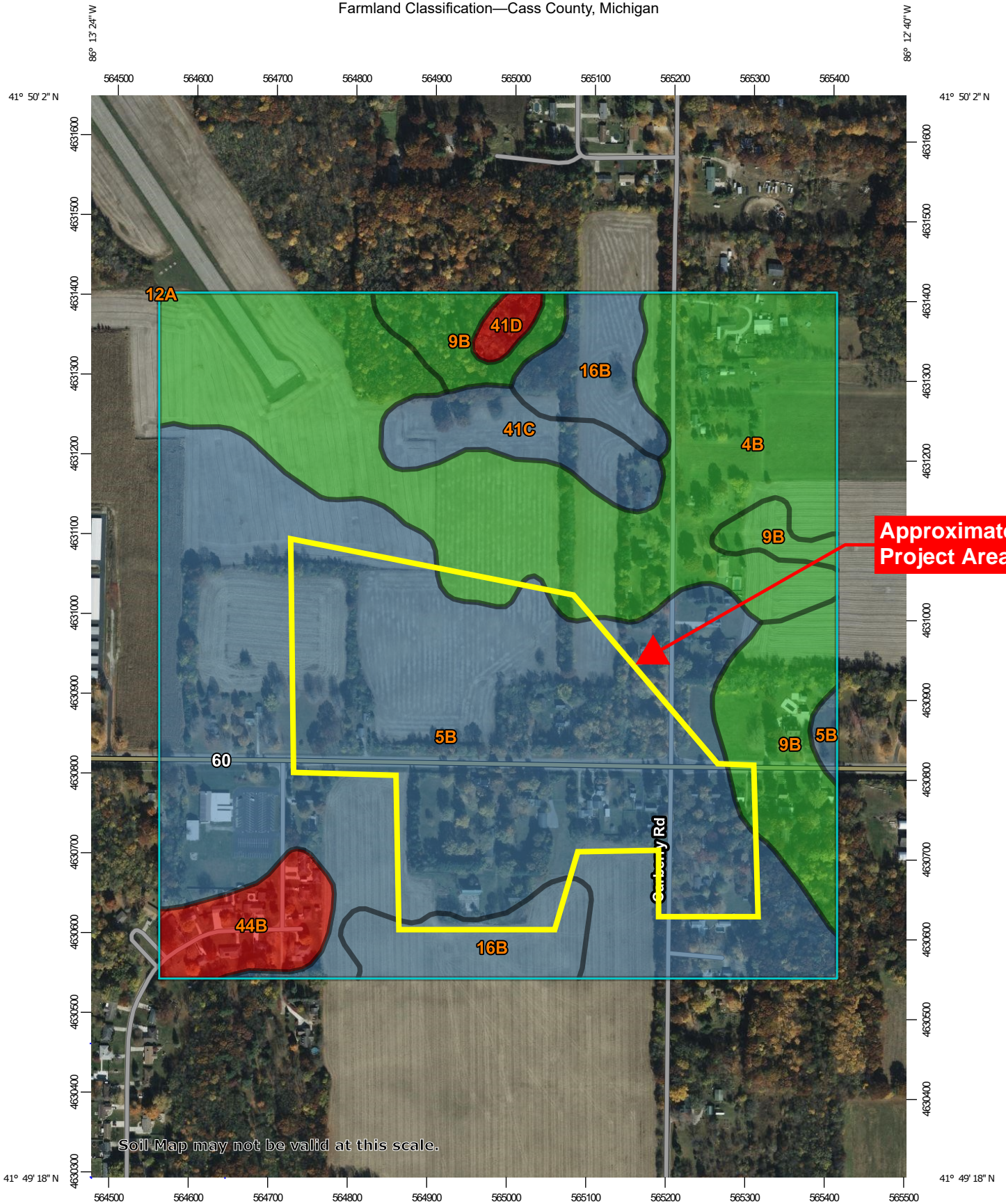


Michael Prysby, P.E.
Transportation Review Unit
Water Resources Division

cc: USFWS
Ms. Casey Reitz, MDNR

Appendix F – Farmland

Farmland Classification—Cass County, Michigan



Soil Map may not be valid at this scale.

Map Scale: 1:6,610 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84




Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

1/24/2024 Page 1 of 5









MAP LEGEND








Area of Interest (AOI)






 Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60



































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available






















Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Cass County, Michigan

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer	
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points		Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if drained		Prime farmland if irrigated and reclaimed of excess salts and sodium	
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance	
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if irrigated		Farmland of statewide importance, if drained	
	Farmland of statewide importance, if irrigated				Farmland of local importance		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season	
					Farmland of local importance, if irrigated		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated	
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season			

Farmland Classification—Cass County, Michigan

<ul style="list-style-type: none">  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if irrigated and drained  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60 	<ul style="list-style-type: none">  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough  Farmland of statewide importance, if thawed  Farmland of local importance  Farmland of local importance, if irrigated 	<ul style="list-style-type: none">  Farmland of unique importance  Not rated or not available <p>Water Features</p> <ul style="list-style-type: none">  Streams and Canals <p>Transportation</p> <ul style="list-style-type: none">  Rails  Interstate Highways  US Routes  Major Roads  Local Roads <p>Background</p> <ul style="list-style-type: none">  Aerial Photography 	<p>The soil surveys that comprise your AOI were mapped at 1:15,800.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Warning: Soil Map may not be valid at this scale.</p> <p>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.</p> </div> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>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.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Cass County, Michigan Survey Area Data: Version 20, Aug 24, 2023</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Oct 4, 2022—Oct 28, 2022</p> <p>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.</p>
--	--	--	--

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4B	Oshtemo sandy loam, 2 to 6 percent slopes	All areas are prime farmland	49.1	27.0%
5B	Spinks loamy sand, 0 to 6 percent slopes	Farmland of local importance	90.7	49.9%
9B	Kalamazoo loam, 2 to 6 percent slopes	All areas are prime farmland	15.9	8.7%
12A	Brady sandy loam, 0 to 2 percent slopes	Prime farmland if drained	0.0	0.0%
16B	Ormas loamy sand, 0 to 6 percent slopes	Farmland of local importance	12.2	6.7%
41C	Spinks-Oshtemo complex, 6 to 12 percent slopes	Farmland of local importance	6.8	3.7%
41D	Spinks-Oshtemo complex, 12 to 18 percent slopes	Not prime farmland	1.2	0.7%
44B	Urban land-Spinks complex, 0 to 6 percent slopes	Not prime farmland	6.0	3.3%
Totals for Area of Interest			181.9	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

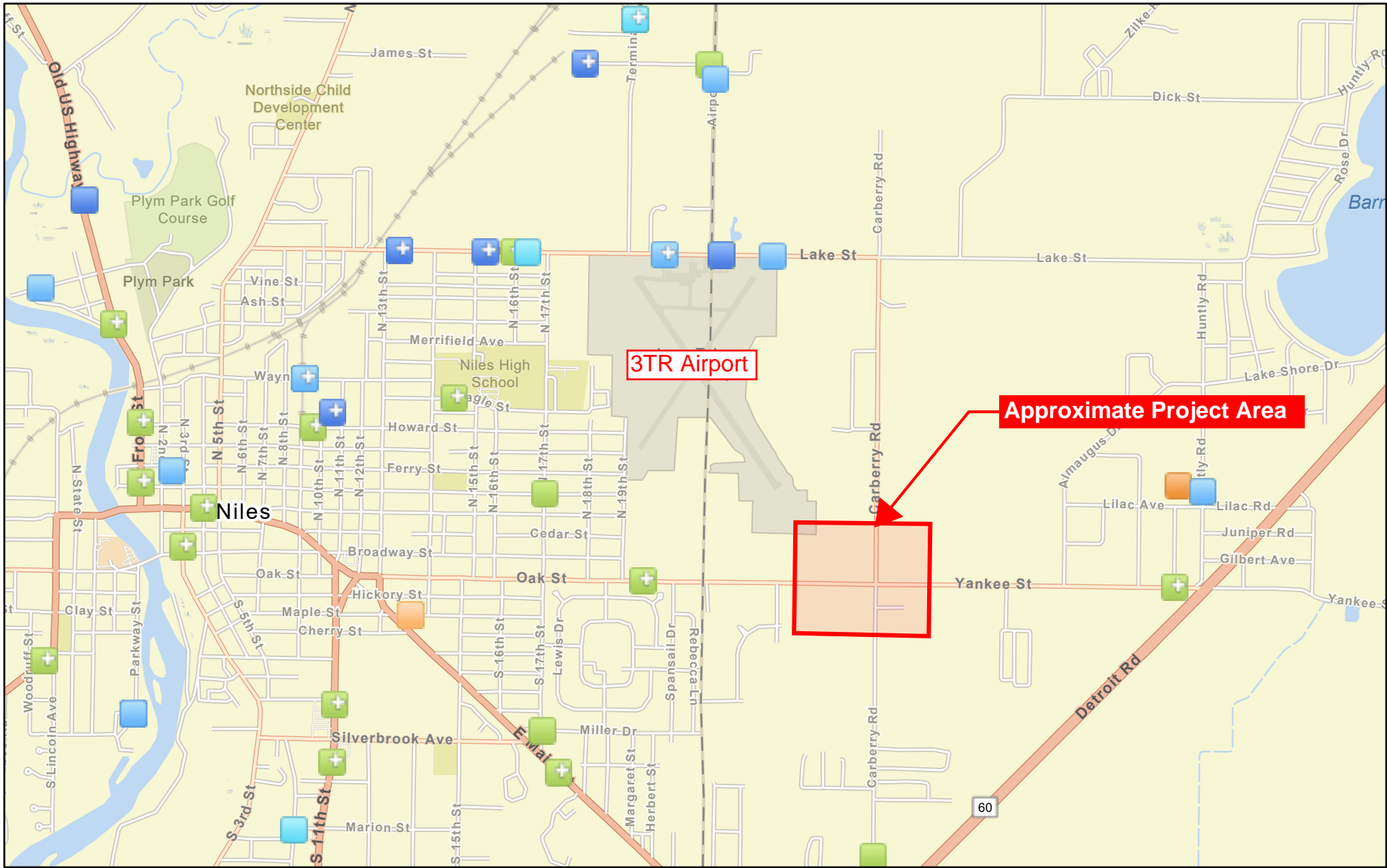
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

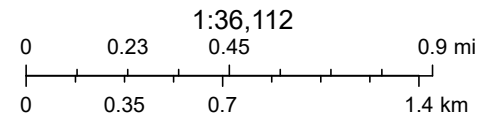
Appendix G – Hazardous Materials

USEPA NEPassist



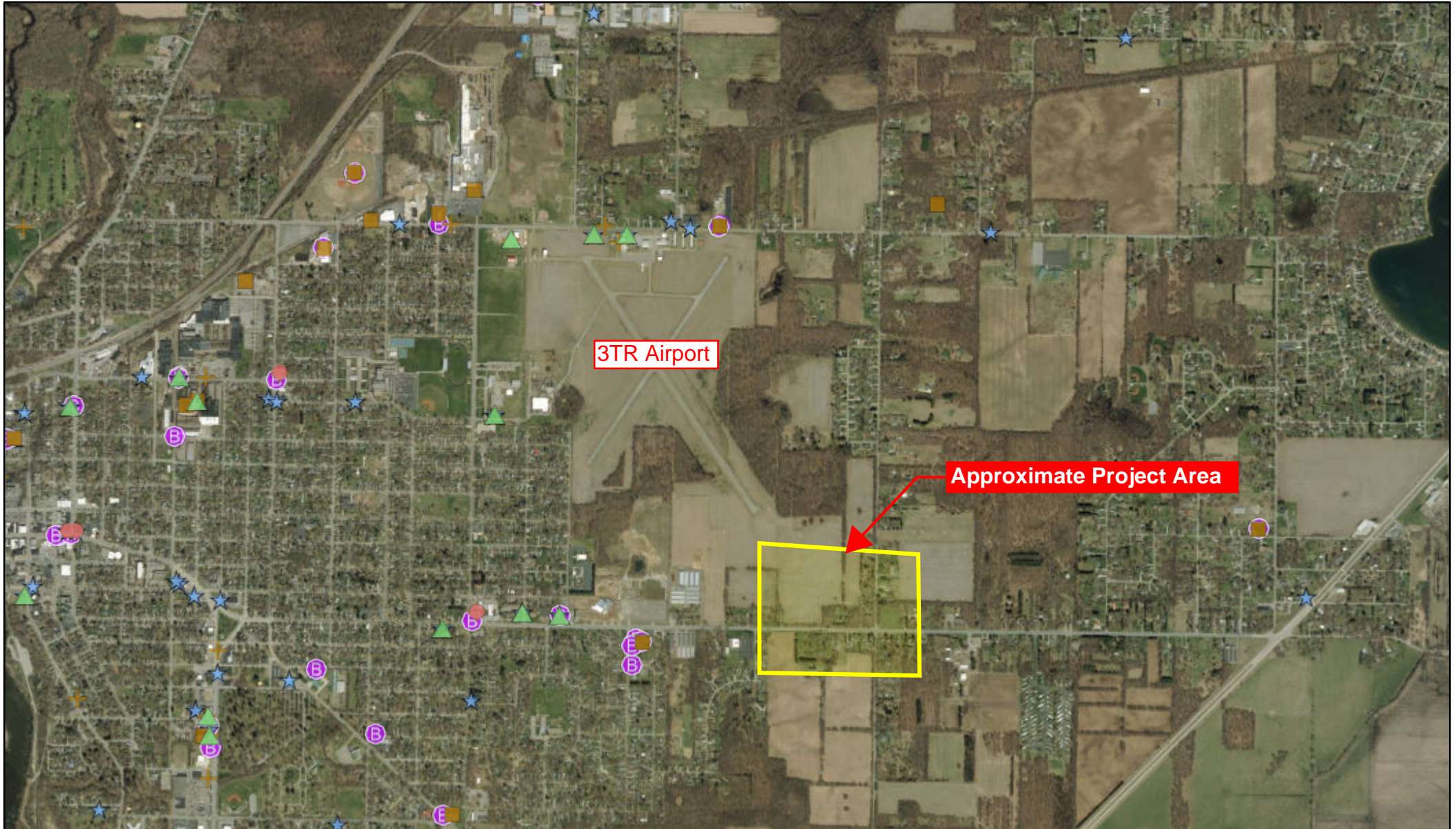
February 1, 2024

- | | | | | | | | |
|--|---------------------------|--|--------------------------|--|----------------------------|--|----------------------------|
| | Water Dischargers (NPDES) | | Air Pollution (ICIS-AIR) | | Toxic Releases (TRI) | | Hazardous Waste (RCRAInfo) |
| | Water Dischargers (NPDES) | | Brownfields (ACRES) | | Superfund (NPL) | | |
| | Air Pollution (ICIS-AIR) | | Toxic Releases (TRI) | | Hazardous Waste (RCRAInfo) | | |



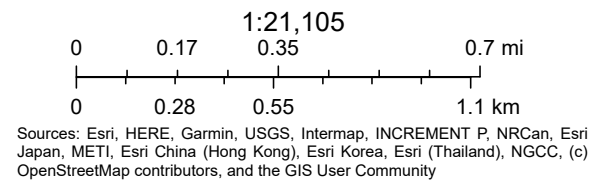
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

EGLE Environmental Mapper



February 1, 2024

- Ⓟ Baseline Environmental Assessment
- ★ Closed Tanks
- ✚ Active Tanks
- Sites of Environmental Contamination (Part 201)
- Open
- ▲ Closed
- Michigan_imagery_public



Appendix H – EJScreen Community Report

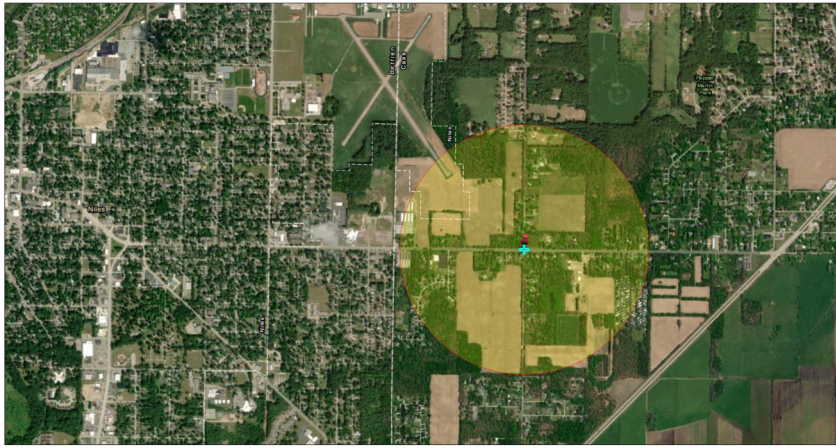
EJScreen Community Report

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

Cass County, MI

0.5 miles Ring Centered at 41.826563,-86.214824
 Population: 220
 Area in square miles: 0.79

A3 Landscape

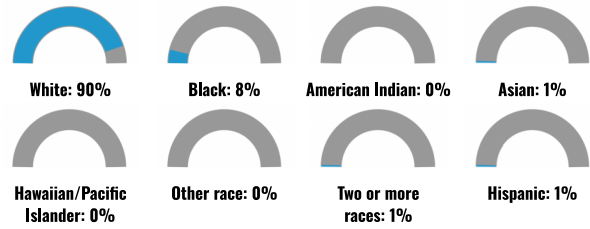


January 18, 2024
 Project 1
 1:18,056
 0 0.15 0.3 0.6 mi
 0 0.20 0.55 1.1 km
 Esri, HERE, DeLorme, FIC, Mapbox

COMMUNITY INFORMATION



BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



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.

LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
No language data available.	

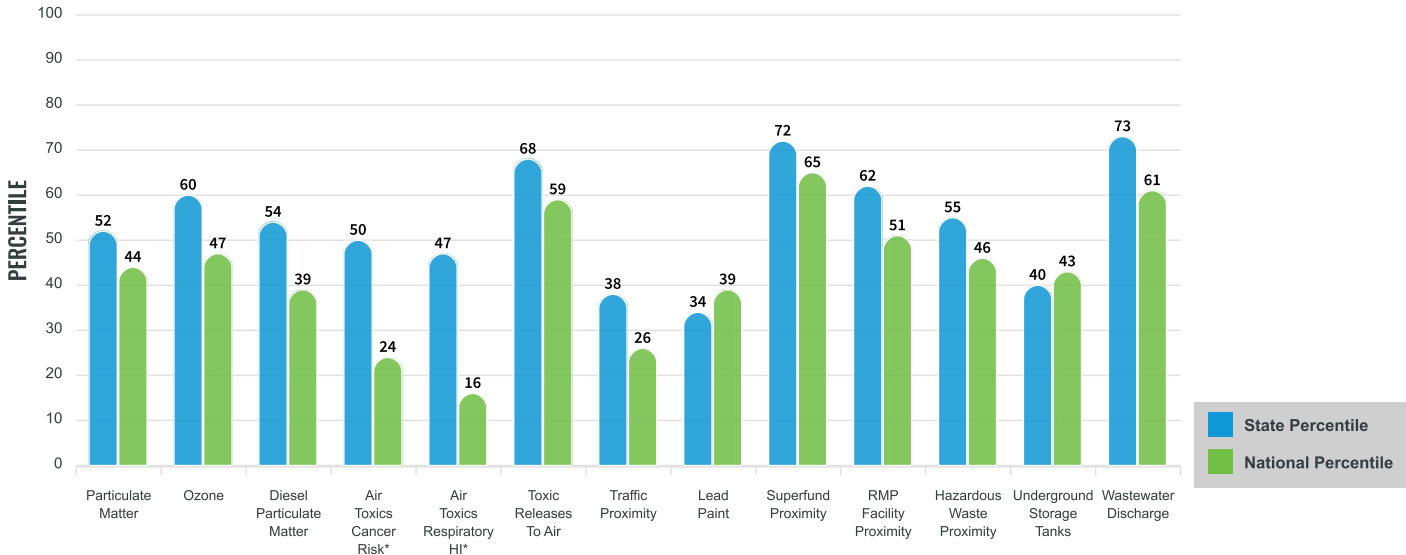
Environmental Justice & Supplemental Indexes

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.

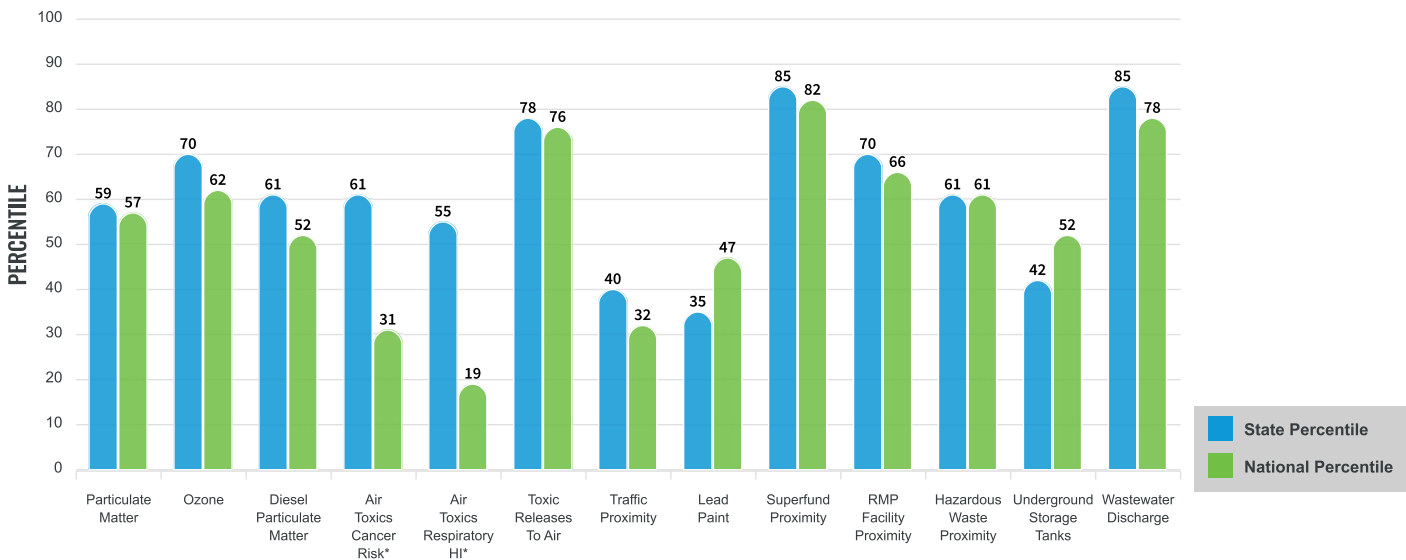
EJ INDEXES FOR THE SELECTED LOCATION



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 0.5 miles Ring Centered at 41.826563,-86.214824

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	8.26	8.51	46	8.08	51
Ozone (ppb)	61.7	60	62	61.6	55
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.186	0.183	52	0.261	41
Air Toxics Cancer Risk* (lifetime risk per million)	20	19	14	25	5
Air Toxics Respiratory HI*	0.2	0.2	11	0.31	4
Toxic Releases to Air	3,100	2,500	82	4,600	79
Traffic Proximity (daily traffic count/distance to road)	21	120	29	210	24
Lead Paint (% Pre-1960 Housing)	0.15	0.38	28	0.3	42
Superfund Proximity (site count/km distance)	0.7	0.15	96	0.13	96
RMP Facility Proximity (facility count/km distance)	0.26	0.31	71	0.43	65
Hazardous Waste Proximity (facility count/km distance)	0.73	1.1	54	1.9	55
Underground Storage Tanks (count/km ²)	0.72	8	31	3.9	43
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.33	0.13	96	22	87
SOCIOECONOMIC INDICATORS					
Demographic Index	20%	28%	44	35%	31
Supplemental Demographic Index	13%	14%	55	14%	51
People of Color	10%	26%	40	39%	23
Low Income	29%	31%	53	31%	53
Unemployment Rate	0%	7%	0	6%	0
Limited English Speaking Households	5%	2%	91	5%	76
Less Than High School Education	10%	9%	66	12%	57
Under Age 5	1%	5%	12	6%	0
Over Age 64	26%	18%	82	17%	83
Low Life Expectancy	21%	20%	57	20%	62

*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	0
Water Dischargers	0
Air Pollution	0
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	0
Hospitals	0
Places of Worship	2

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	No
Selected location contains an EPA IRA disadvantaged community	No

Report for 0.5 miles Ring Centered at 41.826563,-86.214824

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	21%	20%	57	20%	62
Heart Disease	7.5	6.6	73	6.1	77
Asthma	10.8	11.6	35	10	75
Cancer	7.8	6.6	81	6.1	86
Persons with Disabilities	12.3%	14.6%	37	13.4%	48

CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	3%	7%	34	12%	30
Wildfire Risk	0%	0%	0	14%	0

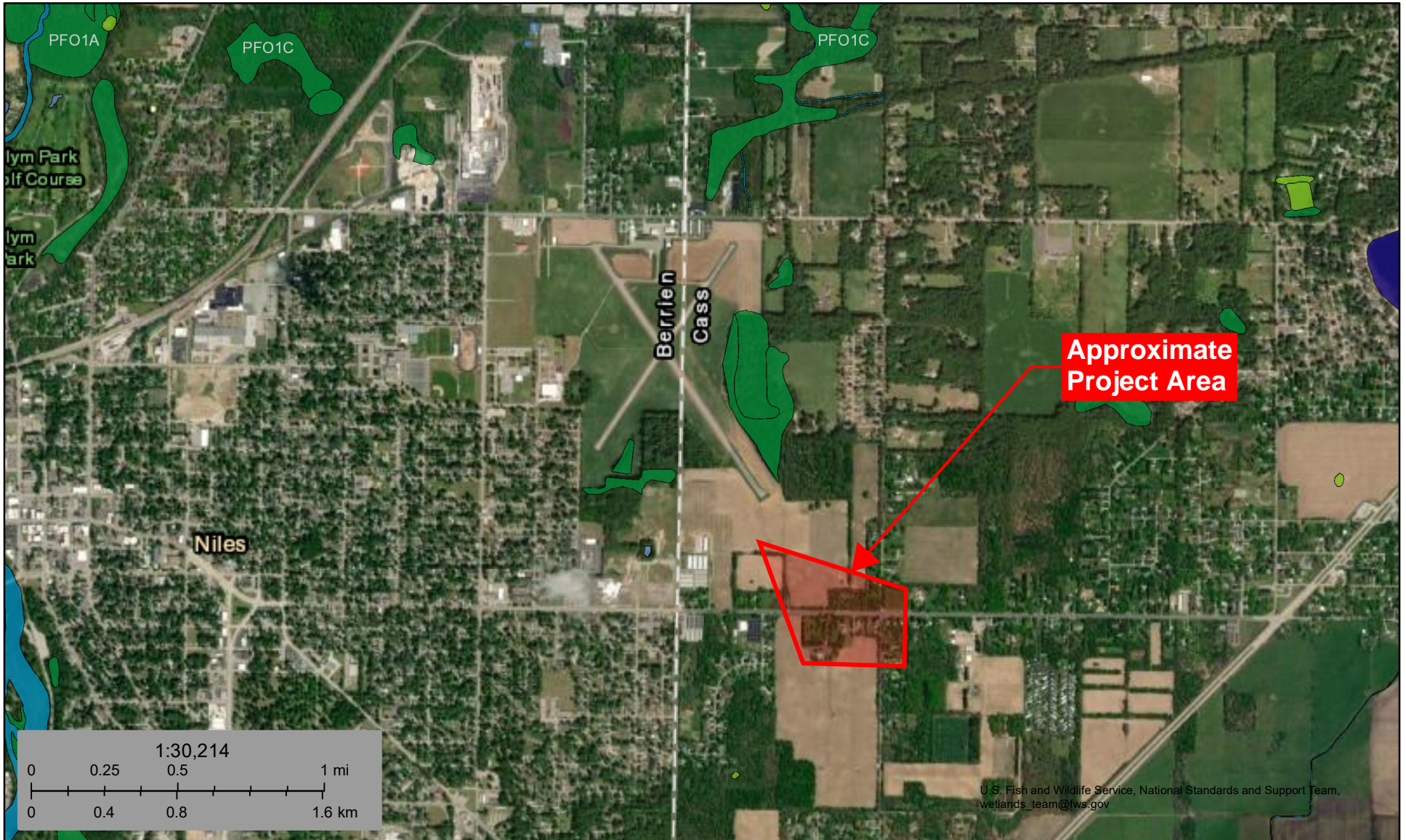
CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	22%	14%	78	14%	77
Lack of Health Insurance	6%	5%	64	9%	45
Housing Burden	No	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

Footnotes

Report for 0.5 miles Ring Centered at 41.826563,-86.214824

Appendix I – Wetland Map



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

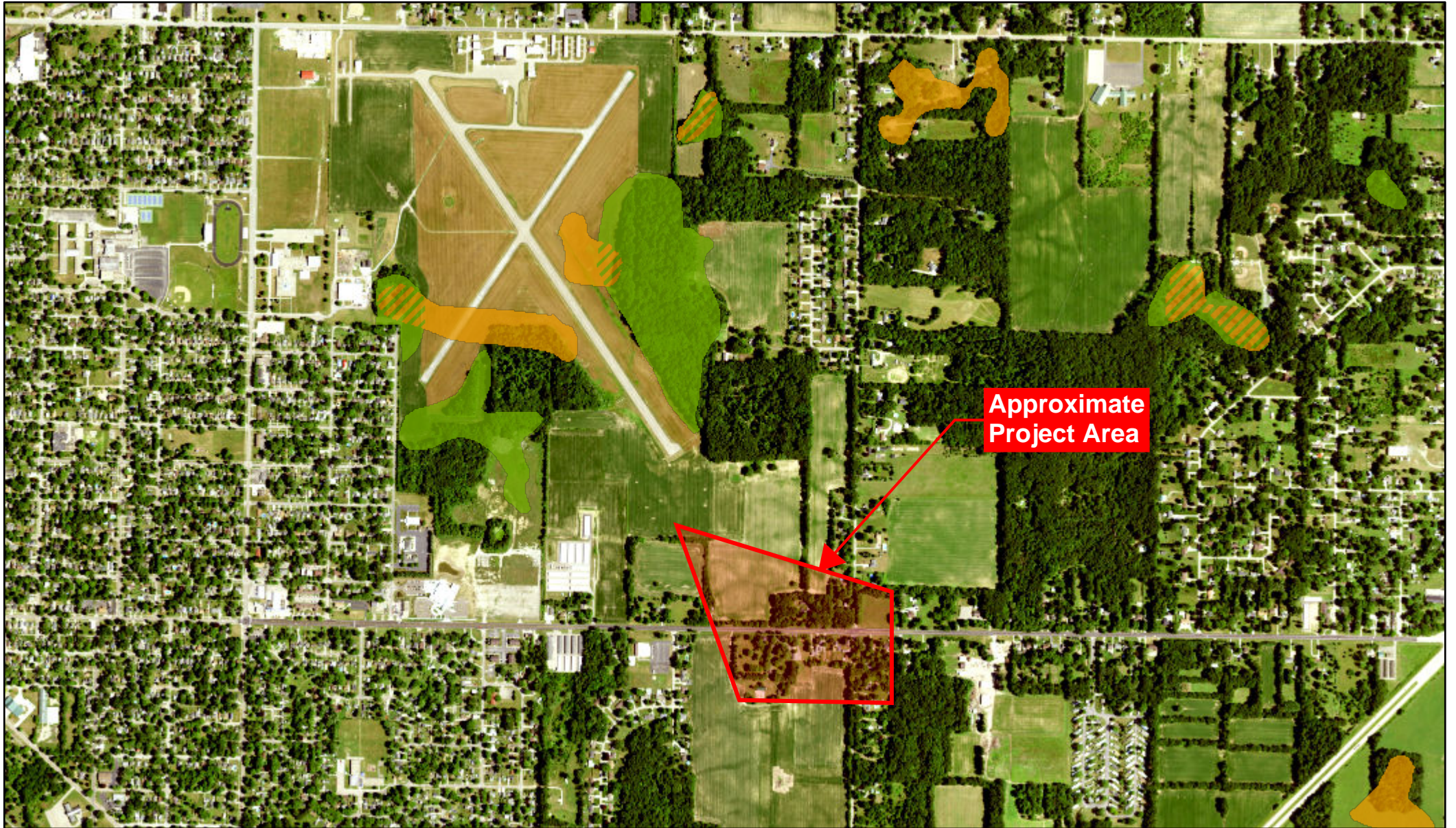
February 1, 2024

Wetlands

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




EGLE Wetland Map Viewer

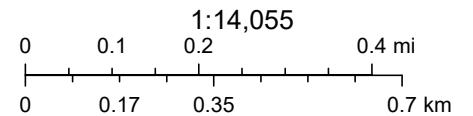


February 8, 2024

Part 303 Final Wetlands Inventory

Jerry Tyler Memorial Airport

-  Wetlands as identified on NWI and MIRIS maps
-  Soil areas which include wetland soils
-  Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Disclaimer: This map is not intended to be used to determine the specific

Appendix J – FEMA Floodplains

William Ballard

From: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Sent: Friday, November 27, 2020 9:07 AM
To: William Ballard
Subject: Jerry Tyler Memorial Airport Improvements - Niles, MI

Thank you for providing early notice on your project proposing improvements to the Jerry Tyler Memorial Airport. It appears that the proposed project site is located outside of FEMA mapped floodplains and for that reason we have no further comments.

Thanks

Duane Castaldi
Regional Environmental Officer | FEMA Region V | Department of Homeland Security
Office: 312.408.5549 | Mobile: 312.576.0067
duane.castaldi@fema.dhs.gov | Pronouns: he / him / his

Federal Emergency Management Agency
fema.gov



FEMA

National Flood Hazard Layer FIRMMette



86°13'18"W 41°49'52"N



Legend

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

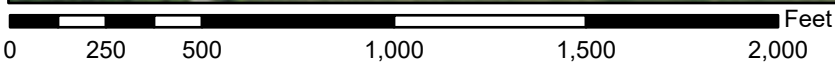
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		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
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/1/2024 at 9:03 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



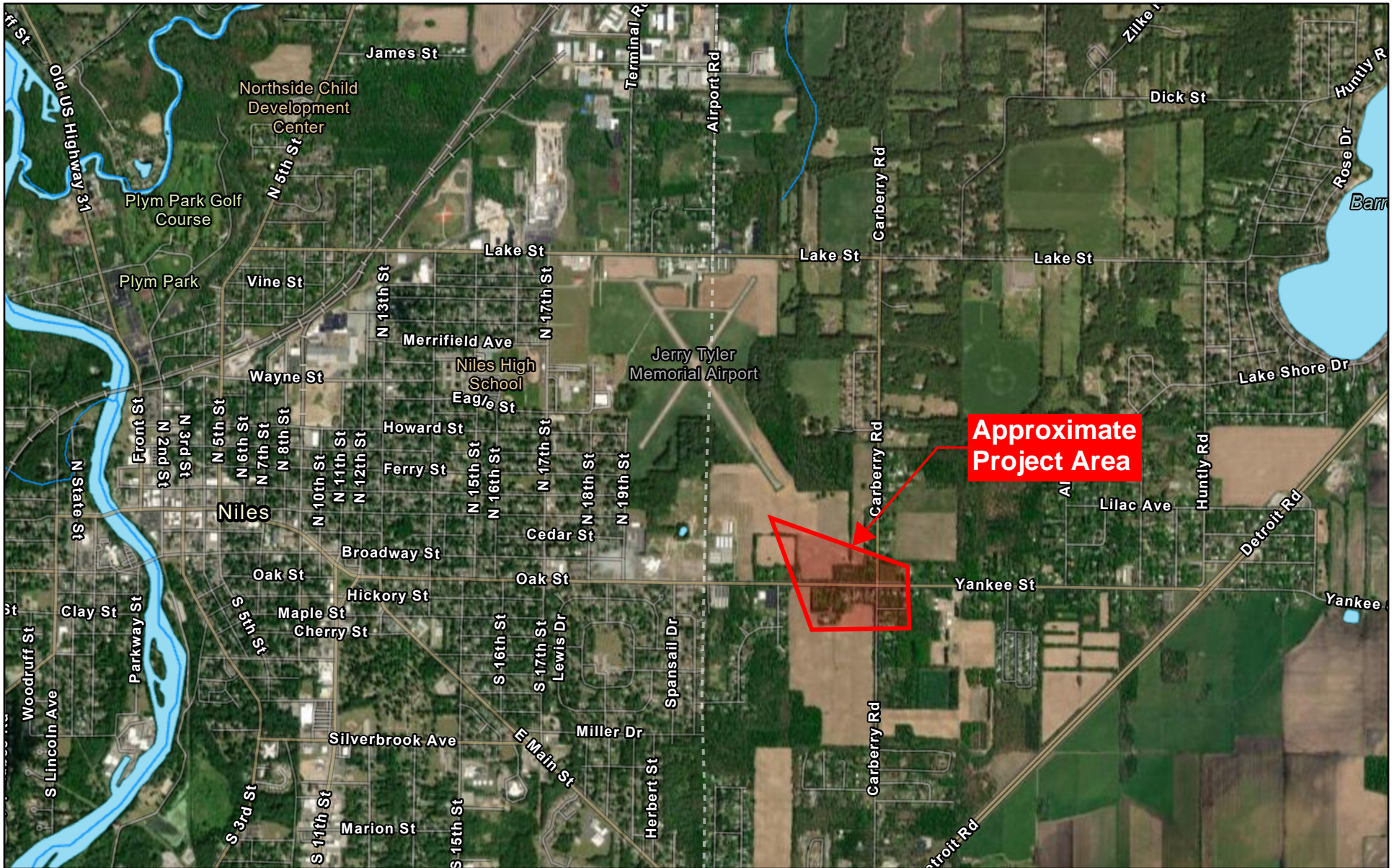
1:6,000

86°12'41"W 41°49'25"N



Basemap Imagery Source: USGS National Map 2023

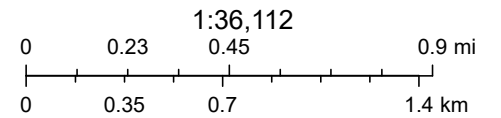
Appendix K – Surface Waters

Surface Waters



February 1, 2024

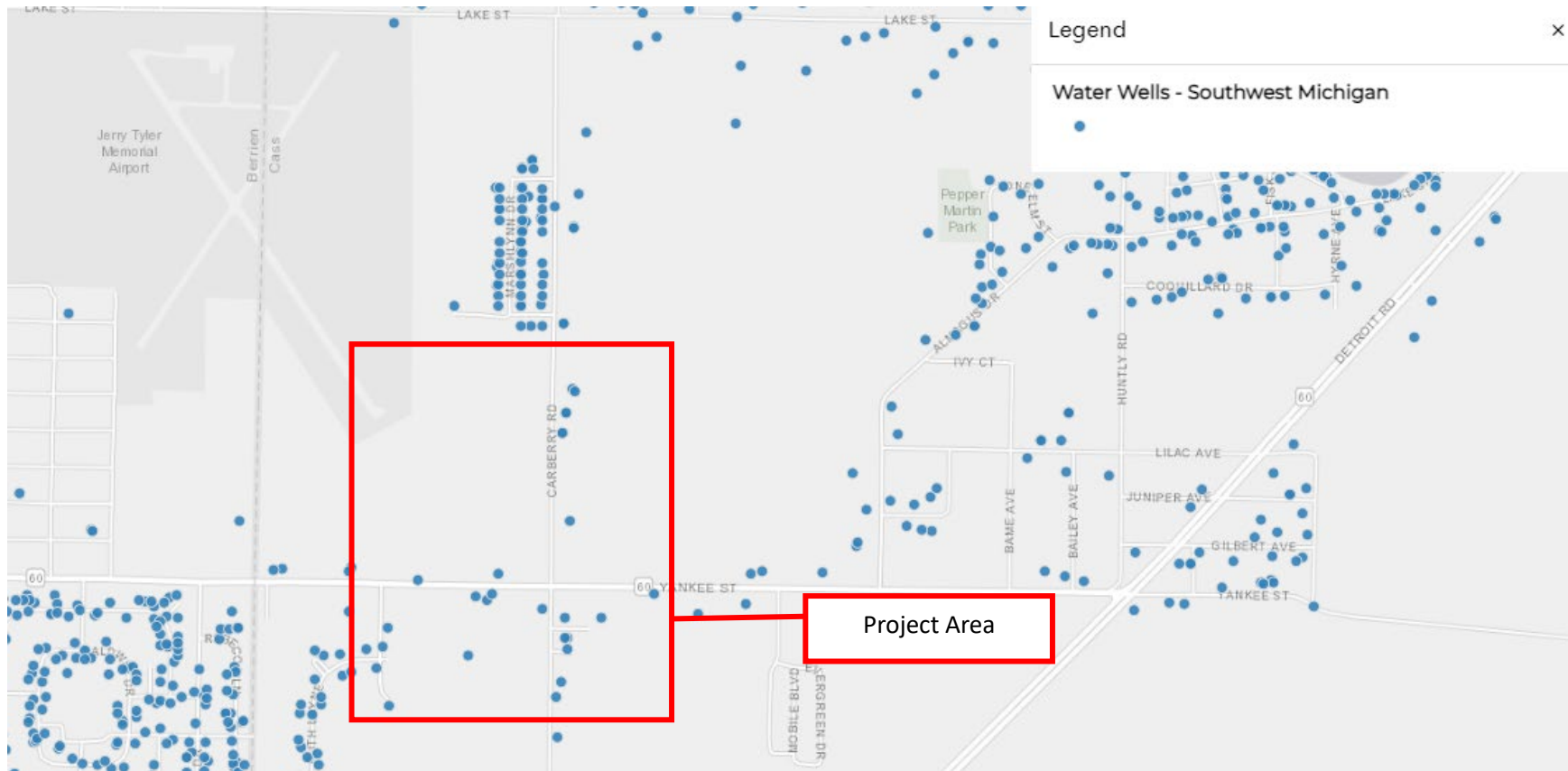
-  Streams
-  Water Bodies



Maxar, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/
NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

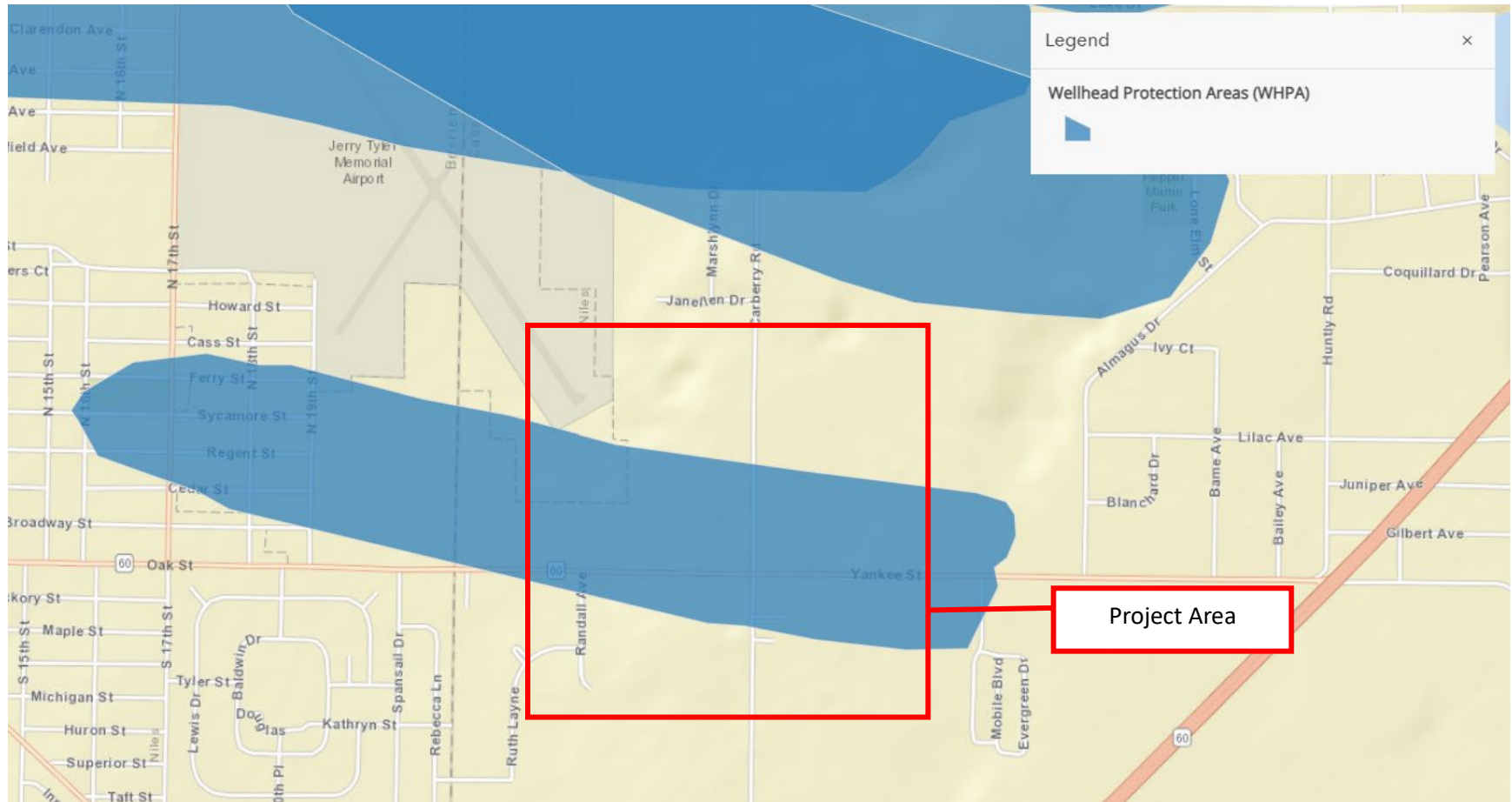
Appendix L – Groundwater

Water Wells – Southwest Michigan



Source: Michigan Department of Environment, Great Lakes, and Energy, 2024.

Wellhead Protection Areas



Source: Michigan Department of Environment, Great Lakes, and Energy, 2024