APPLICATION MODIFICATION

TO THE

OHIO POWER SITING BOARD

FOR A

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR

SOUTH BRANCH SOLAR

Hancock County, Ohio

Case No. 21-0669-EL-BGN

PUBLIC VERSION

south branch solar

Submitted by: South Branch Solar, LLC

December 2021

Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215
Office: 614.227.2300
Fax: 614.227.2390

Dylan F. Borchers
Direct Dial: 614.227.4914
dborchers@bricker.com
www.bricker.com
info@bricker.com

December 17, 2021

Via Electronic Filing

Ms. Tanowa Troupe
Administration/Docketing
Ohio Power Siting Board
180 East Broad Street, 11th Floor
Columbus, Ohio 43215-3793

Re: South Branch Solar, LLC, Case No 21-0669-EL-BGN

Dear Ms. Troupe:

On July 22, 2021, South Branch Solar, LLC ("South Branch") filed an application for a certificate of environmental compatibility and public need for the construction of a solar powered electric generation facility in Hancock County, Ohio. By Entry dated November 1, 2021, the attorney examiner deemed the effective date of the application to be November 1, 2021.

South Branch submits the following modification to reduce the project size. More specifically, this modification reduces the project's capacity from 205 megawatts ("MW") to 129.6 MW, resulting in a reduction of the project area from approximately 1,000 acres to approximately 700 acres. The modification results in notable reductions of a number of impacts, and no additional adverse impacts to non-participating property owners result from this modification.

Under Ohio Administrative Code ("O.A.C.") 4906-3-11(A)(6), this modification does not constitute an amendment to an accepted, complete application. Nonetheless, South Branch has provided service of this modification consistent with O.A.C. 4906-3-11(2)-(3).

Please do not hesitate to contact me if you have any questions.

Sincerely on behalf of
South Branch Solar, LLC

Dylan F. Borchers
Sommer L. Sheely

Enclosure

BEFORE THE OHIO POWER SITING BOARD
Modification to Reduce the Project Footprint of South Branch Solar
on behalf of South Branch Solar, LLC
Case No. 21-0669-EL-BGN

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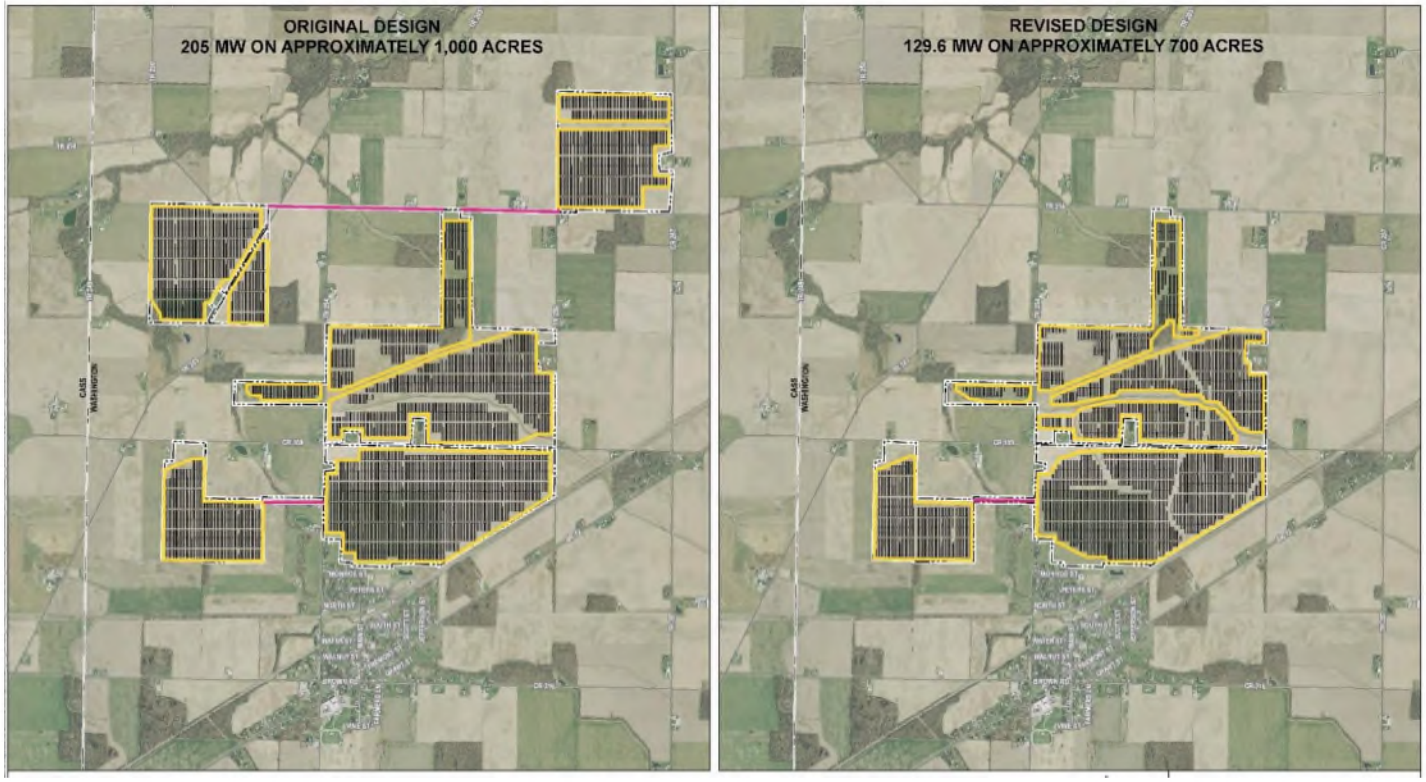
ACRONYM AND ABBREVIATION LIST

$	dollar
$/kWac	dollars per kilowatt-alternating current
AC	alternating current
AEP	American Electric Power
amsl	above mean sea level
the Applicant	South Branch Solar, LLC
Application	Application for a Certificate of Environmental Compatibility and Public Need (Case No. 21-0669-EL-BGN)
BMP	Best Management Practice
Certificate	Certificate of Environmental Compatibility and Public Need
dB	decibel
dbA	A-weighted decibel
FTE	full-time equivalent
HDD	Horizontal Directional Drilling
I-75	Interstate 75
kV	kilovolt
kW	kilowatt
kWac	kilowatt-alternating current
Leeward	Leeward Renewable Energy, LLC
Modification	Modification to Reduce the Project Footprint
MW	megawatts
MWh	megawatt-hour
O&M	operations and maintenance
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
ORC	Ohio Revised Code
Outlet	outlet drain tile
PILOT	Payments In Lieu of Tax
PJM	PJM Interconnection, LLC
POI	point of interconnection
the Project	South Branch Solar
the Project Area	approximately 700 acres in Washington Township, Hancock County, Ohio proposed for South Branch Solar (originally 1,000 acres)
Project Substation	new 138-kV step-up substation
PV	photovoltaic
SHPO	Ohio State Historic Preservation Office
South Branch	South Branch Solar, LLC
the Study Area	the area evaluated for wetlands or surface waters, consisting of the Project Area plus 100 feet
US-224	U.S. Route 224
Utility Switchyard	AEP-owned switchyard

Executive Summary

South Branch Solar, LLC (South Branch) is pleased to present this modification (the Modification) to the original application for a Certificate of Environmental Compatibility and Public Need, Case No. 21-0669-EL-BGN, filed in July 2021 (the Application).associated with South Branch Solar, a solar electric generation facility proposed in Washington Township, Hancock County, Ohio (the Project). The Amendment addresses changes associated with adjusting Project output to 129.6 megawatts (MW) from the up to 205 MW reflected in the original Application. The Modification maintains the point of interconnection (POI) to the existing electrical grid reflected in the Application, and incorporates feedback received through engagement with nearby residents, local officials, and other community stakeholders to develop a project that is mutually beneficial for South Branch and the community.



The Project as updated in the Modification reflects changes that are a direct result of feedback from local officials and the surrounding community, including (as also outlined in materials presented in Updated Appendix G):

Elimination of an off-site electrical interconnection, as would have been necessary if the Project were to connect to the American Electric Power (AEP) Fostoria Central Substation. Instead, the Project will solely use the on-site interconnection reflected in the Application, and will restrict its output to 129.6 MW.

Removal of approximately 300 acres of property formerly within the Project Area (originally approximately 1,000 acres in Washington Township, Hancock County, Ohio proposed for South Branch Solar) to the northwest and to the northeast, reducing the total area of panels from approximately 1,000 acres to approximately 700 acres.

Elimination of the use of public road right-of-way for extension of collection lines. The reduction in Project output allowed for consolidation of the Project Area such that interconnections, including collection lines, are not required to parallel public ways.

Increase of the setback buffers between the Project and the Village of Arcadia as well as several adjoining residences in response to concerns from the community about proximity.

Relocation of points of access to avoid the use of Township Road 218 by construction traffic. This is in addition to the prior commitment that all construction traffic pertaining to vehicles with a gross vehicle weight exceeding 8,500 pounds will not be permitted to enter the municipal limits of the Village of Arcadia.

Avoidance of panel placement within 25 feet of outlet drain tiles (Outlets), as well two household sanitary lines which drain into Outlets. While South Branch has always been committed to avoiding and minimizing impact to such features in its final Project design, the additional work conducted to date has allowed the Project in this Modification to indicate where such areas will be avoided. A local drain tile expert with personal experience working on the drain tile systems within the Project Area and adjacent area has been retained by South Branch and will continue to support the Project. This local expert has been working with neighbors and will remain available should drain tile issues or complaints arise.

The Project will continue to incorporate enhanced vegetative screening and agricultural style fencing to respond to the community priority of maintaining the rural character of the landscape. Screening has been enhanced with additional landscaping spans along Township Road 254 and Township Road 256 .

Reduction in the number of non-participating residences that will experience the maximum noise increase of 1 decibel (dB) from nine residences to three residences.

The Modification incorporates an updated comprehensive stormwater management strategy. This has been updated for continued confirmation that appropriate measures will be incorporated to avoid impact to surrounding properties.

In addition to these specific, newly incorporated or enhanced features, the more compact development area will continue to have attributes that will integrate well with the surrounding landscape and uses, and will reflect a more compact development area. As was previously the case, the Project will not be visible from much of the surrounding area and will incorporate a robust landscaping plan for further screening. Additionally, once operational, the facility will be quiet,

and will not generate odors or emissions, or waste. The Project will generate significant, consistent annual revenue to local taxing entities to help consistently fund excellent local schools and services, which in turn support a strong, thriving community.

The Project will also utilize a robust ground cover of native grasses and pollinator plants to absorb precipitation, provide species habitat, minimize the need for herbicides, and filter stormwater to reduce the potential for erosion and sedimentation. This approach to vegetation within the Project Area will also help to improve the long-term health of the soil. After the Project is decommissioned, the land can return to productive agricultural use.

4906-4-01 Purpose and Scope

(A) REQUIREMENTS FOR FILING OF APPLICATIONS

South Branch Solar, LLC (the Applicant or South Branch) submitted an original Application for a Certification of Environmental Compatibility and Public Need (the Application), Case No. 21-0669-EL-BGN, in June 2021 proposing construction and operation of South Branch Solar (the Project), a photovoltaic (PV) solar generation facility with up to 205 megawatts (MW) of nameplate capacity within an area of approximately 1,000 acres in Washington Township, Hancock County, Ohio (the Project Area). This First Modification to Reduce the Project Footprint (the Modification) addresses changes associated with adjusting Project output to 129.6 MW, including a reduction in the size of the Project Area to approximately 700 acres. The Applicant is a wholly owned subsidiary of Leeward Renewable Energy, LLC (Leeward). To facilitate the review of the Modification, the material contained in this Modification identifies the portions of the pending, accepted, complete Application which have been amended, as prescribed in Chapter 4906-3-11(A) of the Ohio Administrative Code (OAC).

(B) WAIVERS

No change from the most recent filing.

4906-4-02 Project Summary and Applicant Information

(A) SUMMARY OF THE PROPOSED PROJECT

The Applicant submitted an original Application for a Certification of Environmental Compatibility and Public Need (Certificate), Case No. 21-0669-EL-BGN, in June 2021, reflecting an up to 205 MW solar PV facility proposed in Washington Township, Hancock County, Ohio. This Modification addresses changes associated with adjusting Project output to 129.6 MW, including a reduction in the size of the Project Area to approximately 700 acres (Updated Figure 02-1). With this output reduction, the onsite Point of Interconnection (POI) reflected in the Application will meet the needs of the Project, and a POI outside of the Project Area is no longer contemplated or proposed. The general features of the Project have not changed; the revised layout within the reduced Project Area is illustrated on the updated layout drawing provided as Updated Appendix A. The reduction in Project size has generally reduced impacts for all topics evaluated in the Application, as noted in the applicable sections of this Modification.

(1) General Purpose of the Project

No change from the most recent filing.

(2) Project Description

No change from the most recent filing, other than that the Project Area has been reduced from 1,000 acres to 700 acres; elevations within the Project Area now range from approximately 776 to 807 feet above mean sea level (amsl); the second, offsite POI will no longer be necessary; the Project output is reduced to 129.6 MW; and the Project

will use approximately 300,000 modules. The adjusted Project Area is shown on Updated Figure 02-1, and the updated layout is illustrated in Updated Appendix A.

(3) Site Suitability

No change from the most recent filing.

(4) Project Schedule

No change from the most recent filing.

(B) ADDITIONAL INFORMATION

(1) Description of Future Plans/Plans for Future Additions

No change from the most recent filing.

(2) Applicant Information

No change from the most recent filing.

4906-4-03 Project Description and Schedule

(A) DETAILED DESCRIPTION OF THE PROJECT AREA

(1) Project Map

An Updated Figure 03-1 is provided, representing the smaller 2-mile-radius from the 700-acre Project Area. No new resources are identified, although some are now more distant from the Project. No other changes from the most recent filing.

(a) The Proposed Project

An Updated Figure 03-2 illustrates the revised Project Area boundaries and Updated Figure 03-3 illustrates the primary components of the Project overlain on an aerial image. No other changes from the most recent filing.

(b) Population Centers and Administrative Boundaries

No change from the most recent filing.

(c) Transportation Routes and Gas and Electric Transmission Corridors

The Project is generally bounded by Township Road 256 to the east; the Village of Arcadia to the south; Township Road 243 to the west; and Township Road 218 to the north. Multiple roads traverse the Project Area, including County Road 109 and Township Road 254. Other nearby major routes include State Routes 12, 18, and 613; U.S. Route 224 (US-224); and Interstate 75 (I-75). A Norfolk Southern railroad line runs southwest-northeast along the southeastern boundary of the Project Area. Fostoria Metropolitan Airport is located approximately 6.5 miles northeast of the Project Area.

AEP's Fostoria Central Substation is located approximately 2.4 miles east of the Project Area. The existing American Electric Power (AEP) Ebersole-Fostoria

Central 138-kilovolt (kV) line crosses the Project Area in a southwest-northeast orientation and the AEP 345-kV overhead transmission line lies approximately 0.3-mile north of the Project area in a southwest-northeast orientation.

(d) Named Rivers, Streams, Lakes, and Reservoirs

There are two named rivers and streams within 2 miles of the Project Area. The South Branch of the Portage River flows through the southwestern portion of the Project Area (only through the collector line area between the southwesternmost parcel and the southeasternmost parcel) and the Rocky Ford Branch of the Portage River lies west of the Project Area, flowing west-northwest to Van Buren Lake. The East Branch of the Portage River now lies more than 2.5 miles east of the Project Area (in many locations even farther), along the outskirts of the City of Fostoria, flowing north-northwest to its convergence with the South Branch of the Portage River. One unnamed tributary to these named rivers still traverses the Project Area, with only a small segment of another extending into the northernmost portion of the Project Area.

(e) Major Institutions, Parks, and Recreation Areas

There are no designated Historic or Scenic resources within 2 miles of the Project Area. The closest public resource is the Aeraland Recreational Area, an approximately 75-acre Hancock County park, which is located 0.6-mile north of the Project Area, along the South Branch of the Portage River. This park includes picnic areas, hiking trails, soccer fields, and Goose Lake. Other recreational resources located within 2 miles of the Project Area include the Arcadia Community Center, a public facility that includes playground equipment,

basketball courts, softball fields, and a rentable building, and Veterans Memorial Reservoir Park, a recreational reservoir. Local schools, churches, and other public areas are located in the Village of Arcadia, within approximately 0.75-mile of the Project Area.

(2) Project Area

The 700-acre Project Area includes portions of 14 properties within Washington Township, Hancock County, Ohio, as shown in Updated Table 03-1.

UPDATED TABLE 03-1
AREA OF PROPERTY USED FOR PROJECT

Status of Property	Number of Properties	Approximate Acreage
To be purchased	13	660
To be leased	1	38

The Project Area is illustrated on Updated Figure 03-2. Additional Project layout details are illustrated on Updated Figure 03-3 and in Appendix A.

(B) PROPOSED PROJECT DESCRIPTION

As shown on Updated Figure 03-3, all proposed Project components addressed in this Application are situated within the 700-acre Project Area. The following sections identify where changes have occurred.

(1) Project Details

(a) Generation Units

No change from the most recent filing other than a Project generation capacity reduction to 129.6 MW, which adjusts the number of panels to approximately 300,000 and the annual net capacity factor to 23 percent, resulting

in generation of approximately 260,000 megawatt-hours (MWh) of electricity each year (sufficient electricity to supply approximately 25,000 average Ohio households).

As shown in Updated Figure 03-3, the solar PV panels are still proposed in areas located throughout the Project Area that have been selected to avoid and/or minimize potential impacts to natural resources to the greatest extent practicable.

(b) Wind Turbine Blade Dimensions

No change from the most recent filing.

(c) Fuel Quantity and Quality

No change from the most recent filing.

(d) Pollutant Emissions

No change from the most recent filing.

(e) Water Volume Requirement

No change from the most recent filing.

(2) Description of Construction Method and Project Components

No change from the most recent filing. Note that an Unanticipated Discoveries Plan will be implemented during construction to allow for appropriate notifications and actions should unexpected findings warrant.

(a) Generation Equipment

No change from the most recent filing, other than the updated layout shown in Updated Figure 03-3.

(b) Storage Facilities

No change from the most recent filing.

(c) Processing Facilities

No change from the most recent filing.

(d) Water Supply and Discharge

No change from the most recent filing.

(e) Transmission Facilities

No change from the most recent filing.

(f) Electric Collection Lines

No change from the most recent filing other than the elimination of the collection line along Township Road 218. The electrical collection system will be installed underground, although cable trays could be used where ground conditions warrant. Final engineering and procurement will help to determine the design and construction method for the electrical collection system.

(g) Substations and Transformers

No change from the most recent filing.

(h) Meteorological Stations

The number of meteorological stations will be reduced from five to four. These will continue to be slender monitoring equipment up to 15 feet in height, mounted adjacent to inverters.

(i) Roads

As shown on Updated Figure 03-3, entrances for the Project are located off Township Roads 243 and 254 and County Road 109, public roadways that extend through the Project Area, and allow for access to each solar panel array; the location of these entrances could be modified in the final design. Access roads will

be within the Project Area, gravel-surfaced, and up to 16-feet-wide along straight portions of the road, with greater width along curves and at internal road intersections. Approximately 10.9 miles of access road are illustrated on Updated Figure 03-3, a reduction from the 17.6 miles of access road formerly proposed.

(j) Construction Laydown Areas

No change from the most recent filing.

(k) Security

No change from the most recent filing.

(l) Other Installations

No change from the most recent filing.

(3) Description of New Transmission Facilities

No change from the most recent filing, other than the elimination of the off-site POI, including the associated overhead electric transmission line interconnection, resulting in the elimination of potential visual impacts associated with this type of aboveground feature to neighbors. As with the original Application, this Modification incorporates a direct POI to the existing AEP Ebersole-Fostoria Central 138-kV transmission line via a proposed on-site Project Substation and Utility Switchyard (as shown on Updated Figure 03-3). Additional details regarding the interconnection queue positions and PJM Interconnection, LLC (PJM) review are provided in Section 4906-4-05(B).

(4) Map of Project Site

No change from the most recent filing other than those illustrated on Updated Figure 03-3, which shows the proposed Project layout overlain on an aerial photograph.

(C) DETAILED PROJECT SCHEDULE

(1) Schedule

No change from the most recent filing.

(2) Construction Sequence

No change from the most recent filing.

(3) Delays

No change from the most recent filing.

4906-4-04 Project Area Selection and Site Design

(A) SITE SELECTION PROCESS

No change from the most recent filing.

(1) Description of Study Area

No change from the most recent filing.

(2) Map of Study Area

No change from the most recent filing.

(3) Siting Criteria

No change from the most recent filing.

(4) Process for Identifying the Proposed Site

No change from the most recent filing.

(5) Factors in Selecting the Proposed Site

No change from the most recent filing.

(B) PROJECT LAYOUT DESIGN

No change from the most recent filing.

(1) Constraint Map

No change from the most recent filing.

(2) Project Layout Criterion

No change from the most recent filing. The most recent filing reflects minimum setback distances of: 160 feet from residential structures to the closest array; 25 feet from drainage tile features to the closest array; 25 feet from underground natural gas pipelines to the nearest fence; 50 feet from the centerline of overhead transmission line to the nearest fence; and at least 50 feet from road frontage to the nearest fence.

(3) Comments Received

No change from the most recent filing.

4906-4-05 Electric Grid Interconnection

(A) INTERCONNECTION TO THE REGIONAL ELECTRIC POWER SYSTEM

No change from the most recent filing, other than elimination of the potential off-site POI now that the Project output will be approximately 129.6 MW.

(B) INTERCONNECTION REQUESTS

No change from the most recent filing, other than elimination of AD1-070 as relevant to the Project. With the reduction in output to 129.6 MW, queue position AF2-375 (129.6 MW with the on-site POI) would continue to apply.

4906-4-06 Economic Impact and Public Interaction

(A) OWNERSHIP

No change from the most recent filing.

(B) CAPITAL AND INTANGIBLE COSTS

(1) Estimated Capital and Intangible Costs

The total estimated capital and intangible costs of the Project are expected to be approximately [redacted] dollars per kilowatt-alternating current ($/kWac), inclusive of intangible costs and dependent on the final module, racking, and inverter suppliers and modules selected. These costs are broken down in Updated Table 06-1.

UPDATED TABLE 06-1
ESTIMATED CAPITAL AND INTANGIBLE COSTS

Description	Cost ($/kWac)
Tangible Costs	
PV Panels and Racking	[redacted]
Balance of Plant & Civil	[redacted]
Substation and Utility Switchyard	[redacted]
Interconnection Upgrades	[redacted]
Total Tangible Costs	[redacted]
Intangible Costs	
Legal, Development, Financing, and Other Costs	[redacted]
Total Capital Expenses	[redacted]

(2) Capital Cost Comparison

Project installation costs compiled by Lazard's 2020 Levelized Cost of Energy Analysis – Version 14.0 indicate that the capital costs of the Project are consistent with recent industrial trends. Lazard indicates that solar facilities installed in 2020 using PV technology had a capital cost between 825 and 975 $/kWac. The Applicant anticipates

comparable capital costs, averaging [redacted] $/kWac. Capital cost variation reflects individual facility parameters such as solar resource, terrain, scale, climate, local labor, and proximity to equipment suppliers.

(3) Present Worth and Annualized Capital Costs for Alternates

No change from the most recent filing.

(C) OPERATIONS AND MAINTENANCE (O&M) EXPENSES

(1) Estimated Annual O&M Expenses

For the first two years of commercial operation, the annual O&M cost of the Project is expected to be approximately [redacted], or [redacted] $/kWac. These costs include O&M expenses associated with the solar units and balance of plant features, as well as site maintenance and unplanned maintenance reserves.

(2) Operation and Maintenance Expenses Comparison

No change from the most recent filing.

(3) Present Worth and Annualized Operation and Maintenance Expenses

The annual O&M costs outlined above will be subject to real and inflationary increases. Therefore, these costs are expected to increase with inflation throughout the life of the Project. The present value of the O&M costs per kW, using an inflation rate of 2 percent and assuming a 7 percent discount rate, is approximately [redacted] $/kWac. The Applicant is not considering any alternate O&M regime or Project technology configurations at this time.

(D) COST OF DELAYS

No change from the most recent filing.

(E) ECONOMIC IMPACT

The proposed Project is expected to generate local and statewide economic benefits. An updated Economic Impact Study calculation has been prepared to reflect the decreased Project size (provided in Updated Appendix I). The following sections provide an overview of potential construction- and operation-related economic impacts including estimated payroll, employment, tax revenues, and regional economic benefits, as reflected in that updated analysis.

(1) Estimated Construction and Operation Payroll

Project construction is proposed to begin in September 2022, with construction activities expected to extend through December 2023. Based on the results of the economic analysis, construction of the Project is estimated to result in on-site employment of approximately 294 full-time equivalent (FTE) positions that may be filled by Ohio residents, with an estimated total of approximately $21.9 million in payroll earnings.[1] These earnings are one-time payments expected to occur during construction.

The results of the economic analysis indicate that the Project's O&M will result in 6 on-site FTE positions with combined estimated earnings of approximately $800,000. These payroll earnings are annual estimates that will continue for the life of the Project. Most of the identified FTE positions are expected to be filled by Ohio residents, and all FTE workers will reside in Ohio. Estimated construction and operation payroll is discussed in more detail in Appendix I.

[1] One FTE job equates to one full-time job for one year or 2,080-hour units of labor. Part-time or temporary jobs constitute a fraction of a job. For example, if an engineer works just 3 months on a construction project, that would be considered one-quarter of an FTE job. FTEs are also sometimes referred to as job-years.

(2) Estimated Construction and Operation Employment

Project construction is expected to begin in September 2022, with construction activities expected to extend through December 2023. The economic analysis estimates that Project construction will result in on-site employment of approximately 294 FTE positions, the majority of which are expected to be filled by Ohio residents. Certain resources, particularly those focused on project management and commissioning, have greater potential to come from outside the state, remaining only for the duration of their employment.

The results of the economic analysis indicate that the Project's O&M will provide direct employment for 6 FTE workers, most of whom are expected to reside in Ohio. This is an annual employment estimate that will continue for the life of the Project. Project employment is discussed in more detail in Appendix I.

(3) Estimated Increase in Local Revenue

Solar energy projects in the State of Ohio can be exempted from tangible personal property and real property tax payments if they meet certain conditions (as discussed in Appendix I). The Applicant anticipates that it will meet these conditions and, instead, make annual Payment in Lieu of Tax (PILOT) in accordance with Ohio Revised Code (ORC) 5727.75.

The Applicant has negotiated a PILOT agreement with Hancock County based on $9,000 per MW that results in consistent revenue for the community for the life of the Project. Based on a Project size of 129.6 MW, it is estimated that the Project will generate $1,165,500 in revenue annually. Of this, a significant portion will directly benefit Village of Arcadia schools, with additional funds provided to Washington

Township and other Hancock County tax entities to support the community in other ways.

(4) Estimated Economic Impact

Construction and operation of the proposed Project will have a positive effect on local commercial activities in the area. The largest share of the overall construction costs consists of the purchase of the solar modules. Expenditures related to this construction component are expected to occur outside the state of Ohio. Balance-of-plant and development and other costs are two other broad categories of costs that would have the potential to occur in-state. Balance-of-plant activities include materials, labor, and other costs. The materials portion includes concrete, rebar, and other construction materials, as well as the electrical components and cabling required to prepare the site and install the facility. The labor component includes the site work, foundations, electrical, and other associated labor needed to construct the Project. Development and other costs include legal fees, engineering, site certificates, and other miscellaneous expenditures. Shares of these expenditures are expected to be made locally, within Hancock County and elsewhere in Ohio. This local spending will generate economic activity and support jobs and income elsewhere in the local and regional economies.

The Project will also provide direct operation-related employment and Project-related expenditures will generate economic benefits in the local economy. Typical local expenditures include vehicle-related expenditures, such as fuel costs, site maintenance, replacement parts and equipment, lodging, dining, and procurement of miscellaneous supplies.

Potential regional economic impacts of Project construction and operation were evaluated using the economic model. The results of this analysis are presented in Appendix I and may be summarized as follows:

Project construction will result in on-site employment of approximately 290 FTE positions that will be filled by Ohio residents, including jobs associated with road construction, drainage, foundations and other civil work, electrical work, and other on-site tasks needed to construct the plant, as well as construction-related service jobs.

Construction of the Project will also support employment, income, and output elsewhere in the state, with indirect and induced impacts expected to support 463 jobs in Ohio. Overall, construction of the Project is expected to support 757 total jobs in Ohio and approximately $51 million in earnings, with total economic output of approximately $125.2 million.

Once operational, the Project will directly employ a total of 6 FTE, all of whom will reside in Ohio. Project O&M will also support employment, earnings, and output elsewhere in the state, with indirect and induced impacts expected to support 5 additional jobs in Ohio. Overall, operation of the Project is expected to support 11 total jobs in Ohio and approximately $1.1 million in earnings, with a total output of approximately $3.9 million. These annual average impacts are expected to occur over the life of Project operation.

(F) RESPONSIBILITY TO THE PUBLIC

No change from the most recent filing.

(1) Program for Public Interaction

No change from the most recent filing.

(2) Liability Compensation Plans

No change from the most recent filing.

(3) Impact to Roads and Bridges

No change from the most recent filing.

(4) Transportation Permits

No change from the most recent filing.

(5) Plan for Decommissioning

No change from the most recent filing, other than the fact that cost estimates would be reduced in association with the reduced size of the Project (as reflected in Updated Appendix L).

4906-4-07 Air, Water, Solid Waste, and Aviation Regulations

(A) COMPLIANCE WITH APPLICABLE REGULATIONS

No change from the most recent filing.

(B) AIR QUALITY

(1) Preconstruction

(a) Ambient Air Quality

No change from the most recent filing.

(b) Pollution Control Equipment

No change from the most recent filing.

(c) State and Federal Performance Standards

No change from the most recent filing.

(d) Required Permits

No change from the most recent filing.

(e) Air Monitoring Stations and Major Source Mapping

No change from the most recent filing.

(f) Compliance Plans

No change from the most recent filing.

(2) Construction

No change from the most recent filing.

(3) Operation

(a) Description of Air Monitoring Plans

No change from the most recent filing.

(b) Estimated Air Concentration Isopleths

No change from the most recent filing.

(c) Potential Failure of Air Pollution Control Equipment

No change from the most recent filing.

(C) WATER QUALITY

No change from the most recent filing.

(1) Preconstruction

(a) Required Permits

No change from the most recent filing.

(b) Location of Survey Data Sources

No change from the most recent filing.

(c) Description of Data Sampling Stations and Reporting Procedures

No change from the most recent filing.

(d) Water Quality of Receiving Stream

No change from the most recent filing.

(e) Water Discharge Permit Information

No change from the most recent filing.

(2) Construction

(a) Location of Monitoring Equipment

No change from the most recent filing.

(b) Aquatic Discharges

No change from the most recent filing.

(c) Mitigation Plans

No change from the most recent filing, other than the elimination of the stream road crossing and elimination of overhead collection lines. The revised Project will have only underground collection lines installed in this location. An

updated preliminary Stormwater Management Plan is provided as Updated Appendix E that includes identification of Best Management Practices (BMPs).

(d) Changes in Flow Patterns and Erosion

No change from the most recent filing, other than the reduction in Project Area and change in layout. The updated preliminary Stormwater Management Plan provided as Updated Appendix E reflects impervious surfaces resulting from the Project of 30 acres in various locations (or approximately 4 percent of the Project Area). As was previously the case, the Project will not result in significant changes in flow patterns.

(e) Description of Monitoring Equipment

No change from the most recent filing.

(3) Operation

(a) Location of Monitoring Equipment

No change from the most recent filing.

(b) Water Pollution Control Equipment and Treatment Process

No change from the most recent filing; an updated preliminary Stormwater Management Plan is provided as Updated Appendix E.

(c) Issuance of Required Permits

No change from the most recent filing.

(d) Quantitative Flow Diagram

No change from the most recent filing.

(e) Water Conservation

No change from the most recent filing.

(D) SOLID WASTE

(1) Preconstruction

(a) Debris and Solid Waste

No change from the most recent filing.

(b) Waste Management Plan

No change from the most recent filing.

(2) Construction

(a) Debris and Solid Waste

No change from the most recent filing.

(b) Waste Management Plan

No change from the most recent filing.

(3) Operations

(a) Solid Waste

No change from the most recent filing.

(b) Waste Management Plan

No change from the most recent filing.

(4) Licenses and Permits

No change from the most recent filing.

(E) AVIATION

(1) Surrounding Air Navigation Facilities

No change from the most recent filing other than the closest public air navigation facility, Fostoria Metropolitan Airport, is now located more than 6.5 miles northeast of the Project Area.

(2) Federal Aviation Administration Filings

No change from the most recent filing.

No change from the most recent filing.

(A) HEALTH AND SAFETY

(1) Equipment Safety

(a) Public Safety Equipment

No change from the most recent filing.

(b) Equipment Reliability

No change from the most recent filing.

(c) Safety Standards

No change from the most recent filing.

(d) Public Access

No change from the most recent filing.

(e) Fire Protection, Safety, and Emergency Plans

No change from the most recent filing.

(2) Impact of Air Pollution Control Equipment Failures

No change from the most recent filing.

(3) Noise

A noise assessment has been conducted to evaluate potential noise impacts from the 129.6-MW Project. The updated Noise Evaluation is included as Updated Appendix N and summarized below.

(a) Construction Noise

No change from the most recent filing other than the adjustments in the Project Area and layout; updated estimates of construction noise are included in the Noise Evaluation provided in Updated Appendix N.

(i) Blasting Activities

No change from the most recent filing.

(ii) Operation of Earth Moving Equipment

No change from the most recent filing, other than an anticipated greater distance from the Project Area boundary by earth moving equipment than previously expected.

(iii) Driving of Piles, Rock Breaking or Hammering, and Horizontal Directional Drilling

No change from the most recent filing.

(iv) Erection of Structures

No change from the most recent filing.

(v) Truck Traffic

No change from the most recent filing, other than elimination of construction traffic on certain local roads.

(vi) Installation of Equipment

No change from the most recent filing, other than the adjustment in layout as reflected in Updated Appendix N.

(b) Operational Noise

No change from the most recent filing.

(i) Generating Equipment

No change from the most recent filing. Updated Figure 08-1 illustrates surrounding residences and shows no changes in

anticipated Project-related sound levels. Specifically, based on the sound modeling conducted by noise specialists, daytime operation of the Project will not increase sound levels over ambient levels at non-participating property boundaries by more than 1 A-weighted decibel (dBA). Nighttime operation will not increase sound over ambient levels at even the closest non-participating residences. This is well below the accepted Ohio Power Siting Board standard.

(ii) Processing Equipment

No change from the most recent filing.

(iii) Associated Road Traffic

No change from the most recent filing, other than elimination of Project-related traffic on certain roads.

(c) Noise-Sensitive Areas with One Mile

No change from the most recent filing, other than the reduction in Project Area resulting in increased distance from the Aeraland Recreation Area (now approximately 0.7-mile north of the Project Area), and reduction of the number of residential structures within 1 mile. With fewer residential structures in close proximity to the Project, the number of receivers with the potential maximum impact of 1 dB above ambient has been reduced from nine receivers to three receivers.

The modeled sound contours illustrated in Updated Figure 08-1 include the anticipated received sound levels from the Project at noise-sensitive locations within 1 mile of the Project Area. There is no change from the most recent filing in

the overall results. As can be seen, sound levels reduce considerably with distance from the Project. As was previously the case, the Project will not increase sound levels by more than 1 dBA during the day at the closest non-participating residences, and there will be no increase over ambient sound levels during nighttime. With the low Project sound contribution at even the closest receivers, locations farther from the Project Area (for example, residents farther south within the Village of Arcadia), will experience even less impacts from the Project. For all potential receivers, Project sound level impacts are well below the accepted Ohio Power Siting Board standard for energy facility sound contributions.

(d) Noise Mitigation Measures

(i) Construction Noise

No change from the most recent filing.

(ii) Operational Noise

No change from the most recent filing.

(e) Existing Ambient Conditions

No change from the most recent filing.

(4) Water

(a) Construction and Operation Impacts

No change from the most recent filing; the updated stormwater management measures are provided in Updated Appendix E.

(b) Impact of Pollution Control Equipment Failure

No change from the most recent filing.

(c) Proximate Water Sources

No change from the most recent filing, with the exception that several previously identified wells are no longer considered to be proximate to the Project. As was previously the case, no water wells were identified directly within the Project Area. A total of six wells are mapped as located within 500 feet of the Project fenceline. All those wells considered to be in proximity to the Project continue to range in depth from 73 to 100 feet, considerably below the depth of Project pile driving.

(d) Compliance with Water Source Protection Plans

No change from the most recent filing.

(e) Potential for Flooding

No change from the most recent filing.

(5) Geological Features

(a) Site Geology

No change in geological or geotechnical characteristics from the most recent filing. The approximate centroid of the Project Area is now located at a latitude of 41.123274° north and a longitude of 83.510228° west. No additional mapped oil and gas well locations have been identified through further consultation with the Ohio Department of Natural Resources (ODNR) and the Ohio Geological Survey. With the adjustment of the Project Area, two of the previously identified potential oil and gas wells are no longer within the Project Area. Therefore, mapping indicates that there are only three remaining wells identified as potentially within the Project Area (one indicated as "not drilled" and the other two indicated

as inactive). Additional field surveys are ongoing to confirm the presence of any wells within the Project Area.

(b) Soils and Soil Suitability

No change from the most recent filing, other than eliminating acreage to the current Project Area.

(c) Geotechnical Evaluation Plan

No change from the most recent filing.

(6) Wind Velocity

No change from the most recent filing.

(7) Blade Shear

No change from the most recent filing.

(8) Ice Throw

No change from the most recent filing.

(9) Shadow Flicker

No change from the most recent filing.

(10) Radio and TV Reception

No change from the most recent filing.

(11) Radar Interference

No change from the most recent filing.

(12) Navigable Airspace Interference

No change from the most recent filing.

(13) Communications Interference

No change from the most recent filing.

(B) ECOLOGICAL RESOURCES

(1) Ecological Information

(a) Resources within One-Half Mile

No change other than the reduction in size of the Project Area.

(b) Wetland and Surface Water Survey

No change from the most recent filing.

(c) Species Literature Survey

No change from the most recent filing, other than a reduction in tree clearing acreage from approximately 4 to approximately 2 acres, and elimination of the stream crossing by a Project access road. The only potential stream impacts are limited to temporary impacts in association with installation of underground collection lines in three locations. For the South Branch Portage River, horizontal directional drilling (HDD) or similar techniques will continue to be used to avoid the potential for mussel impact during underground line installation; the other two potential impact areas would not be within a watershed sufficient to support the listed mussels.

(d) Species Field Survey

Updated Figure 08-10 illustrates the revised Project Area habitat types. No other changes from the most recent filing.

(e) Additional Ecological Studies

No change from the most recent filing.

(2) Construction Ecological Impacts

(a) Anticipated Construction Impacts

No change from the most recent filing, other than reduction of tree clearing from approximately 4 acres to approximately 2 acres, and elimination of the previous proposed stream road crossing. Three underground collection lines will be installed across streams, with HDD or similar techniques used to avoid and minimize impacts, where appropriate. It is anticipated that this technique will be used for the South Branch Portage River crossing. If direct impact is proposed, work would be conducted under the conditions established for Nationwide Permit 57 – Electric Utility Lines and Telecommunications Activities.

(b) Construction Mitigation

No change from the most recent filing, other than the update to the stormwater management practices reflected in Updated Appendix E, and the reduction in tree clearing from approximately 4 acres to approximately 2 acres.

(3) Operational Ecological Impact

(a) Impact of Operation and Maintenance

No change from the most recent filing.

(b) Operation and Maintenance Mitigation

No change from the most recent filing.

(c) Post-Construction Monitoring of Wildlife Impacts

No change from the most recent filing.

(C) LAND USE AND COMMUNITY DEVELOPMENT

(1) Existing Land Use

(a) Land Use Mapping

Updated Figure 08-10 presents land use within a 1-mile-radius of the revised Project Area, showing the proposed Project, surrounding incorporated areas, and population centers. Indicated land uses include:

Residential;

Commercial;

Industrial;

Infrastructure;

Institutional;

Recreational;

Agricultural; and

Vacant.

As outlined in Updated Table 08-6, and shown on Updated Figure 08-10, the area surrounding the revised Project Area covers approximately 6,360 acres (approximately 9.9 square miles) and is primarily in agricultural use, with intermittent forested area.

UPDATED TABLE 08-6
LAND USE WITHIN 1 MILE OF THE REVISED PROJECT AREA

Land Use	Approximate Area Acreage		Percentage of Total Area
	Acres	Square Miles	
Agricultural	5,122.4	8.0	80.6
Commercial	9.4	0.01	0.1
Industrial	18.3	0.03	0.3
Infrastructure	531.0	0.8	8.4
Institutional	26.4	0.04	0.4
Recreational	81.8	0.1	1.3
Residential	224.4	0.4	3.5
Vacant	345.5	0.5	5.4
Total	**6,359.2**	**9.9**	**100.0**

There are residences located proximate to the revised Project Area in most directions, with a more densely settled area reflected by the Village of Arcadia to the south. Within the 5-mile Study Area, additional sensitive land uses include hospitals, churches, schools, libraries, several industrial facilities, and various recreational facilities. None are located within 0.25-mile of the revised Project Area, and most are located more than 1.5 miles away.

(b) Existing Structures

Although OAC 4906-4-08(C)(1)(b)(i) requires only those structures within 1,500 feet of Project-generating equipment to be identified, due to potential layout adjustments that may occur, the location and underlying parcel status of all structures, conservatively measured 1,500 feet from the boundary of the revised Project Area, have been identified. There are 292 structures (11 of them transmission towers, 115 of them residences, and the remainder various outbuildings) within 1,500 feet of the Project Area (Updated Figure 08-11). For each of these structures, Updated Table 08-7 identifies the structure type; distance to the Project Area; and underlying parcel status.

UPDATED TABLE 08-7
STRUCTURES WITHIN 1,500 FEET OF REVISED PROJECT AREA

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
Garage	32	Non-Participating	No
Garage	39	Participating	No
Outbuilding	39	Non-Participating	No
House	43	Non-Participating	No
Outbuilding	48	Participating	No
House	49	Non-Participating	No
Barn	58	Non-Participating	No
House	59	Non-Participating	No
Barn	61	Non-Participating	No
Outbuilding	63	Non-Participating	No
House	65	Non-Participating	No
House	67	Non-Participating	No
House	68	Non-Participating	No
House	75	Participating	No
Garage	82	Non-Participating	No
Barn	83	Participating	No
Outbuilding	85	Non-Participating	No
Outbuilding	87	Non-Participating	No
Garage	89	Non-Participating	No
House	92	Non-Participating	No
House	97	Non-Participating	No
House	100	Non-Participating	No
House	104	Non-Participating	No
House	106	Non-Participating	Yes
House	108	Non-Participating	No
Outbuilding	111	Non-Participating	No
Outbuilding	112	Non-Participating	No
House	114	Non-Participating	Yes
Garage	115	Non-Participating	No
Garage	121	Non-Participating	No
House	129	Non-Participating	No
Garage	135	Non-Participating	No
Barn	147	Participating	No
Barn	151	Non-Participating	No
Garage	158	Non-Participating	No
Barn	164	Participating	No
House	164	Non-Participating	No
Outbuilding	165	Non-Participating	No
Outbuilding	168	Non-Participating	Yes
House	174	Non-Participating	No
Outbuilding	177	Non-Participating	No
Silo	188	Participating	No
Barn	195	Non-Participating	No

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
Barn	195	Participating	No
Barn	198	Non-Participating	Yes
Barn	199	Non-Participating	No
House	199	Non-Participating	No
Garage	208	Non-Participating	No
House	208	Non-Participating	Yes
Barn	212	Non-Participating	Yes
Barn	218	Participating	No
Barn	226	Non-Participating	No
Outbuilding	230	Non-Participating	No
House	230	Non-Participating	No
House	232	Non-Participating	Yes
House	238	Non-Participating	Yes
Barn	241	Non-Participating	No
Outbuilding	241	Non-Participating	Yes
House	256	Non-Participating	Yes
Outbuilding	270	Non-Participating	No
Barn	289	Non-Participating	No
Garage	296	Non-Participating	No
House	303	Participating	No
House	304	Non-Participating	No
House	305	Non-Participating	No
Outbuilding	311	Non-Participating	No
House	315	Non-Participating	No
Garage	345	Non-Participating	No
House	365	Non-Participating	No
Garage	369	Non-Participating	No
Garage	370	Non-Participating	No
House	372	Non-Participating	No
Garage	383	Non-Participating	No
House	443	Non-Participating	Yes
Barn	450	Non-Participating	Yes
House	452	Non-Participating	Yes
House	457	Non-Participating	Yes
House	467	Non-Participating	Yes
Garage	470	Non-Participating	Yes
Garage	470	Non-Participating	Yes
House	483	Non-Participating	Yes
House	496	Non-Participating	Yes
House	518	Non-Participating	Yes
Outbuilding	519	Non-Participating	Yes
Outbuilding	524	Non-Participating	Yes
Housc	530	Non-Participating	No
Silo	533	Non-Participating	No
House	546	Non-Participating	Yes
House	552	Non-Participating	Yes

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
Garage	559	Non-Participating	Yes
Silo	560	Non-Participating	No
House	562	Non-Participating	Yes
House	569	Non-Participating	Yes
Garage	572	Non-Participating	Yes
Outbuilding	572	Non-Participating	Yes
Garage	576	Non-Participating	Yes
House	579	Non-Participating	Yes
House	579	Non-Participating	No
Outbuilding	583	Non-Participating	Yes
House	586	Non-Participating	Yes
Barn	593	Non-Participating	No
Barn	609	Non-Participating	No
Barn	610	Non-Participating	No
Outbuilding	612	Non-Participating	No
Garage	614	Non-Participating	Yes
House	617	Non-Participating	Yes
Barn	623	Non-Participating	No
Outbuilding	626	Non-Participating	No
Barn	638	Non-Participating	Yes
Barn	643	Non-Participating	Yes
House	644	Non-Participating	Yes
Barn	645	Non-Participating	No
Barn	646	Non-Participating	No
Barn	648	Non-Participating	No
House	649	Non-Participating	Yes
House	659	Non-Participating	Yes
House	666	Non-Participating	No
House	689	Non-Participating	Yes
Barn	692	Non-Participating	No
Garage	696	Non-Participating	Yes
Outbuilding	702	Non-Participating	No
Garage	710	Non-Participating	Yes
Garage	719	Non-Participating	Yes
House	721	Non-Participating	No
Outbuilding	723	Non-Participating	No
Barn	733	Non-Participating	No
Barn	734	Non-Participating	No
Outbuilding	738	Non-Participating	Yes
Barn	739	Non-Participating	No
Garage	744	Non-Participating	Yes
Outbuilding	744	Non-Participating	No
Barn	746	Non-Participating	No
Outbuilding	760	Non-Participating	Yes
Barn	762	Non-Participating	Yes
House	767	Non-Participating	

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
House	770	Non-Participating	Yes
House	775	Non-Participating	Yes
House	778	Non-Participating	No
House	779	Non-Participating	Yes
House	783	Non-Participating	Yes
Garage	784	Non-Participating	No
House	790	Non-Participating	Yes
House	797	Non-Participating	Yes
House	806	Non-Participating	Yes
Garage	807	Non-Participating	Yes
House	808	Non-Participating	No
Barn	816	Non-Participating	Yes
House	816	Non-Participating	Yes
House	819	Non-Particpiating	No
Barn	823	Non-Participating	No
House	824	Non-Participating	Yes
Barn	825	Non-Participating	No
Silo	834	Non-Participating	No
Barn	837	Non-Participating	Yes
Outbuilding	838	Non-Participating	No
Outbuilding	851	Non-Participating	Yes
Barn	851	Non-Participating	No
Silo	855	Non-Participating	No
Barn	858	Non-Participating	No
Outbuilding	863	Non-Participating	No
Tank	878	Non-Participating	No
House	891	Non-Participating	No
House	891	Non-Participating	No
House	897	Non-Participating	No
Billboard	901	Non-Participating	No
Silo	906	Non-Participating	No
Barn	915	Non-Participating	No
House	922	Non-Participating	Yes
Garage	925	Non-Participating	Yes
House	927	Non-Participating	Yes
House	931	Non-Participating	Yes
Barn	933	Non-Participating	Yes
House	934	Non-Participating	Yes
Barn	936	Non-Participating	No
Silo	938	Non-Participating	No
Garage	939	Non-Participating	Yes
Barn	940	Non-Participating	No
Housc	957	Non-Participating	No
Barn	960	Non-Participating	No
House	964	Non-Participating	Yes
House	977	Non-Participating	Yes

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
Garage	995	Non-Participating	Yes
Barn	1,001	Non-Participating	No
Apartment	1,002	Non-Participating	Yes
House	1,005	Non-Participating	Yes
House	1,007	Non-Participating	Yes
Commercial	1,007	Non-Participating	Yes
Apartment	1,037	Non-Participating	Yes
House	1,071	Non-Participating	Yes
House	1,085	Non-Participating	Yes
Barn	1,088	Non-Participating	No
Silo	1,090	Non-Participating	No
Outbuilding	1,099	Non-Participating	Yes
Barn	1,105	Non-Participating	Yes
Barn	1,113	Non-Participating	Yes
Outbuilding	1,114	Non-Participating	Yes
Barn	1,116	Non-Participating	Yes
Outbuilding	1,126	Non-Participating	Yes
Barn	1,138	Non-Participating	Yes
Barn	1,146	Non-Participating	Yes
Barn	1,149	Non-Participating	Yes
Tank	1,151	Non-Participating	Yes
Garage	1,170	Non-Participating	Yes
Barn	1,174	Non-Participating	Yes
House	1,180	Non-Participating	Yes
House	1,180	Non-Participating	Yes
Outbuilding	1,182	Non-Participating	Yes
Garage	1,184	Non-Participating	Yes
House	1,190	Non-Participating	Yes
House	1,192	Non-Participating	Yes
Barn	1,195	Non-Participating	
Barn	1,199	Non-Participating	No
House	1,200	Non-Participating	Yes
House	1,201	Non-Participating	Yes
House	1,202	Non-Participating	Yes
House	1,203	Non-Participating	Yes
House	1,205	Non-Participating	Yes
Barn	1,205	Non-Participating	Yes
House	1,214	Non-Participating	Yes
House	1,219	Non-Participating	Yes
Barn	1,228	Non-Participating	No
House	1,229	Non-Participating	No
Barn	1,230	Non-Participating	Yes
House	1,233	Non-Participating	Yes
House	1,235	Non-Participating	No
House	1,241	Non-Participating	Yes
Garage	1,244	Non-Participating	No

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
House	1,245	Non-Participating	Yes
Outbuilding	1,251	Non-Participating	No
Barn	1,265	Non-Participating	No
Silo	1,270	Non-Participating	
Silo	1,280	Non-Participating	
Silo	1,285	Non-Participating	
House	1,301	Non-Participating	Yes
House	1,313	Non-Participating	No
House	1,315	Non-Participating	No
Garage	1,324	Non-Participating	Yes
House	1,328	Non-Participating	Yes
House	1,329	Non-Participating	Yes
Outbuilding	1,333	Non-Participating	Yes
House	1,335	Non-Participating	Yes
House	1,335	Non-Participating	Yes
House	1,337	Non-Participating	Yes
House	1,337	Non-Participating	Yes
House	1,339	Non-Participating	Yes
House	1,340	Non-Participating	Yes
House	1,342	Non-Participating	No
House	1,346	Non-Participating	Yes
House	1,357	Non-Participating	Yes
Barn	1,364	Non-Participating	No
Garage	1,366	Non-Participating	No
Garage	1,374	Non-Participating	Yes
House	1,377	Non-Participating	Yes
Barn	1,385	Non-Participating	No
House	1,389	Non-Participating	Yes
Outbuilding	1,391	Non-Participating	Yes
House	1,394	Non-Participating	Yes
House	1,396	Non-Participating	Yes
Garage	1,401	Non-Participating	Yes
Garage	1,406	Non-Participating	Yes
Garage	1,410	Non-Participating	Yes
Outbuilding	1,414	Non-Participating	Yes
Barn	1,416	Non-Participating	Yes
Garage	1,419	Non-Participating	Yes
Garage	1,426	Non-Participating	Yes
Barn	1,426	Non-Participating	Yes
Barn	1,439	Non-Participating	Yes
Outbuilding	1,445	Non-Participating	Yes
Barn	1,455	Non-Participating	Yes
Garage	1,473	Non-Participating	Yes
House	1,481	Non-Participating	Yes
Garage	1,481	Non-Participating	Yes
House	1,484	Non-Participating	Yes

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status	Within Village of Arcadia (Y/N)
Barn	1,486	Non-Participating	Yes
House	1,491	Non-Participating	Yes
Barn	1,492	Non-Participating	Yes
House	1,497	Non-Participating	Yes
Barn	1,499	Non-Participating	No

A similar approach was used to identify, as required by OAC 4906408(C)(1)(b)(ii), structures located within 250 feet of a non-generating Project component. Therefore, Updated Table 08-8 conservatively identifies information about structures located within 250 feet of the revised Project Area boundary (Updated Figure 08-12). There are 64 structures (eight of them transmission towers, 21 residences, and the remainder various outbuildings) within 250 feet of the revised Project Area. These reflect a subset of those identified in Updated Table 08-8.

UPDATED TABLE 08-8
STRUCTURES WITHIN 250 FEET OF REVISED PROJECT AREA

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status
Garage	32	Non-Participating
Garage	39	Participating
Outbuilding	39	Non-Participating
House	43	Non-Participating
Outbuilding	48	Participating
House	49	Non-Participating
Barn	58	Non-Participating
House	59	Non-Participating
Barn	61	Non-Participating
Outbuilding	63	Non-Participating
House	65	Non-Participating
House	67	Non-Participating
House	68	Non-Participating
House	75	Participating
Garage	82	Non-Participating
Barn	83	Participating
Outbuilding	85	Non-Participating
Outbuilding	87	Non-Participating

Structure Type	Distance to Project Area (feet)	Underlying Parcel Status
Garage	89	Non-Participating
House	92	Non-Participating
House	97	Non-Participating
House	100	Non-Participating
House	104	Non-Participating
House	106	Non-Participating
House	108	Non-Participating
Outbuilding	111	Non-Participating
Outbuilding	112	Non-Participating
House	114	Non-Participating
Garage	115	Non-Participating
Garage	121	Non-Participating
House	129	Non-Participating
Garage	135	Non-Participating
Barn	147	Participating
Barn	151	Non-Participating
Garage	158	Non-Participating
Barn	164	Participating
House	164	Non-Participating
Outbuilding	165	Non-Participating
Outbuilding	168	Non-Participating
House	174	Non-Participating
Outbuilding	177	Non-Participating
Silo	188	Participating
Barn	195	Non-Participating
Barn	195	Participating
Barn	198	Non-Participating
Barn	199	Non-Participating
House	199	Non-Participating
Garage	208	Non-Participating
House	208	Non-Participating
Barn	212	Non-Participating
Barn	218	Participating
Barn	226	Non-Participating
Outbuilding	230	Non-Participating
House	230	Non-Participating
House	232	Non-Participating
House	238	Non-Participating
Barn	241	Non-Participating
Outbuilding	241	Non-Participating

(c) Land Use Impacts

No change from the most recent filing, other than an update to Updated Table 08-9 to reflect the adjustment in Project size, using the same approach as previously presented.

UPDATED TABLE 08-9
LAND USE IMPACTS

Project Element	Temporary Disturbance (acres)	Permanent Alteration* (acres)
Agricultural		
Array Areas (includes solar panels, inverter pads, etc.)	0	431.8
Collection System (outside of array areas)	40.9	0
Project Substation	0	8.6
O&M Building	0	0.1
Access Roads	0	50.1
Laydown	12.0	0
Infrastructure		
Array Areas (includes solar panels, inverter pads, etc.)	0	3.3
Collection System (outside of array areas)	5.0	0
Project Substation	0	1.3
Access Roads	0	2.3
Laydown	0.1	0
Vacant		
Array Areas (includes solar panels, inverter pads, etc.)	0	0.1
Access Roads	0	0.2
Collection Line	0.03	0

*For the life of the Project; following Project use the Project Area would be capable of returning to agricultural uses.
Note: Impact areas for each component overlap with each other, so the total cannot be derived by summing its parts.

The proposed location of Project-related features will result in the alteration during the life of the Project of approximately 500 acres of land from its current use. Due to careful topsoil management during construction, limited areas of impervious or compacted soils within the Project Area, careful drainage and

stormwater management, the use of native plantings including pollinator species, and the control of invasive or noxious weeds, the Project Area could be readily returned to agricultural uses at the end of the Project's life, if desired. No impacts to land use are anticipated outside the Project Area.

(d) Structures to be Removed or Relocated

No change from the most recent filing.

(2) Wind Farm Maps

No change from the most recent filing.

(a) Distance from Easements

No change from the most recent filing.

(b) Property Setbacks

No change from the most recent filing.

(3) Setback Waivers

No change from the most recent filing.

(a) Content of Waiver

No changes from the most recent filing.

(b) Required Signature

No changes from the most recent filing.

(c) Recordation of Waiver

No changes from the most recent filing.

(4) Land Use Plans

(a) Formally Adopted Plans for Future Use

No changes from the most recent filing.

(b) Applicant Plans for Concurrent or Secondary Use of the Site

No changes from the most recent filing.

(c) Impact to Regional Development

No change from the most recent filing.

(i) Housing

No change from the most recent filing.

(ii) Commercial and Industrial Development

No change from the most recent filing.

(iii) Schools

No change from the most recent filing.

(iv) Transportation

No change from the most recent filing.

(v) Other Public Services and Facilities

No change from the most recent filing.

(d) Compatibility with Current Regional Plans

No change from the most recent filing, other than continued and ongoing adjustments to the layout to enhance compatibility based on local feedback.

(e) Demographic Characteristics

No change from the most recent filing, other than adjustment in total acreage altered over the life of the Project from approximately 810 acres of alteration (during the life of the Project) to approximately 500 acres.

(D) CULTURAL AND ARCHAEOLOGICAL RESOURCES

No change from the most recent filing, other than the fact that an updated History/Architecture Reconnaissance Survey report was submitted to the Ohio State Historic Preservation Office (SHPO) on October 20, 2021, and the decrease in the 5-mile-radius associated with the reduction of the Project Area. Updated Appendix Q provides a copy of that report, and SHPO correspondence confirming that, for the original layout, only one resource was identified as requiring visual mitigation in the form of landscaping. With the adjustment of the Project Area, as reflected in this Modification, that resource will now be approximately one mile from the Project Area and would not be expected to require visual mitigation. A request for additional feedback from SHPO has been requested, as also provided in Appendix Q. Once a response has been received, it will be provided to Ohio Power Siting Board staff.

(1) Landmark Mapping

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area.

(2) Estimated Impacts on Landmarks

No change from the most recent filing.

(3) Recreational and Scenic Areas

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area. An addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(4) Visual Impact

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area. An addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(a) Project Visibility

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area. An addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(b) Existing Landscape

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area. An addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(c) Landscape Alterations

No change from the most recent filing, although an Updated Appendix R is provided.

(d) Visual Impacts to Landmarks of Cultural Significance

No change from the most recent filing, other than the decrease in the radius associated with the reduction of the Project Area. An addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(e) Photographic Simulations

No change from the most recent filing, although an addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(f) Proposed Mitigation Measures

No change from the most recent filing, although an addendum updating Visual Impact Assessment information is provided in Updated Appendix R.

(E) AGRICULTURAL DISTRICTS

(1) Mapping of Agricultural Land

No changes from the most recent filing other than the reduction in Project Area.

(2) Agricultural Information

(a) Acreage Impacted

Updated Table 08-13 quantifies the proposed temporary and permanent impacts to agricultural land from the proposed Project.

UPDATED TABLE 08-13
PROPOSED PROJECT IMPACTS TO AGRICULTURAL LAND

Land Use	Temporary Disturbance (acres)	Permanent Alteration* (acres)
Array Areas (includes solar panels, inverter pads, etc.)	0	431.8
Collection System (outside of array areas)	40.9	0
Project Substation	0	8.6
O&M Building	0	0.1
Access Roads	0	50.1
Laydown	12.0	0

* For the life of the Project; following Project use the Project Area would be capable of returning to agricultural uses.
Note: Impact areas overlap with each other, so the total cannot be derived by summing its parts.

(b) Impact of Project Activities

No change from the most recent filing, other than the reduction in use of agricultural lands to approximately 491 acres.

(c) Agricultural Mitigation Practices

No change from the most recent filing.

(i) Drainage Field Tile Systems

No change from the most recent filing.

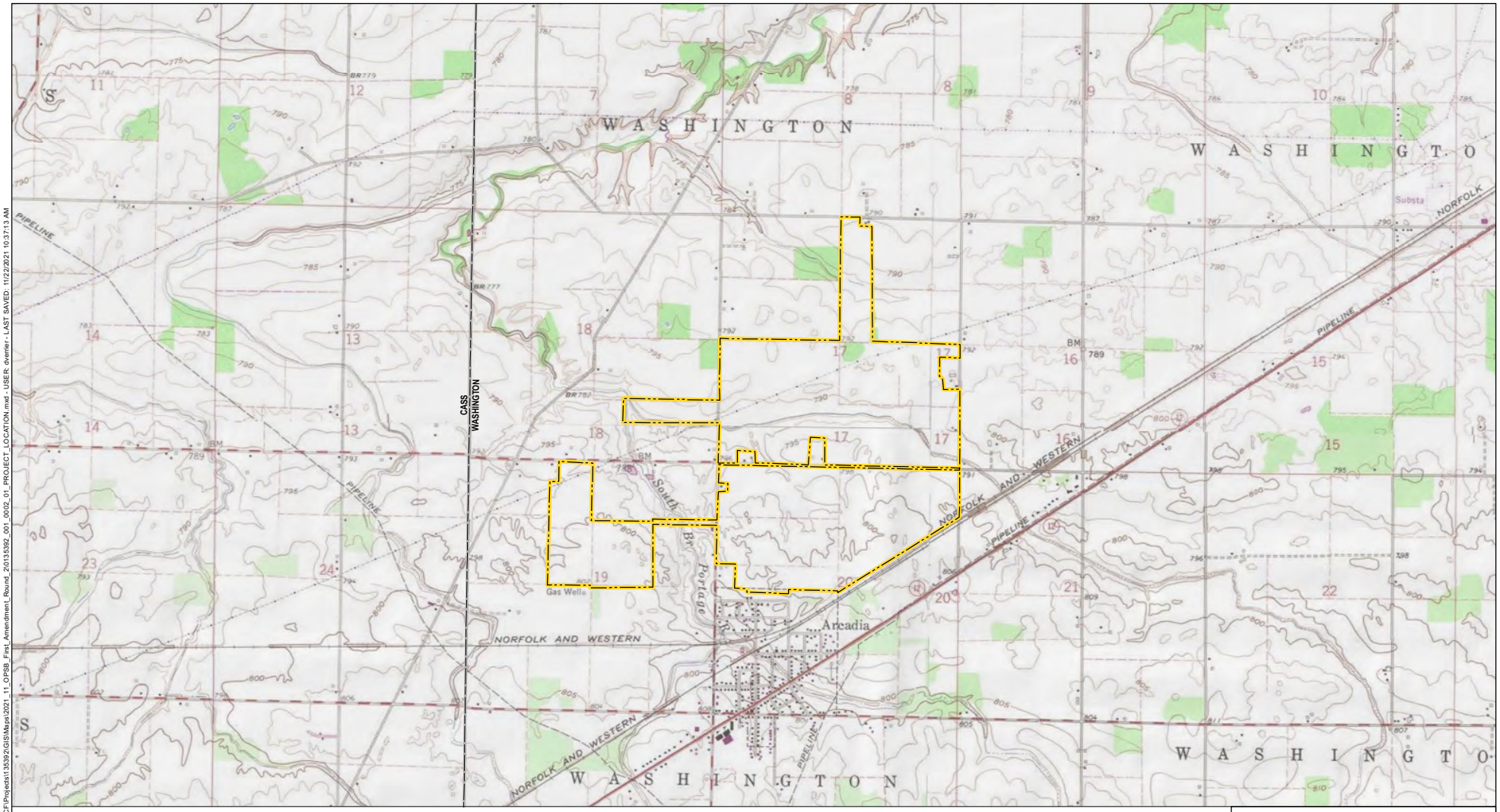
(ii) Topsoil segregation, de-compaction, and restoration

No change from the most recent filing.

(iii) Vegetative Cover

No change from the most recent filing.

UPDATED FIGURES



LEGEND

- PROJECT BOUNDARY
- TOWNSHIP BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO ENVIRONMENTAL MANAGEMENT AGENCY (OEMA)
3. BASE MAP SOURCE: UNITED STATES GEOLOGICAL SURVEY (USGS)

N

0 2,000 4,000
SCALE IN FEET

HALEY ALDRICH

Updated Figure 02-1
Project Location

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0002_01_PROJECT_LOCATION.mxd - USER: dverrier - LAST SAVED: 11/22/2021 10:37:13 AM

LEGEND

- 138kV TRANSMISSION LINE
- 345kV TRANSMISSION LINE
- NATURAL GAS PIPELINE
- STREAM OR RIVER
- ROAD
- LAKE OR POND
- RESERVOIR
- TOWNSHIP BOUNDARY
- PROJECT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. kV = KILOVOLTS
3. STREAMS, RIVERS, AND WATERBODIES DATA SOURCE: USGS NATIONAL HYDROGRAPHY DATASET (NHD)
4. ELECTRIC TRANSMISSION LINES DATA SOURCE: DEPARTMENT OF HOMELAND SECURITY (DHS) HOMELAND INFRASTRUCTURE FOUNDATION-LEVEL DATA (HIFLD)
5. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
6. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
7. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

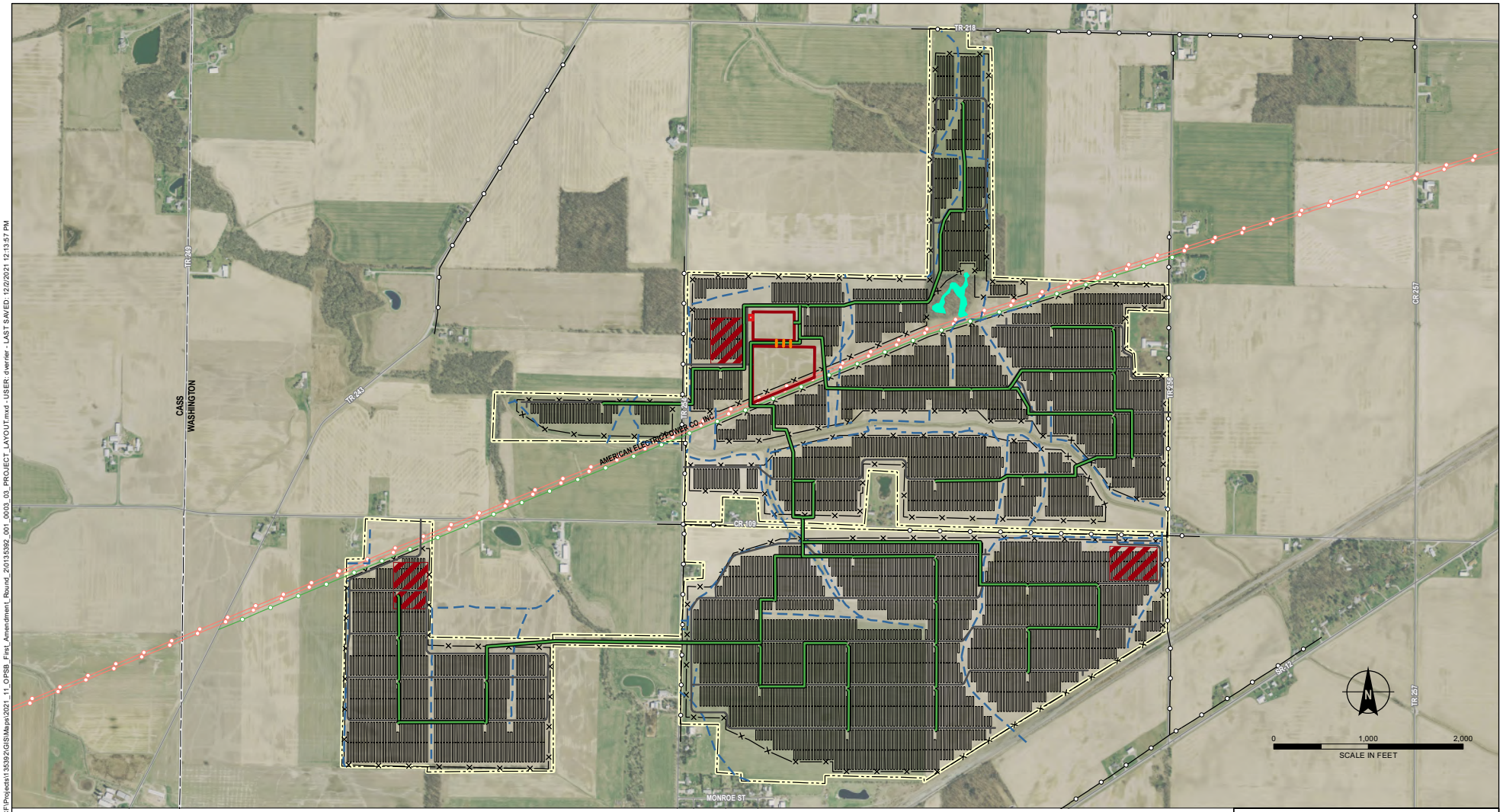
0 2,000 4,000
SCALE IN FEET

HALEY ALDRICH

Updated Figure 03-2
Project Area

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0003_02_PROJECT_AREA.mxd - USER: dverrier - LAST SAVED: 12/16/2021 10:31:53 AM



POTENTIAL COLLECTION LINE
POTENTIAL GRAVEL ROAD
GEN-TIE LINE
138 kV TRANSMISSION LINE
TRANSMISSION LINE, UNKNOWN VOLTAGE
GAS LINE
DRAIN TILE LINE
O&M FACILITY BOUNDARY
SUBSTATION BOUNDARY
ROAD
DELINEATED WETLAND
POTENTIAL SOLAR ARRAY
LAYDOWN YARD
SECURITY FENCE
PROJECT AREA
TOWNSHIP BOUNDARY

NOTES

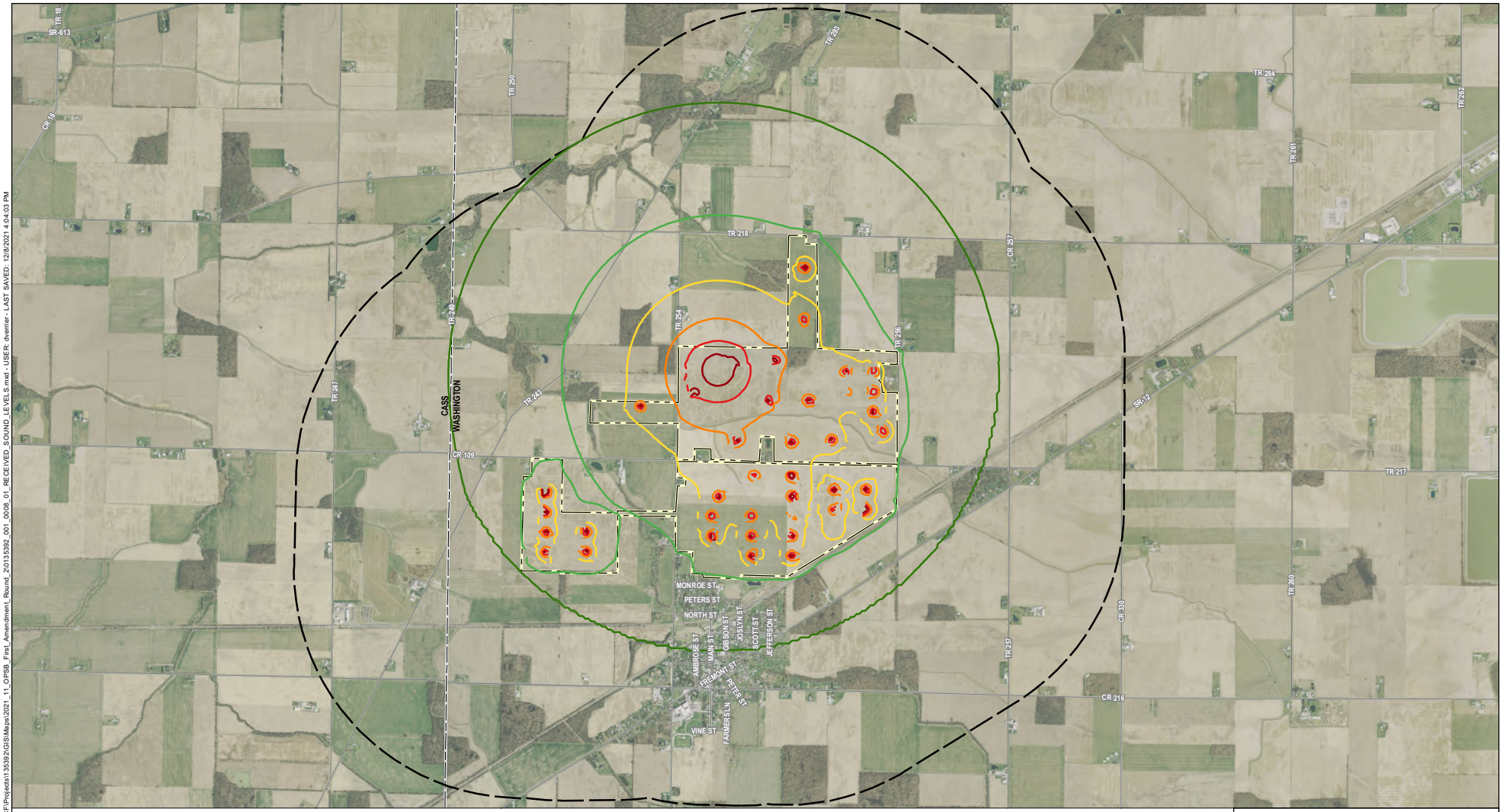
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. kV = KILOVOLTS
3. ELECTRIC TRANSMISSION LINES DATA SOURCE: DEPARTMENT OF HOMELAND SECURITY (DHS) HOMELAND INFRASTRUCTURE FOUNDATION-LEVEL DATA (HIFLD) AND CLIENT
4. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
5. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
6. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

HALEY ALDRICH

Updated Figure 03-3
Project Layout

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0003_03_PROJECT_LAYOUT.mxd - USER: dwerner - LAST SAVED: 12/2/2021 12:13:57 PM



LEGEND

SOUND LEVEL CONTOUR, IN DECIBELS (dB)

- 25
- 30
- 35
- 40
- 45
- 50

- ROAD
- PROJECT AREA
- 1-MILE BUFFER OF PROJECT AREA
- TOWNSHIP BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. SOUND LEVELS DATA SOURCE: ACENTECH, 08 DECEMBER 2021
3. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
4. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
5. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

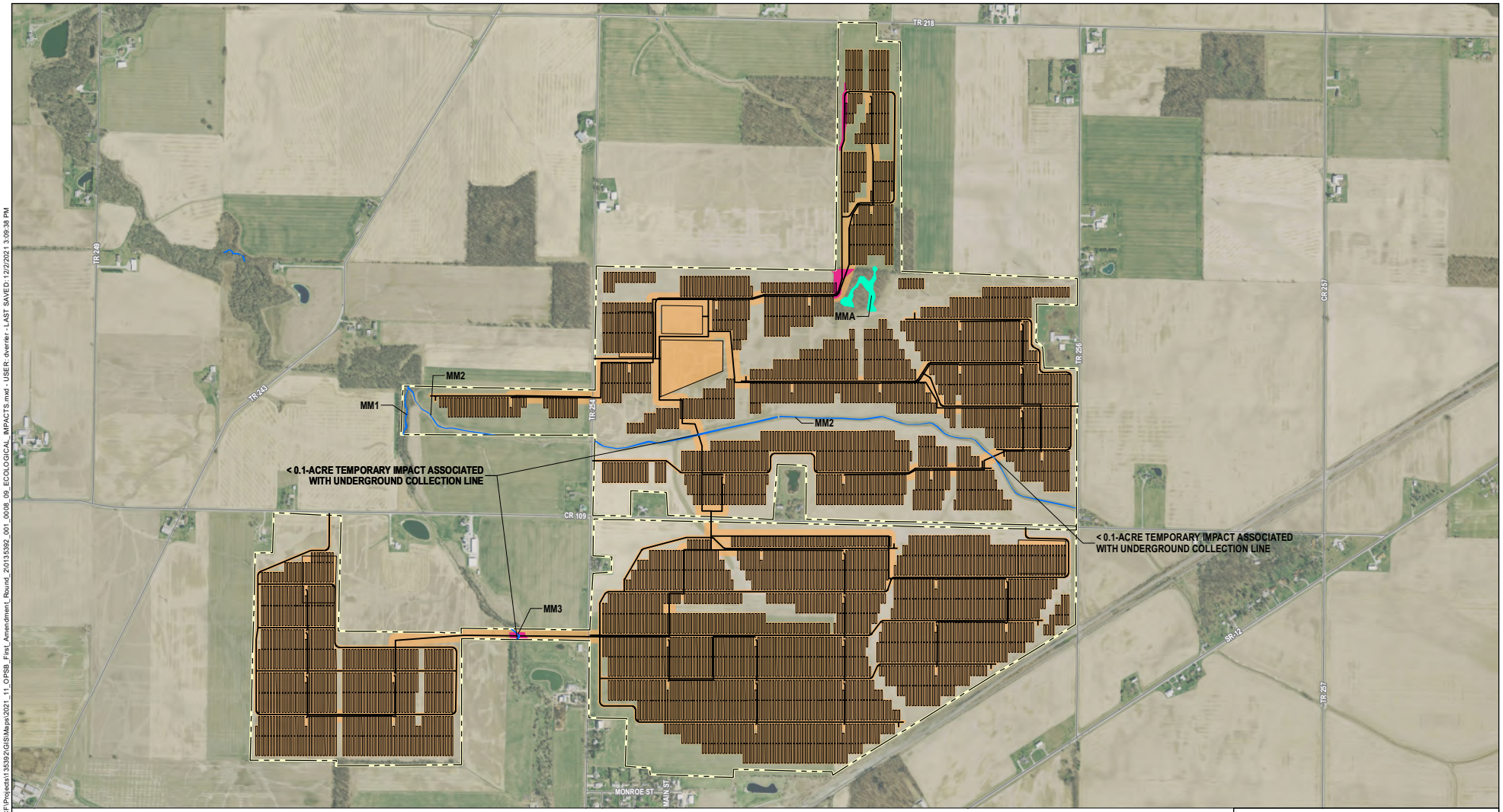
0 2,000 4,000
SCALE IN FEET

HALEY ALDRICH

Updated Figure 08-1
Received Sound Levels

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0008_01_RECEIVED_SOUND_LEVELS.mxd - USER: dverrier - LAST SAVED: 12/8/2021 4:04:03 PM



PROJECT LAYOUT COMPONENT
DELINEATED STREAM
ROAD
DELINEATED WETLAND
TREE CLEARING AREA
IMPACT AREA
PROJECT AREA

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. DELINEATED STREAMS AND WETLANDS DATA SOURCE: FIELD OBSERVATIONS BY HALEY & ALDRICH.
3. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
4. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

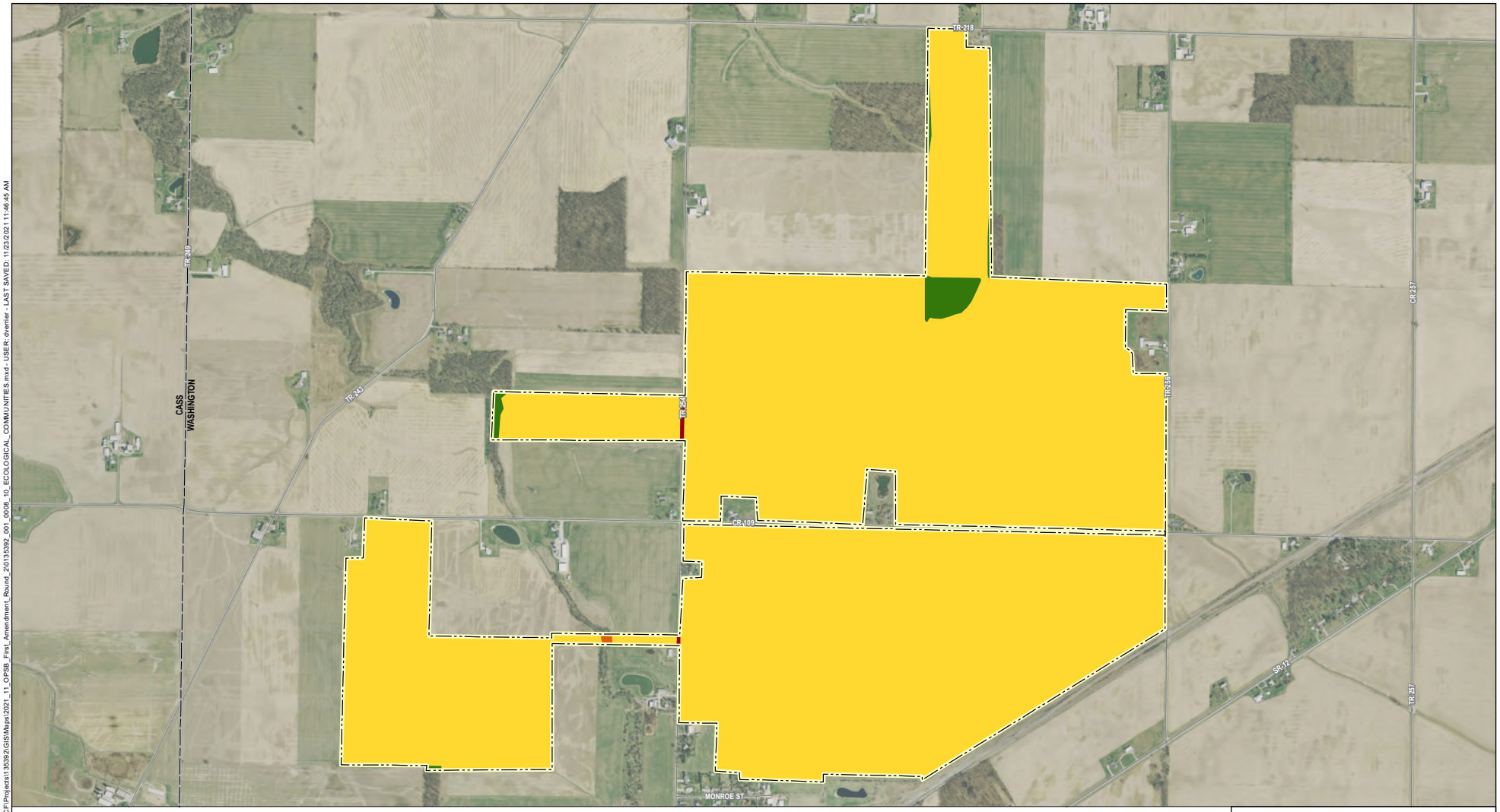
0 1,000 2,000
SCALE IN FEET

HALEY ALDRICH

Updated Figure 08-9
Ecological Impacts

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0008_09_ECOLOGICAL_IMPACTS.mxd - USER: dverrier - LAST SAVED: 12/2/2021 3:09:38 PM



LEGEND

ROAD

TOWNSHIP BOUNDARY

LAND COVER TYPE

- AGRICULTURAL
- DEVELOPED
- FORESTED
- SHRUB SCRUB
- PROJECT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. LAND COVER TYPE DATA SOURCE: FIELD OBSERVATIONS BY HALEY & ALDRICH.
3. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
4. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO ENVIRONMENTAL MANAGEMENT AGENCY (OEMA)
5. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

0 1,000 2,000

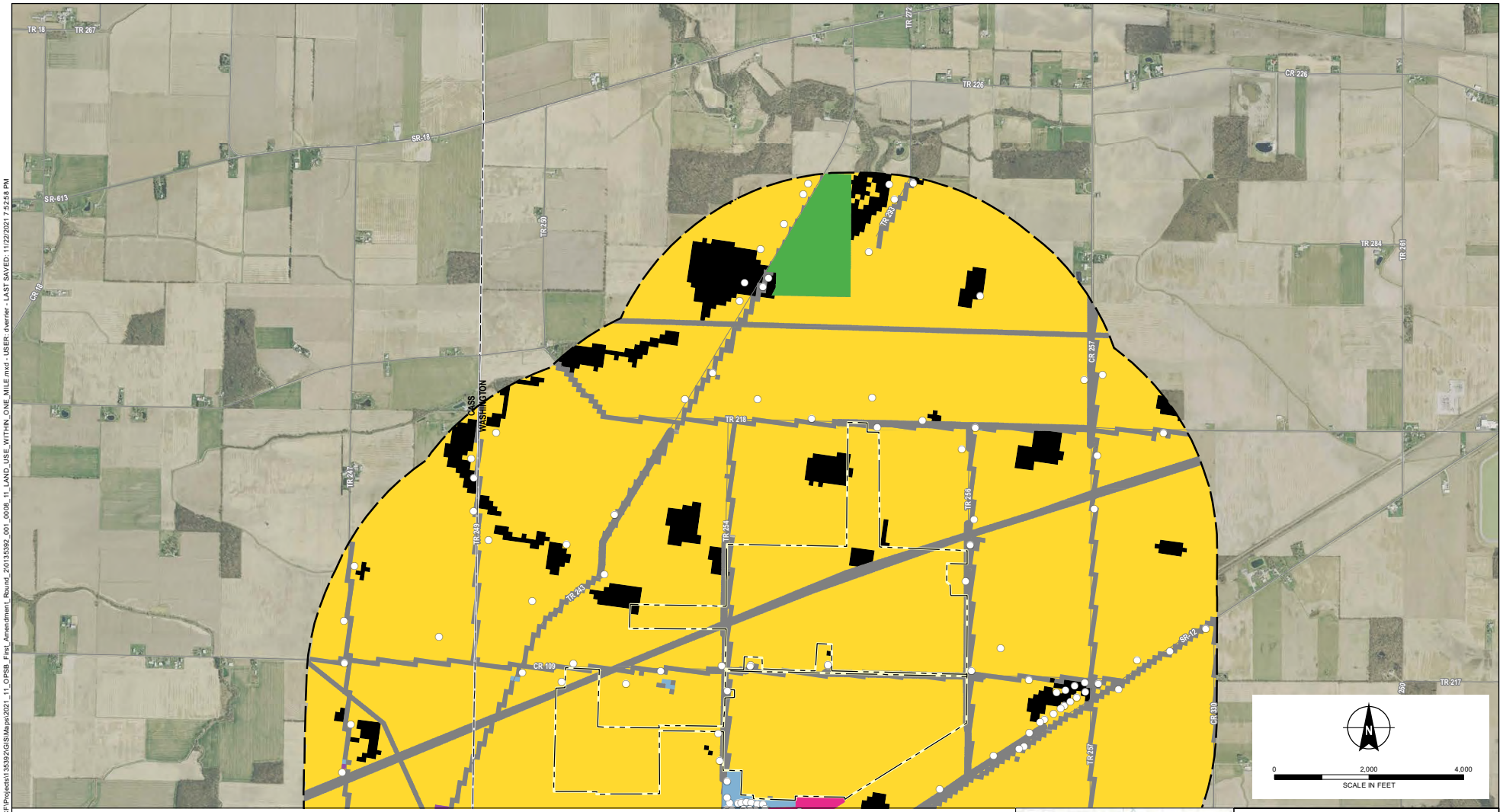
SCALE IN FEET

HALEY ALDRICH

Updated Figure 08-10
Ecological Communities

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0008_10_ECOLOGICAL_COMMUNITIES.mxd - USER: dventer - LAST SAVED: 11/23/2021 11:46:45 AM



LEGEND

- SCHOOL
- HOUSE
- ROAD

OPSB LAND COVER CATEGORY

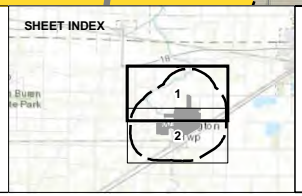
- AGRICULTURAL
- COMMERCIAL
- INDUSTRIAL
- INFRASTRUCTURE
- INSTITUTIONAL
- RECREATIONAL
- RESIDENTIAL
- VACANT
- PROJECT AREA
- 1-MILE BUFFER OF PROJECT AREA
- TOWNSHIP BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. LAND COVER DATA SOURCES: ESRI, GREEN COUNTY, OHIO, UNITED STATES GEOLOGICAL SURVEY (USGS) PROTECTED AREAS DATABASE (PAD), USGS NATIONAL LAND COVER DATABASE (NLCD), 2016, AND OBSERVATIONS MADE BASED UPON AERIAL IMAGERY
3. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO ENVIRONMENTAL MANAGEMENT AGENCY (OEMA)
4. COUNTY BOUNDARY AND ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
5. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

HALEY ALDRICH

SHEET INDEX



Updated Figure 08-11
Land Use within One Mile

Sheet 1 of 2

South Branch Solar
Hancock County, Ohio

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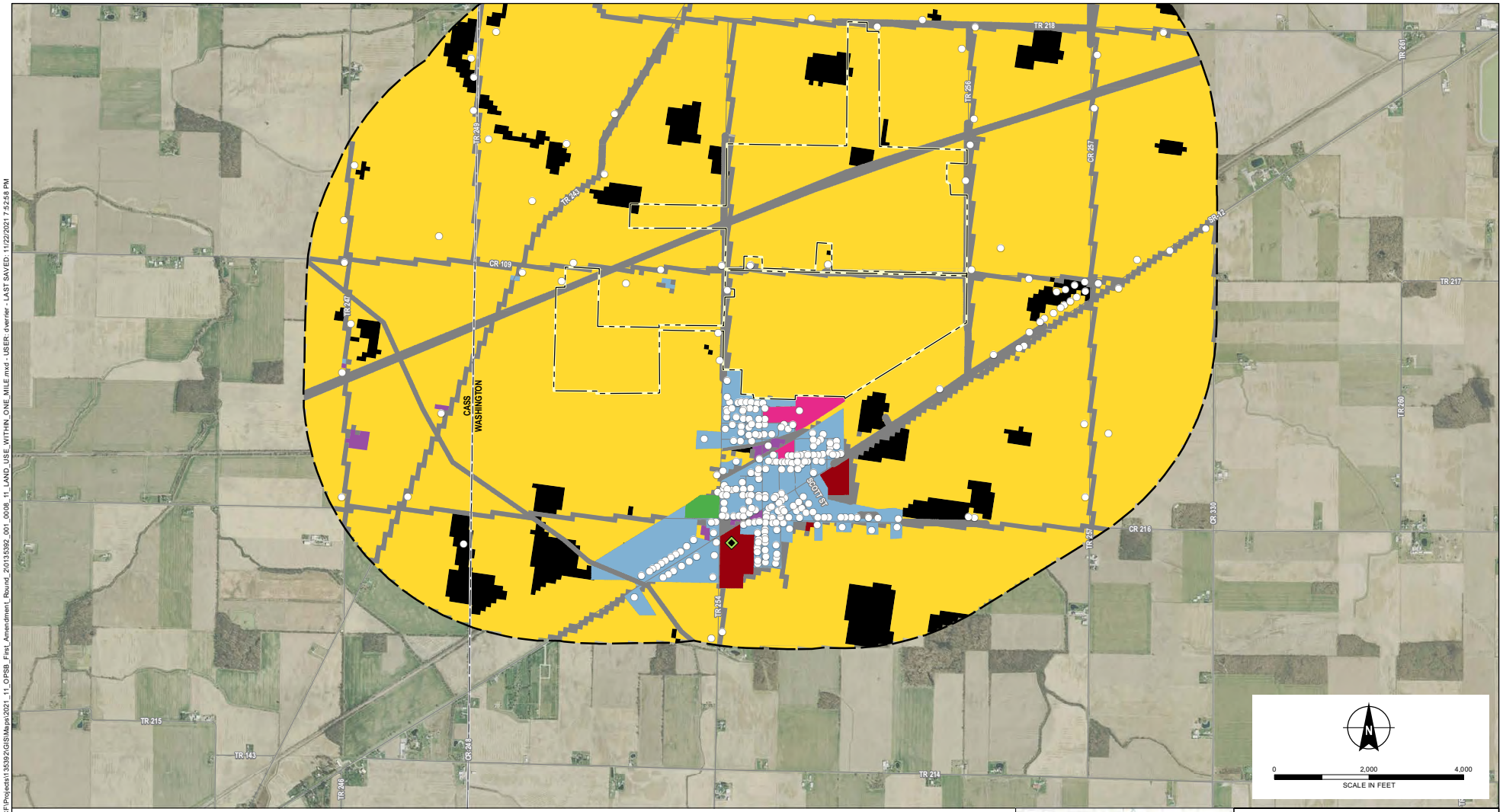


LEGEND

- SCHOOL
- HOUSE
- ROAD

OPSB LAND COVER CATEGORY

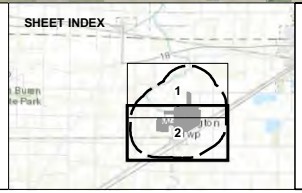
- AGRICULTURAL
- COMMERCIAL
- INDUSTRIAL
- INFRASTRUCTURE
- INSTITUTIONAL
- RECREATIONAL
- RESIDENTIAL
- VACANT
- PROJECT AREA
- 1-MILE BUFFER OF PROJECT AREA
- TOWNSHIP BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. LAND COVER DATA SOURCES: ESRI, GREEN COUNTY, OHIO, UNITED STATES GEOLOGICAL SURVEY (USGS) PROTECTED AREAS DATABASE (PAD), USGS NATIONAL LAND COVER DATABASE (NLCD), 2016, AND OBSERVATIONS MADE BASED UPON AERIAL IMAGERY
3. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO ENVIRONMENTAL MANAGEMENT AGENCY (OEMA)
4. COUNTY BOUNDARY AND ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
5. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

HALEY ALDRICH

SHEET INDEX

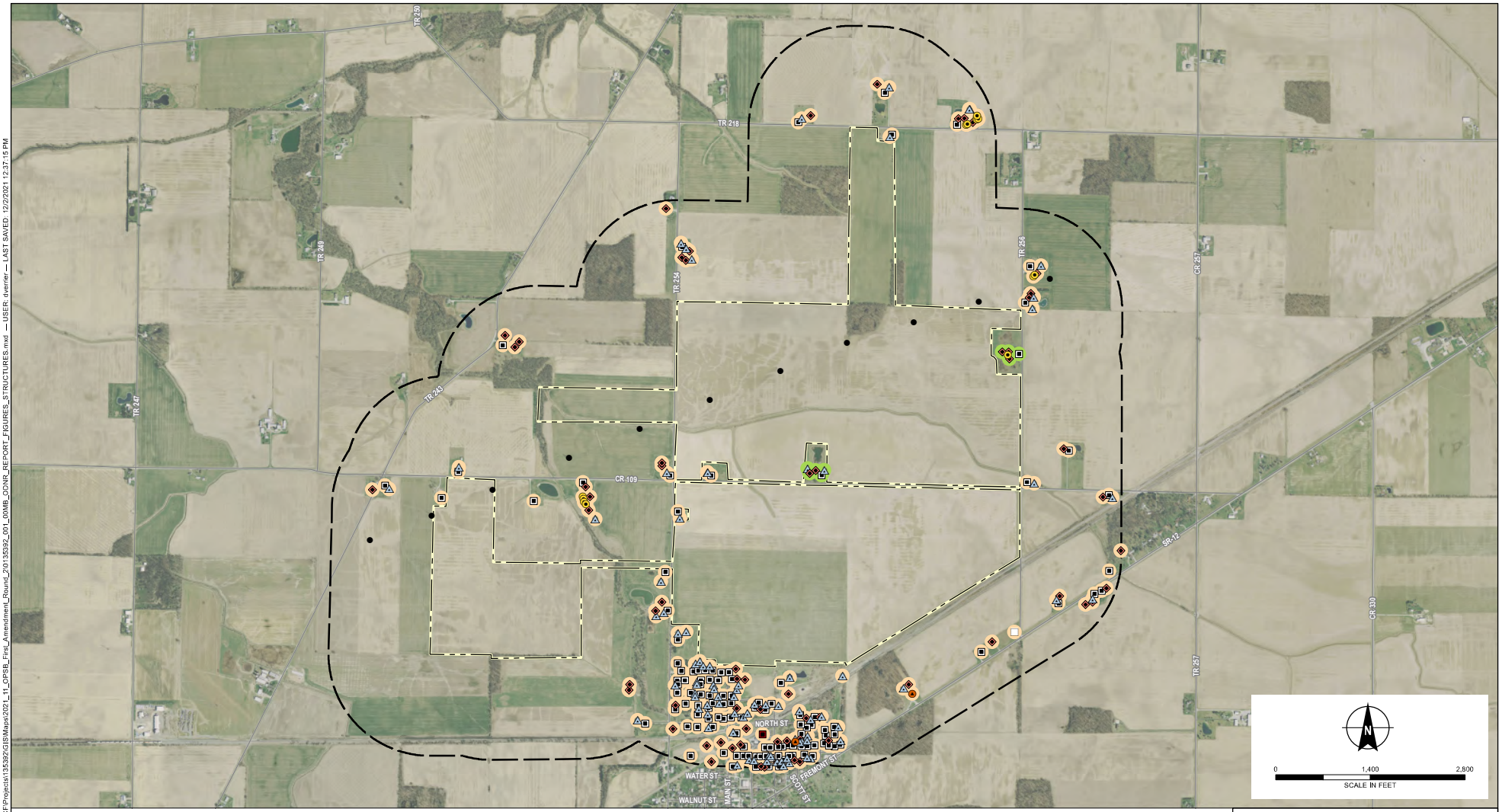


Updated Figure 08-11
Land Use within One Mile

Sheet 2 of 2

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_0008_11_LAND_USE_WITHIN_ONE_MILE.mxd - USER: dwerner - LAST SAVED: 11/22/2021 7:52:58 PM



LEGEND

- RESIDENCE
- OUTBUILDING, GARAGE, SHED, OR GAZEBO
- BARN
- SILO
- COMMERICAL BUILDING
- BILLBOARD
- TANK
- TRANSMISSION TOWER
- NON-PARTICIPATING
- PARTICIPATING
- ROAD
- PROJECT AREA
- 1500-FT BUFFER OF PROJECT AREA

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
3. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

HALEY ALDRICH

Updated Figure 08-12
Structures within 1,500 feet of the Project Area

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_00MB_ODNR_REPORT_FIGURES_STRUCTURES.mxd — USER: dverrier — LAST SAVED: 12/2/2021 12:37:15 PM

LEGEND

- RESIDENCE
- OUTBUILDING, GARAGE, SHED, OR GAZEBO
- BARN
- SILO
- TRANSMISSION TOWER
- NON-PARTICIPATING
- PARTICIPATING
- ROAD
- PROJECT AREA
- 250-FT BUFFER OF PROJECT AREA

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
3. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

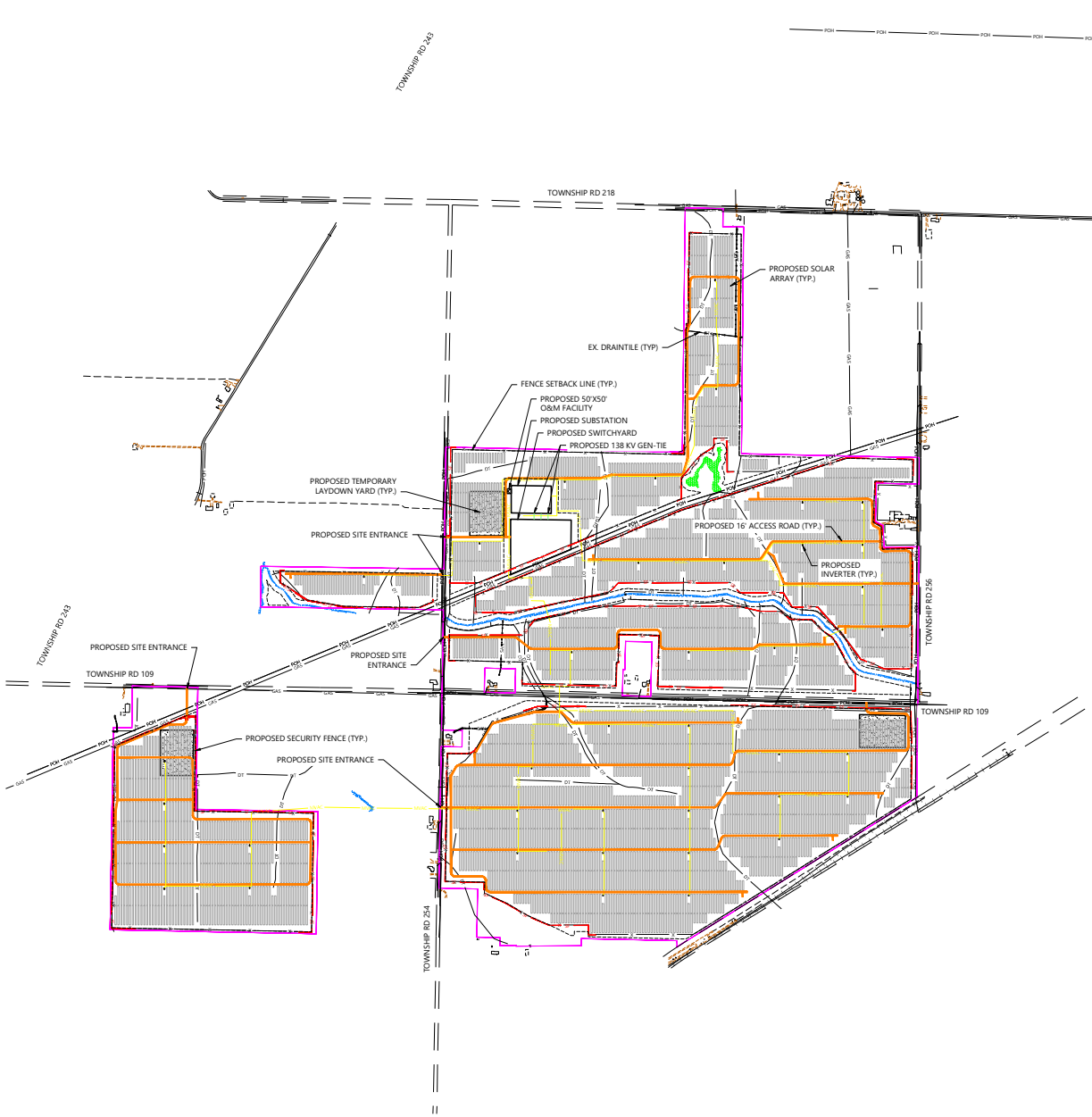
HALEY ALDRICH

Updated Figure 08-13
Structures within 250 feet of the Project Area

South Branch Solar
Hancock County, Ohio

UPDATED APPENDIX A

PRELIMINARY PROJECT PERMITTING LAYOUT



LEGEND:

- PROJECT BOUNDARY
- SECTION LINES
- RIGHT-OF-WAY LINES
- EASEMENT LINES
- EX. TREELINE
- EX. PAVED ROAD
- EX. GRAVEL ROAD
- EX. DRIVEWAY
- EX. RAILROAD
- EX. FENCE LINE
- EX. OVERHEAD POWER
- EX. GAS PIPELINE
- EX. DRAINTILE
- EX. SEPTIC LINE
- PROPOSED FENCE SETBACK LINE
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SILT FENCE
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED COLLECTION
- PROPOSED OVERHEAD GEN-TIE
- PROPOSED LAYDOWN YARD
- PROPOSED SUBSTATION/SWITCHYARD
- PROPOSED O&M FACILITY
- DELINEATED WETLANDS
- DELINEATED STREAMS

SYSTEM SPECIFICATIONS	
SYSTEM SIZE - MWDC	160.21
SYSTEM SIZE - MWAC (AT POI)	129.6
DC/AC (AT INVERTER)	1.17
MODULE MODEL	LONGI LR5 72HBD-540M
MODULE RATING (W)	540
MODULE QUANTITY	296,676
STRINGS (27 MODULES PER STRING)	10,988
INVERTER QUANTITY	40

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

LEEWARD renewable energy

6688 N CENTRAL EXPRESSWAY, SUITE 500
DALLAS, TX 75206

REVISIONS:

#	DATE	COMMENT

0' 600' 1200' 1800'

South Branch Solar

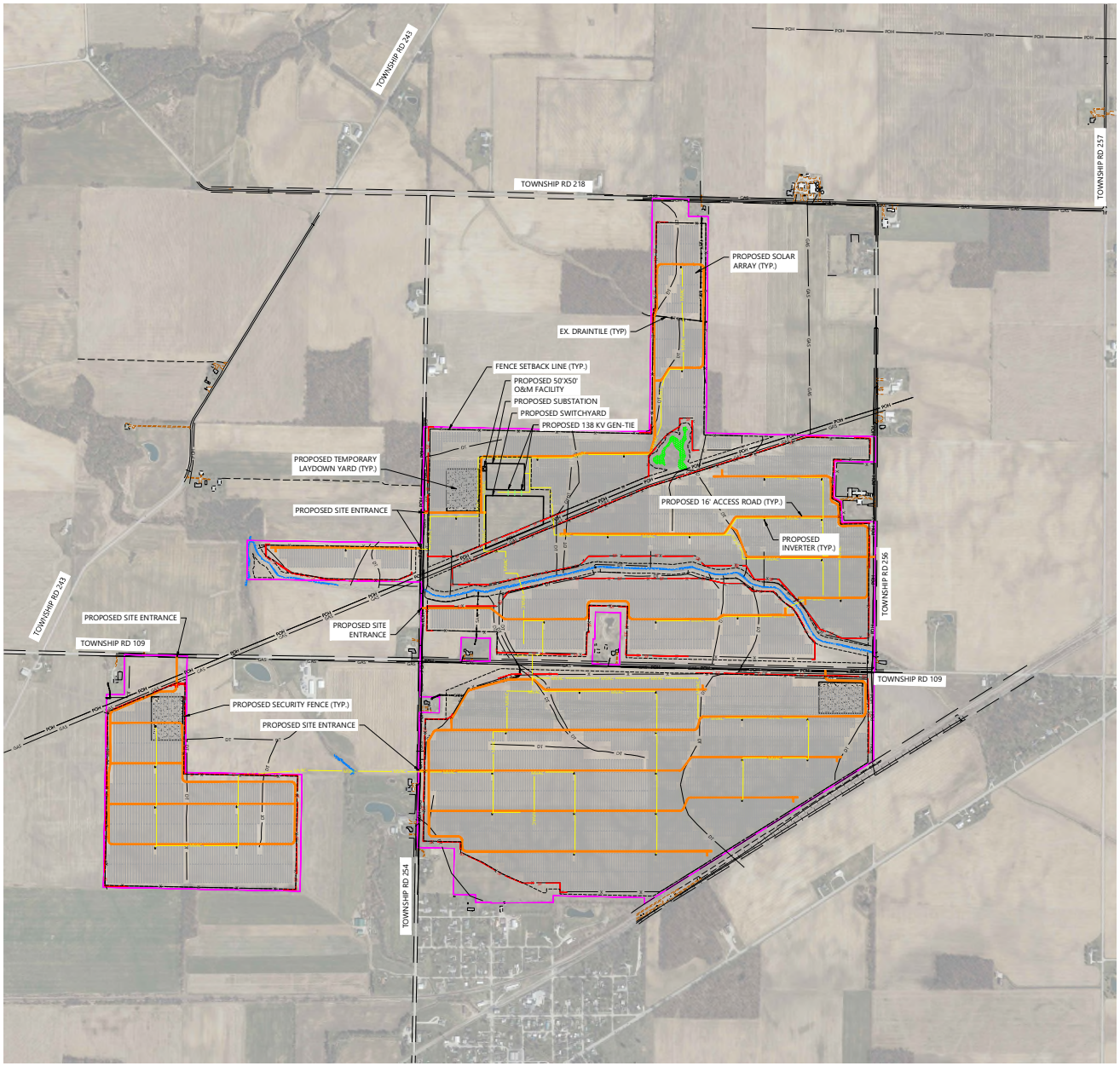
Hancock County, OH

Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 11/23/2021

SHEET: C.100



LEGEND:

- PROJECT BOUNDARY
- SECTION LINES
- RIGHT-OF-WAY LINES
- EASEMENT LINES
- EX. TREELINE
- EX. PAVED ROAD
- EX. GRAVEL ROAD
- EX. DRIVEWAY
- EX. RAILROAD
- EX. FENCE LINE
- EX. OVERHEAD POWER
- EX. GAS PIPELINE
- EX. DRAINTILE
- EX. SEPTIC LINE
- PROPOSED FENCE SETBACK LINE
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SILT FENCE
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED COLLECTION
- PROPOSED OVERHEAD GEN-TIE
- PROPOSED LAYDOWN YARD
- PROPOSED SUBSTATION/SWITCHYARD
- PROPOSED O&M FACILITY
- DELINEATED WETLANDS
- DELINEATED STREAMS

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Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

LEEWARD renewable energy

6688 N CENTRAL EXPRESSWAY, SUITE 500
DALLAS, TX 75206

REVISIONS:

#	DATE	COMMENT

0' 600' 1200' 1800'

South Branch Solar

Hancock County, OH

Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 11/23/2021

SHEET: C.101

UPDATED APPENDIX E

STORMWATER MANAGEMENT REPORT

PRELIMINARY STORMWATER MANAGEMENT REPORT

South Branch Solar Project

Hancock County, Ohio

JULY 2021 (UPDATED DECEMBER 2021)

PREPARED FOR:

Leeward Renewable Energy, LLC

6688 N. Central Expressway Suite 500

Dallas, Texas 75206

PREPARED BY:

Westwood

Preliminary Stormwater Management Report

South Branch Solar Project

Hancock County, Ohio

Prepared For:

Leeward Renewable Energy, LLC
6688 N. Central Expressway Suite 500
Dallas, Texas 75206

Prepared By:

Westwood
12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343
(952) 937-5150

Project Number: R0031696.00
Date: July 13, 2021 (Updated December 8, 2021)

Westwood

Table of Contents

Exhibits

Appendices

Introduction

The purpose of this report is to summarize the proposed stormwater management for the South Branch Solar Project ("the project"). This report was prepared to meet state requirements and is intended for submittal to these agencies for permitting review and approval.

The project site is proposed on approximately 712 acres and is located just north of the village of Arcadia in Hancock County, Ohio. The site's current landcover is primarily agricultural row crops with one small, wooded area.

The proposed use of the site will be a solar facility consisting of 580 acres of solar modules and 30 acres of new impervious surface including gravel access roads and associated solar infrastructure. The proposed site under the solar modules will be converted to meadow conditions within the fenced boundary around the proposed impervious surfaces. Due to the area between and beneath the panels being vegetated, panels are typically not considered an impervious surface. Treatment BMPs will be utilized in areas where necessary to treat runoff.

HydroCAD modeling software was used to quantify existing and proposed runoff, as well as existing and proposed volume.

The analysis shows that the proposed site meets the requirements of the state. Minimal grading will be proposed on site and existing drainage patterns will be maintained.

Data Sources

TABLE 1: DATA SOURCES

Task	Format	Source	Use
Elevation	2.5-foot DEM	OGRIP	Model Elevations
Elevation	Flown LiDAR	Westwood	Model Elevations
Crop Data	Shapefile	USDA 2013 Crop Data Layer	Landcover
Soils	Shapefile	USGS SSURGO Dataset	Curve Numbers
Precipitation	PDF File	NOAA Atlas 14	Design Storms
Site Boundary	Sunset Ridge Solar.kmz	Leeward Renewable Energy, LLC	Define Model Extents
2014 Aerial Photography	ArcGIS Map Service	USDA FSA	Reference

Site Conditions

Site Location

The project area is located just north of the village of Arcadia in Hancock County, Ohio.

Historical Use

A review of aerial photographs shows that the site is currently used and has historically been used for agricultural purposes with the exception of one small, wooded area.

Topography Description

The existing topographic information used in this analysis was a blend of LiDAR flown by Westwood, and data obtained from the survey prepared by the Ohio Geographically Referenced Information Program (OGRIP). OGRIP Flown LiDAR files were used for onsite elevations. The site is generally flat with slopes of up to 3% across a majority of the fence boundary, with the exception of areas near drainage ditches and channelized areas where slopes can exceed 8%.

Drainage Patterns

Onsite runoff is split into 29 drainage areas based on discharge locations and existing low areas. Drainage areas are shown on Exhibits 5 and 6.

Discharge Locations

Discharge locations exist for each drainage area. In some cases, discharge is considered sheet flow, in others there is a concentrated flow discharging offsite. Discharge locations are shown on Exhibits 5 and 6.

Soils

Soils data was downloaded from SSURGO and can be found in Exhibit 3. The site consists primarily of Hydrologic Soil Groups (HSGs) C/D and D soils with smaller areas of HSG B/D. Soils belonging to dual HSGs B/D and C/D were modeled as D soils in the pre-post analysis for the most conservative approach. Type D soils have high runoff potential and low infiltration rates.

Stormwater Management Requirements

A review of the Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays and the Ohio NPDES Stormwater Requirements shows the following requirements for the proposed site:

- According to the Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays:
    - For many facilities, storm water runoff from the solar panels can be simply managed by disconnection to the vegetated ground surface under and between elevated panels provided an ungraded, compacted soil profile exists, dense and healthy vegetation can be maintained over the entire surface, and runoff from the panels can be managed as non-erosive sheet flow.
    - For panel arrays on Hydrologic Soil Group (HSG) A or B soils and on soils (C & D) that have been functionally restored, the disconnection length required is two times the solar panel width on a horizontal plane, which creates a 1:1 spacing ratio.
- According to the Ohio NPDES Permit:

- Water quality volume equivalent to the volume of runoff from a 0.90-inch rainfall for the site must be treated to ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1.
- An additional volume equal to 20 percent of the water quality volume shall be incorporated into the BMP design for sediment storage.
- The size of structural post-construction practices used to capture and treat the water quality volume can be reduced by incorporating runoff reducing practices into the design of the sites drainage system, including impervious surface.
- See Construction Stormwater Management section for information on temporary construction conditions.

Methodology

Existing and proposed conditions are modeled in HydroCAD software. HydroCAD is a widely accepted hydrologic and hydraulic modeling package based on TR-20 unit hydrograph equations. It models stormwater runoff discharge rates and velocities from ponds, culverts, outlet control structures, and stream reaches.

Hydrology

Curve Number Methodology, based on the NRCS-TR 55 method, was used in the modeling for predicting direct runoff. Curve numbers were assigned by reviewing the soil and landcover for each drainage area.

Time of concentrations were calculated for each drainage area in HydroCAD using the lag method. The lag method uses the hydraulic length (distance traveled by a drop of water from the most distant part of the subcatchment to the outlet point) and the average land slope (average slope of entire watershed). The overall curve number for the site along with the lag information is used to get the time of concentration for the site.

Atlas 14 precipitation and distribution data for the 10-year, and 100-year 24-hour storm events were used as input for the analysis (Appendix A).

Existing Conditions

The existing site primarily consists of agricultural row crops with limited woodlots occurring in some areas. Cover for the analysis was determined using the USDA 2013 Crop Data Layer and aerial photos. Curve numbers were assigned based on the landcover and soil types, see table below for summary.

TABLE 2: EXISTING CONDITIONS COVER

Hydrologic Soil Group	Landcover & Curve Number	
	Row Crops	Woods
D*	89	77

*Soils belonging to HSG B/D and C/D were modeled as HSG D.

Proposed Conditions

The use of the site will be a solar farm with a substation pad, switchyard, O&M, and associated access roads/equipment. The site will consist of approximately 580 acres of solar modules mounted above grade on a racking system and 30 acres of gravel access roads and electrical equipment/impervious pads. Minimal grading is proposed below the array and existing drainage patterns will be maintained (Exhibit 6). The proposed site will consist of meadow grass, gravel access roads, equipment pads, and the solar array. See the table below for a summary of proposed condition curve numbers.

TABLE 3: PROPOSED CONDITIONS COVER

Hydrologic Soil Group	Landcover & Curve Number		
	Meadow Conditions	Gravel Access Road	Impervious
D*	78	96	98

*Soils belonging to HSG B/D C/D were modeled as HSG D.

Proposed Stormwater Management

Solar panel and impervious surface disconnection will be sufficient to treat stormwater runoff in these areas through a low impact development (LID) approach, which will reduce the runoff volumes and rates from pre-development conditions. The proposed management will consist of a vegetative filter under the proposed panels and throughout the site.

The proposed site layout has minimized the proposed impervious surfaces and will consist of solar panels, gravel roads and other electrical equipment. Solar panels have a unique runoff characteristic, not like buildings or roads, but a fully-disconnected impervious surface. The runoff generated from the solar panels will flow to the edge of the panels and be allowed to drip onto the pervious surface below.

All areas below the panels will be seeded with a vegetated filter consisting of a low-maintenance grass seed mix, which will be selected in consultation with local agricultural authorities. This vegetated filter acts as a permanent BMP and allows for runoff, sediment, and other pollutants to be infiltrated or captured by the vegetation.

A majority of the site contains soils of HSGs C/D and D, which would normally require a larger spacing ratio than panels on soils of HSG A and B. However, it has been confirmed with the EPA that heavy tilling is considered restoration. Therefore, heavy tilling will be used in areas containing soils HSG C and C/D in order to functionally restore soils and maintain 1:1 spacing for solar panels in these areas.

Drainage area 5 contains a moderate amount of added impervious surface in proposed conditions due to the addition of a switchyard. However, runoff from drainage area 5 flows through a gas line easement and back onsite into drainage area 9, allowing runoff from this switchyard to be treated through disconnection. A grass filtration trench may be constructed downstream of the switchyard in drainage area 5 in order to allow runoff to infiltrate and overtop the trench, flowing through the easement and into drainage area 9 when the filtration trench is full during larger storm events.

All areas onsite are able to be treated by disconnection and runoff reduction via sheet flow over vegetated filter, which is proposed in post-construction conditions. The need for retention basins and treatment trains were evaluated and deemed unnecessary due to the disconnection of impervious surfaces and reduction in runoff and runoff volume through the conversion from row crop to meadow.

Water Quantity/Runoff Analysis

The site is split into 29 drainage areas based on varying discharge points to analyze peak discharge rates and runoff volumes. The site discharges in all directions. HydroCAD modeling software was used to complete the hydraulic modeling of the onsite flow conditions within the fenced area. Tables 4 and 5 show a summary of the runoff rates and volumes for each event at the site discharge locations. Calculations are included in Appendices B and C.

TABLE 4: RUNOFF RATE SUMMARY

Drainage Area	Total Area (ac)	10-year Storm			100-year Storm		
		Existing Runoff (cfs)	Proposed Runoff (cfs)	% Runoff Reduction from Existing to Proposed Conditions	Existing Runoff (cfs)	Proposed Runoff (cfs)	% Runoff Reduction from Existing to Proposed Conditions
1	27.12	49.20	26.54	46	80.54	51.65	36
2	17.86	19.17	10.27	46	32.46	20.37	37
3	17.06	32.69	19.23	41	53.40	36.62	31
4	18.03	30.12	17.54	42	49.55	33.56	32
5	13.37	42.82	34.34	20	68.07	58.34	14
6	8.67	18.93	9.65	49	30.74	19.00	38
7	63.30	67.42	33.58	50	112.96	67.04	41
8	6.34	19.59	10.18	48	31.18	19.76	37
9	29.88	58.93	29.97	49	95.48	58.96	38
10	22.84	29.93	14.84	50	49.36	29.60	40
11	38.72	93.60	48.31	48	150.27	94.40	37
12	11.32	21.26	11.62	45	34.39	22.40	35
13	8.76	26.04	14.37	45	41.79	27.51	34
14	67.49	101.52	53.33	47	168.04	104.92	38
15	135.80	161.48	82.05	49	269.53	162.87	40
16	2.95	6.23	3.23	48	9.95	6.29	37

Drainage Area	Total Area (ac)	10-year Storm			100-year Storm		
		Existing Runoff (cfs)	Proposed Runoff (cfs)	% Runoff Reduction from Existing to Proposed Conditions	Existing Runoff (cfs)	Proposed Runoff (cfs)	% Runoff Reduction from Existing to Proposed Conditions
17	5.63	11.21	5.71	49	18.18	11.24	38
18	8.01	19.72	10.81	45	31.76	20.76	35
19	8.05	20.92	11.60	45	33.40	22.13	34
20	5.54	13.16	7.21	45	21.18	13.85	35
21	1.91	5.56	3.29	41	8.83	6.12	31
22	3.51	10.40	6.19	40	16.58	11.56	30
23	4.07	13.29	7.37	45	21.11	13.99	34
24	2.26	10.18	6.13	40	15.96	11.25	30
25	8.61	14.47	8.29	43	23.84	15.91	33
26	7.94	17.21	9.39	45	27.95	18.14	35
27	5.75	11.81	6.43	46	19.23	12.44	35
28	17.66	27.88	14.90	47	46.06	29.17	37
29	28.57	26.06	12.05	54	43.85	24.43	44

TABLE 5: RUNOFF VOLUME SUMMARY

Drainage Area	Total Area (ac)	10-year Storm			100-year Storm		
		Existing Runoff Volume (ac-ft)	Proposed Runoff Volume (ac-ft)	% Runoff Volume Reduction from Existing to Proposed Conditions	Existing Runoff Volume (ac-ft)	Proposed Runoff Volume (ac-ft)	% Runoff Volume Reduction from Existing to Proposed Conditions
1	27.12	4.83	3.13	35	8.49	6.30	26
2	17.86	2.89	1.94	33	5.15	3.90	24
3	17.06	3.07	2.09	32	5.40	4.14	23
4	18.03	3.25	2.20	32	5.71	4.38	23
5	13.37	2.52	2.14	15	4.43	3.96	11

Drainage Area	Total Area (ac)	10-year Storm			100-year Storm		
		Existing Runoff Volume (ac-ft)	Proposed Runoff Volume (ac-ft)	% Runoff Volume Reduction from Existing to Proposed Conditions	Existing Runoff Volume (ac-ft)	Proposed Runoff Volume (ac-ft)	% Runoff Volume Reduction from Existing to Proposed Conditions
6	8.67	1.60	0.99	38	2.82	2.03	28
7	63.30	11.24	7.19	36	19.77	14.51	27
8	6.34	1.18	0.73	38	2.07	1.49	28
9	29.88	4.77	2.96	38	8.38	6.04	28
10	22.84	3.44	2.12	38	6.04	4.33	28
11	38.72	6.51	4.04	38	11.44	8.25	28
12	11.32	1.68	1.09	35	2.95	2.19	26
13	8.76	1.79	1.17	35	3.14	2.34	25
14	67.49	12.43	8.02	35	21.85	16.17	26
15	135.80	24.24	15.55	36	42.61	31.37	26
16	2.95	0.40	0.25	38	0.71	0.51	28
17	5.63	0.92	0.57	38	1.62	1.16	28
18	8.01	1.44	0.94	35	2.53	1.88	26
19	8.05	1.34	0.87	35	2.35	1.75	25
20	5.54	0.95	0.62	35	1.67	1.24	26
21	1.91	0.33	0.22	32	0.58	0.44	23
22	3.51	0.65	0.44	32	1.14	0.88	23
23	4.07	0.78	0.51	35	1.36	1.02	25
24	2.26	0.49	0.33	32	0.86	0.66	23
25	8.61	1.60	1.09	32	2.82	2.16	23
26	7.94	1.45	0.94	35	2.54	1.89	26
27	5.75	1.04	0.68	35	1.83	1.36	26
28	17.66	3.21	2.08	35	5.65	4.18	26
29	28.57	5.13	3.09	40	9.02	6.34	30

As shown in the tables above, the change in land cover from row crops and woods to meadow reduces runoff rates in most drainage areas by more than 40% and 30% for the 10-year storm and 100-year storm events, respectively. The runoff volume in most drainage areas is reduced by more than 30% and 20% for the 10-year storm and 100-year storm events, respectively.

Water Quality Analysis

The Ohio NPDES Permit instructs on finding the required water quality volume for areas onsite that may not be properly treated through surface disconnection and sheet flow over vegetated filter. The following equations can be used to calculate the water quality volume:

$Rv = 0.05 + 0.9i$ (Equation 1)

$WQv = Rv * P * A/12$ (Equation 2)

Where:

WQv = water quality volume in acre-feet

Rv = the volumetric flow runoff coefficient calculated using Equation 1

P = 0.9 inch precipitation depth

A = area draining into the BMP in acres

i = fraction of post-construction impervious surface

An additional volume equal to 20% of the water quality volume should be incorporated into the BMP for sediment storage, therefore any water quality volume value should be multiplied by 1.2 to obtain minimum storage requirements for these treatment BMPs.

Due to all areas onsite being treated through disconnection and runoff reduction, basins and treatment trains are not required for the current design. This water quality analysis section is included for future reference.

Construction Stormwater Management

A separate Construction Stormwater Pollution Prevention Plan (SWP3) should be prepared for the project. During construction conditions, higher runoff rates and volumes can be expected than the fully vegetated final condition. To account for this, dewatering should be anticipated as needed until vegetation has fully established on the site. This may include pumping of temporary swales and diversions. Using temporary seed/mulch at the onset of construction can greatly reduce the amount of erosion and re-grading/basin cleanout on solar sites.

In accordance with the Ohio EPA General Permit Authorization for Storm Water Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System, temporary sedimentation basins are required where more than 10 acres of disturbed/contributing area leaves the site at a concentrated point. Storage within the basin must be provided for 1,800 cf/acre of disturbed/contributing area for dewatering area and 1,000 cf/acre of disturbed/contributing area for sediment storage zone. A maximum drawdown time of 48 hours is required for the dewatering volume.

The separate SWP3 will be provided at a later date, however some temporary erosion and sediment control Best Management Practices (BMPs) are included in Appendix E for reference only.

Conclusion

By improving the landcover for a majority of the site, the runoff requirements are met by decreasing both discharge rate and volume. The proposed project discharges in a manner similar to the existing flow pattern in all modeled storm events and does not alter drainage patterns.

If changes to the proposed design are made, the analysis should be reviewed to ensure that all assumptions are still valid. Based on experience on other similar projects, the overall site is suitable for the planned development.

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National Engineering Handbook, Part 630 Hydrology. Chapter 9 Hydrologic Soil-Cover Complexes. USDA. NRCS. 210-VI-NEH, July 2004

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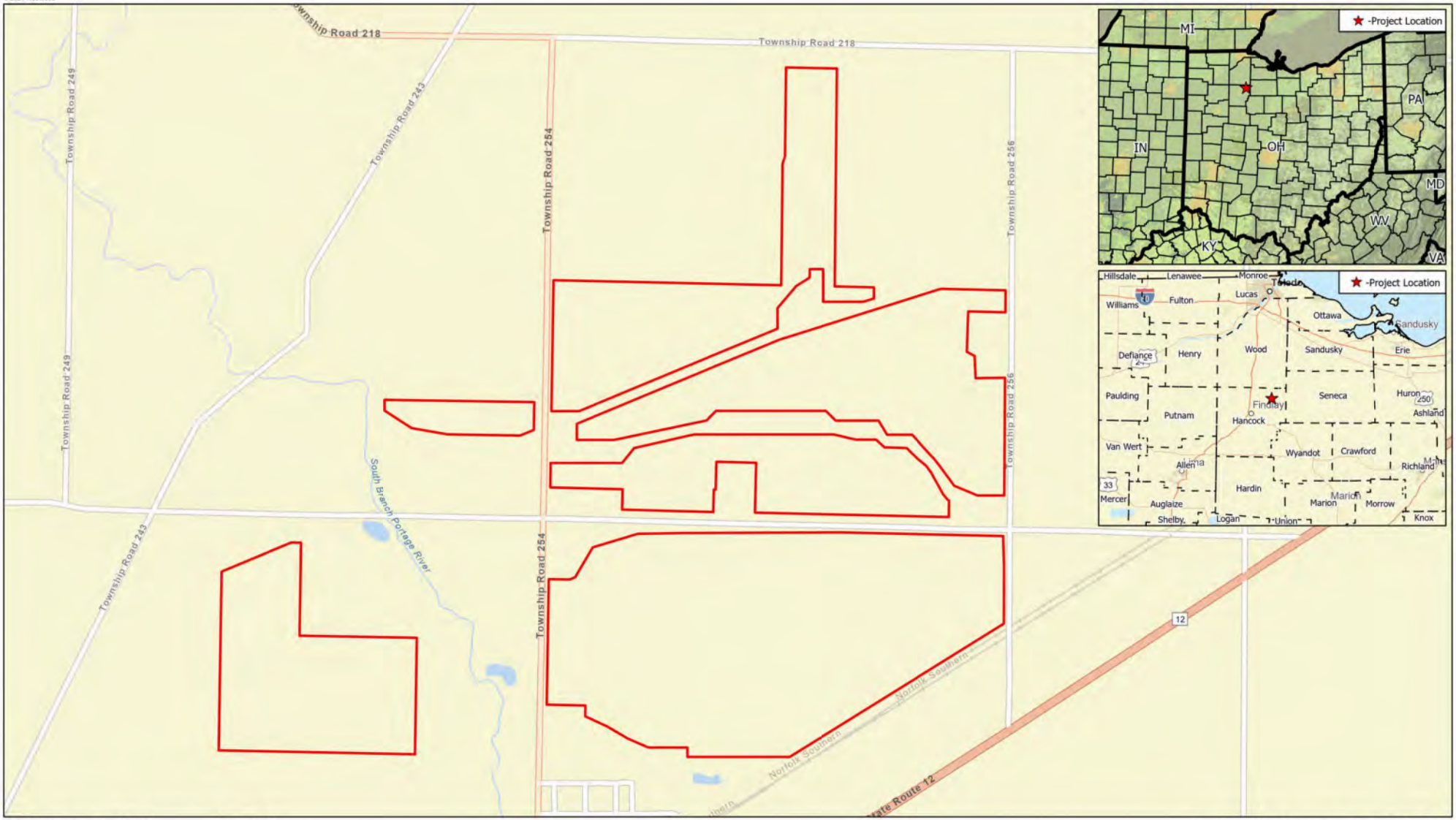
Exhibits



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Westwood

Toll Free (888) 937-5150 westwoodps.com

Legend

- Project Fenceline
- County Boundary

N

0 1,000 Feet

South Branch Solar

Hancock County, Ohio

Exhibit 1: Location Map

December 6, 2021

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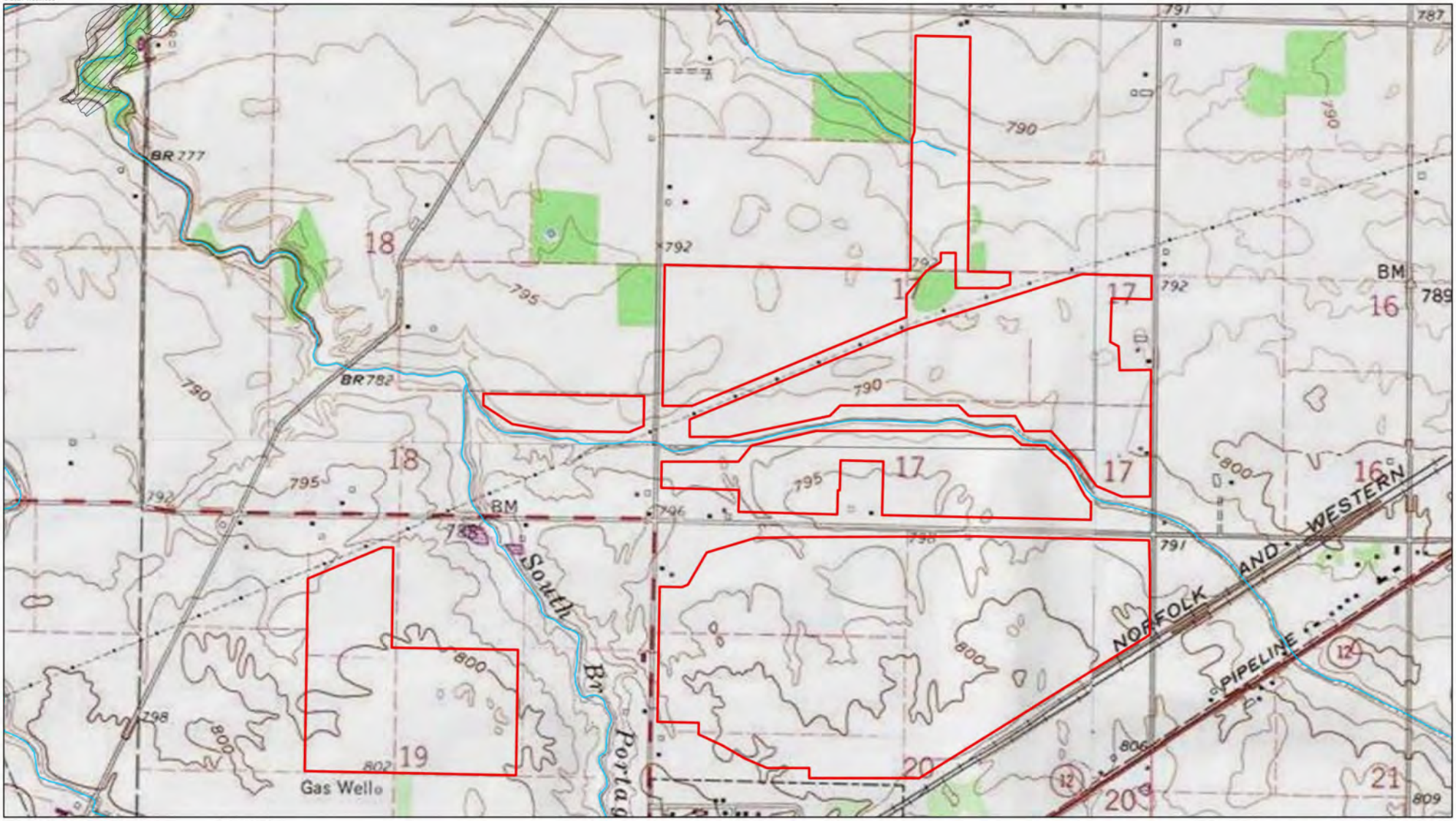
Location Map | Location Map | 12/6/2021 1:26 PM | GAPetersen



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- NHD Flowline
- FEMA Zone A
- County Boundary
- HUC-12 Boundary

N

0 1,000 Feet

South Branch Solar

Hancock County, Ohio

Exhibit 2: Base Map

December 6, 2021

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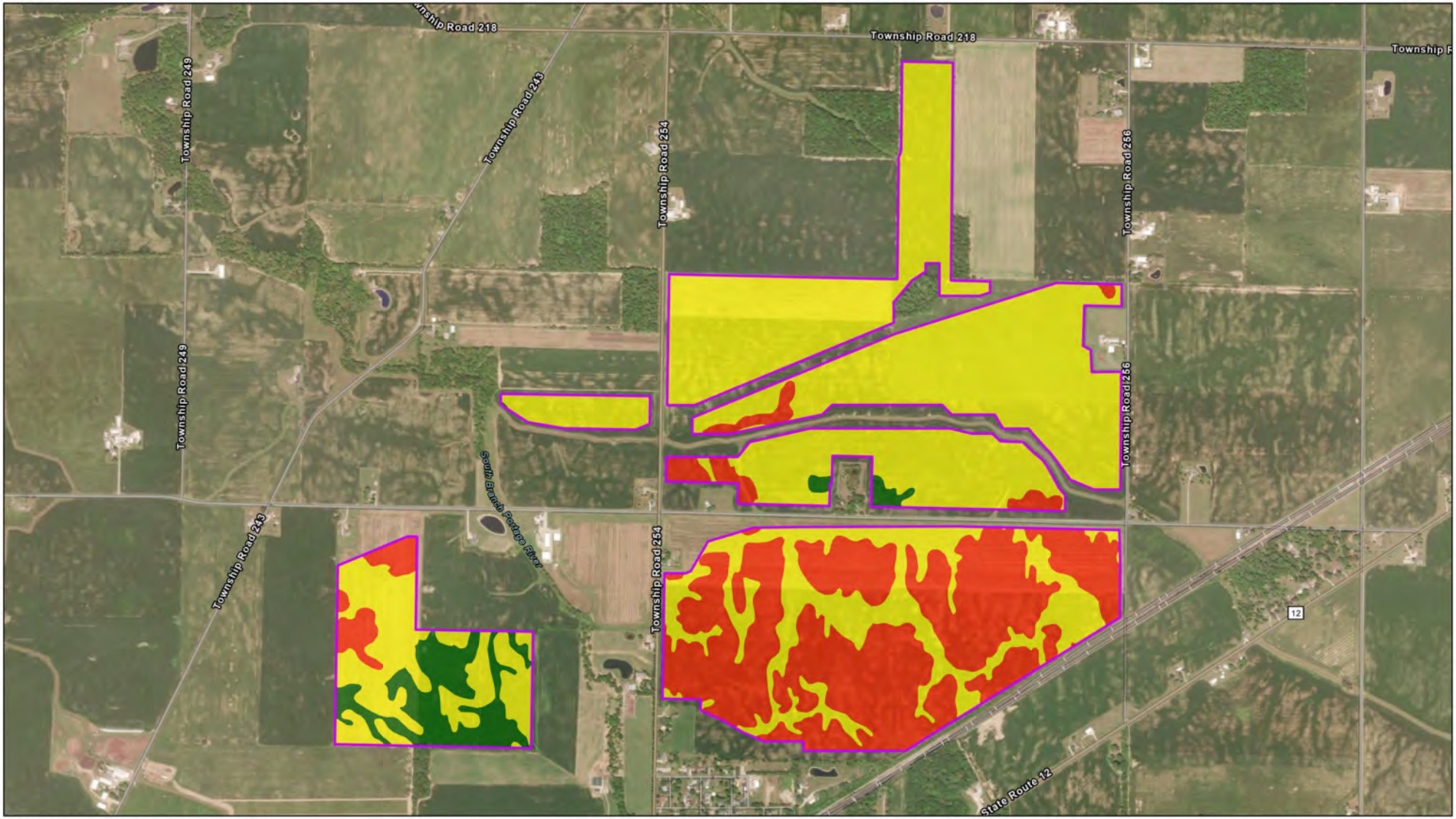
N:\0031\166.00_GIS_Working\Hydro Exhibits\SWMP\South Branch Solar.aprx
Base Map - Base Map | 12/6/2021 12:51 PM | USA\Hancock



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- County Boundary

Hydrologic Soil Group

- B/D
- C/D
- D

N

0 1,000 Feet

South Branch Solar

Hancock County, Ohio

Exhibit 3: Soils Map

December 6, 2021

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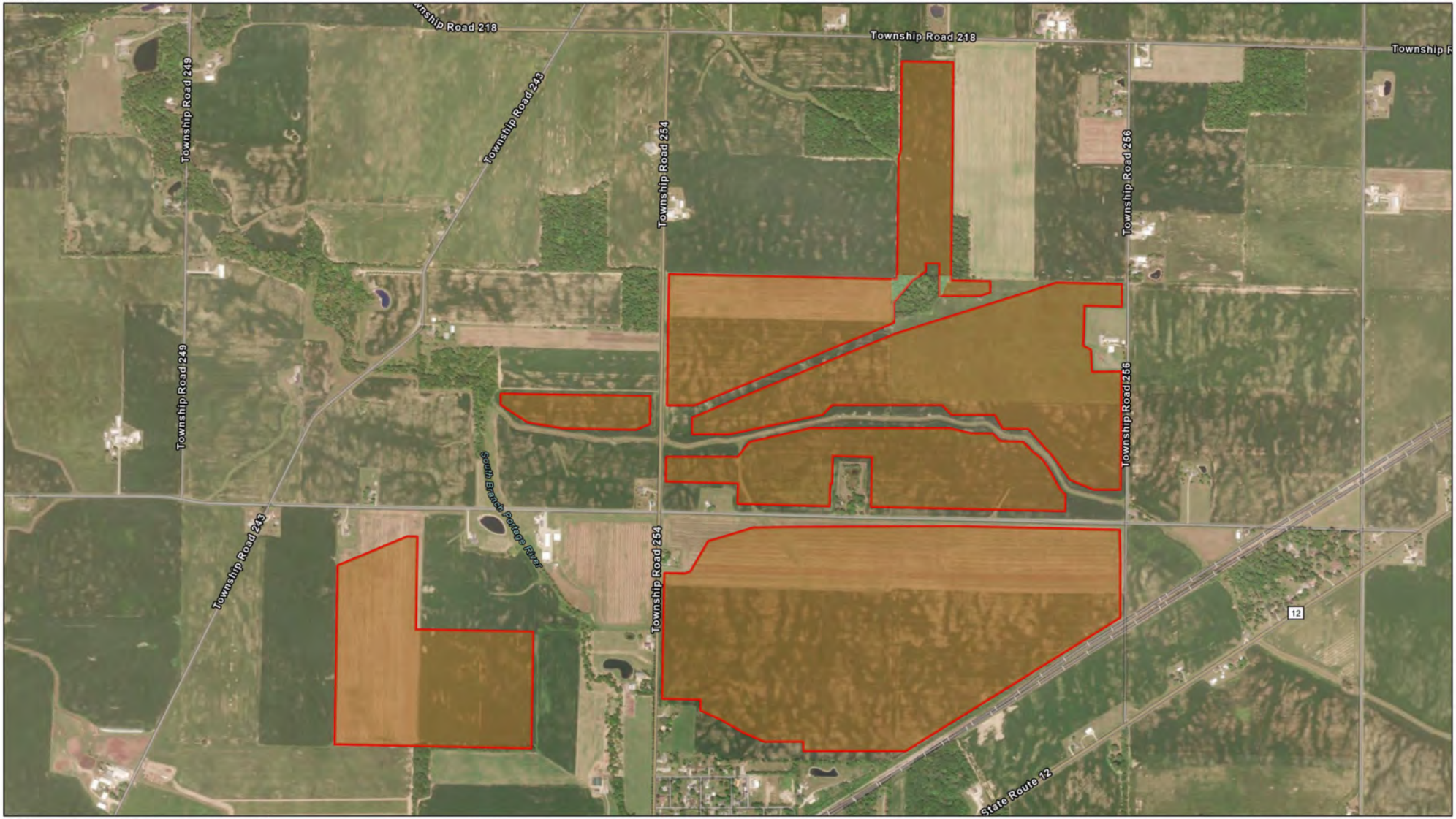
Site Map - Soils Map | 12/6/2021 1:21 PM | GAPlemmons



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- County Boundary

Landcover

- Row Crops
- Forest

N

0 1,000 Feet

South Branch Solar

Hancock County, Ohio

Exhibit 4: Landcover Map

December 6, 2021

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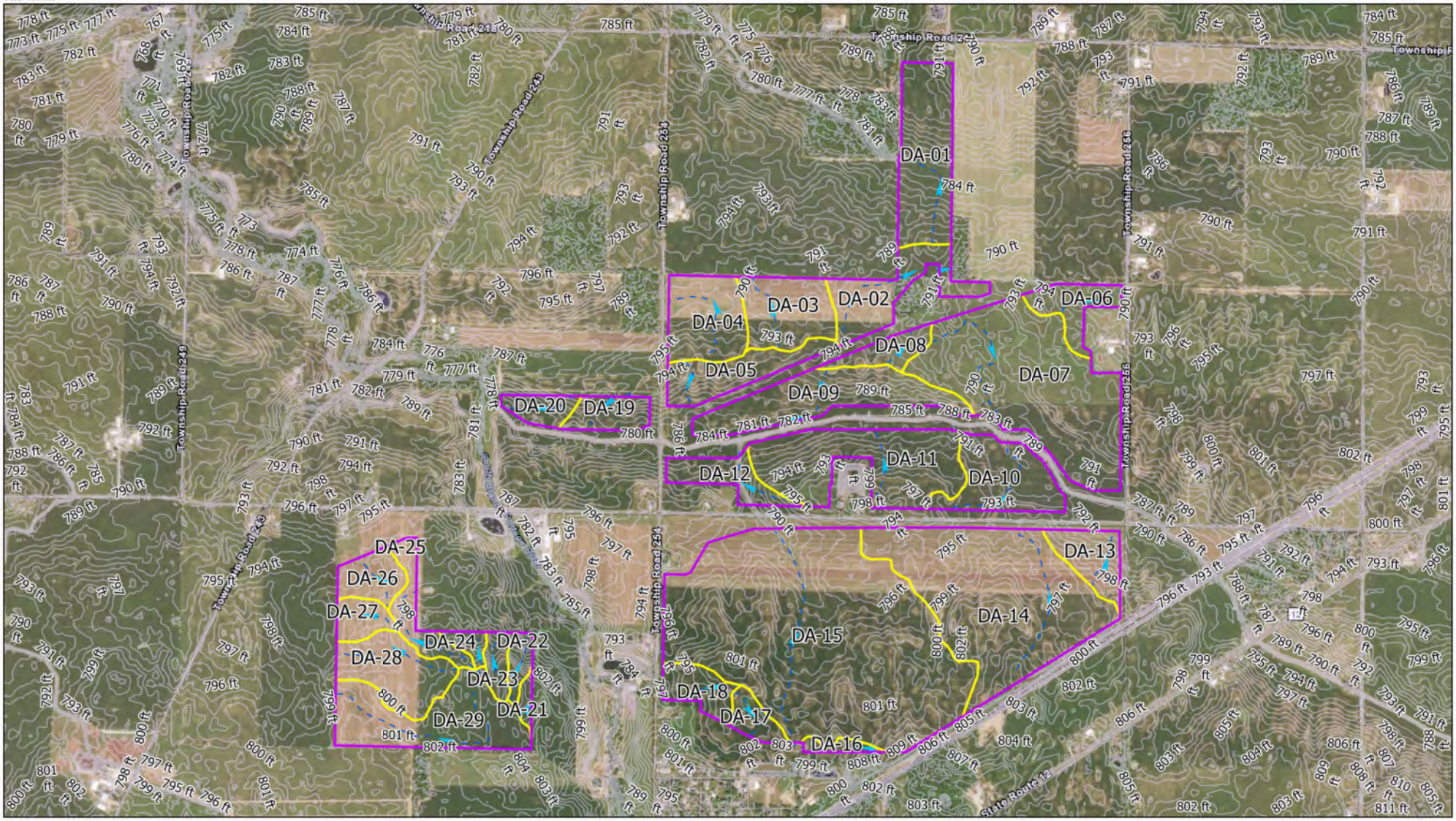
Landcover - Landcover | 12/3/2021 12:52 PM | CAPetersen



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Existing Drainage Area
- Onsite Flowpath
- 1-foot Contours

N

0 1,000 Feet

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South Branch Solar

Hancock County, Ohio

Exhibit 5: Drainage Map-Existing

December 6, 2021

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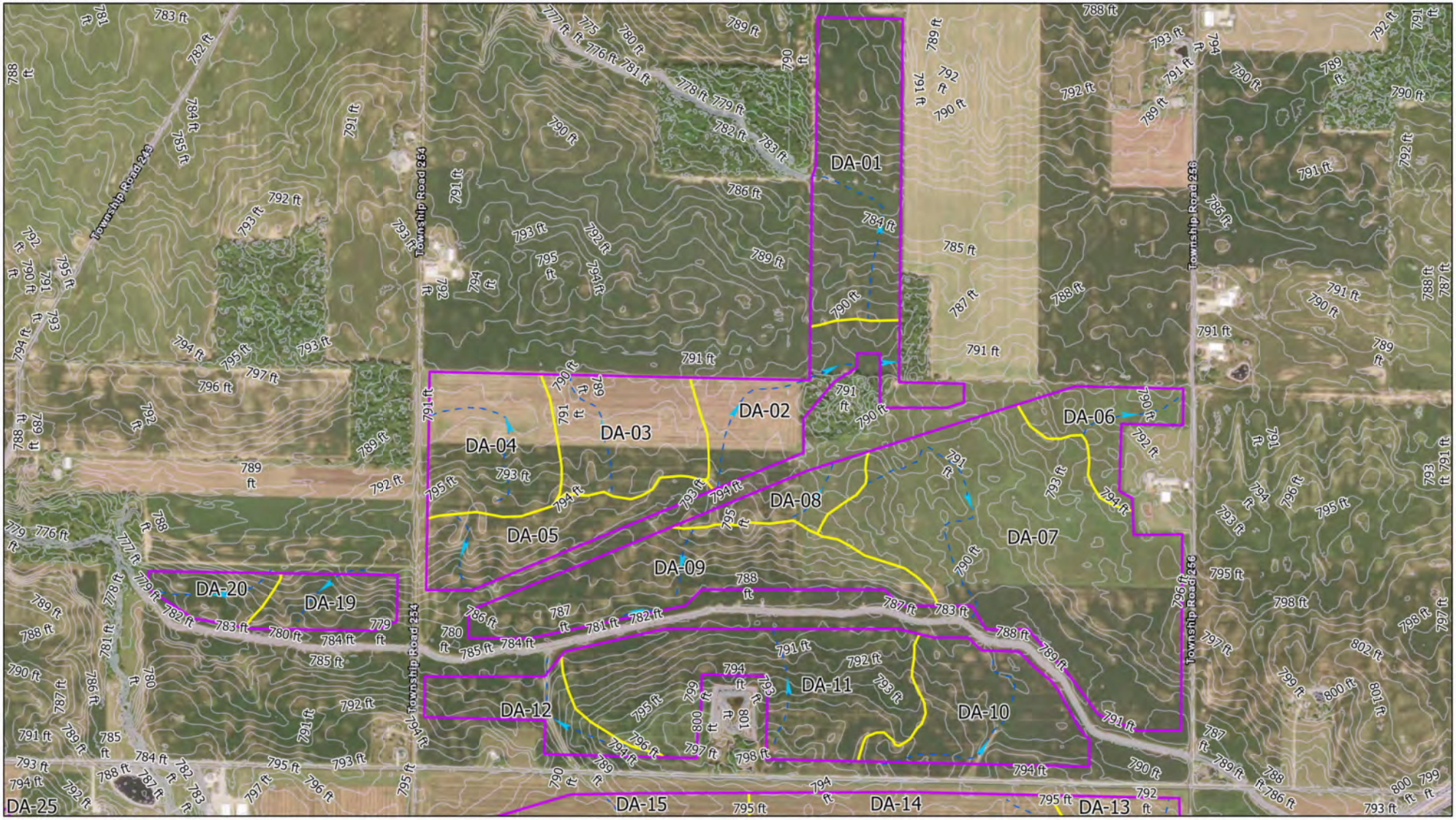

Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Existing Drainage Area
- Onsite Flowpath
- 1-foot Contours

N

0 600 Feet

Westwood

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South Branch Solar

Hancock County, Ohio

Exhibit 5A: Drainage Map-Existing

December 6, 2021

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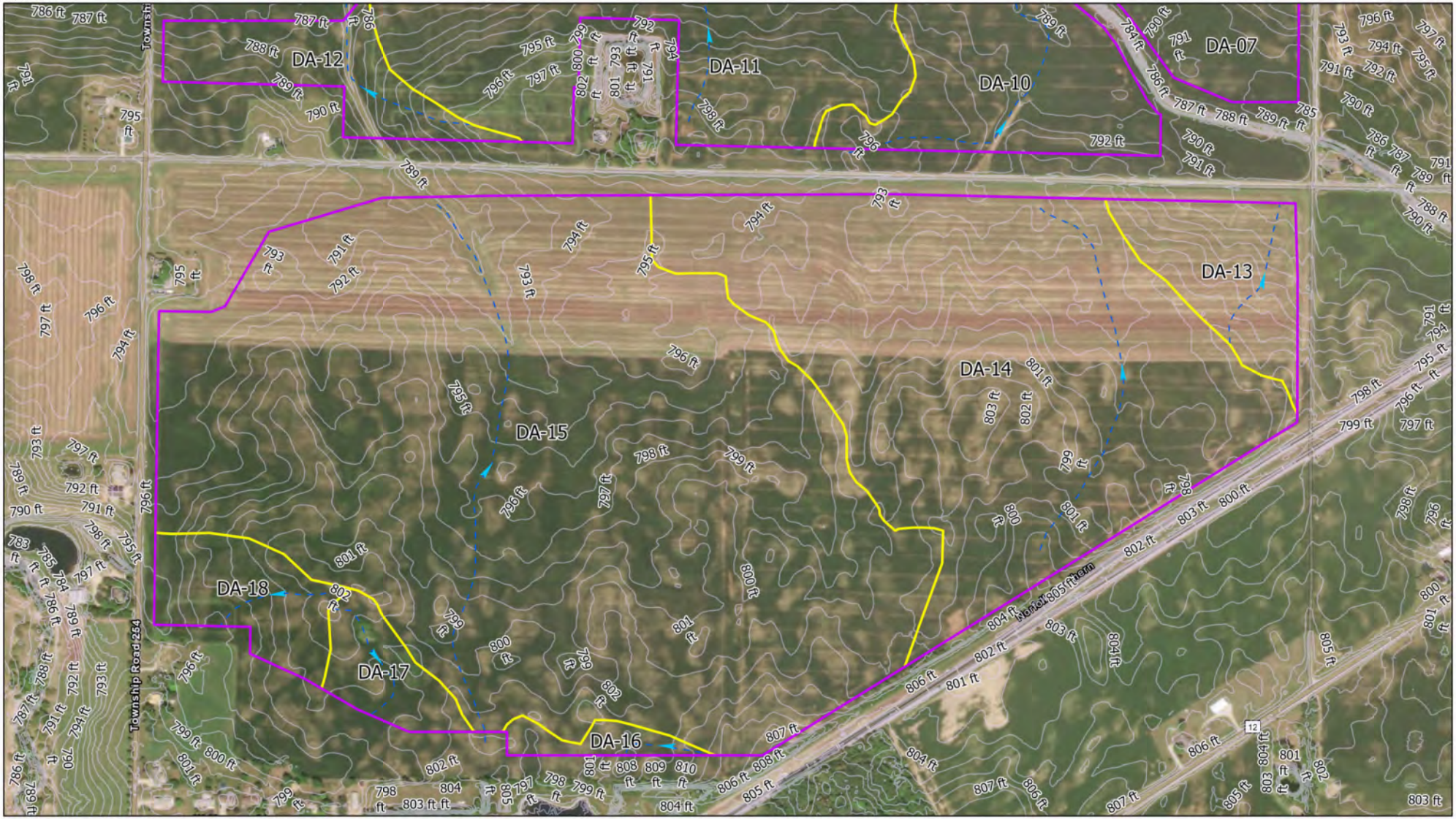

Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Existing Drainage Area
- Onsite Flowpath
- 1-foot Contours

N

0 400 Feet

Westwood

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South Branch Solar

Hancock County, Ohio

Exhibit 5B: Drainage Map-Existing

December 6, 2021

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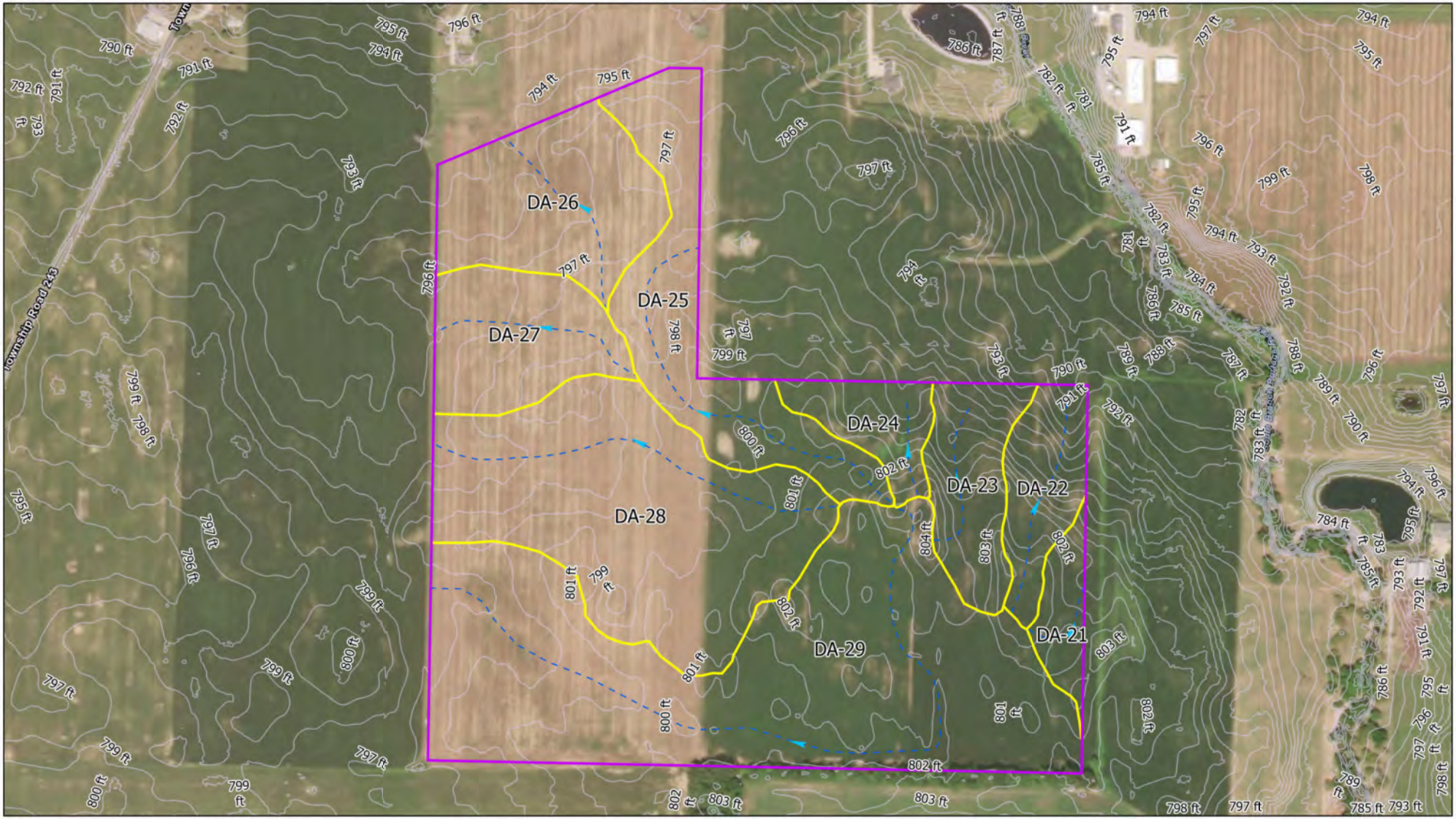

Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Existing Drainage Area
- Onsite Flowpath
- 1-foot Contours

N

0 300 Feet

Westwood

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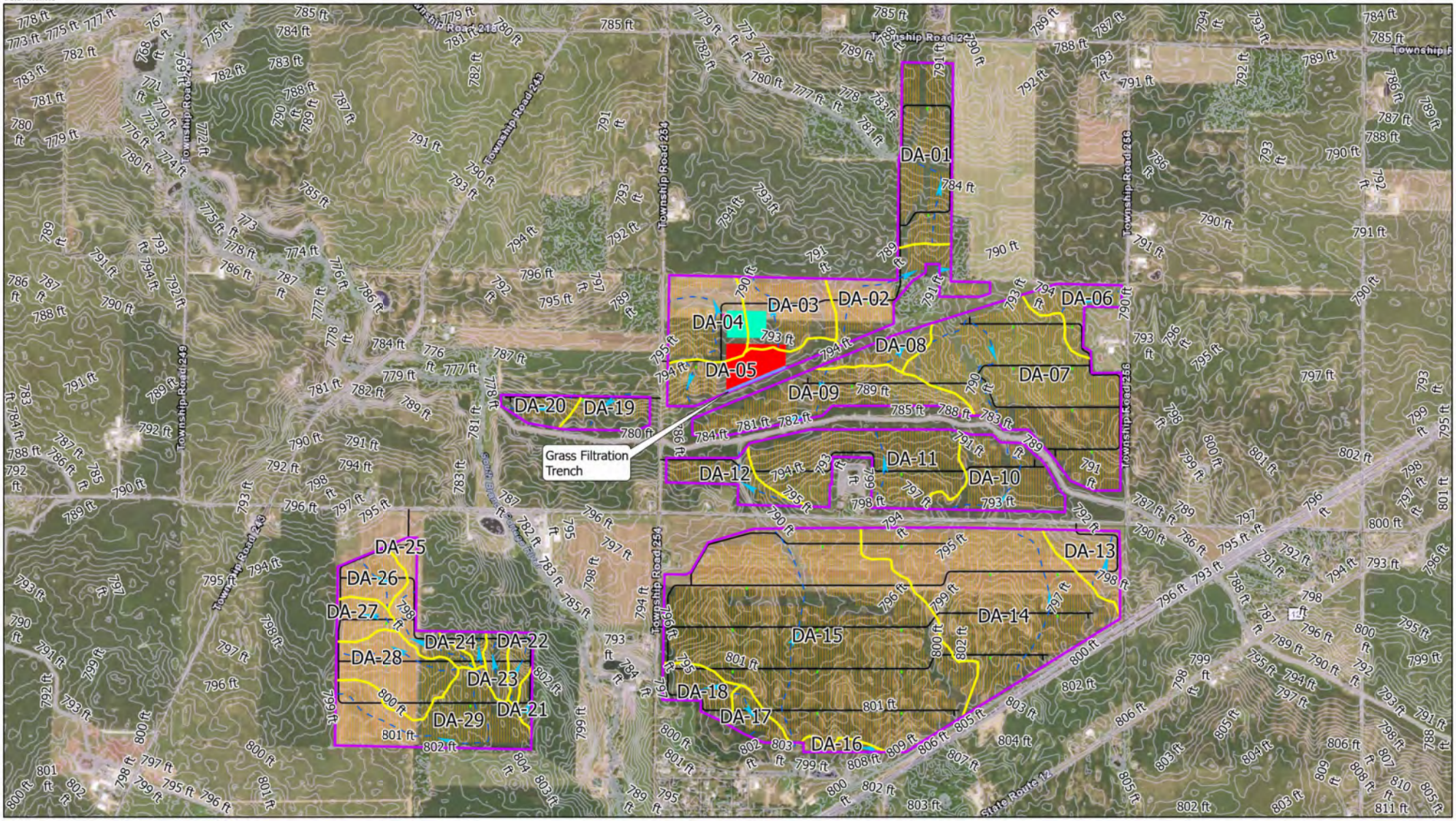
South Branch Solar

Hancock County, Ohio

Exhibit 5C: Drainage Map-Existing

December 6, 2021

N:\0003\1696.00_GIS_Working\Hydro Exhibits\SWMP\South Branch Solar.aprx
Existing Drainage Map2 - Existing Drainage Map1 12/06/2021 12:36 PM LGADeLeuwer



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Proposed Drainage Area
- Onsite Flowpath
- Access Roads
- Inverters
- Solar Array
- O&M
- Substation
- Switchyard
- Grass Filtration Trench
- 1-foot Contours

N

0 1,000 Feet

Westwood

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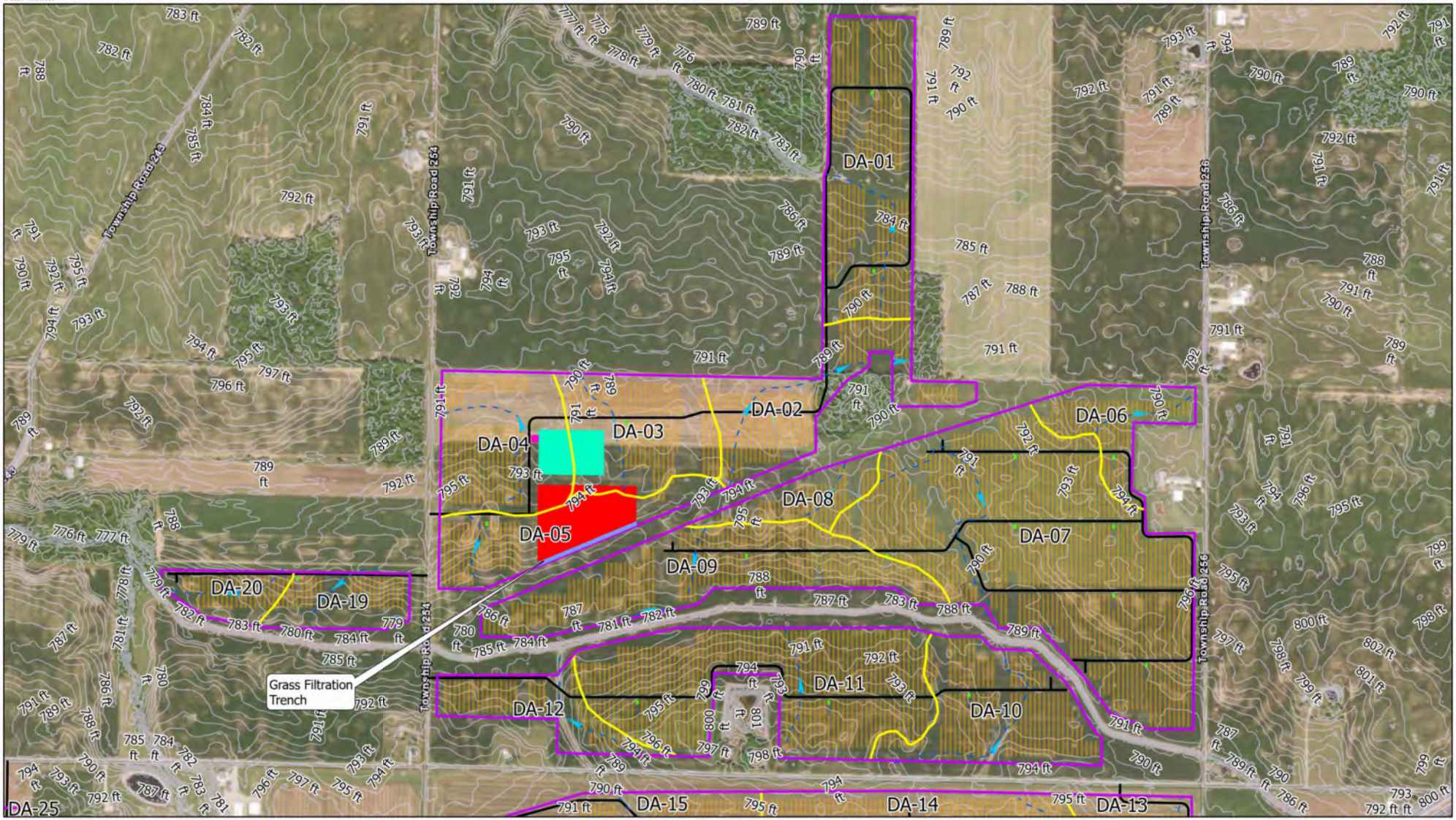
South Branch Solar

Hancock County, Ohio

Exhibit 6: Drainage Map-Proposed

December 6, 2021

N:\0003\1696.00_OSI_Working\Hydro Exhibits\SWMP\South Branch Solar.aprx
Proposed Drainage Map - Proposed Drainage Map | 12/6/2021 | 12:59 PM | (Cathcart)



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Proposed Drainage Area
- Onsite Flowpath
- Access Roads
- Inverters
- Solar Array
- O&M
- Substation
- Switchyard
- Grass Filtration Trench
- 1-foot Contours

N

0 600 Feet

Westwood

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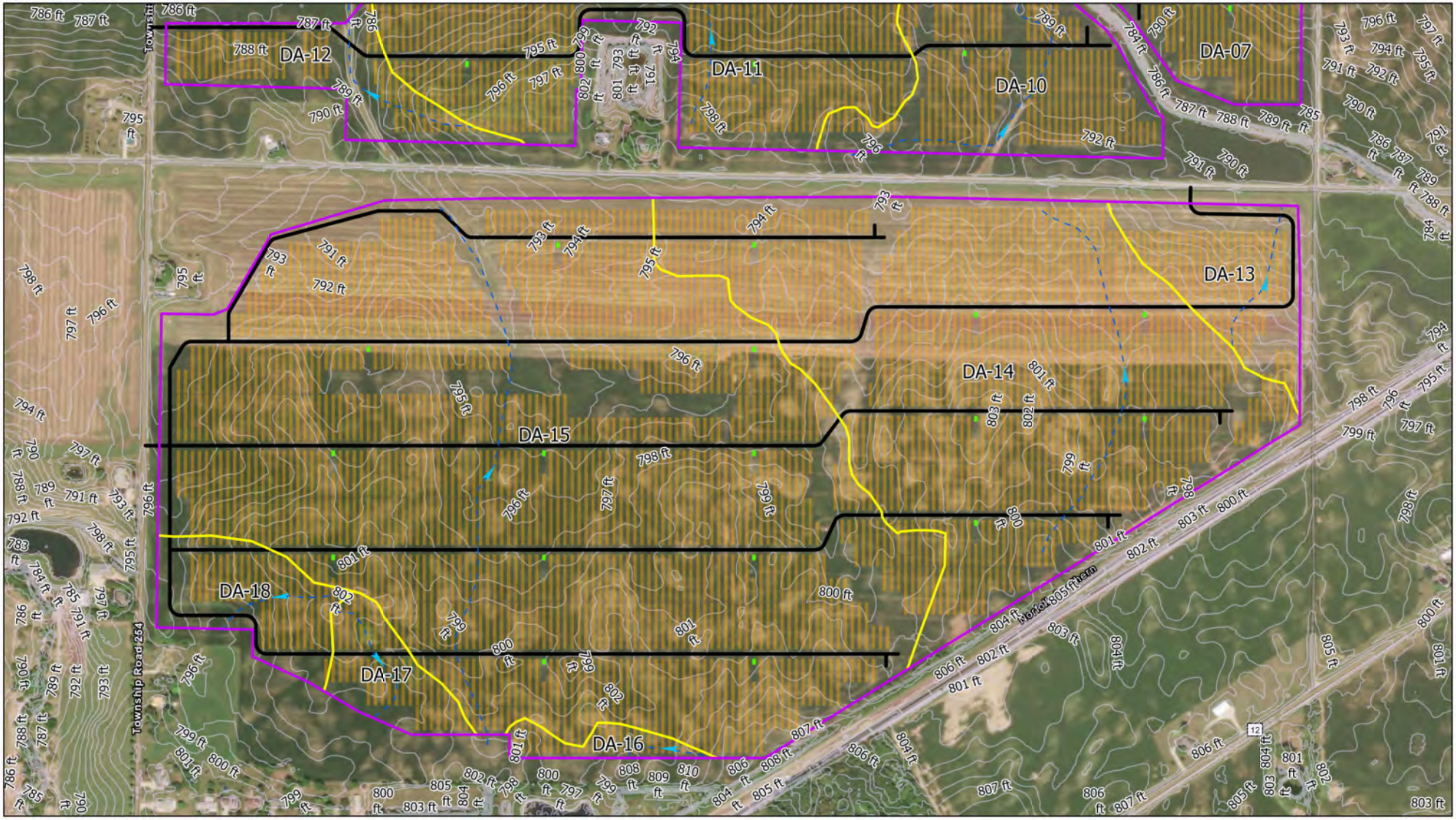
South Branch Solar

Hancock County, Ohio

Exhibit 6A: Drainage Map-Proposed

December 6, 2021

N:\0003\1696.00_GIS_Working\Hydro Exhibits\SWMP\South Branch Solar.aprx
Proposed Drainage Maps | Proposed Drainage Map | 12/3/2021 1:05 PM | Gabriel.Jones



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Proposed Drainage Area
- Onsite Flowpath
- Access Roads
- Inverters
- Solar Array
- O&M
- Substation
- Switchyard
- 1-foot Contours

N

0 400 Feet

Westwood

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South Branch Solar

Hancock County, Ohio

Exhibit 6B: Drainage Map-Proposed

December 6, 2021

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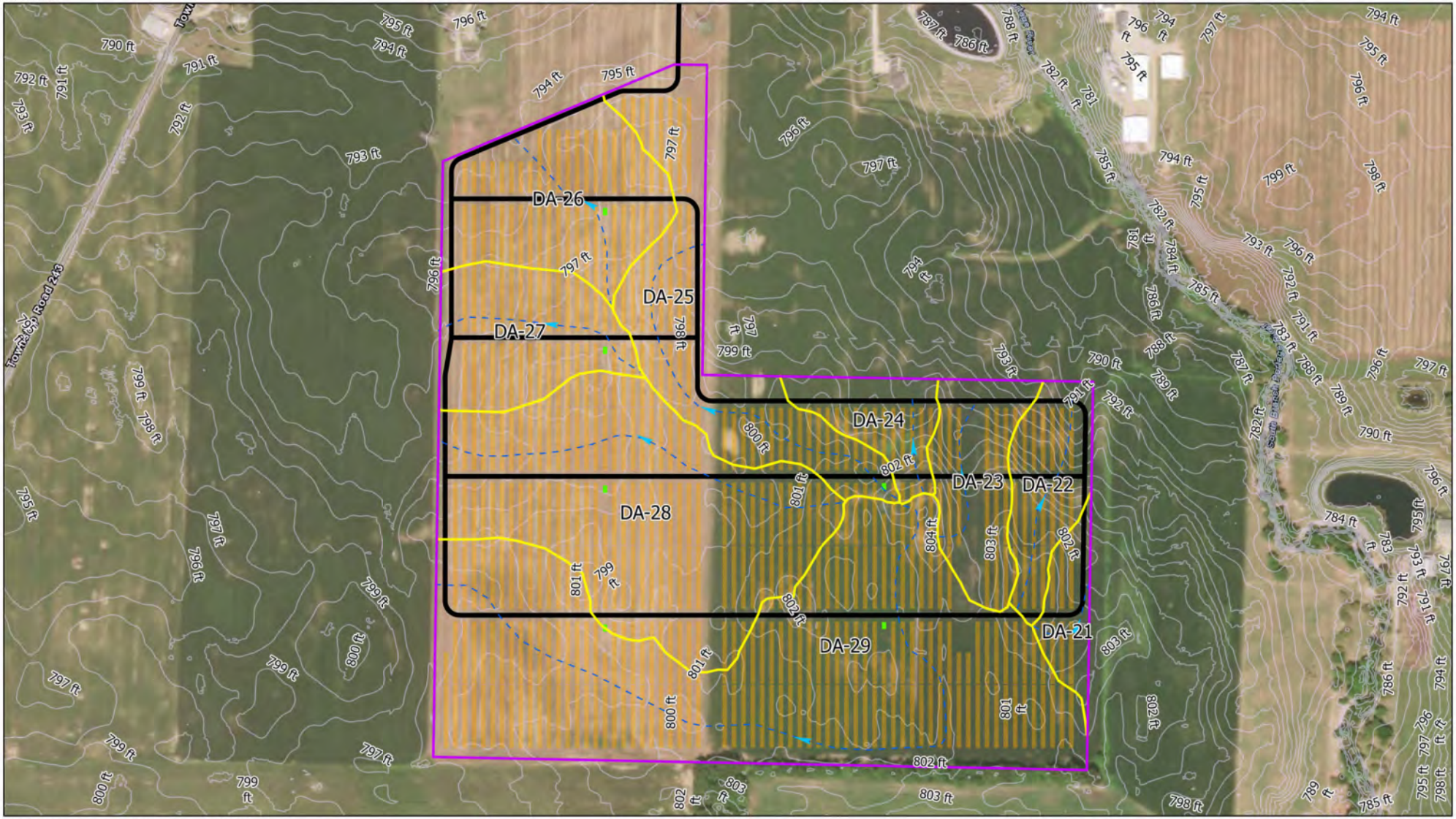
Proposed Drainage Maps - Proposed Drainage Map | 12/3/2021 1:01 PM | GAPetersen



Data Source(s): Westwood (2021); Esri WMS Basemap Imagery (Accessed 2021); USGS (2021); FEMA (2021); USDA (2021)

Legend

- Project Fenceline
- Proposed Drainage Area
- Onsite Flowpath
- Access Roads
- Inverters
- Solar Array
- O&M
- Substation
- Switchyard
- 1-foot Contours

N

0 300 Feet

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South Branch Solar

Hancock County, Ohio

Exhibit 6C: Drainage Map-Proposed

December 6, 2021

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Proposed Drainage Map6 - Proposed Drainage Map | 12/6/2021 1:03 PM | GAlbrecht

Appendix A

Atlas 14 Rainfall Data

NOAA Atlas 14, Volume 2, Version 3
Location name: Arcadia, Ohio, USA*
Latitude: 41.1251°, Longitude: -83.5125°
Elevation: 786.7 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.337 (0.303-0.374)	0.400 (0.360-0.445)	0.479 (0.431-0.532)	0.543 (0.486-0.602)	0.623 (0.556-0.690)	0.686 (0.609-0.758)	0.748 (0.660-0.826)	0.812 (0.712-0.895)	0.898 (0.780-0.993)	0.961 (0.828-1.07)
10-min	0.523 (0.471-0.582)	0.625 (0.562-0.694)	0.745 (0.669-0.827)	0.838 (0.750-0.929)	0.953 (0.850-1.06)	1.04 (0.923-1.15)	1.13 (0.994-1.24)	1.21 (1.06-1.34)	1.32 (1.15-1.46)	1.40 (1.21-1.55)
15-min	0.641 (0.578-0.713)	0.764 (0.687-0.849)	0.915 (0.822-1.02)	1.03 (0.923-1.14)	1.18 (1.05-1.30)	1.29 (1.14-1.42)	1.40 (1.23-1.54)	1.51 (1.32-1.66)	1.65 (1.43-1.82)	1.75 (1.51-1.94)
30-min	0.848 (0.764-0.943)	1.02 (0.919-1.14)	1.25 (1.13-1.39)	1.43 (1.28-1.59)	1.66 (1.48-1.84)	1.84 (1.63-2.03)	2.02 (1.78-2.23)	2.20 (1.93-2.42)	2.44 (2.12-2.70)	2.62 (2.26-2.91)
60-min	1.04 (0.933-1.15)	1.25 (1.13-1.39)	1.57 (1.41-1.75)	1.82 (1.63-2.02)	2.16 (1.92-2.39)	2.42 (2.15-2.68)	2.70 (2.38-2.98)	2.98 (2.62-3.29)	3.38 (2.93-3.73)	3.68 (3.17-4.08)
2-hr	1.21 (1.10-1.34)	1.46 (1.33-1.63)	1.84 (1.67-2.04)	2.15 (1.94-2.38)	2.58 (2.31-2.85)	2.92 (2.61-3.22)	3.29 (2.92-3.63)	3.67 (3.23-4.06)	4.22 (3.67-4.67)	4.66 (4.01-5.16)
3-hr	1.28 (1.17-1.42)	1.55 (1.41-1.71)	1.95 (1.77-2.15)	2.27 (2.06-2.50)	2.73 (2.46-3.00)	3.11 (2.77-3.40)	3.51 (3.11-3.85)	3.93 (3.45-4.31)	4.53 (3.93-4.97)	5.01 (4.30-5.51)
6-hr	1.50 (1.37-1.65)	1.80 (1.65-1.98)	2.26 (2.06-2.48)	2.64 (2.39-2.89)	3.19 (2.87-3.48)	3.65 (3.27-3.98)	4.14 (3.68-4.52)	4.68 (4.12-5.11)	5.47 (4.72-5.97)	6.11 (5.22-6.70)
12-hr	1.73 (1.59-1.90)	2.08 (1.90-2.28)	2.59 (2.37-2.84)	3.02 (2.75-3.31)	3.65 (3.30-3.97)	4.17 (3.74-4.53)	4.74 (4.22-5.15)	5.36 (4.73-5.83)	6.27 (5.43-6.82)	7.01 (6.00-7.65)
24-hr	2.02 (1.87-2.18)	2.42 (2.25-2.62)	3.00 (2.79-3.24)	3.48 (3.22-3.76)	4.17 (3.84-4.50)	4.74 (4.34-5.12)	5.34 (4.85-5.79)	5.99 (5.39-6.50)	6.91 (6.14-7.55)	7.67 (6.73-8.43)
2-day	2.35 (2.20-2.51)	2.81 (2.63-3.01)	3.46 (3.23-3.70)	3.98 (3.72-4.26)	4.74 (4.40-5.07)	5.36 (4.94-5.74)	6.01 (5.51-6.47)	6.71 (6.09-7.24)	7.69 (6.88-8.37)	8.49 (7.52-9.29)
3-day	2.52 (2.37-2.69)	3.01 (2.83-3.22)	3.69 (3.46-3.94)	4.25 (3.97-4.53)	5.03 (4.68-5.37)	5.67 (5.25-6.08)	6.35 (5.82-6.83)	7.06 (6.42-7.63)	8.07 (7.24-8.80)	8.89 (7.88-9.77)
4-day	2.70 (2.54-2.88)	3.22 (3.04-3.43)	3.93 (3.69-4.18)	4.51 (4.22-4.80)	5.32 (4.96-5.68)	5.98 (5.55-6.41)	6.68 (6.14-7.19)	7.42 (6.76-8.03)	8.45 (7.60-9.24)	9.29 (8.24-10.2)
7-day	3.18 (3.00-3.38)	3.79 (3.57-4.01)	4.58 (4.31-4.85)	5.22 (4.91-5.54)	6.12 (5.72-6.51)	6.84 (6.36-7.30)	7.60 (7.01-8.14)	8.38 (7.67-9.03)	9.48 (8.56-10.3)	10.4 (9.24-11.4)
10-day	3.63 (3.44-3.85)	4.31 (4.08-4.56)	5.15 (4.87-5.44)	5.82 (5.49-6.16)	6.75 (6.35-7.16)	7.50 (7.01-7.96)	8.26 (7.67-8.81)	9.04 (8.34-9.68)	10.1 (9.23-10.9)	11.0 (9.93-11.9)
20-day	4.99 (4.75-5.25)	5.88 (5.59-6.19)	6.89 (6.55-7.26)	7.69 (7.31-8.10)	8.77 (8.31-9.24)	9.61 (9.07-10.1)	10.4 (9.81-11.0)	11.3 (10.5-12.0)	12.4 (11.5-13.2)	13.2 (12.2-14.2)
30-day	6.20 (5.93-6.51)	7.29 (6.97-7.65)	8.45 (8.07-8.86)	9.34 (8.91-9.79)	10.5 (10.00-11.0)	11.4 (10.8-12.0)	12.3 (11.6-12.9)	13.1 (12.3-13.8)	14.2 (13.2-15.1)	14.9 (13.9-16.0)
45-day	7.96 (7.62-8.33)	9.34 (8.93-9.76)	10.7 (10.2-11.2)	11.7 (11.2-12.3)	13.1 (12.5-13.7)	14.0 (13.4-14.7)	15.0 (14.2-15.7)	15.9 (15.0-16.7)	17.0 (16.0-18.0)	17.8 (16.7-18.9)
60-day	9.63 (9.21-10.1)	11.3 (10.8-11.8)	12.8 (12.3-13.4)	14.0 (13.4-14.6)	15.5 (14.8-16.2)	16.6 (15.8-17.4)	17.6 (16.7-18.5)	18.6 (17.6-19.5)	19.8 (18.7-20.9)	20.7 (19.4-21.9)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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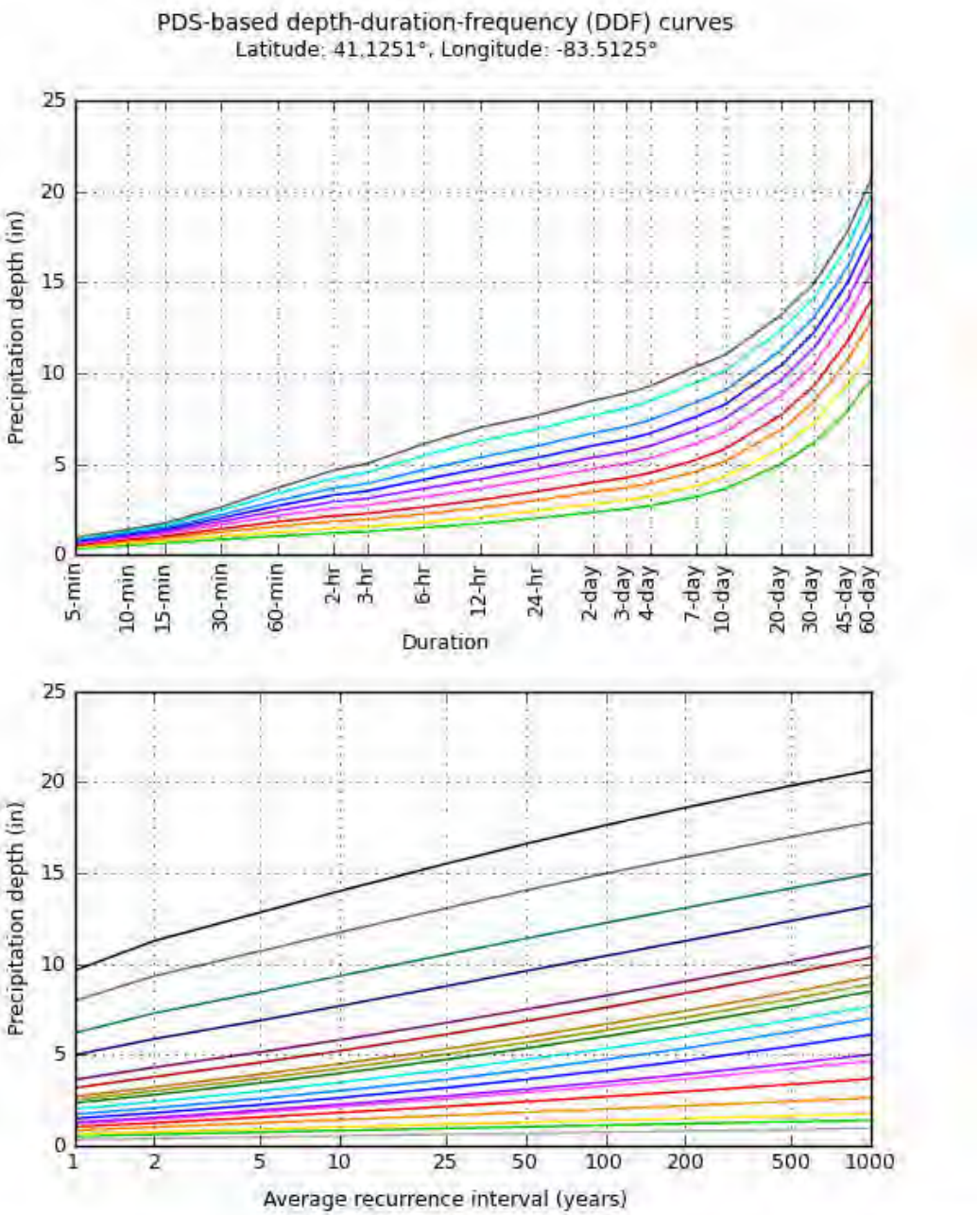
PF graphical



NOAA Atlas 14, Volume 2, Version 3

Created (GMT): Mon Apr 26 20:01:12 2021

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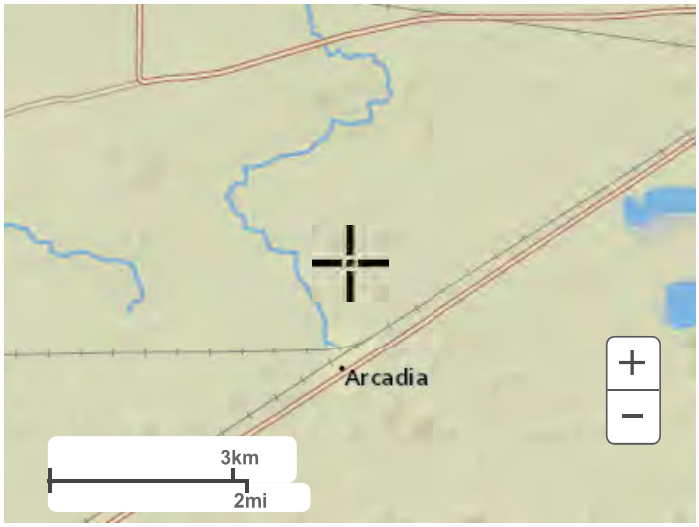
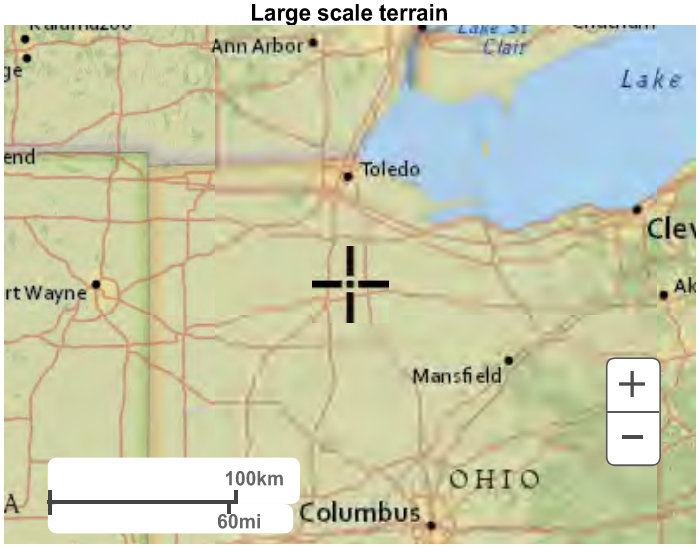
Maps & aerials

Small scale terrain



Large scale terrain



Large scale map

Large scale aerial

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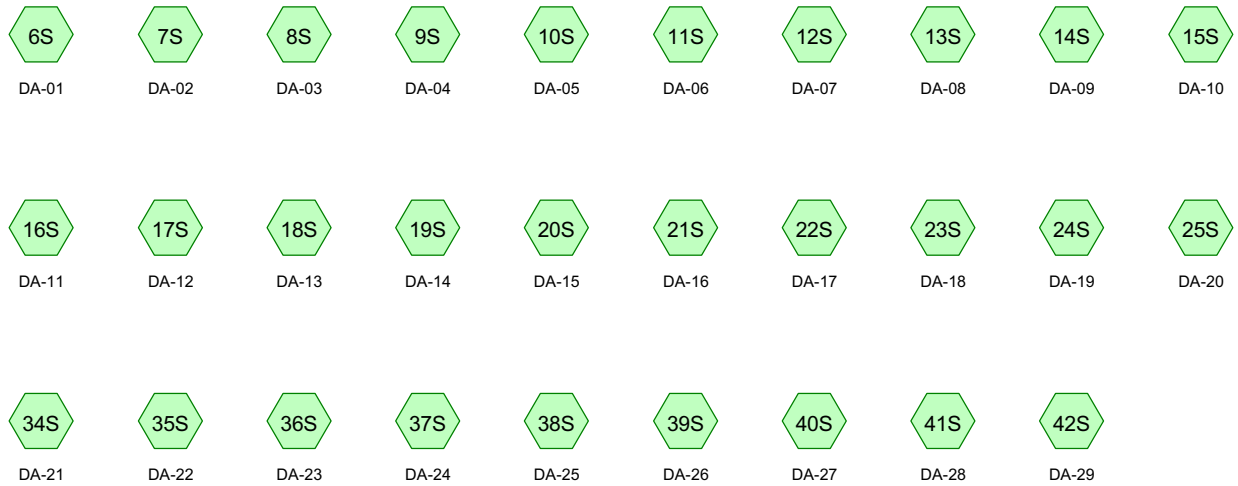
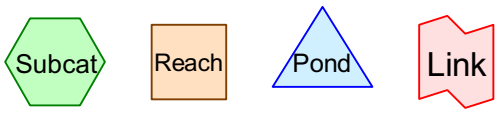
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Appendix B

Existing HydroCAD Results

Existing





Routing Diagram for 2021-12-06 Pre Post Analysis
Prepared by Westwood Professional Services, Inc., Printed 12/6/2021
HydroCAD® 10.00-22 s/n 03363 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
577.920	89	Row crops, straight row, Good, HSG D (6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42S)
1.260	77	Woods, Good, HSG D (7S)
579.180	**89**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
579.180	HSG D	6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42S
0.000	Other	
579.180		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	577.920	0.000	577.920	Row crops, straight row, Good	6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 34S, 35S, 36S, 37S, 38S, 39S, 40S, 41S, 42S
0.000	0.000	0.000	1.260	0.000	1.260	Woods, Good	7S
0.000	**0.000**	**0.000**	**579.180**	**0.000**	**579.180**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-01 Runoff Area=26.430 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=1,305' Slope=0.0072 '/' Tc=33.9 min CN=89 Runoff=49.20 cfs 4.829 af

Subcatchment 7S: DA-02 Runoff Area=16.670 ac 0.00% Impervious Runoff Depth>2.08"
Flow Length=1,699' Slope=0.0026 '/' Tc=72.3 min CN=88 Runoff=19.17 cfs 2.892 af

Subcatchment 8S: DA-03 Runoff Area=16.800 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=933' Slope=0.0050 '/' Tc=31.1 min CN=89 Runoff=32.69 cfs 3.072 af

Subcatchment 9S: DA-04 Runoff Area=17.810 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=1,141' Slope=0.0041 '/' Tc=40.3 min CN=89 Runoff=30.12 cfs 3.248 af

Subcatchment 10S: DA-05 Runoff Area=13.720 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=539' Slope=0.0150 '/' Tc=11.6 min CN=89 Runoff=42.82 cfs 2.522 af

Subcatchment 11S: DA-06 Runoff Area=8.750 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=705' Slope=0.0048 '/' Tc=25.3 min CN=89 Runoff=18.93 cfs 1.603 af

Subcatchment 12S: DA-07 Runoff Area=62.460 ac 0.00% Impervious Runoff Depth>2.16"
Flow Length=1,973' Slope=0.0023 '/' Tc=83.4 min CN=89 Runoff=67.42 cfs 11.244 af

Subcatchment 13S: DA-08 Runoff Area=6.400 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=447' Slope=0.0100 '/' Tc=12.2 min CN=89 Runoff=19.59 cfs 1.176 af

Subcatchment 14S: DA-09 Runoff Area=26.020 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=909' Slope=0.0086 '/' Tc=23.2 min CN=89 Runoff=58.93 cfs 4.768 af

Subcatchment 15S: DA-10 Runoff Area=18.870 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=1,487' Slope=0.0050 '/' Tc=45.1 min CN=89 Runoff=29.93 cfs 3.437 af

Subcatchment 16S: DA-11 Runoff Area=35.470 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=803' Slope=0.0135 '/' Tc=16.8 min CN=89 Runoff=93.60 cfs 6.511 af

Subcatchment 17S: DA-12 Runoff Area=9.150 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=1,004' Slope=0.0113 '/' Tc=21.9 min CN=89 Runoff=21.26 cfs 1.677 af

Subcatchment 18S: DA-13 Runoff Area=9.750 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=700' Slope=0.0114 '/' Tc=16.3 min CN=89 Runoff=26.04 cfs 1.790 af

Subcatchment 19S: DA-14 Runoff Area=68.350 ac 0.00% Impervious Runoff Depth>2.18"
Flow Length=1,812' Slope=0.0055 '/' Tc=50.4 min CN=89 Runoff=101.52 cfs 12.429 af

Subcatchment 20S: DA-15 Runoff Area=134.110 ac 0.00% Impervious Runoff Depth>2.17"
Flow Length=2,632' Slope=0.0050 '/' Tc=71.2 min CN=89 Runoff=161.48 cfs 24.235 af

Subcatchment 21S: DA-16 Runoff Area=2.190 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=456' Slope=0.0075 '/' Tc=14.3 min CN=89 Runoff=6.23 cfs 0.402 af

Subcatchment 22S: DA-17 Runoff Area=5.020 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=680' Slope=0.0051 '/' Tc=23.9 min CN=89 Runoff=11.21 cfs 0.920 af

Subcatchment 23S: DA-18 Runoff Area=7.840 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=660' Slope=0.0079 '/' Tc=18.7 min CN=89 Runoff=19.72 cfs 1.438 af

Subcatchment 24S: DA-19 Runoff Area=7.290 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=621' Slope=0.0129 '/' Tc=14.0 min CN=89 Runoff=20.92 cfs 1.339 af

Subcatchment 25S: DA-20 Runoff Area=5.180 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=816' Slope=0.0115 '/' Tc=18.4 min CN=89 Runoff=13.16 cfs 0.950 af

Subcatchment 34S: DA-21 Runoff Area=1.780 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=374' Slope=0.0083 '/' Tc=11.6 min CN=89 Runoff=5.56 cfs 0.327 af

Subcatchment 35S: DA-22 Runoff Area=3.540 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=720' Slope=0.0184 '/' Tc=13.2 min CN=89 Runoff=10.40 cfs 0.650 af

Subcatchment 36S: DA-23 Runoff Area=4.220 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=539' Slope=0.0154 '/' Tc=11.4 min CN=89 Runoff=13.29 cfs 0.776 af

Subcatchment 37S: DA-24 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>2.21"
Flow Length=324' Slope=0.0199 '/' Tc=6.7 min CN=89 Runoff=10.18 cfs 0.488 af

Subcatchment 38S: DA-25 Runoff Area=8.790 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=1,450' Slope=0.0055 '/' Tc=42.1 min CN=89 Runoff=14.47 cfs 1.602 af

Subcatchment 39S: DA-26 Runoff Area=7.900 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=745' Slope=0.0054 '/' Tc=25.0 min CN=89 Runoff=17.21 cfs 1.447 af

Subcatchment 40S: DA-27 Runoff Area=5.700 ac 0.00% Impervious Runoff Depth>2.20"
Flow Length=761' Slope=0.0046 '/' Tc=27.5 min CN=89 Runoff=11.81 cfs 1.043 af

Subcatchment 41S: DA-28 Runoff Area=17.640 ac 0.00% Impervious Runoff Depth>2.19"
Flow Length=1,457' Slope=0.0048 '/' Tc=45.3 min CN=89 Runoff=27.88 cfs 3.212 af

Subcatchment 42S: DA-29 Runoff Area=28.680 ac 0.00% Impervious Runoff Depth>2.14"
Flow Length=2,779' Slope=0.0025 '/' Tc=105.2 min CN=89 Runoff=26.06 cfs 5.126 af

Total Runoff Area = 579.180 ac Runoff Volume = 105.155 af Average Runoff Depth = 2.18"
100.00% Pervious = 579.180 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 6S: DA-01

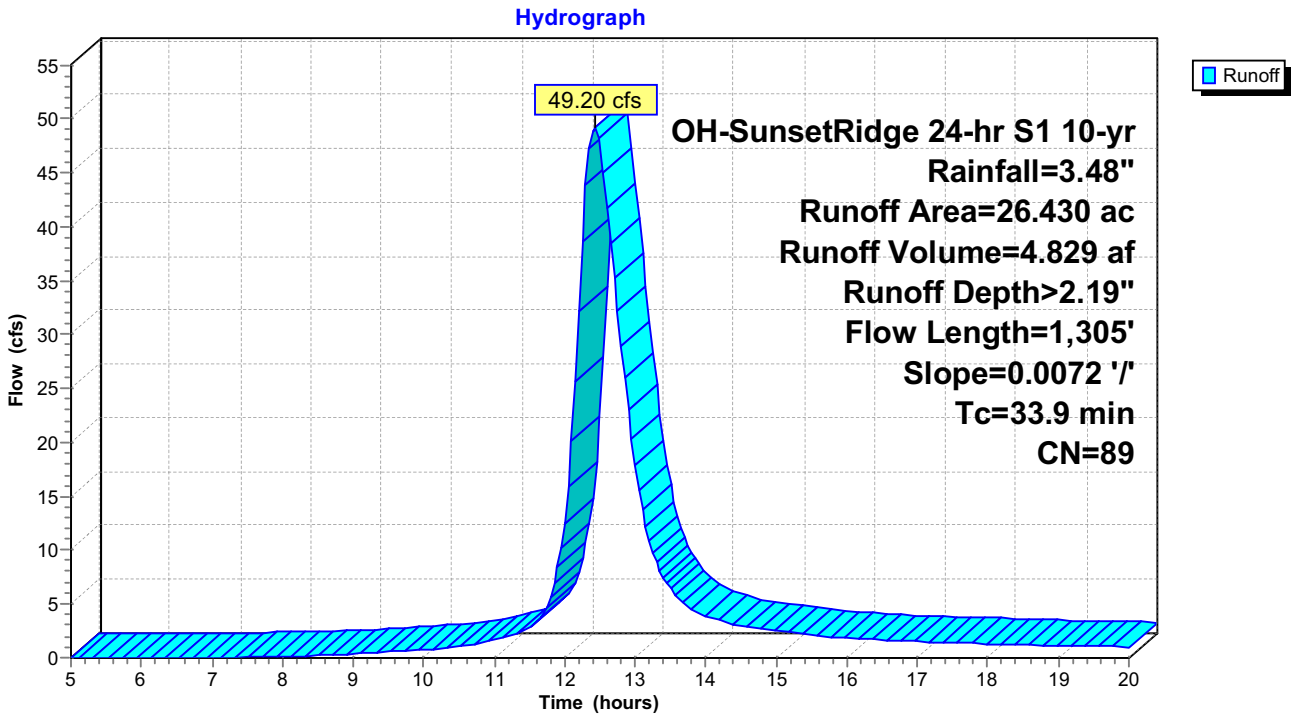
Runoff = 49.20 cfs @ 12.42 hrs, Volume= 4.829 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
26.430	89	Row crops, straight row, Good, HSG D
26.430		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	1,305	0.0072	0.64		**Lag/CN Method,**

Subcatchment 6S: DA-01



Summary for Subcatchment 7S: DA-02

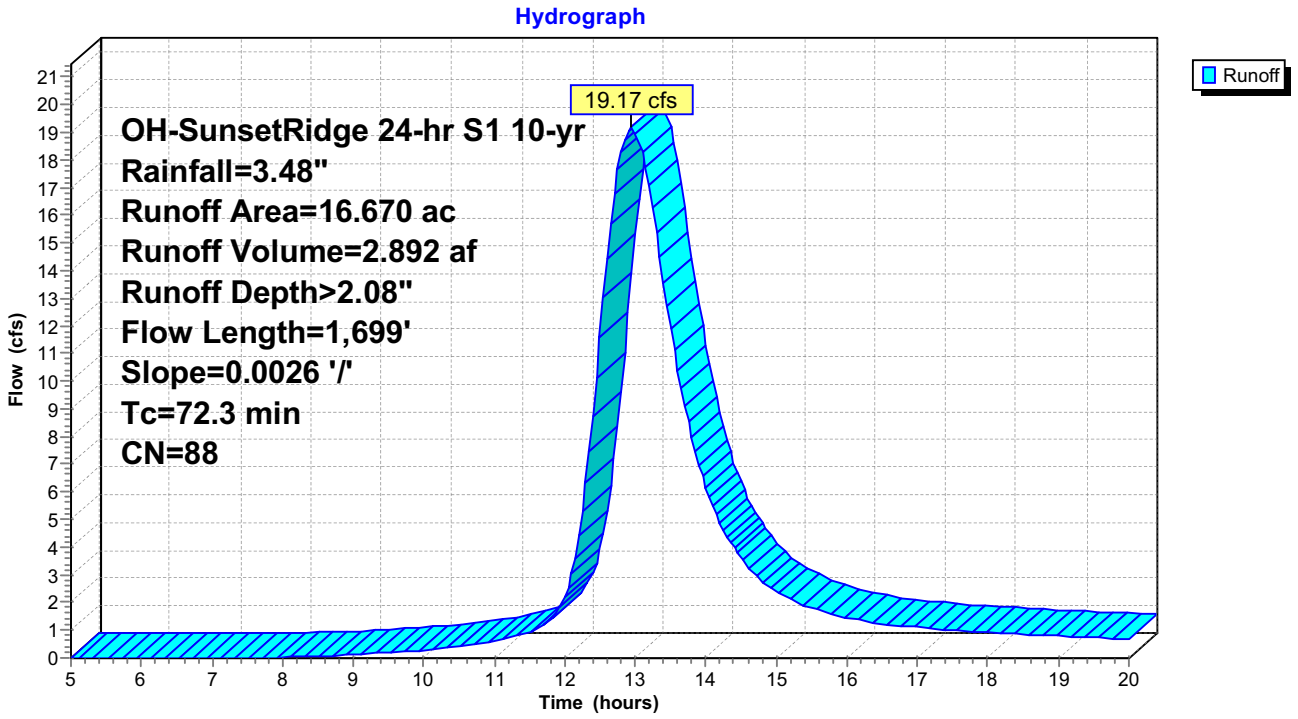
Runoff = 19.17 cfs @ 12.95 hrs, Volume= 2.892 af, Depth> 2.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
15.410	89	Row crops, straight row, Good, HSG D
1.260	77	Woods, Good, HSG D
16.670	88	Weighted Average
16.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
72.3	1,699	0.0026	0.39		**Lag/CN Method,**

Subcatchment 7S: DA-02



Summary for Subcatchment 8S: DA-03

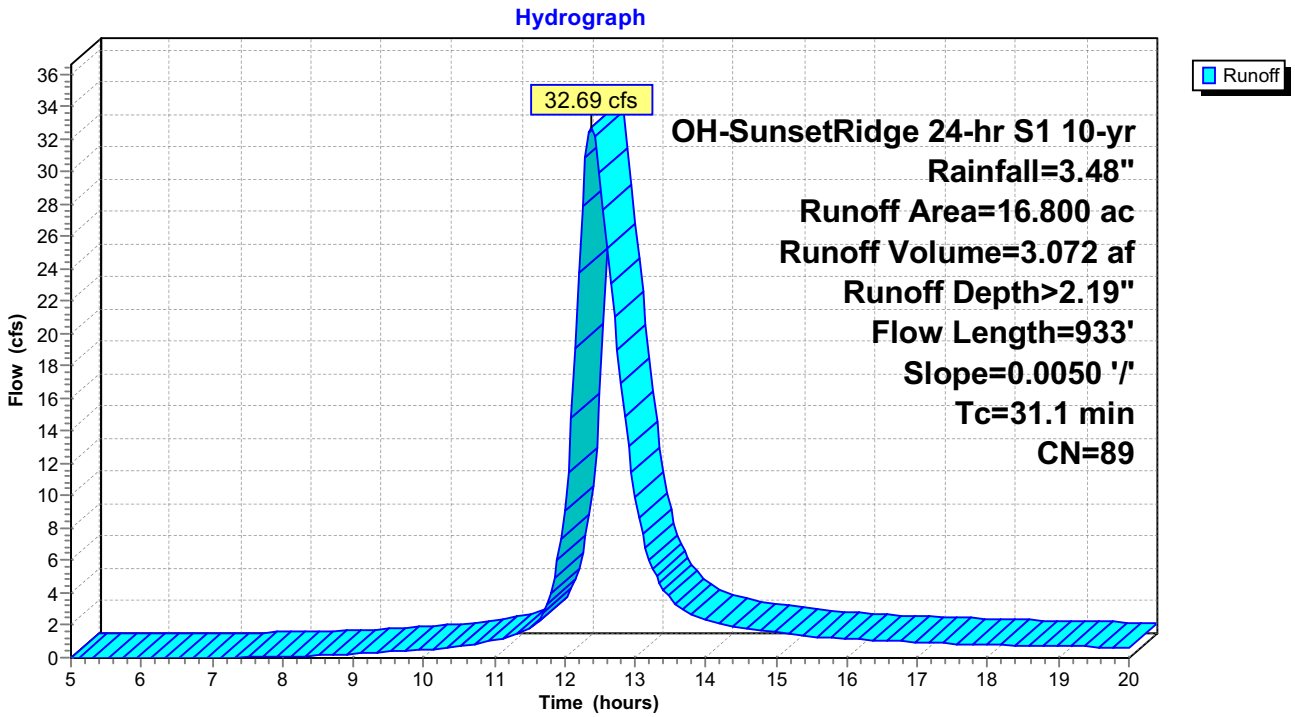
Runoff = 32.69 cfs @ 12.38 hrs, Volume= 3.072 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
16.800	89	Row crops, straight row, Good, HSG D
16.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.1	933	0.0050	0.50		**Lag/CN Method,**

Subcatchment 8S: DA-03



Summary for Subcatchment 9S: DA-04

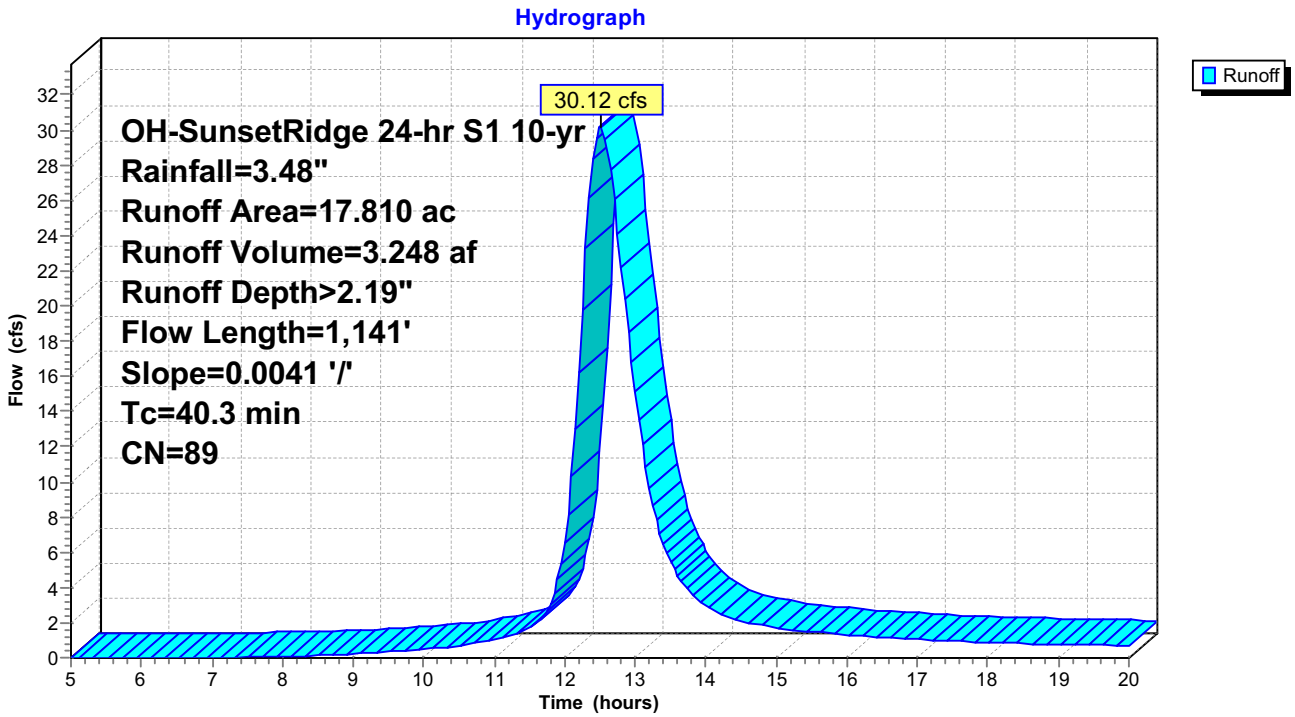
Runoff = 30.12 cfs @ 12.51 hrs, Volume= 3.248 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
17.810	89	Row crops, straight row, Good, HSG D
17.810		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.3	1,141	0.0041	0.47		**Lag/CN Method,**

Subcatchment 9S: DA-04



Summary for Subcatchment 10S: DA-05

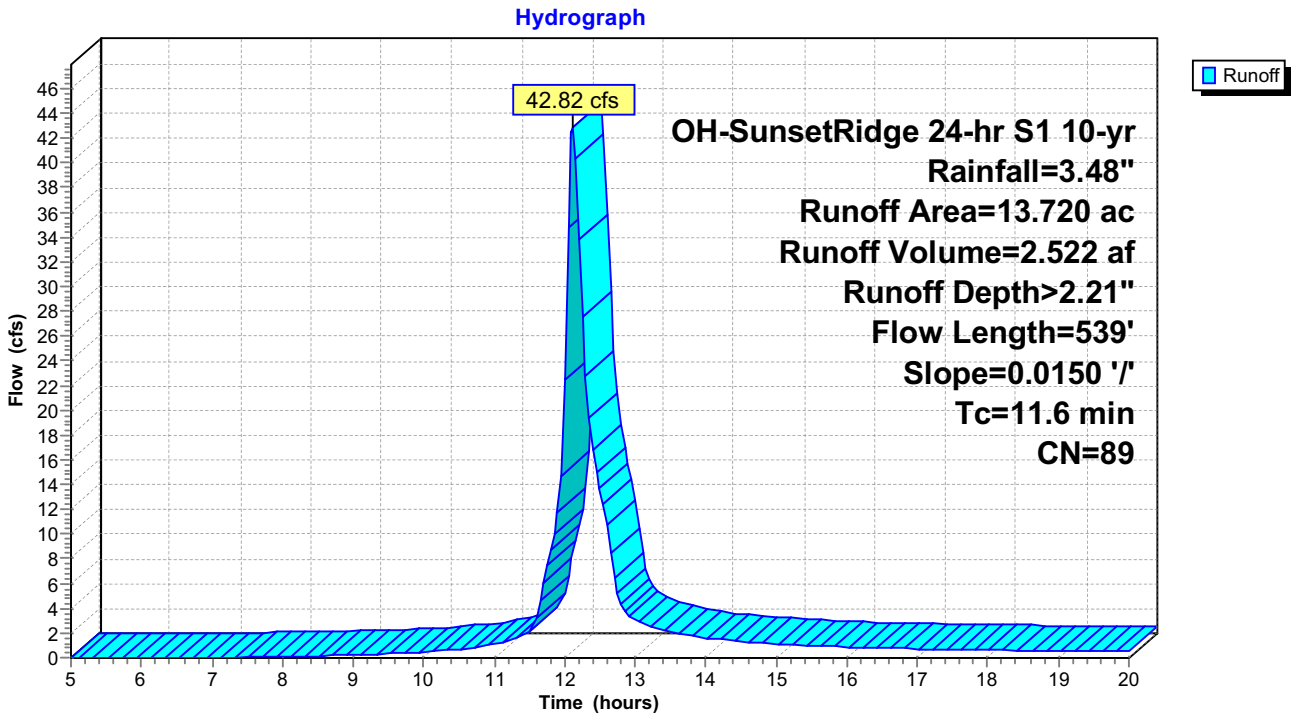
Runoff = 42.82 cfs @ 12.11 hrs, Volume= 2.522 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
13.720	89	Row crops, straight row, Good, HSG D
13.720		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	539	0.0150	0.78		**Lag/CN Method,**

Subcatchment 10S: DA-05



Summary for Subcatchment 11S: DA-06

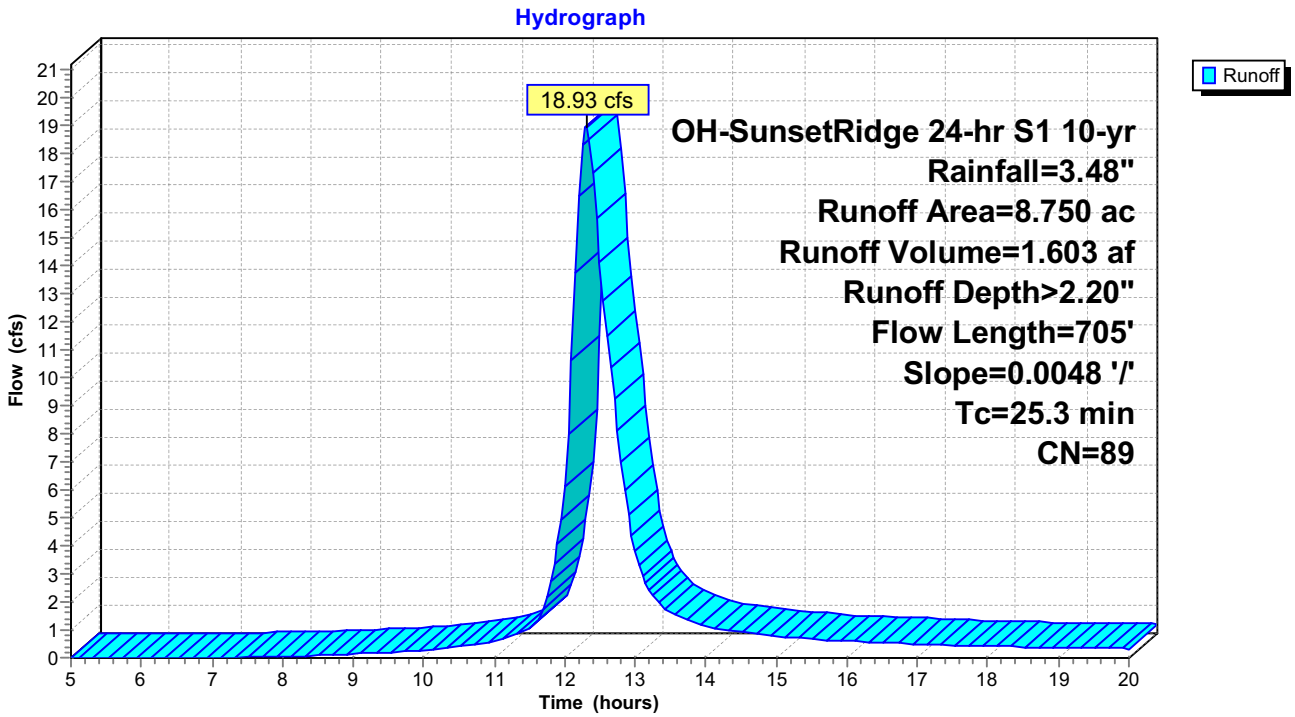
Runoff = 18.93 cfs @ 12.30 hrs, Volume= 1.603 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.750	89	Row crops, straight row, Good, HSG D
8.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.3	705	0.0048	0.46		**Lag/CN Method,**

Subcatchment 11S: DA-06



Summary for Subcatchment 12S: DA-07

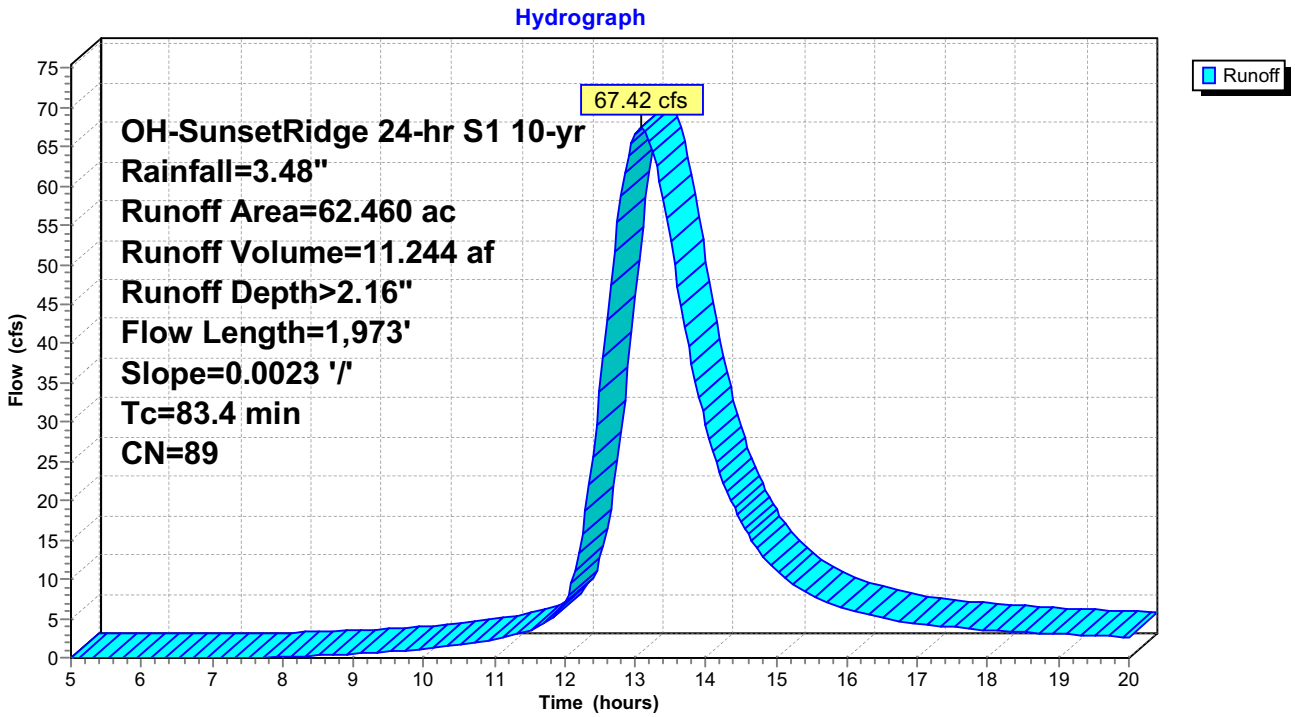
Runoff = 67.42 cfs @ 13.07 hrs, Volume= 11.244 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
62.460	89	Row crops, straight row, Good, HSG D
62.460		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
83.4	1,973	0.0023	0.39		**Lag/CN Method,**

Subcatchment 12S: DA-07



Summary for Subcatchment 13S: DA-08

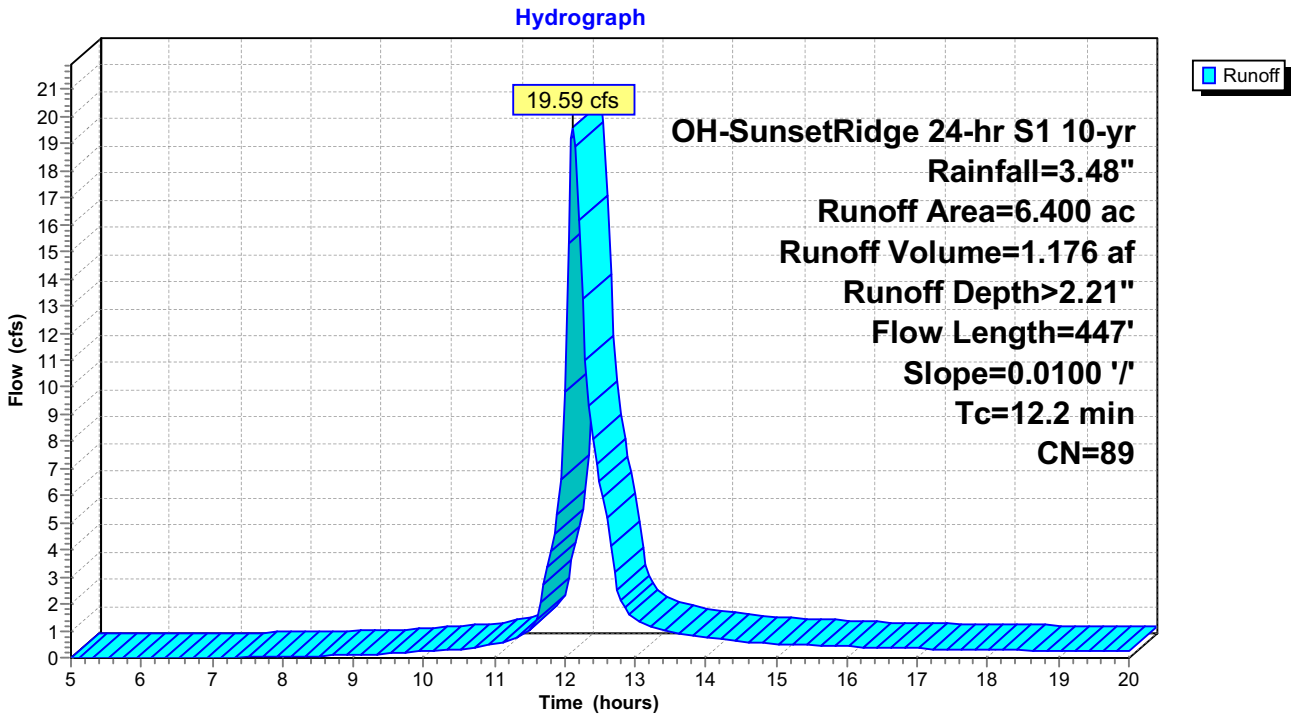
Runoff = 19.59 cfs @ 12.12 hrs, Volume= 1.176 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
6.400	89	Row crops, straight row, Good, HSG D
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	447	0.0100	0.61		**Lag/CN Method,**

Subcatchment 13S: DA-08



Summary for Subcatchment 14S: DA-09

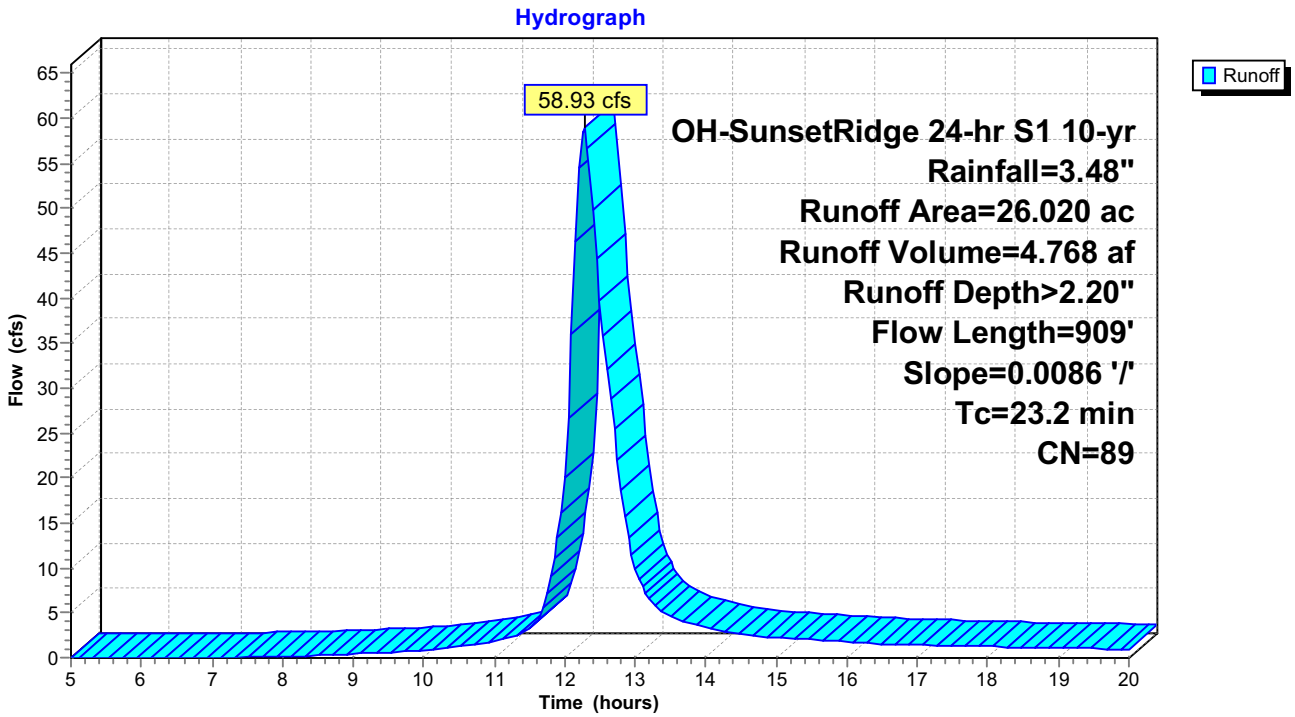
Runoff = 58.93 cfs @ 12.27 hrs, Volume= 4.768 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
26.020	89	Row crops, straight row, Good, HSG D
26.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.2	909	0.0086	0.65		**Lag/CN Method,**

Subcatchment 14S: DA-09



Summary for Subcatchment 15S: DA-10

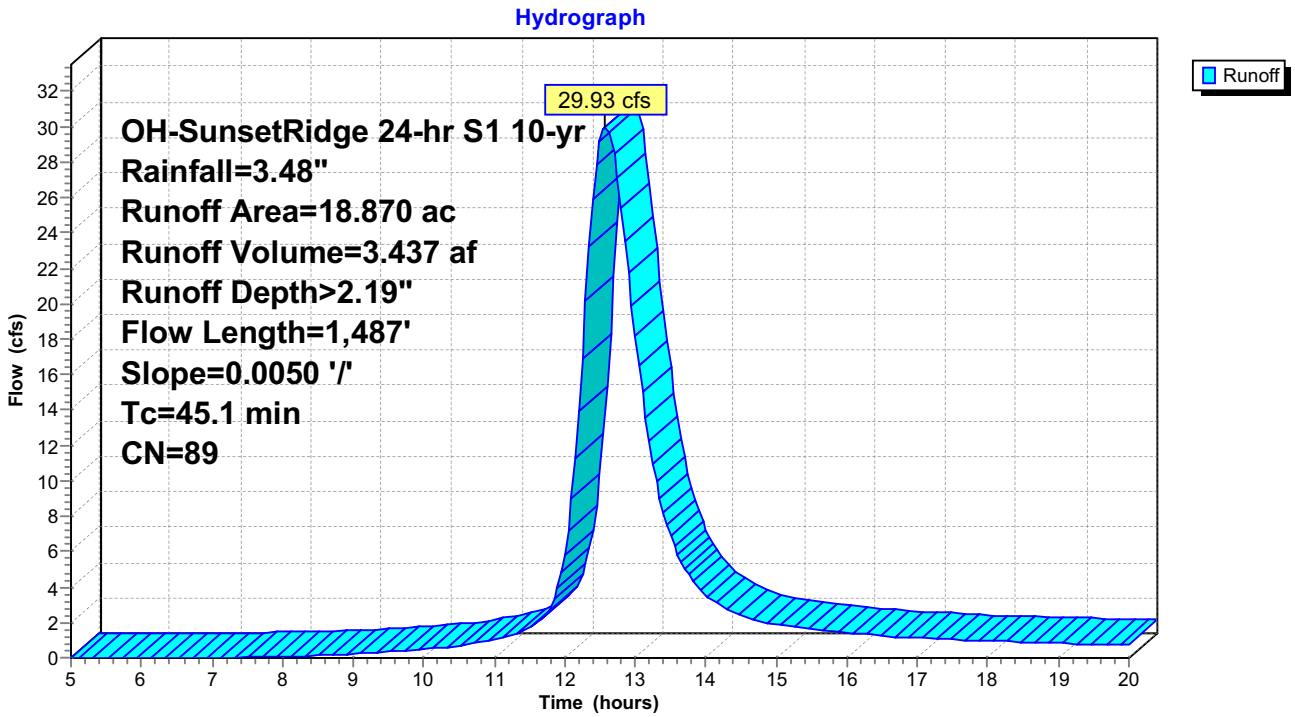
Runoff = 29.93 cfs @ 12.58 hrs, Volume= 3.437 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
18.870	89	Row crops, straight row, Good, HSG D
18.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.1	1,487	0.0050	0.55		**Lag/CN Method,**

Subcatchment 15S: DA-10



Summary for Subcatchment 16S: DA-11

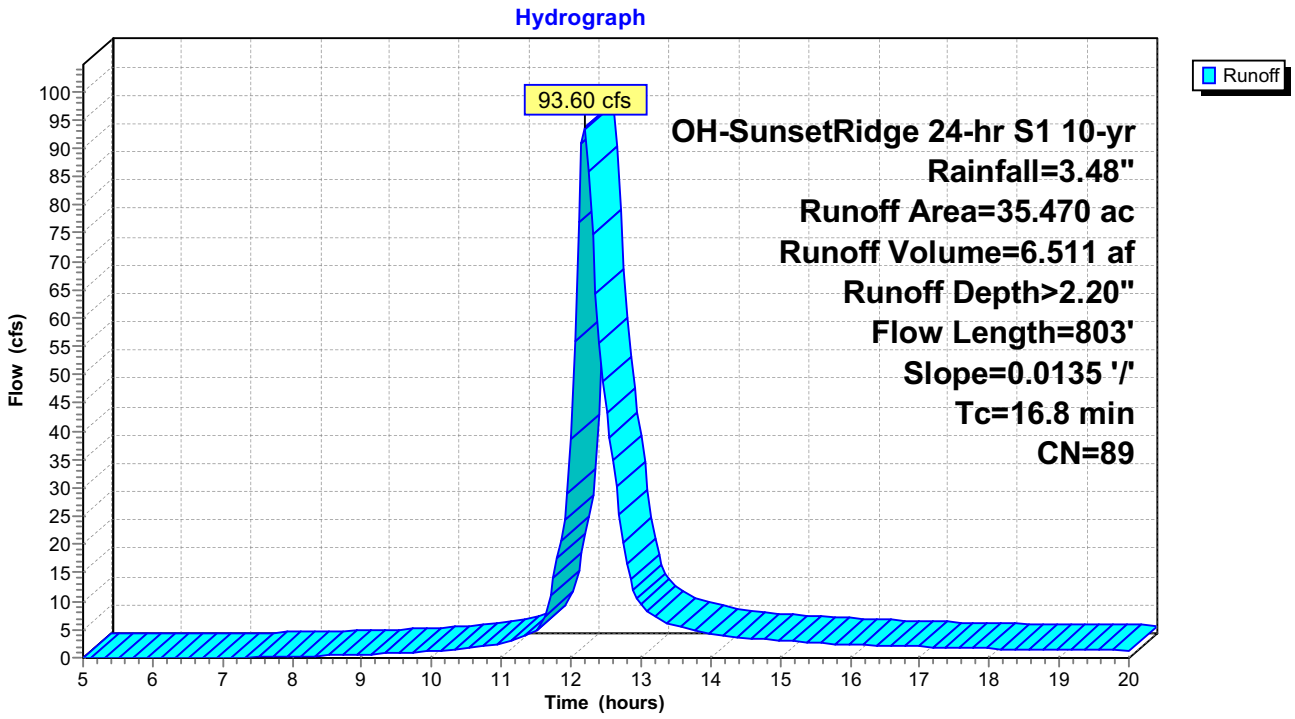
Runoff = 93.60 cfs @ 12.19 hrs, Volume= 6.511 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
35.470	89	Row crops, straight row, Good, HSG D
35.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	803	0.0135	0.80		**Lag/CN Method,**

Subcatchment 16S: DA-11



Summary for Subcatchment 17S: DA-12

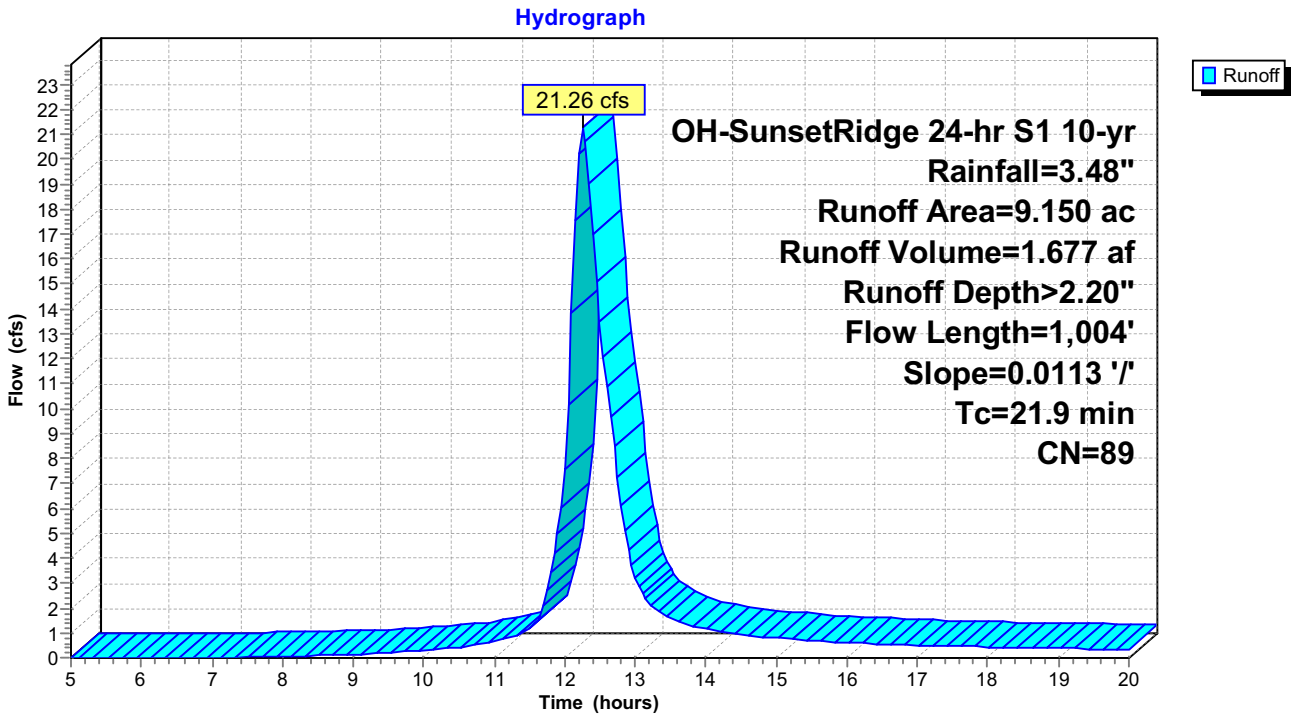
Runoff = 21.26 cfs @ 12.26 hrs, Volume= 1.677 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
9.150	89	Row crops, straight row, Good, HSG D
9.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	1,004	0.0113	0.76		**Lag/CN Method,**

Subcatchment 17S: DA-12



Summary for Subcatchment 18S: DA-13

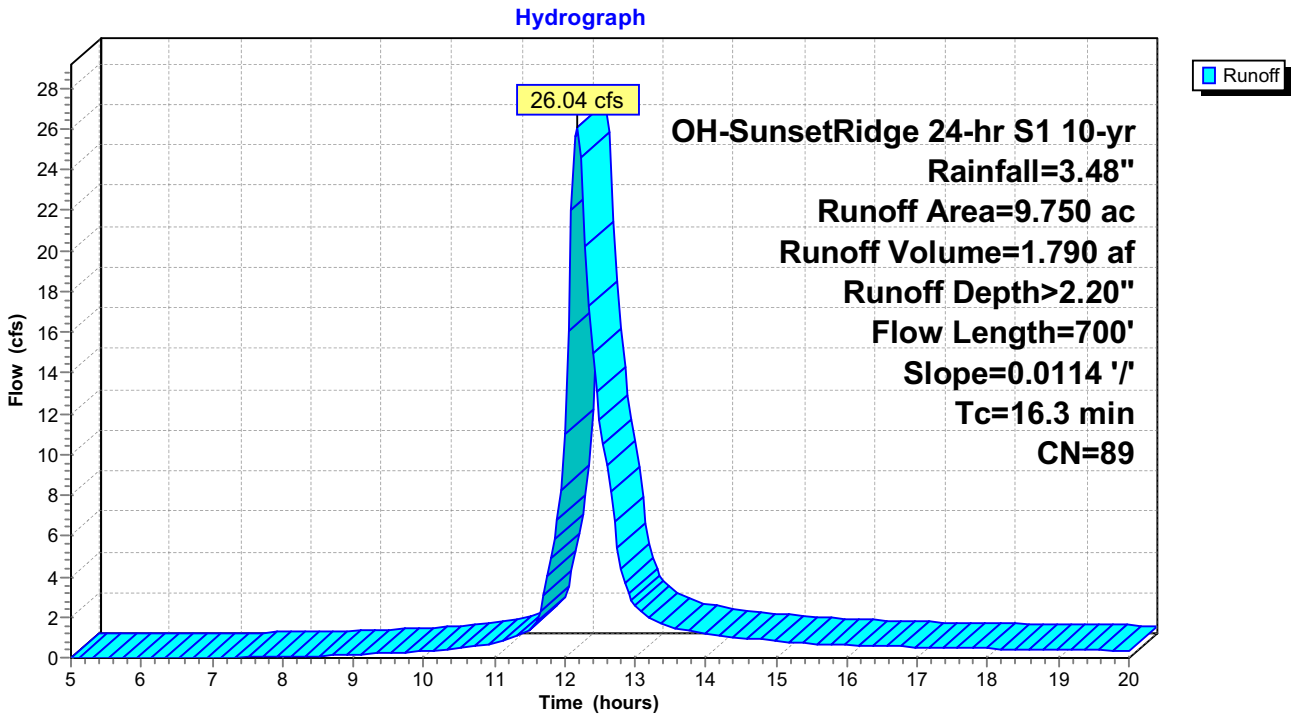
Runoff = 26.04 cfs @ 12.18 hrs, Volume= 1.790 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
9.750	89	Row crops, straight row, Good, HSG D
9.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.3	700	0.0114	0.71		**Lag/CN Method,**

Subcatchment 18S: DA-13



Summary for Subcatchment 19S: DA-14

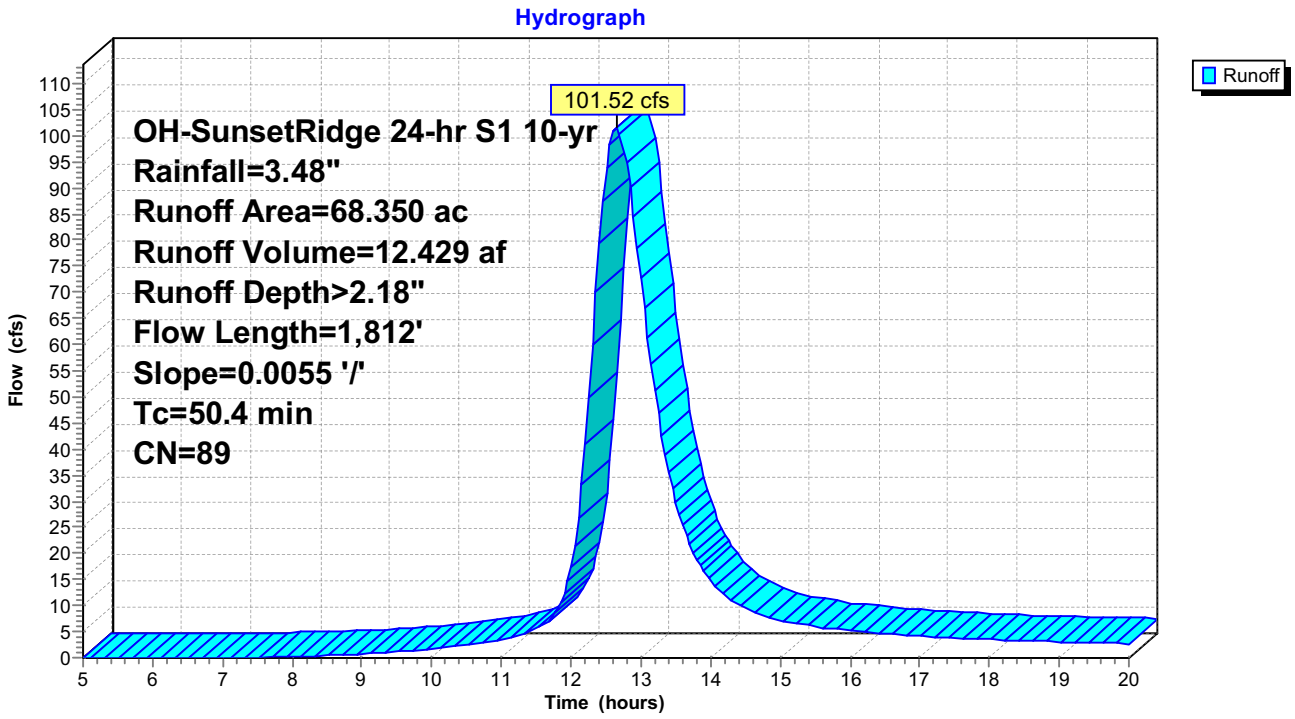
Runoff = 101.52 cfs @ 12.65 hrs, Volume= 12.429 af, Depth> 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
68.350	89	Row crops, straight row, Good, HSG D
68.350		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.4	1,812	0.0055	0.60		**Lag/CN Method,**

Subcatchment 19S: DA-14



Summary for Subcatchment 20S: DA-15

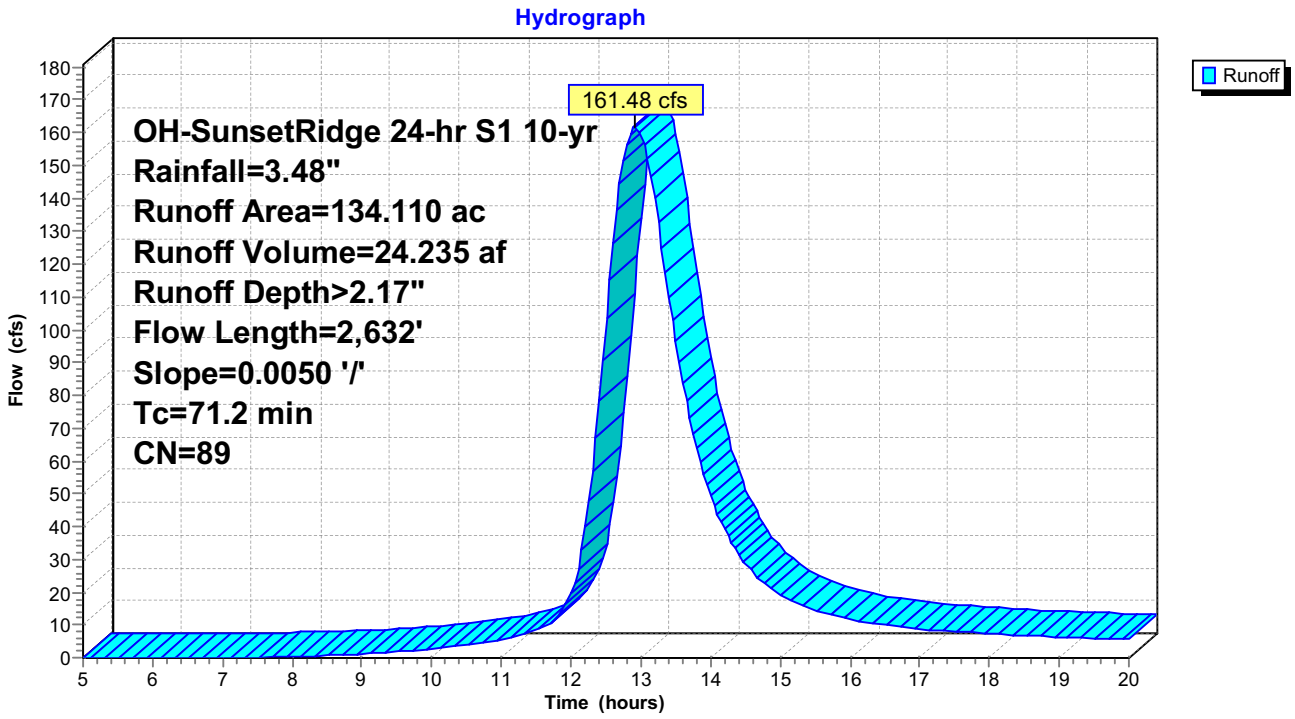
Runoff = 161.48 cfs @ 12.91 hrs, Volume= 24.235 af, Depth> 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
134.110	89	Row crops, straight row, Good, HSG D
134.110		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
71.2	2,632	0.0050	0.62		**Lag/CN Method,**

Subcatchment 20S: DA-15



Summary for Subcatchment 21S: DA-16

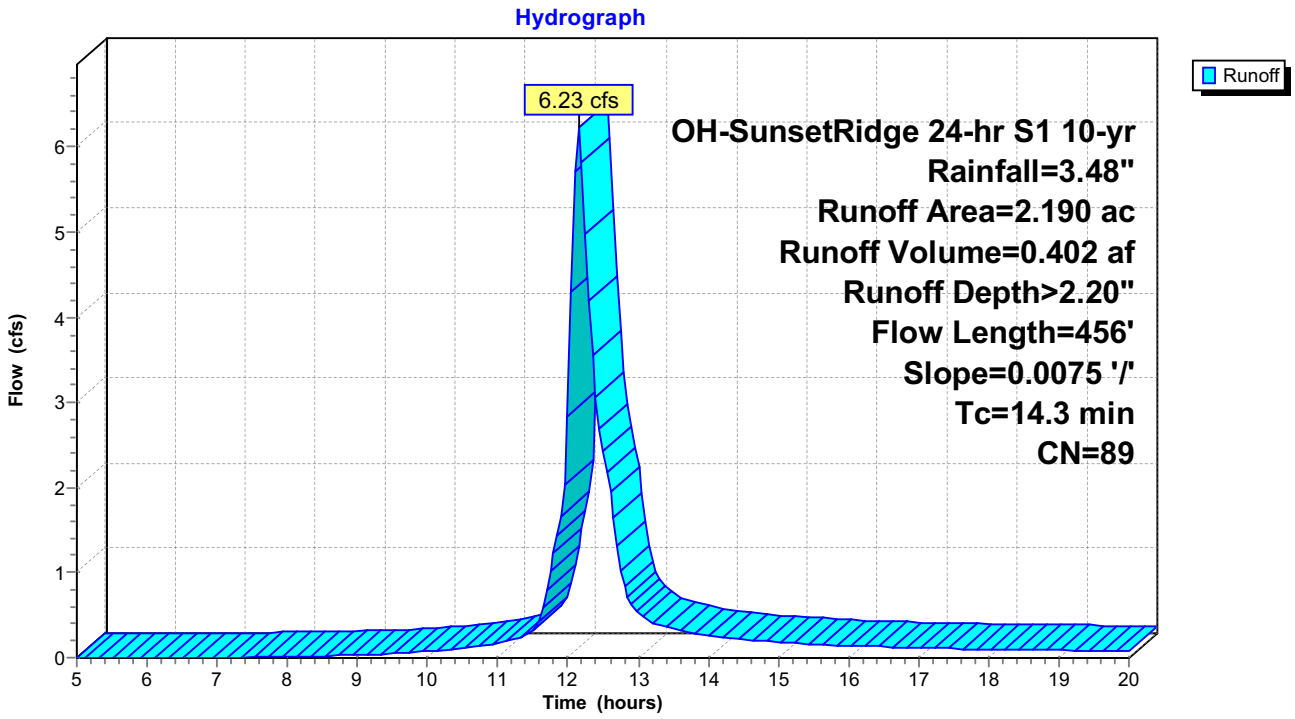
Runoff = 6.23 cfs @ 12.15 hrs, Volume= 0.402 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
2.190	89	Row crops, straight row, Good, HSG D
2.190		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	456	0.0075	0.53		**Lag/CN Method,**

Subcatchment 21S: DA-16



Summary for Subcatchment 22S: DA-17

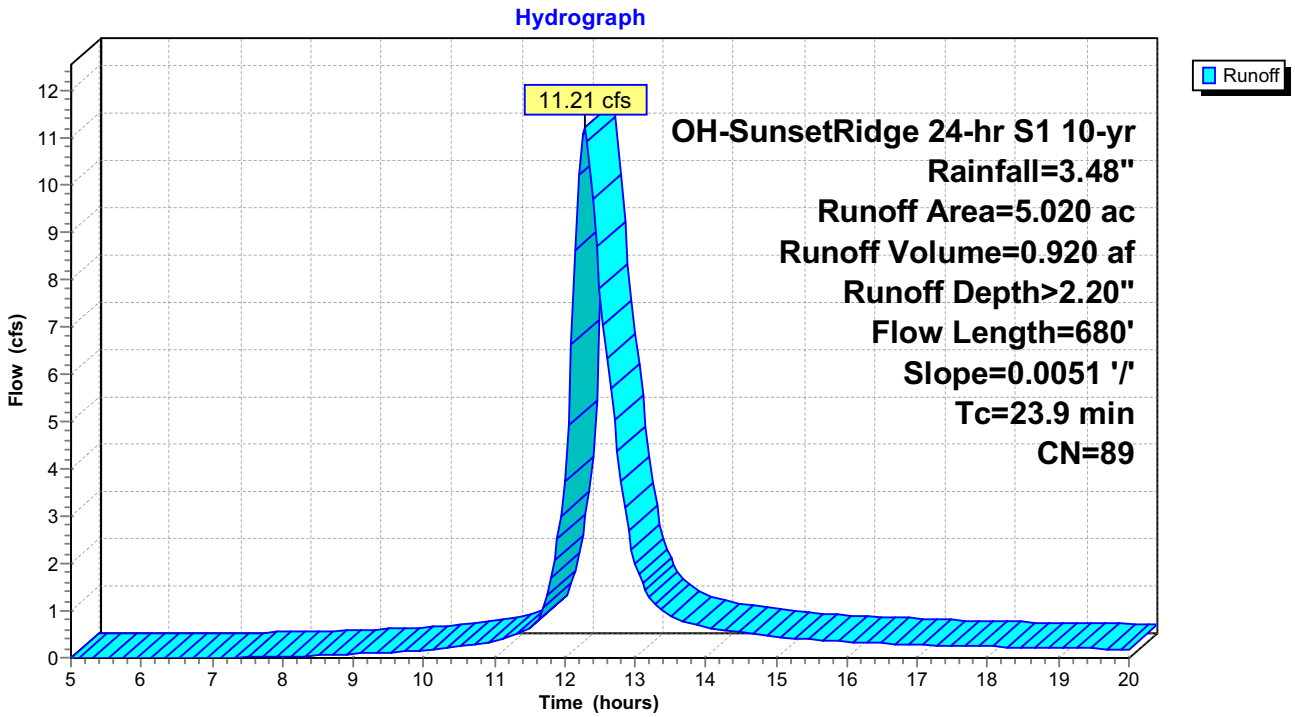
Runoff = 11.21 cfs @ 12.28 hrs, Volume= 0.920 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
5.020	89	Row crops, straight row, Good, HSG D
5.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.9	680	0.0051	0.47		**Lag/CN Method,**

Subcatchment 22S: DA-17



Summary for Subcatchment 23S: DA-18

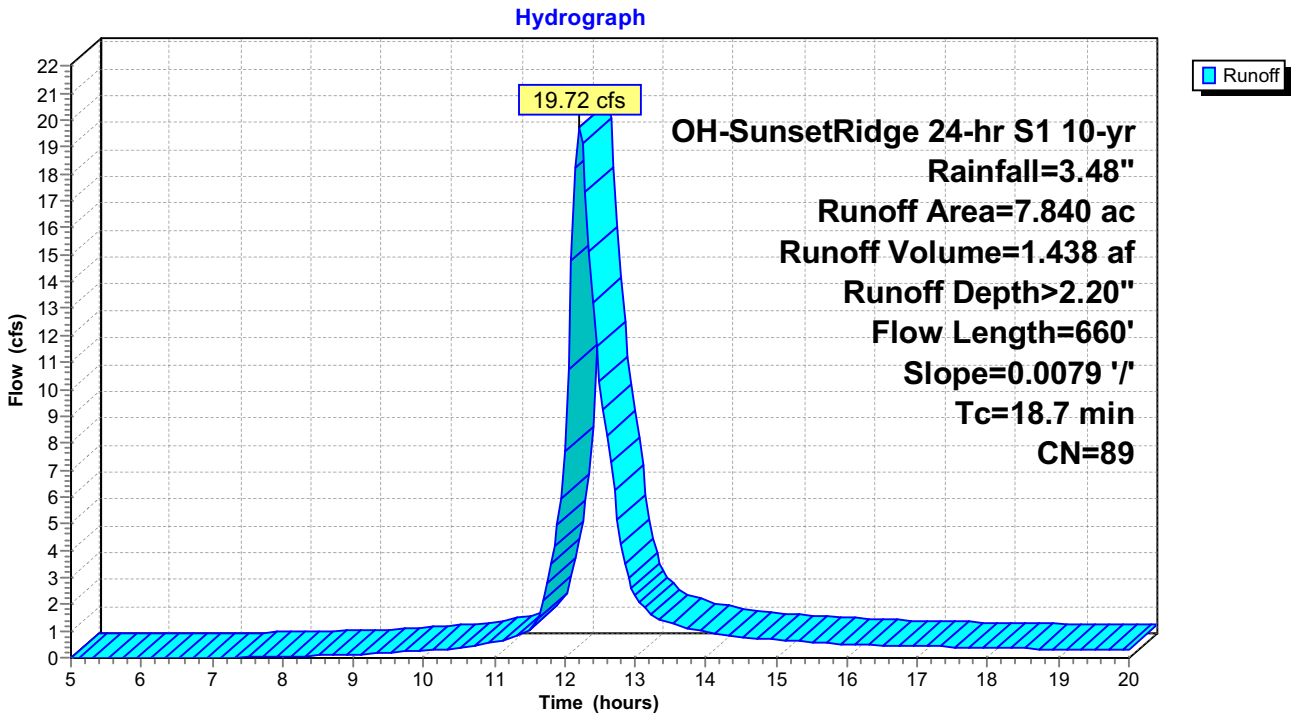
Runoff = 19.72 cfs @ 12.21 hrs, Volume= 1.438 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
7.840	89	Row crops, straight row, Good, HSG D
7.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7	660	0.0079	0.59		**Lag/CN Method,**

Subcatchment 23S: DA-18



Summary for Subcatchment 24S: DA-19

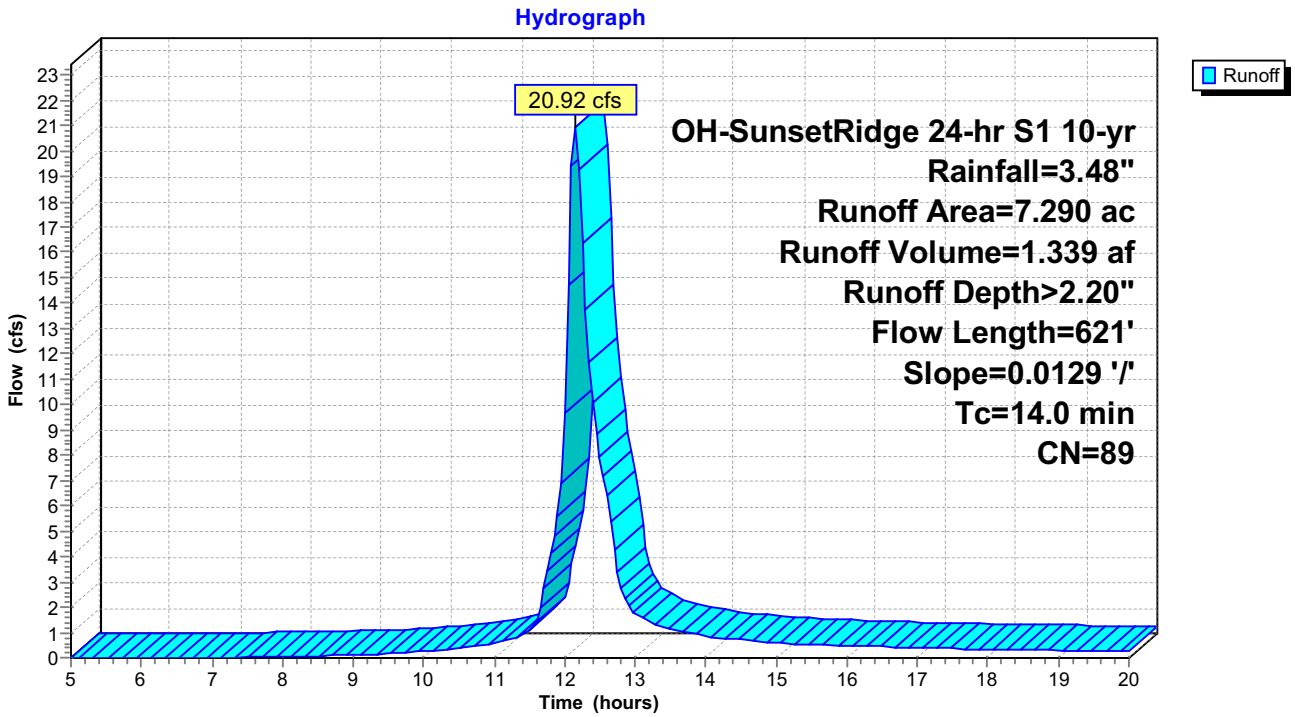
Runoff = 20.92 cfs @ 12.15 hrs, Volume= 1.339 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
7.290	89	Row crops, straight row, Good, HSG D
7.290		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	621	0.0129	0.74		**Lag/CN Method,**

Subcatchment 24S: DA-19



Summary for Subcatchment 25S: DA-20

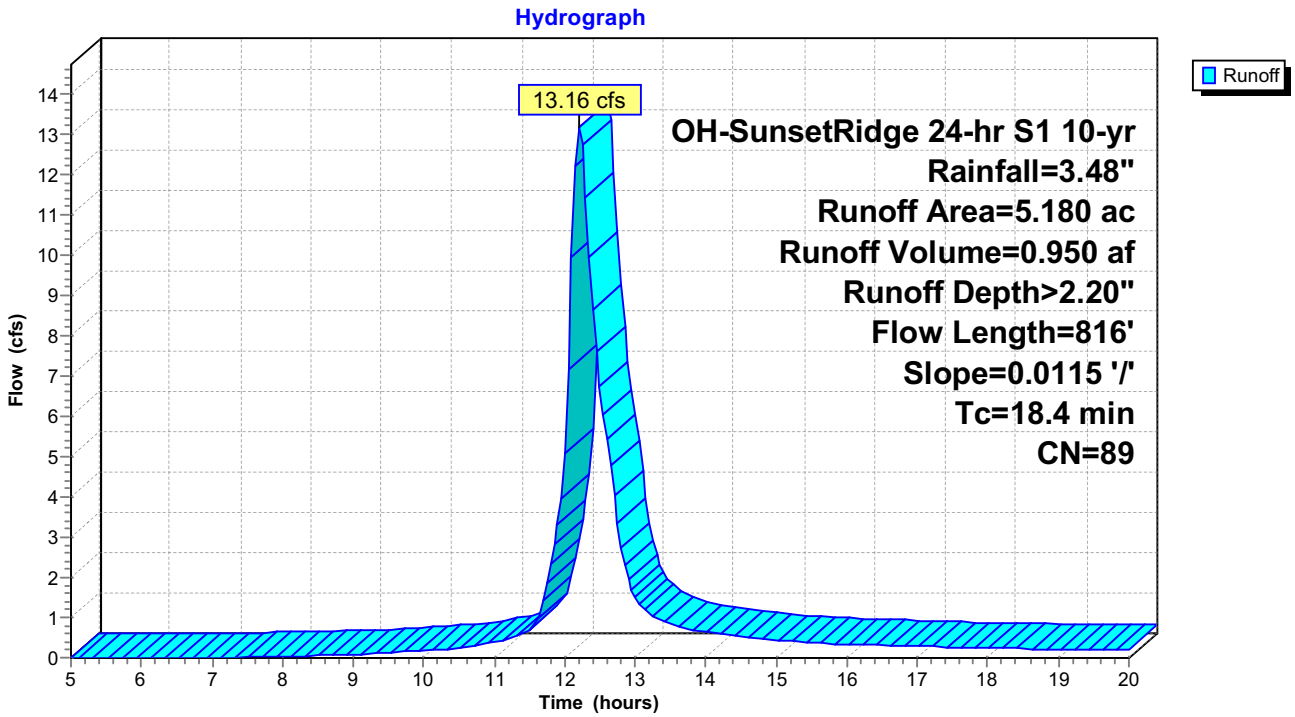
Runoff = 13.16 cfs @ 12.21 hrs, Volume= 0.950 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
5.180	89	Row crops, straight row, Good, HSG D
5.180		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	816	0.0115	0.74		**Lag/CN Method,**

Subcatchment 25S: DA-20



Summary for Subcatchment 34S: DA-21

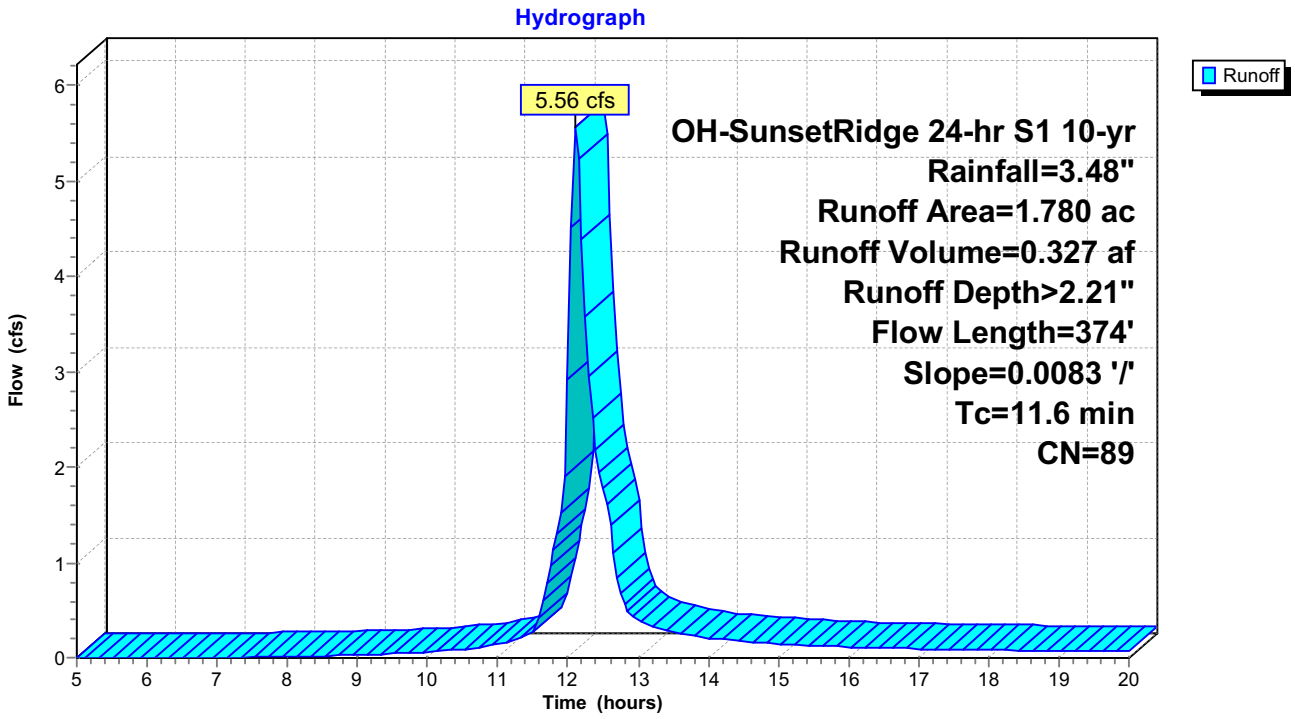
Runoff = 5.56 cfs @ 12.11 hrs, Volume= 0.327 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
1.780	89	Row crops, straight row, Good, HSG D
1.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	374	0.0083	0.54		**Lag/CN Method,**

Subcatchment 34S: DA-21



Summary for Subcatchment 35S: DA-22

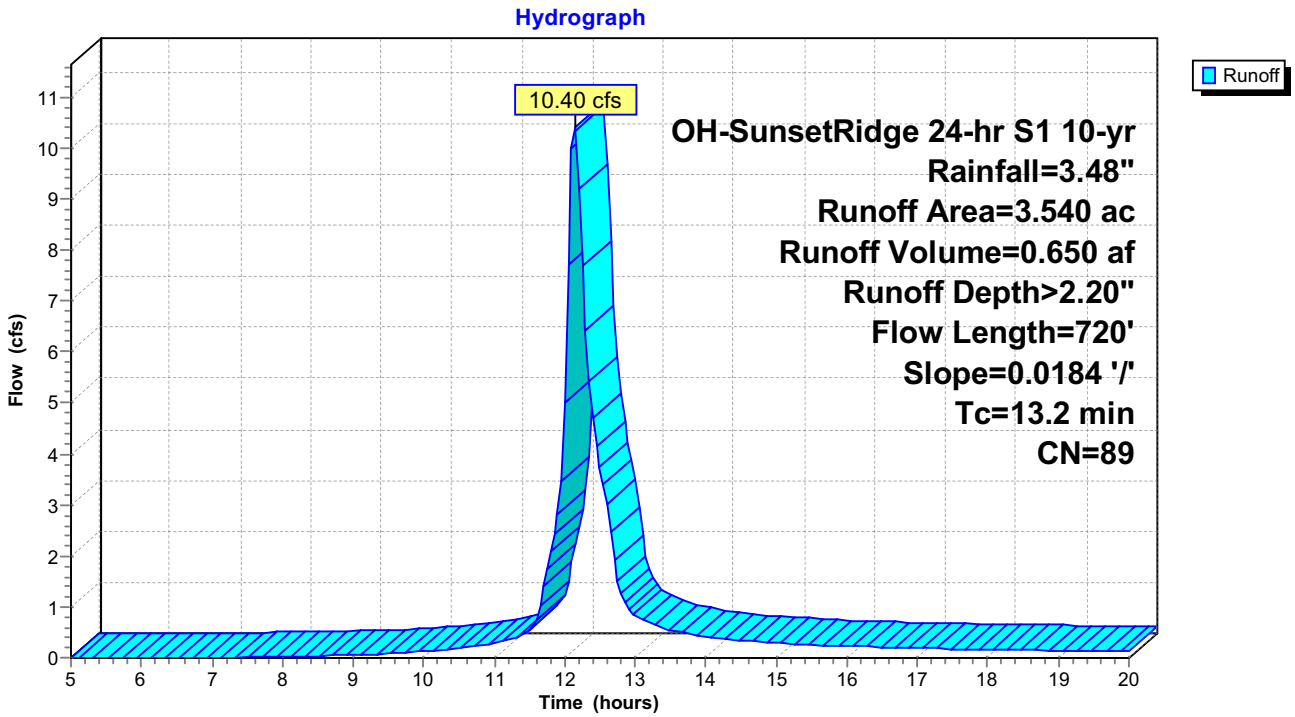
Runoff = 10.40 cfs @ 12.14 hrs, Volume= 0.650 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
3.540	89	Row crops, straight row, Good, HSG D
3.540		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	720	0.0184	0.91		**Lag/CN Method,**

Subcatchment 35S: DA-22



Summary for Subcatchment 36S: DA-23

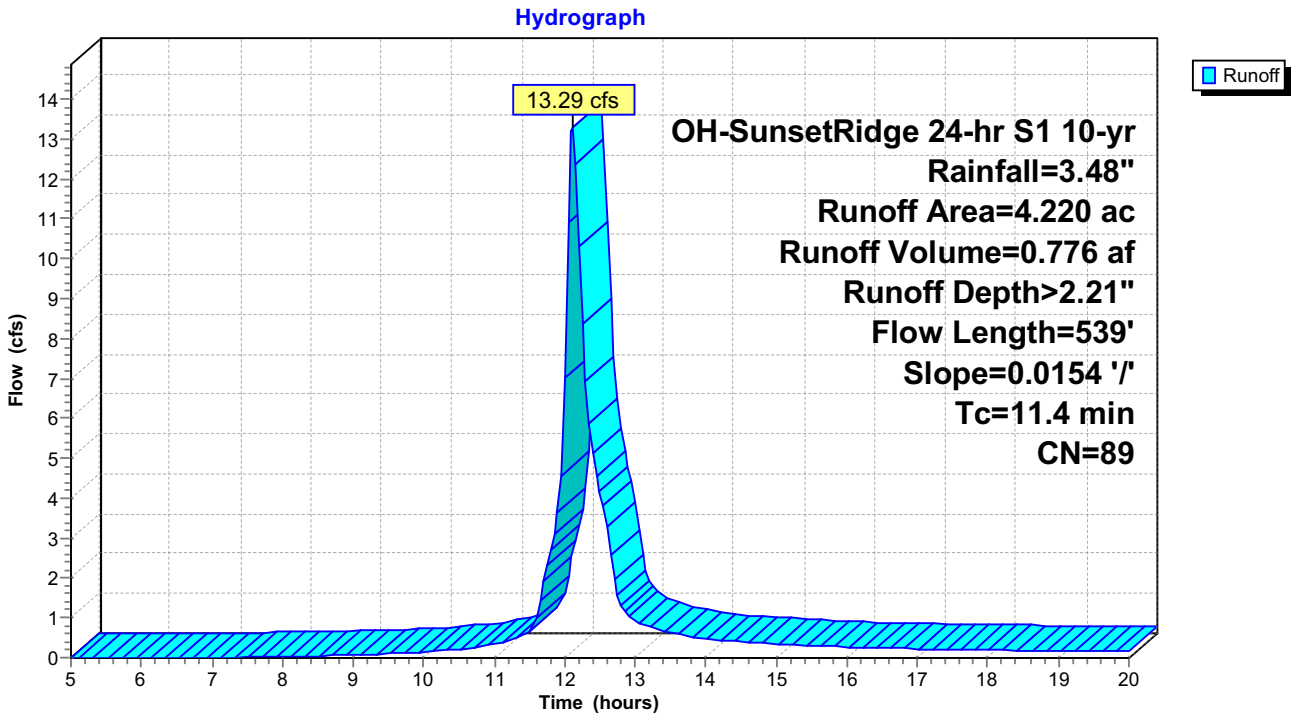
Runoff = 13.29 cfs @ 12.11 hrs, Volume= 0.776 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
4.220	89	Row crops, straight row, Good, HSG D
4.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	539	0.0154	0.79		**Lag/CN Method,**

Subcatchment 36S: DA-23



Summary for Subcatchment 37S: DA-24

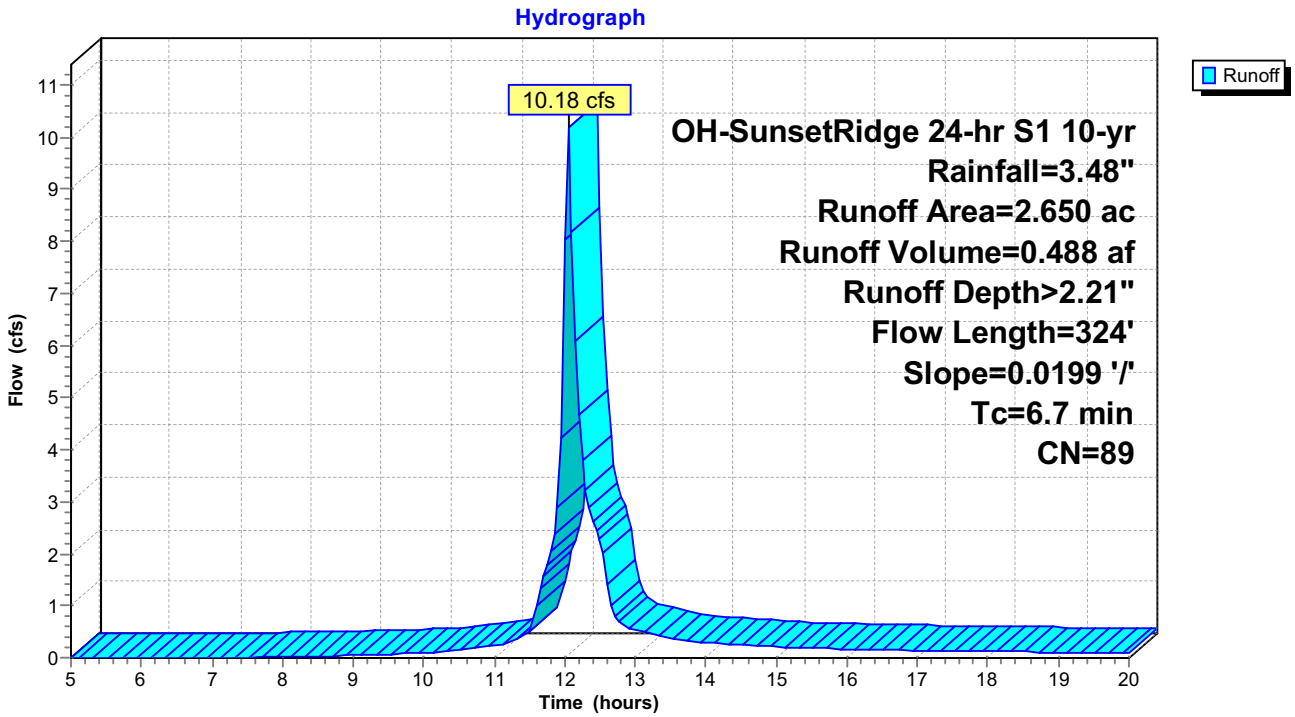
Runoff = 10.18 cfs @ 12.05 hrs, Volume= 0.488 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
2.650	89	Row crops, straight row, Good, HSG D
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	324	0.0199	0.81		**Lag/CN Method,**

Subcatchment 37S: DA-24



Summary for Subcatchment 38S: DA-25

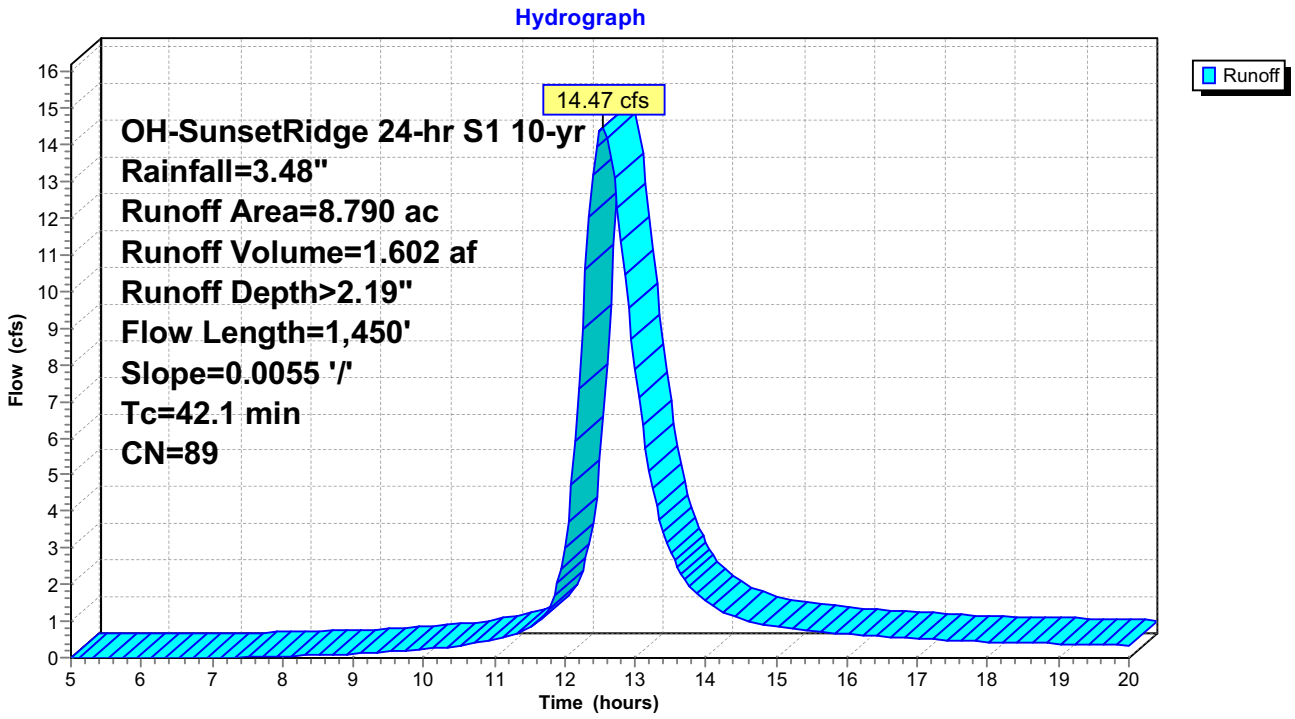
Runoff = 14.47 cfs @ 12.54 hrs, Volume= 1.602 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.790	89	Row crops, straight row, Good, HSG D
8.790		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
42.1	1,450	0.0055	0.57		**Lag/CN Method,**

Subcatchment 38S: DA-25



Summary for Subcatchment 39S: DA-26

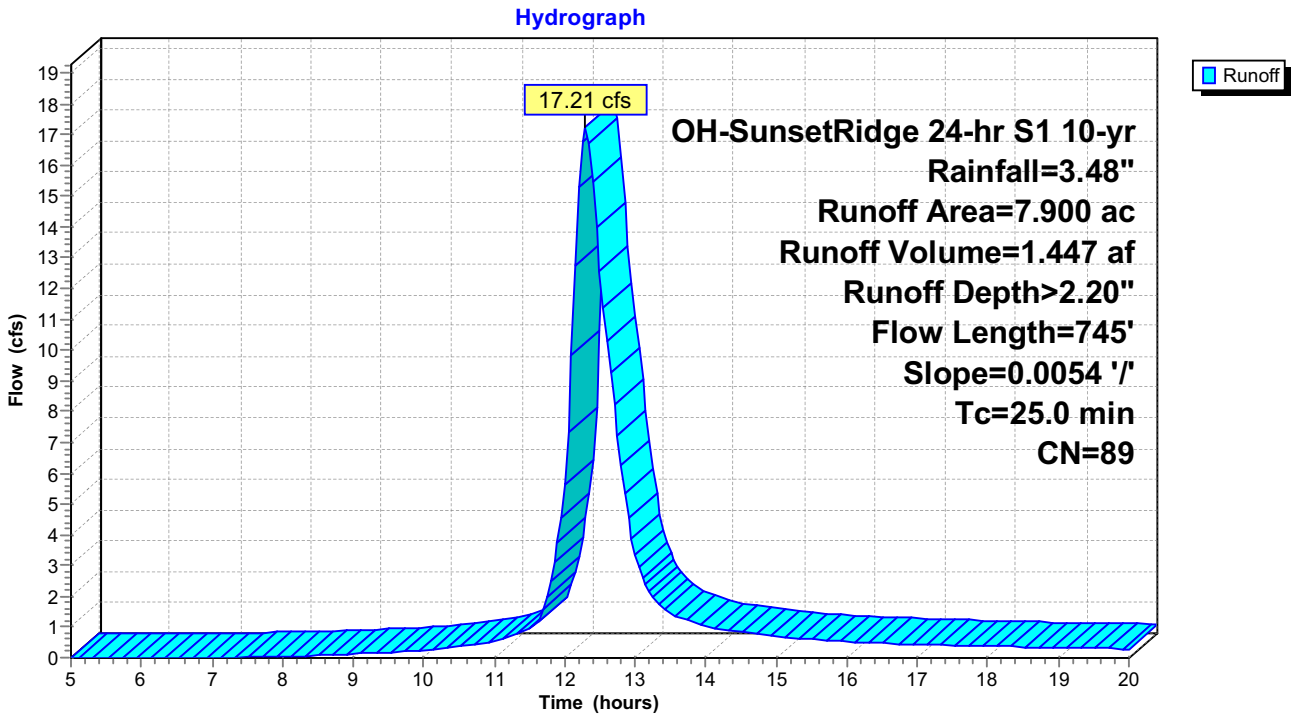
Runoff = 17.21 cfs @ 12.30 hrs, Volume= 1.447 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
7.900	89	Row crops, straight row, Good, HSG D
7.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.0	745	0.0054	0.50		**Lag/CN Method,**

Subcatchment 39S: DA-26



Summary for Subcatchment 40S: DA-27

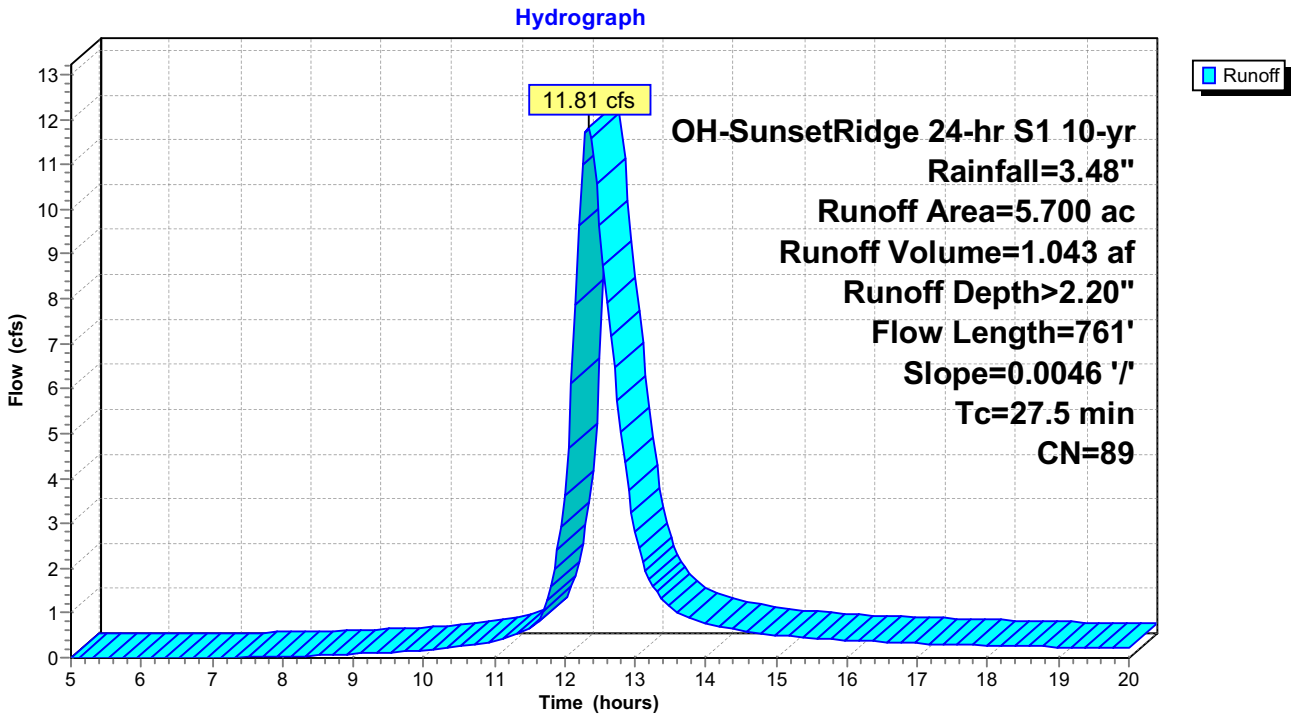
Runoff = 11.81 cfs @ 12.33 hrs, Volume= 1.043 af, Depth> 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
5.700	89	Row crops, straight row, Good, HSG D
5.700		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.5	761	0.0046	0.46		**Lag/CN Method,**

Subcatchment 40S: DA-27



Summary for Subcatchment 41S: DA-28

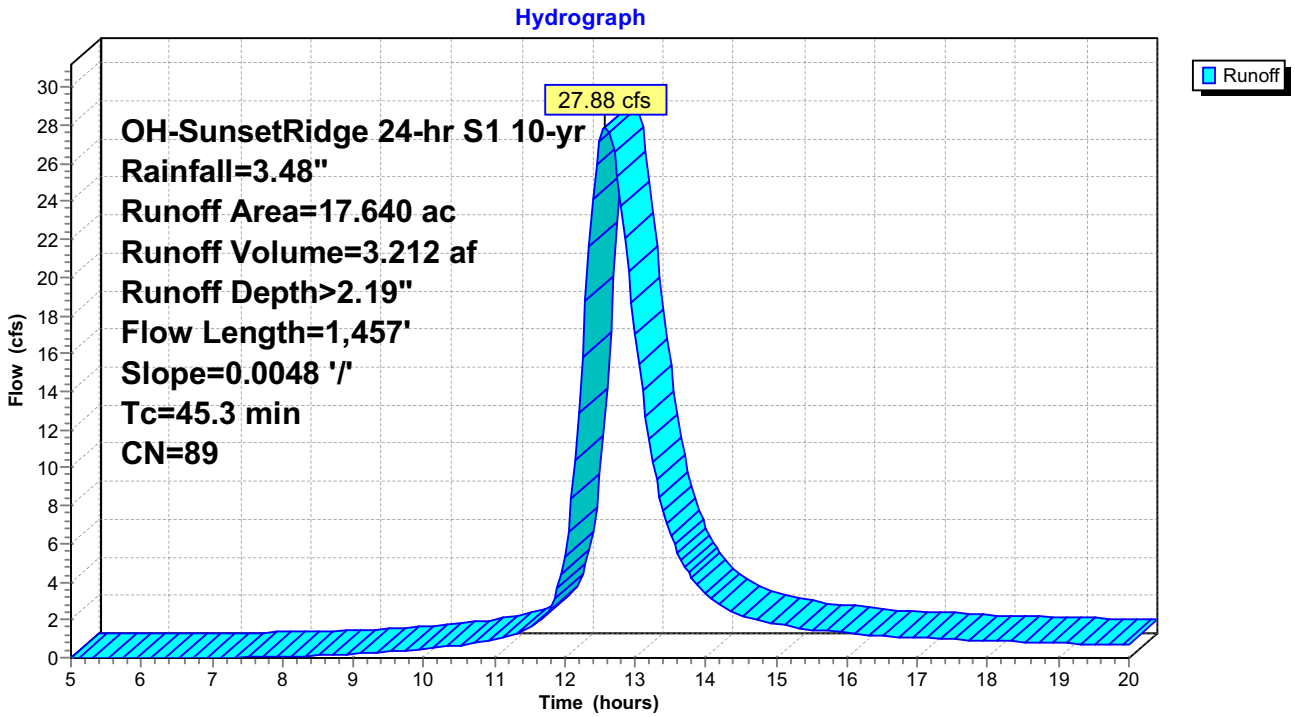
Runoff = 27.88 cfs @ 12.58 hrs, Volume= 3.212 af, Depth> 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
17.640	89	Row crops, straight row, Good, HSG D
17.640		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.3	1,457	0.0048	0.54		**Lag/CN Method,**

Subcatchment 41S: DA-28



Summary for Subcatchment 42S: DA-29

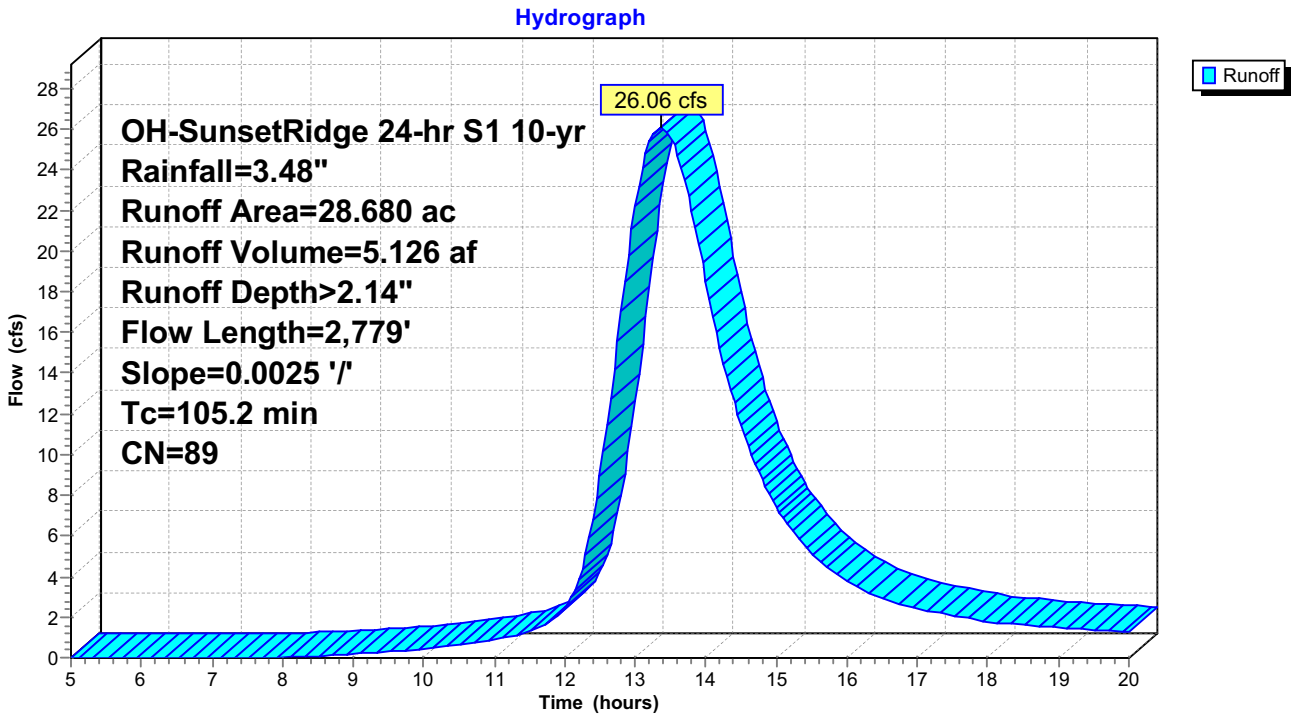
Runoff = 26.06 cfs @ 13.37 hrs, Volume= 5.126 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
28.680	89	Row crops, straight row, Good, HSG D
28.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
105.2	2,779	0.0025	0.44		**Lag/CN Method,**

Subcatchment 42S: DA-29



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-01 Runoff Area=26.430 ac 0.00% Impervious Runoff Depth>3.85"
Flow Length=1,305' Slope=0.0072 '/' Tc=33.9 min CN=89 Runoff=80.54 cfs 8.485 af

Subcatchment 7S: DA-02 Runoff Area=16.670 ac 0.00% Impervious Runoff Depth>3.71"
Flow Length=1,699' Slope=0.0026 '/' Tc=72.3 min CN=88 Runoff=32.46 cfs 5.151 af

Subcatchment 8S: DA-03 Runoff Area=16.800 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=933' Slope=0.0050 '/' Tc=31.1 min CN=89 Runoff=53.40 cfs 5.397 af

Subcatchment 9S: DA-04 Runoff Area=17.810 ac 0.00% Impervious Runoff Depth>3.85"
Flow Length=1,141' Slope=0.0041 '/' Tc=40.3 min CN=89 Runoff=49.55 cfs 5.708 af

Subcatchment 10S: DA-05 Runoff Area=13.720 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=539' Slope=0.0150 '/' Tc=11.6 min CN=89 Runoff=68.07 cfs 4.430 af

Subcatchment 11S: DA-06 Runoff Area=8.750 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=705' Slope=0.0048 '/' Tc=25.3 min CN=89 Runoff=30.74 cfs 2.815 af

Subcatchment 12S: DA-07 Runoff Area=62.460 ac 0.00% Impervious Runoff Depth>3.80"
Flow Length=1,973' Slope=0.0023 '/' Tc=83.4 min CN=89 Runoff=112.96 cfs 19.771 af

Subcatchment 13S: DA-08 Runoff Area=6.400 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=447' Slope=0.0100 '/' Tc=12.2 min CN=89 Runoff=31.18 cfs 2.066 af

Subcatchment 14S: DA-09 Runoff Area=26.020 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=909' Slope=0.0086 '/' Tc=23.2 min CN=89 Runoff=95.48 cfs 8.377 af

Subcatchment 15S: DA-10 Runoff Area=18.870 ac 0.00% Impervious Runoff Depth>3.84"
Flow Length=1,487' Slope=0.0050 '/' Tc=45.1 min CN=89 Runoff=49.36 cfs 6.040 af

Subcatchment 16S: DA-11 Runoff Area=35.470 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=803' Slope=0.0135 '/' Tc=16.8 min CN=89 Runoff=150.27 cfs 11.437 af

Subcatchment 17S: DA-12 Runoff Area=9.150 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=1,004' Slope=0.0113 '/' Tc=21.9 min CN=89 Runoff=34.39 cfs 2.947 af

Subcatchment 18S: DA-13 Runoff Area=9.750 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=700' Slope=0.0114 '/' Tc=16.3 min CN=89 Runoff=41.79 cfs 3.144 af

Subcatchment 19S: DA-14 Runoff Area=68.350 ac 0.00% Impervious Runoff Depth>3.84"
Flow Length=1,812' Slope=0.0055 '/' Tc=50.4 min CN=89 Runoff=168.04 cfs 21.845 af

Subcatchment 20S: DA-15 Runoff Area=134.110 ac 0.00% Impervious Runoff Depth>3.81"
Flow Length=2,632' Slope=0.0050 '/' Tc=71.2 min CN=89 Runoff=269.53 cfs 42.607 af

Subcatchment 21S: DA-16 Runoff Area=2.190 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=456' Slope=0.0075 '/' Tc=14.3 min CN=89 Runoff=9.95 cfs 0.707 af

Subcatchment 22S: DA-17 Runoff Area=5.020 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=680' Slope=0.0051 '/' Tc=23.9 min CN=89 Runoff=18.18 cfs 1.616 af

Subcatchment 23S: DA-18 Runoff Area=7.840 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=660' Slope=0.0079 '/' Tc=18.7 min CN=89 Runoff=31.76 cfs 2.527 af

Subcatchment 24S: DA-19 Runoff Area=7.290 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=621' Slope=0.0129 '/' Tc=14.0 min CN=89 Runoff=33.40 cfs 2.352 af

Subcatchment 25S: DA-20 Runoff Area=5.180 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=816' Slope=0.0115 '/' Tc=18.4 min CN=89 Runoff=21.18 cfs 1.670 af

Subcatchment 34S: DA-21 Runoff Area=1.780 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=374' Slope=0.0083 '/' Tc=11.6 min CN=89 Runoff=8.83 cfs 0.575 af

Subcatchment 35S: DA-22 Runoff Area=3.540 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=720' Slope=0.0184 '/' Tc=13.2 min CN=89 Runoff=16.58 cfs 1.143 af

Subcatchment 36S: DA-23 Runoff Area=4.220 ac 0.00% Impervious Runoff Depth>3.87"
Flow Length=539' Slope=0.0154 '/' Tc=11.4 min CN=89 Runoff=21.11 cfs 1.363 af

Subcatchment 37S: DA-24 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>3.88"
Flow Length=324' Slope=0.0199 '/' Tc=6.7 min CN=89 Runoff=15.96 cfs 0.857 af

Subcatchment 38S: DA-25 Runoff Area=8.790 ac 0.00% Impervious Runoff Depth>3.84"
Flow Length=1,450' Slope=0.0055 '/' Tc=42.1 min CN=89 Runoff=23.84 cfs 2.816 af

Subcatchment 39S: DA-26 Runoff Area=7.900 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=745' Slope=0.0054 '/' Tc=25.0 min CN=89 Runoff=27.95 cfs 2.542 af

Subcatchment 40S: DA-27 Runoff Area=5.700 ac 0.00% Impervious Runoff Depth>3.86"
Flow Length=761' Slope=0.0046 '/' Tc=27.5 min CN=89 Runoff=19.23 cfs 1.833 af

Subcatchment 41S: DA-28 Runoff Area=17.640 ac 0.00% Impervious Runoff Depth>3.84"
Flow Length=1,457' Slope=0.0048 '/' Tc=45.3 min CN=89 Runoff=46.06 cfs 5.646 af

Subcatchment 42S: DA-29 Runoff Area=28.680 ac 0.00% Impervious Runoff Depth>3.77"
Flow Length=2,779' Slope=0.0025 '/' Tc=105.2 min CN=89 Runoff=43.85 cfs 9.016 af

Total Runoff Area = 579.180 ac Runoff Volume = 184.879 af Average Runoff Depth = 3.83"
100.00% Pervious = 579.180 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 6S: DA-01

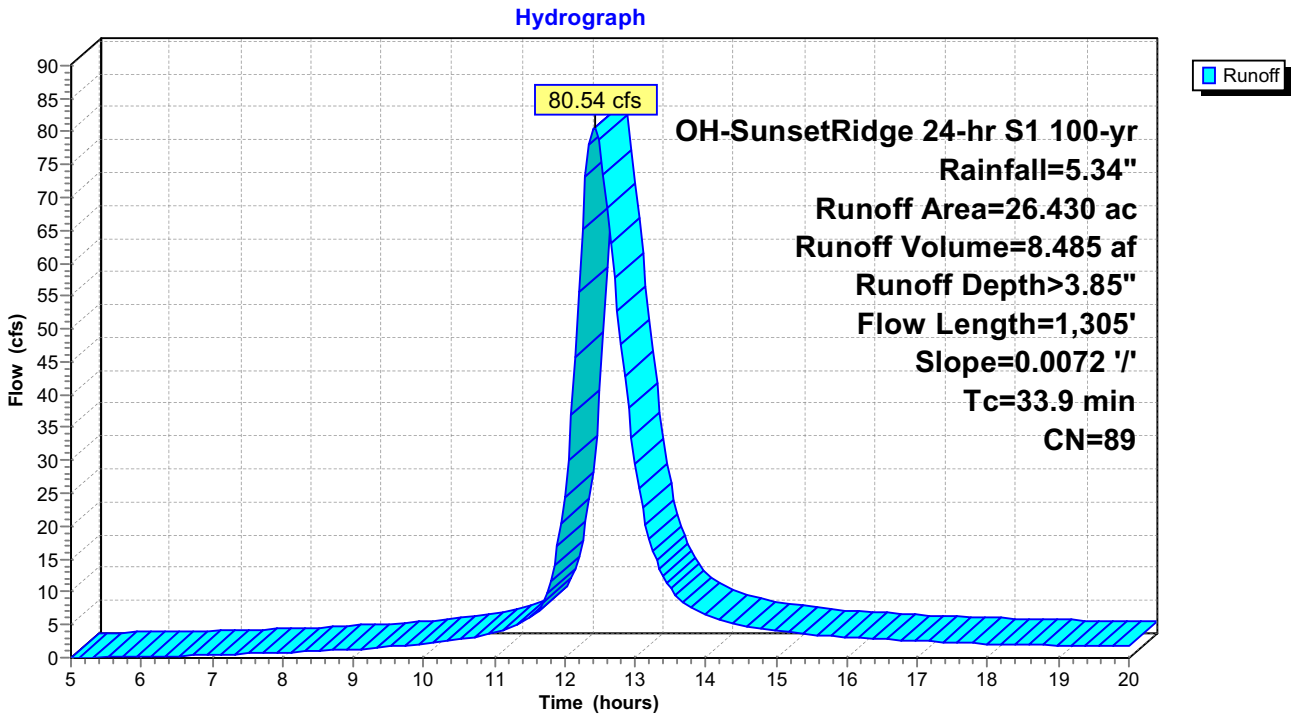
Runoff = 80.54 cfs @ 12.42 hrs, Volume= 8.485 af, Depth> 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
26.430	89	Row crops, straight row, Good, HSG D
26.430		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	1,305	0.0072	0.64		**Lag/CN Method,**

Subcatchment 6S: DA-01



Summary for Subcatchment 7S: DA-02

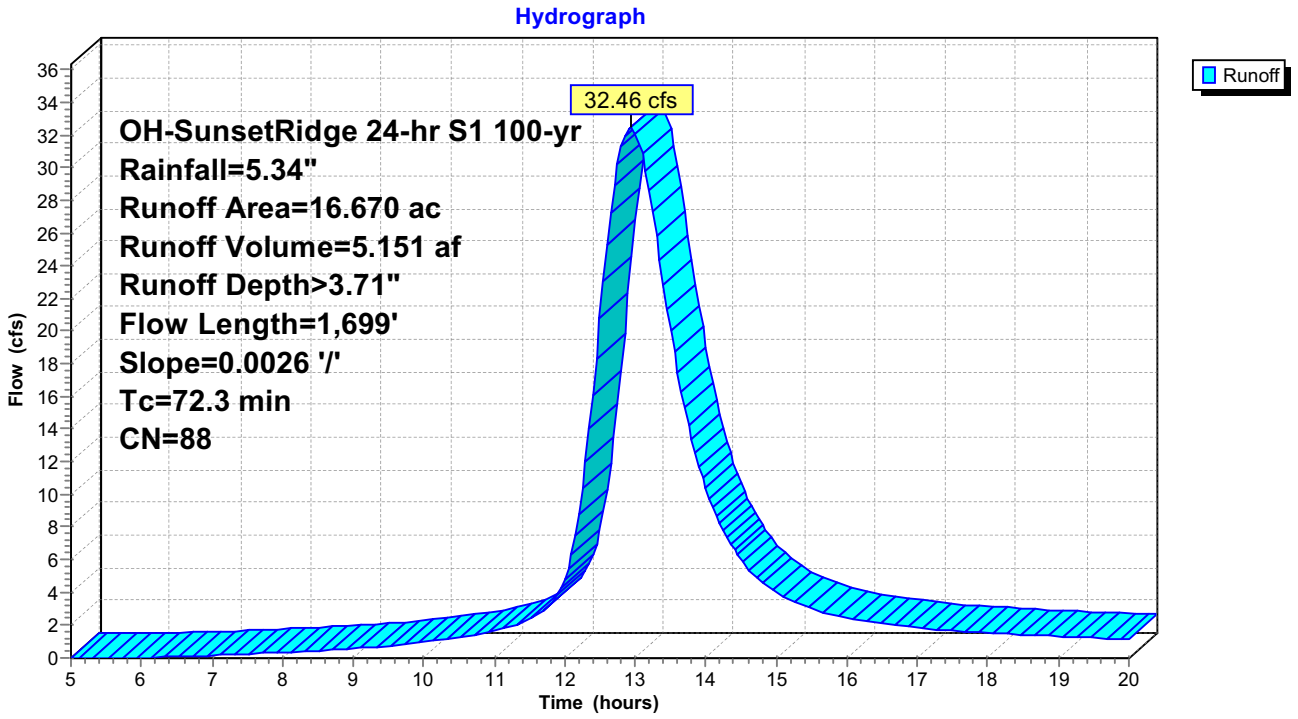
Runoff = 32.46 cfs @ 12.94 hrs, Volume= 5.151 af, Depth> 3.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
15.410	89	Row crops, straight row, Good, HSG D
1.260	77	Woods, Good, HSG D
16.670	88	Weighted Average
16.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
72.3	1,699	0.0026	0.39		**Lag/CN Method,**

Subcatchment 7S: DA-02



Summary for Subcatchment 8S: DA-03

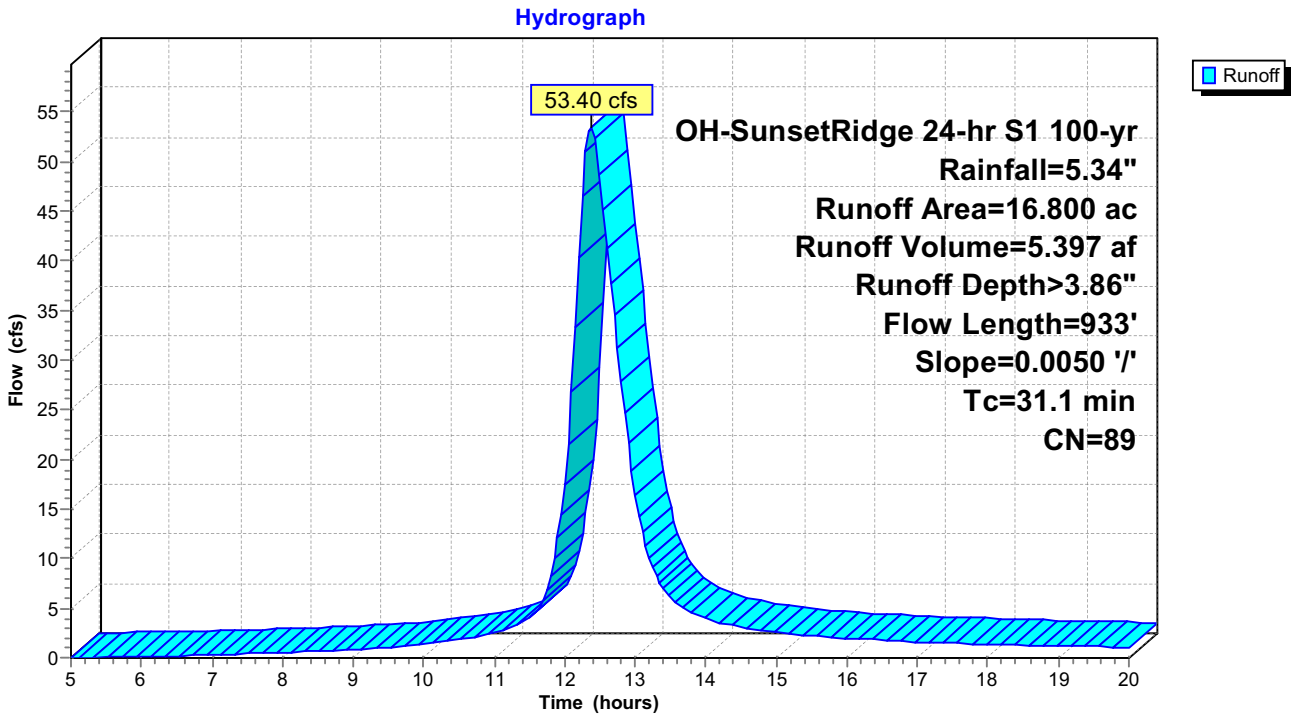
Runoff = 53.40 cfs @ 12.38 hrs, Volume= 5.397 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
16.800	89	Row crops, straight row, Good, HSG D
16.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
31.1	933	0.0050	0.50		**Lag/CN Method,**

Subcatchment 8S: DA-03



Summary for Subcatchment 9S: DA-04

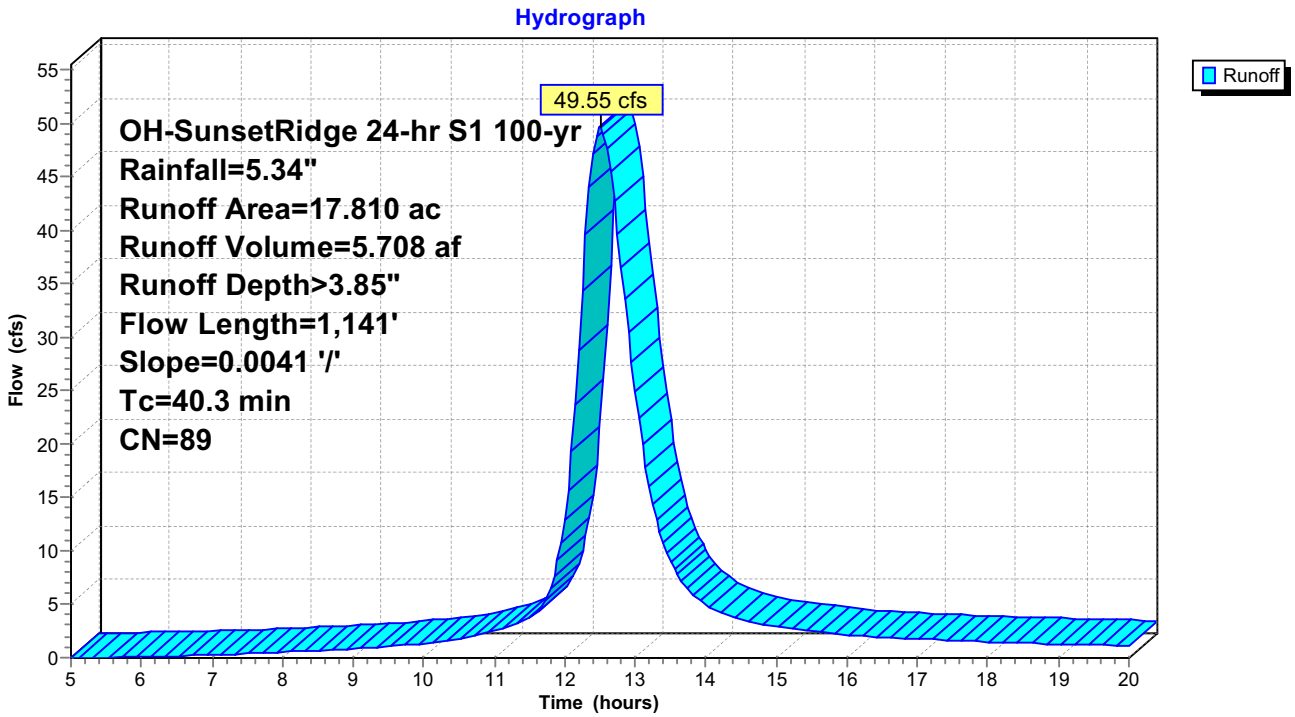
Runoff = 49.55 cfs @ 12.50 hrs, Volume= 5.708 af, Depth> 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
17.810	89	Row crops, straight row, Good, HSG D
17.810		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
40.3	1,141	0.0041	0.47		**Lag/CN Method,**

Subcatchment 9S: DA-04



Summary for Subcatchment 10S: DA-05

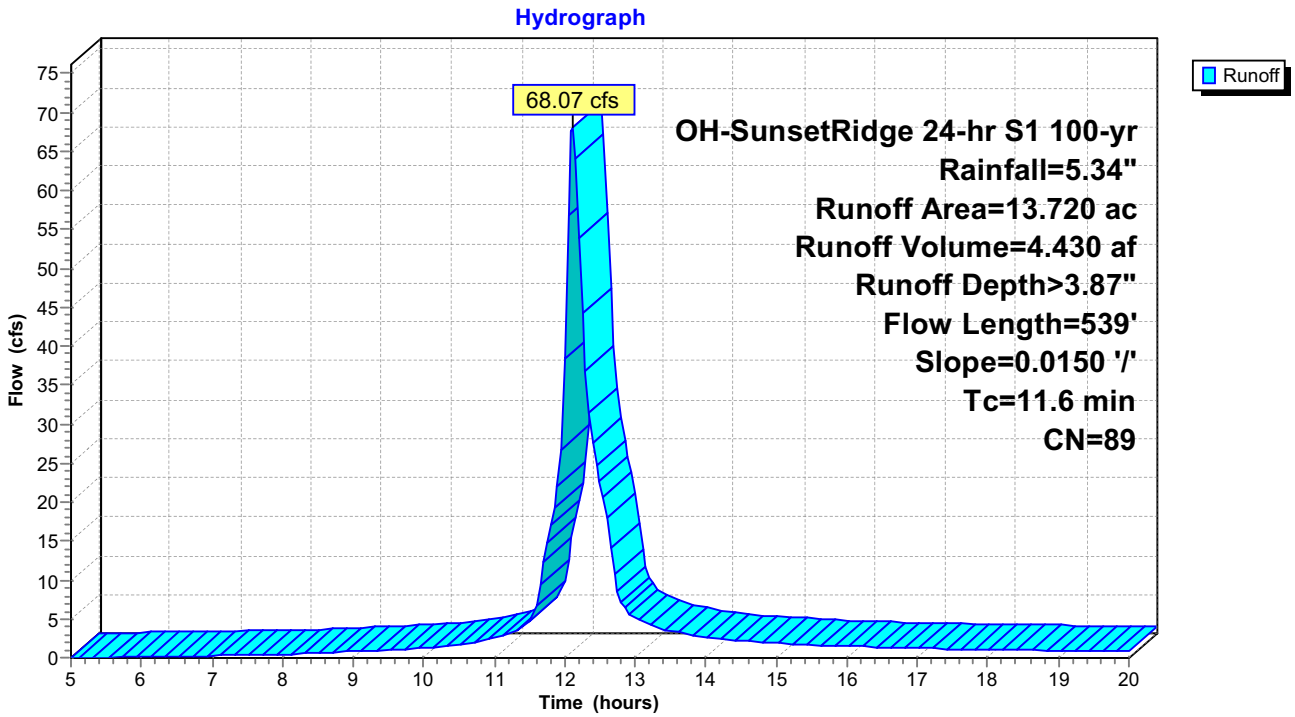
Runoff = 68.07 cfs @ 12.11 hrs, Volume= 4.430 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
13.720	89	Row crops, straight row, Good, HSG D
13.720		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	539	0.0150	0.78		**Lag/CN Method,**

Subcatchment 10S: DA-05



Summary for Subcatchment 11S: DA-06

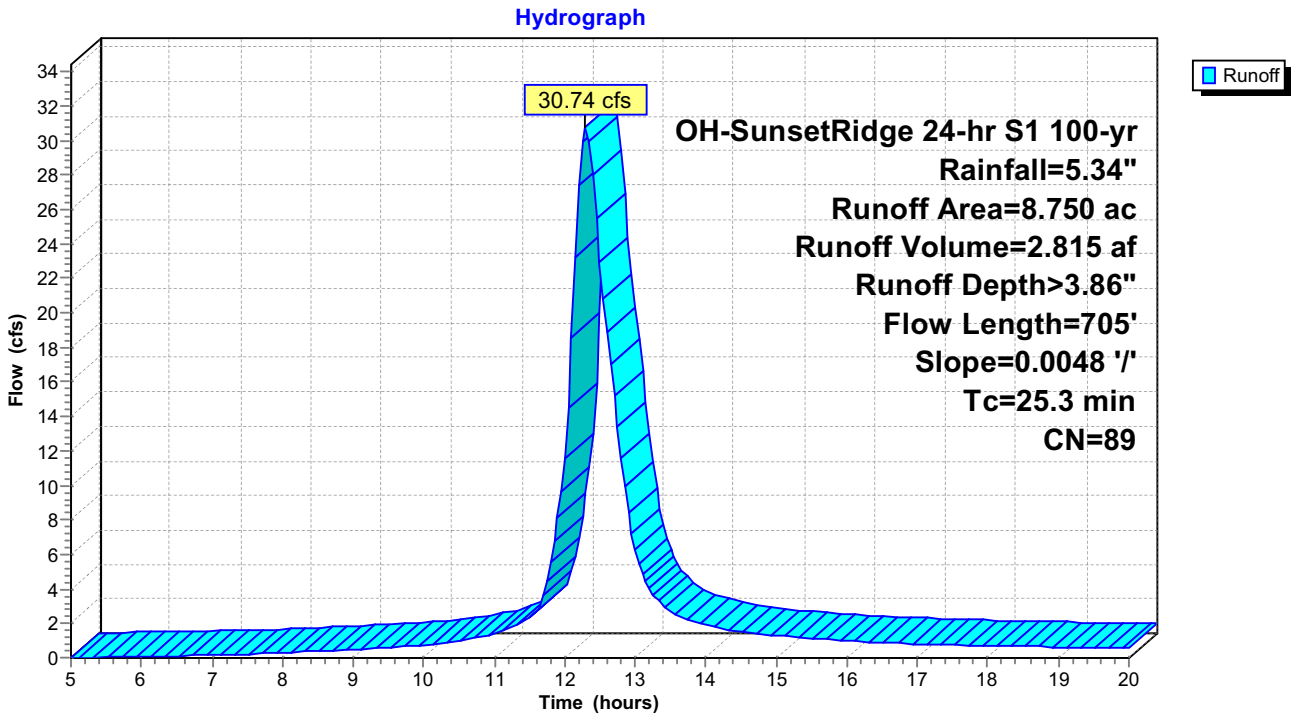
Runoff = 30.74 cfs @ 12.30 hrs, Volume= 2.815 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.750	89	Row crops, straight row, Good, HSG D
8.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.3	705	0.0048	0.46		**Lag/CN Method,**

Subcatchment 11S: DA-06



Summary for Subcatchment 12S: DA-07

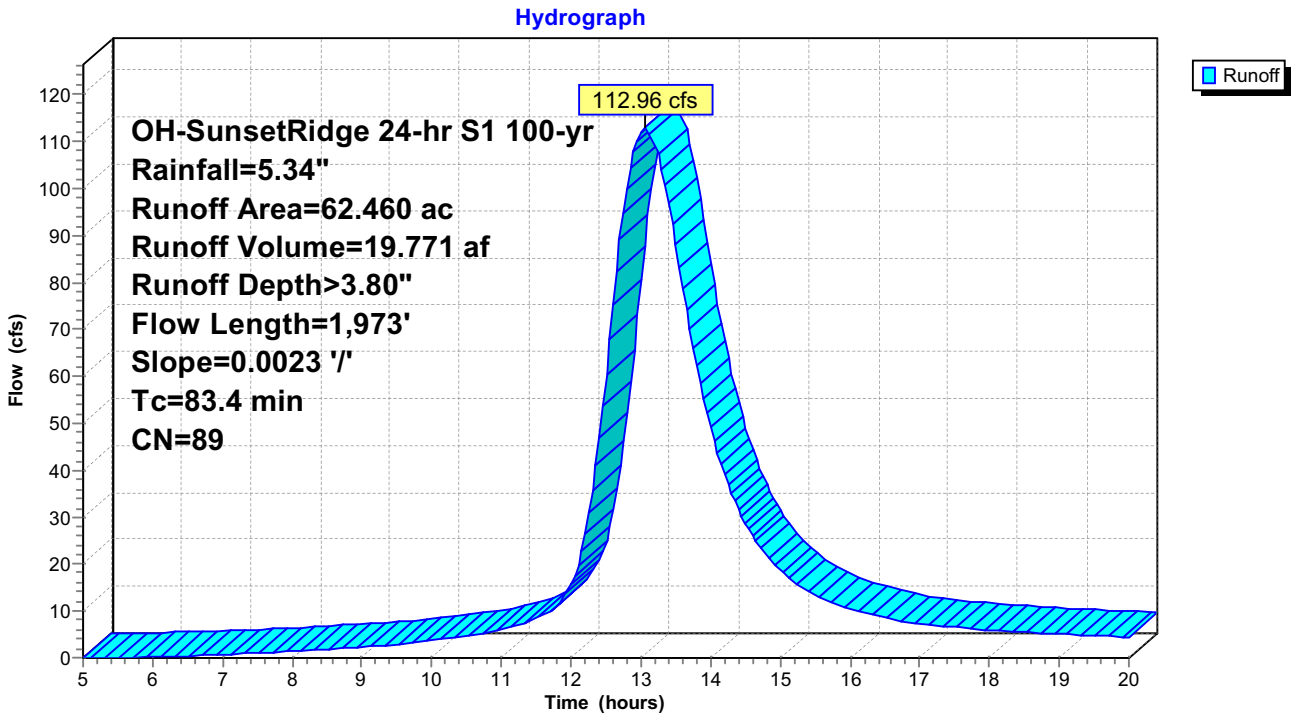
Runoff = 112.96 cfs @ 13.06 hrs, Volume= 19.771 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
62.460	89	Row crops, straight row, Good, HSG D
62.460		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
83.4	1,973	0.0023	0.39		**Lag/CN Method,**

Subcatchment 12S: DA-07



Summary for Subcatchment 13S: DA-08

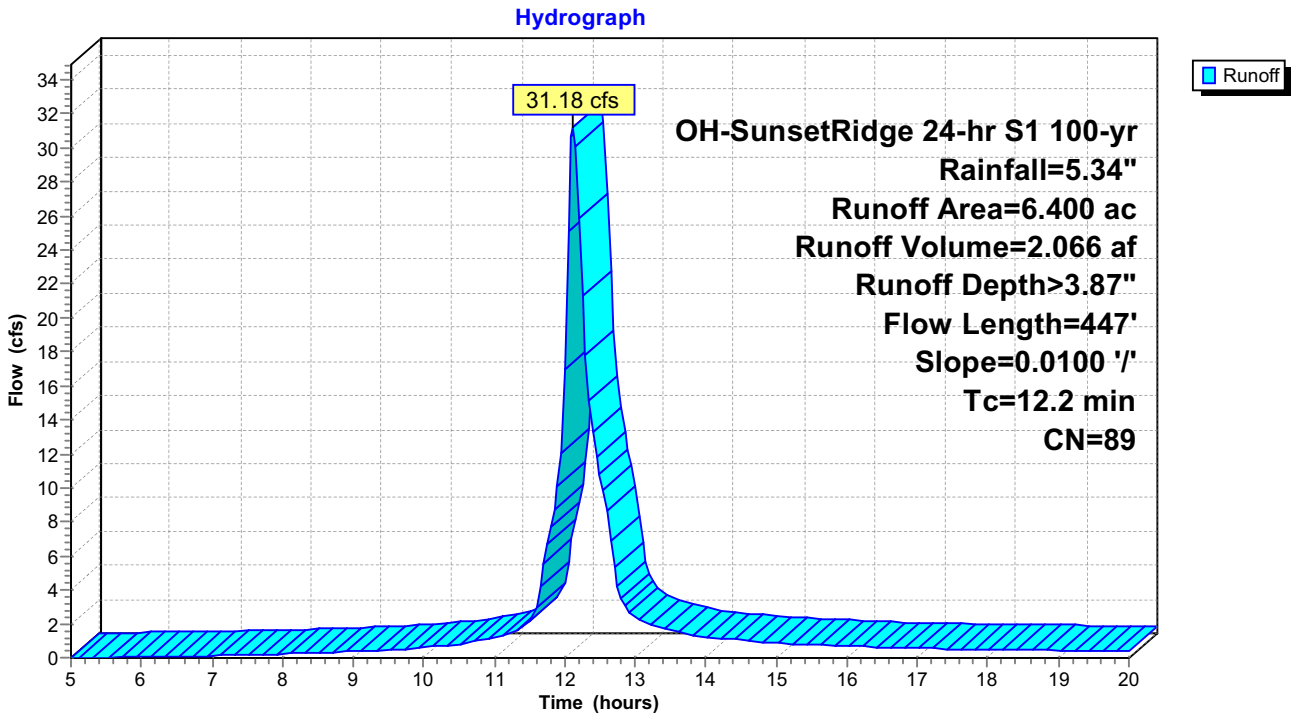
Runoff = 31.18 cfs @ 12.12 hrs, Volume= 2.066 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
6.400	89	Row crops, straight row, Good, HSG D
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	447	0.0100	0.61		**Lag/CN Method,**

Subcatchment 13S: DA-08



Summary for Subcatchment 14S: DA-09

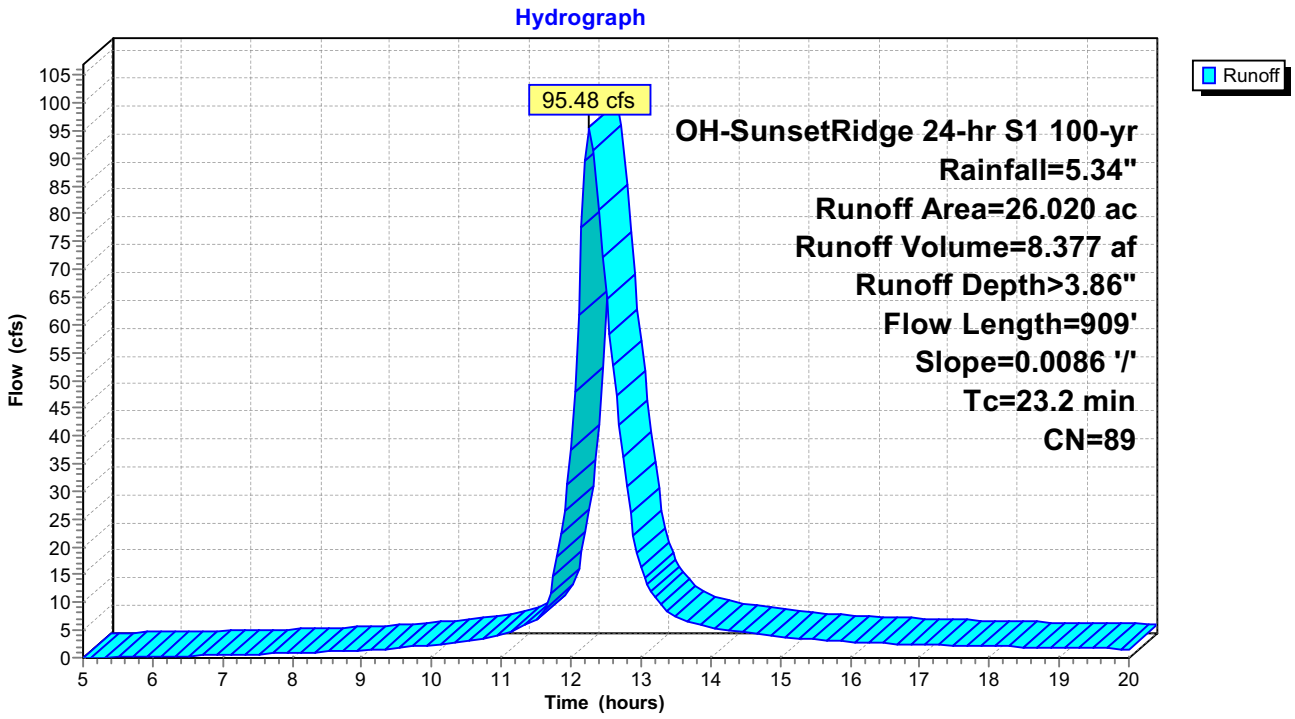
Runoff = 95.48 cfs @ 12.27 hrs, Volume= 8.377 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
26.020	89	Row crops, straight row, Good, HSG D
26.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.2	909	0.0086	0.65		**Lag/CN Method,**

Subcatchment 14S: DA-09



Summary for Subcatchment 15S: DA-10

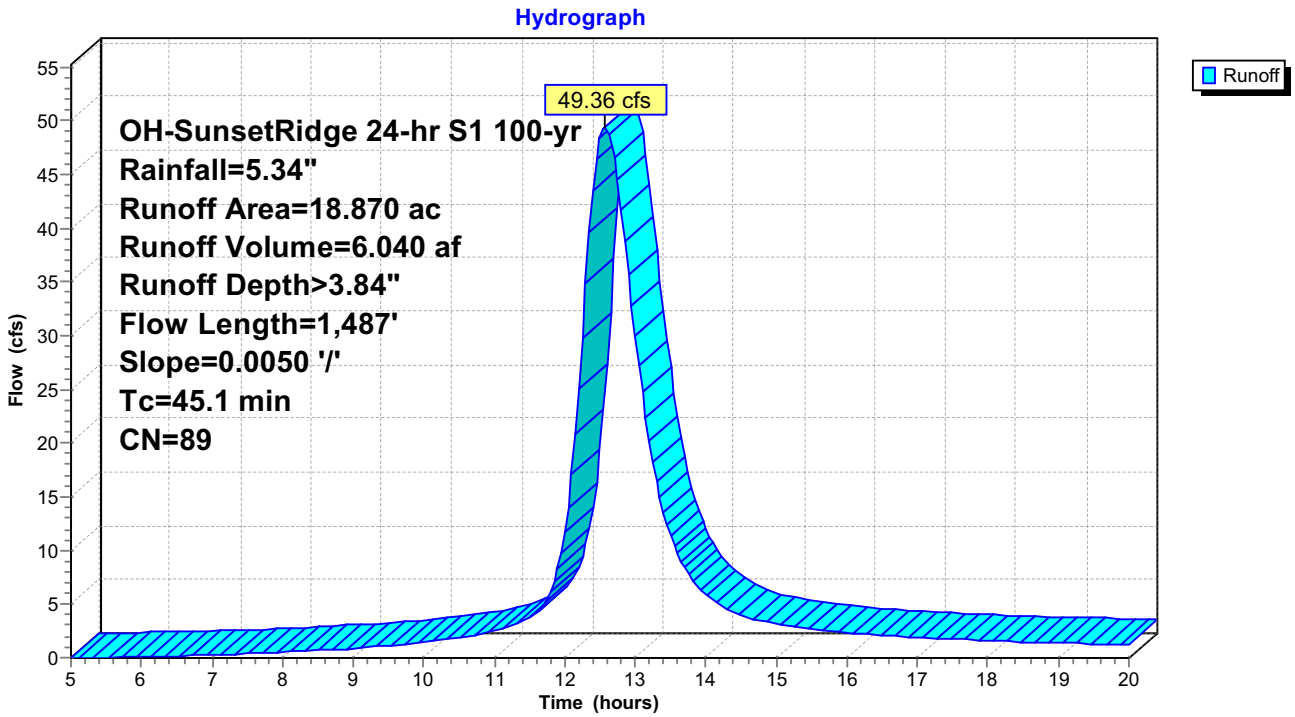
Runoff = 49.36 cfs @ 12.57 hrs, Volume= 6.040 af, Depth> 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
18.870	89	Row crops, straight row, Good, HSG D
18.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.1	1,487	0.0050	0.55		**Lag/CN Method,**

Subcatchment 15S: DA-10



Summary for Subcatchment 16S: DA-11

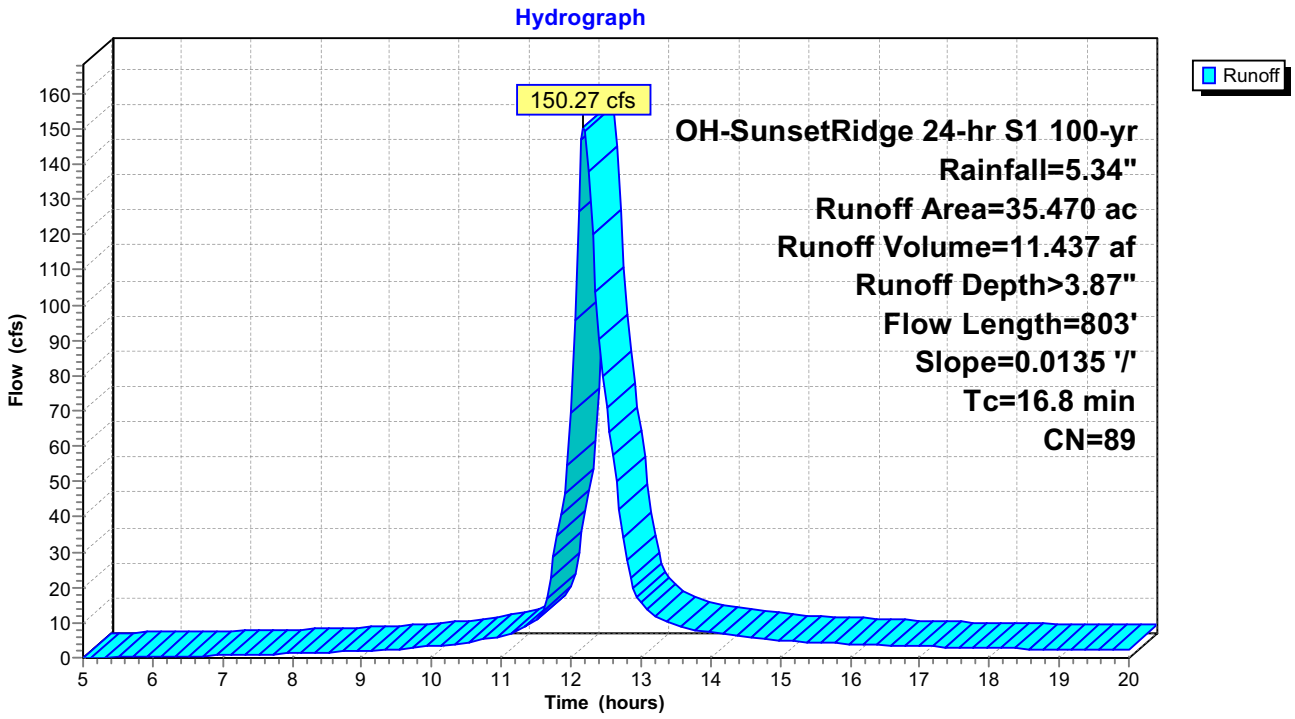
Runoff = 150.27 cfs @ 12.18 hrs, Volume= 11.437 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
35.470	89	Row crops, straight row, Good, HSG D
35.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	803	0.0135	0.80		**Lag/CN Method,**

Subcatchment 16S: DA-11



Summary for Subcatchment 17S: DA-12

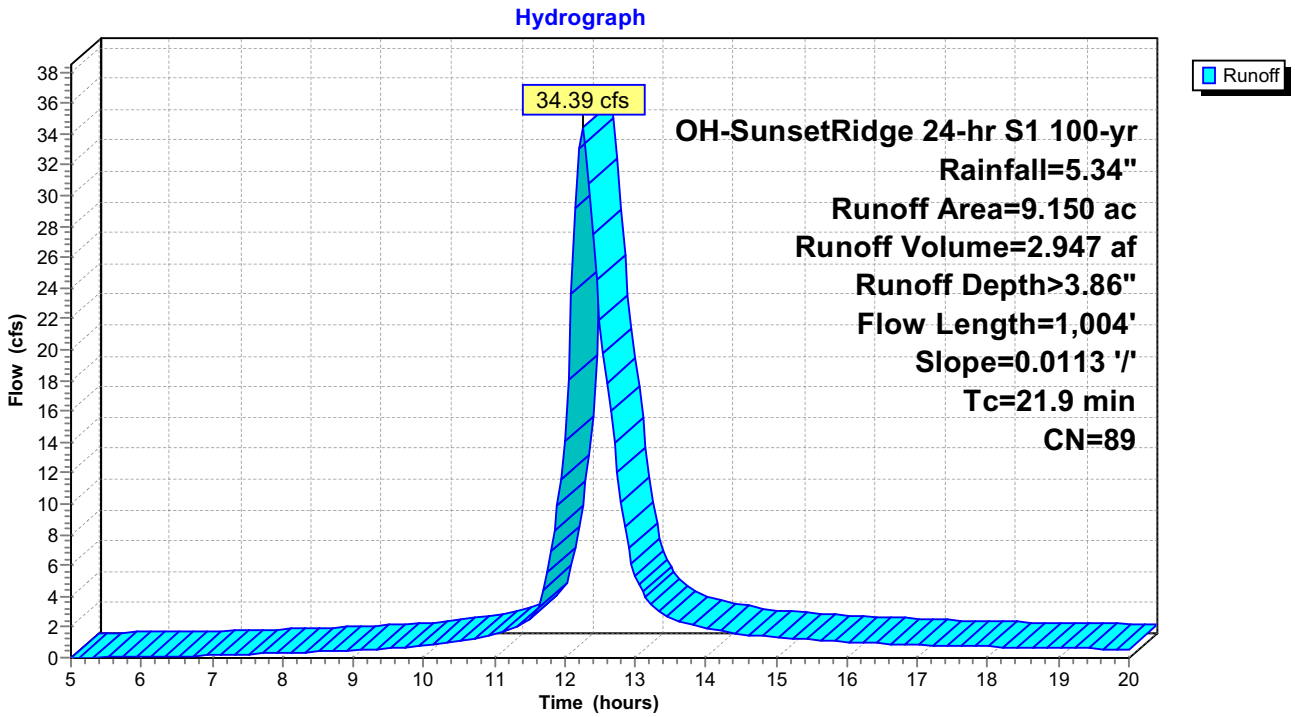
Runoff = 34.39 cfs @ 12.25 hrs, Volume= 2.947 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
9.150	89	Row crops, straight row, Good, HSG D
9.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	1,004	0.0113	0.76		**Lag/CN Method,**

Subcatchment 17S: DA-12



Summary for Subcatchment 18S: DA-13

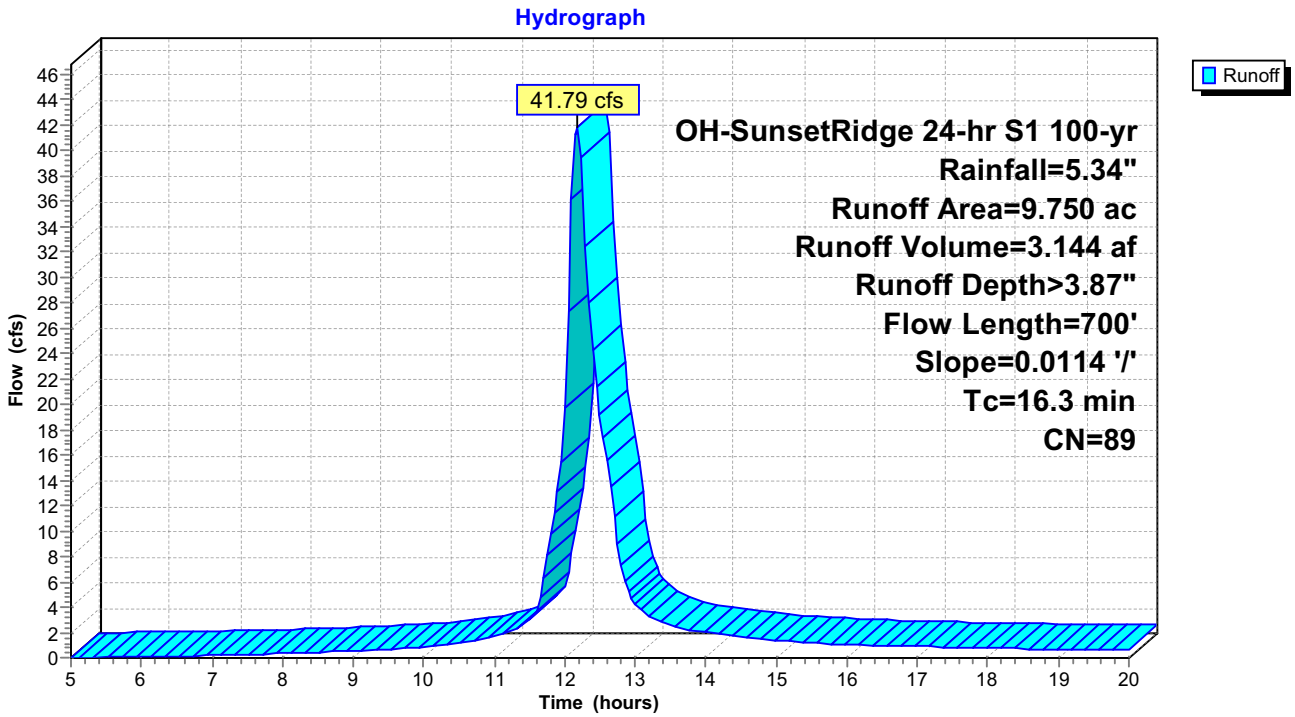
Runoff = 41.79 cfs @ 12.18 hrs, Volume= 3.144 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
9.750	89	Row crops, straight row, Good, HSG D
9.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.3	700	0.0114	0.71		**Lag/CN Method,**

Subcatchment 18S: DA-13



Summary for Subcatchment 19S: DA-14

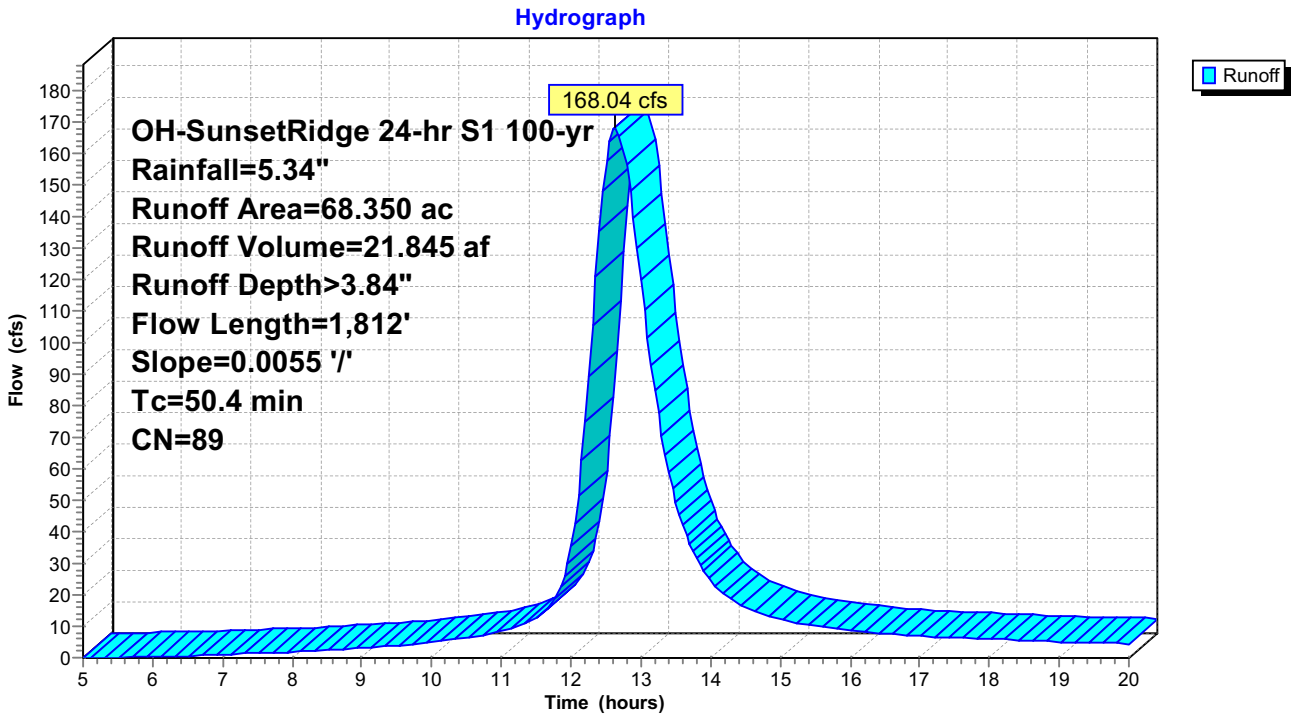
Runoff = 168.04 cfs @ 12.63 hrs, Volume= 21.845 af, Depth> 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
68.350	89	Row crops, straight row, Good, HSG D
68.350		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
50.4	1,812	0.0055	0.60		**Lag/CN Method,**

Subcatchment 19S: DA-14



Summary for Subcatchment 20S: DA-15

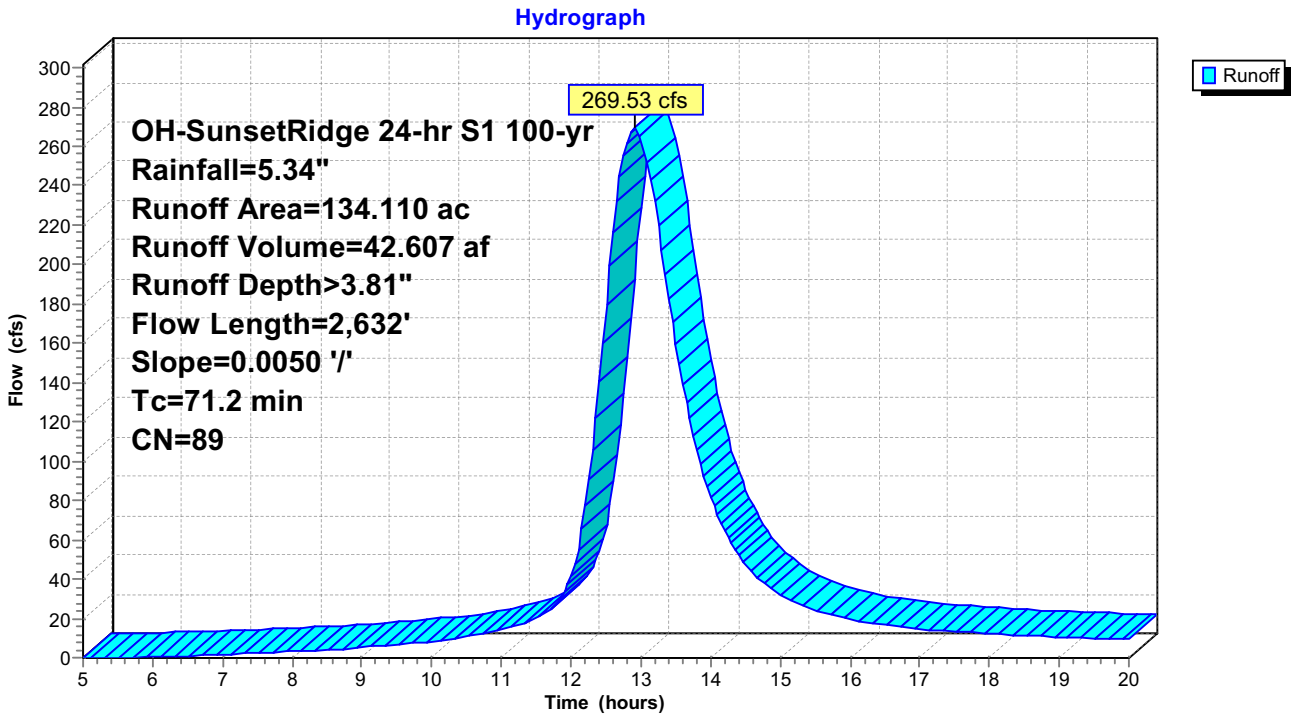
Runoff = 269.53 cfs @ 12.91 hrs, Volume= 42.607 af, Depth> 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
134.110	89	Row crops, straight row, Good, HSG D
134.110		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
71.2	2,632	0.0050	0.62		**Lag/CN Method,**

Subcatchment 20S: DA-15



Summary for Subcatchment 21S: DA-16

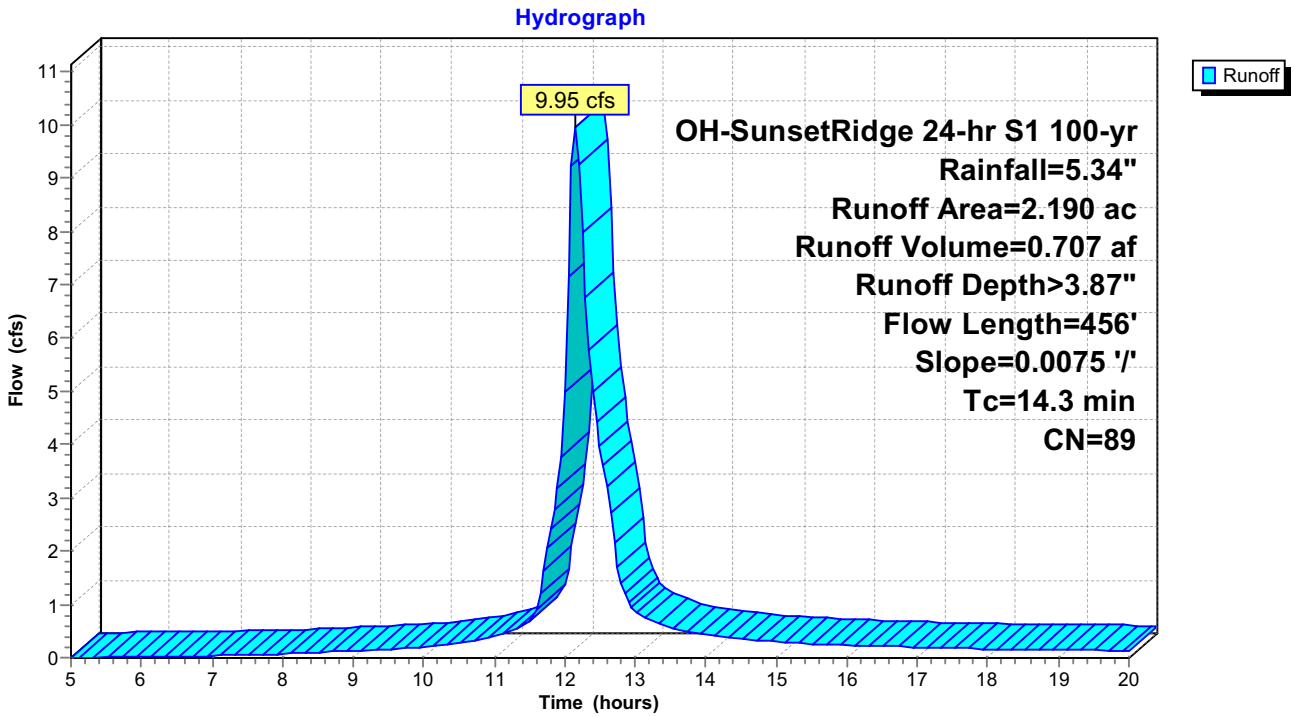
Runoff = 9.95 cfs @ 12.15 hrs, Volume= 0.707 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
2.190	89	Row crops, straight row, Good, HSG D
2.190		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	456	0.0075	0.53		**Lag/CN Method,**

Subcatchment 21S: DA-16



Summary for Subcatchment 22S: DA-17

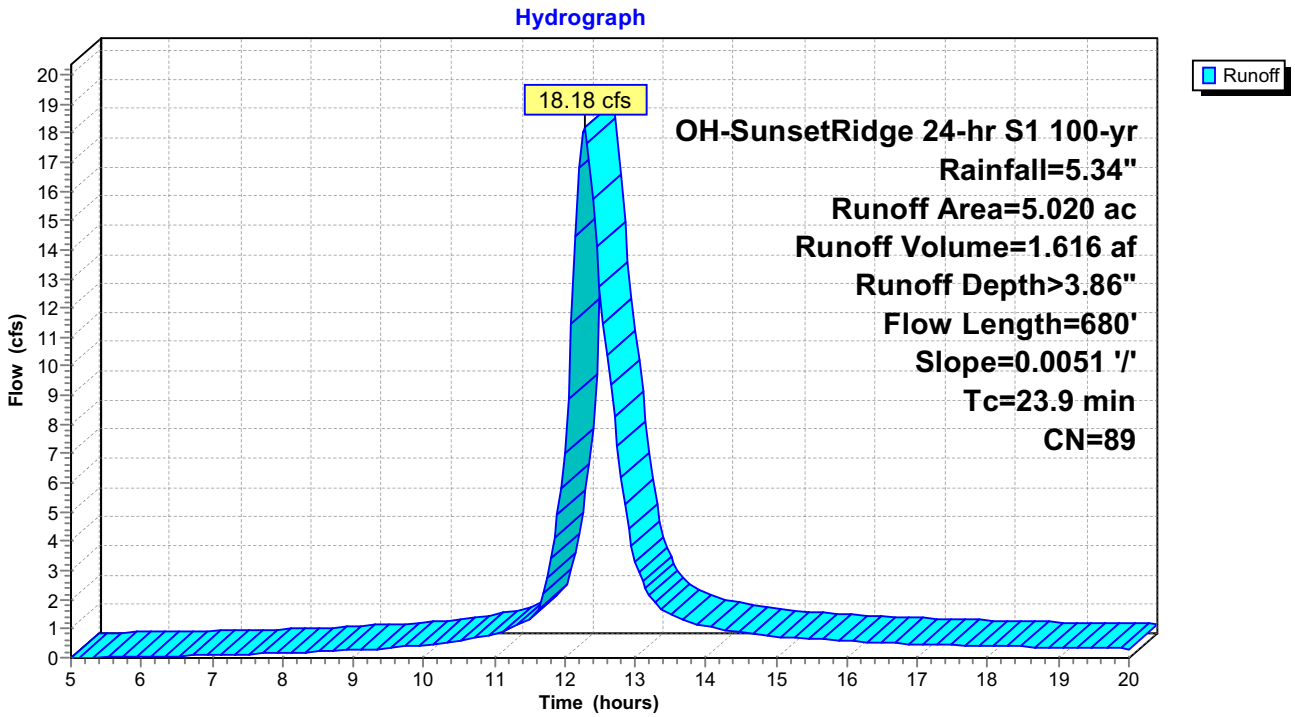
Runoff = 18.18 cfs @ 12.28 hrs, Volume= 1.616 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
5.020	89	Row crops, straight row, Good, HSG D
5.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.9	680	0.0051	0.47		**Lag/CN Method,**

Subcatchment 22S: DA-17



Summary for Subcatchment 23S: DA-18

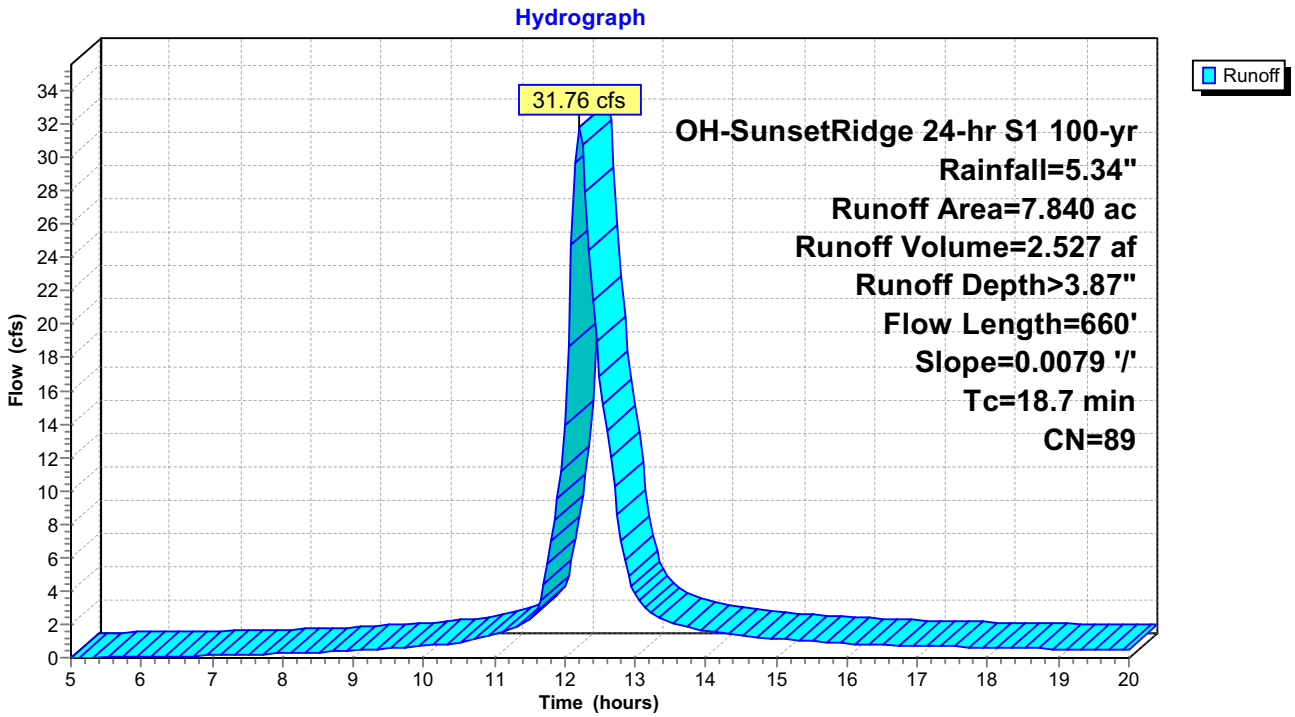
Runoff = 31.76 cfs @ 12.21 hrs, Volume= 2.527 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
7.840	89	Row crops, straight row, Good, HSG D
7.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.7	660	0.0079	0.59		**Lag/CN Method,**

Subcatchment 23S: DA-18



Summary for Subcatchment 24S: DA-19

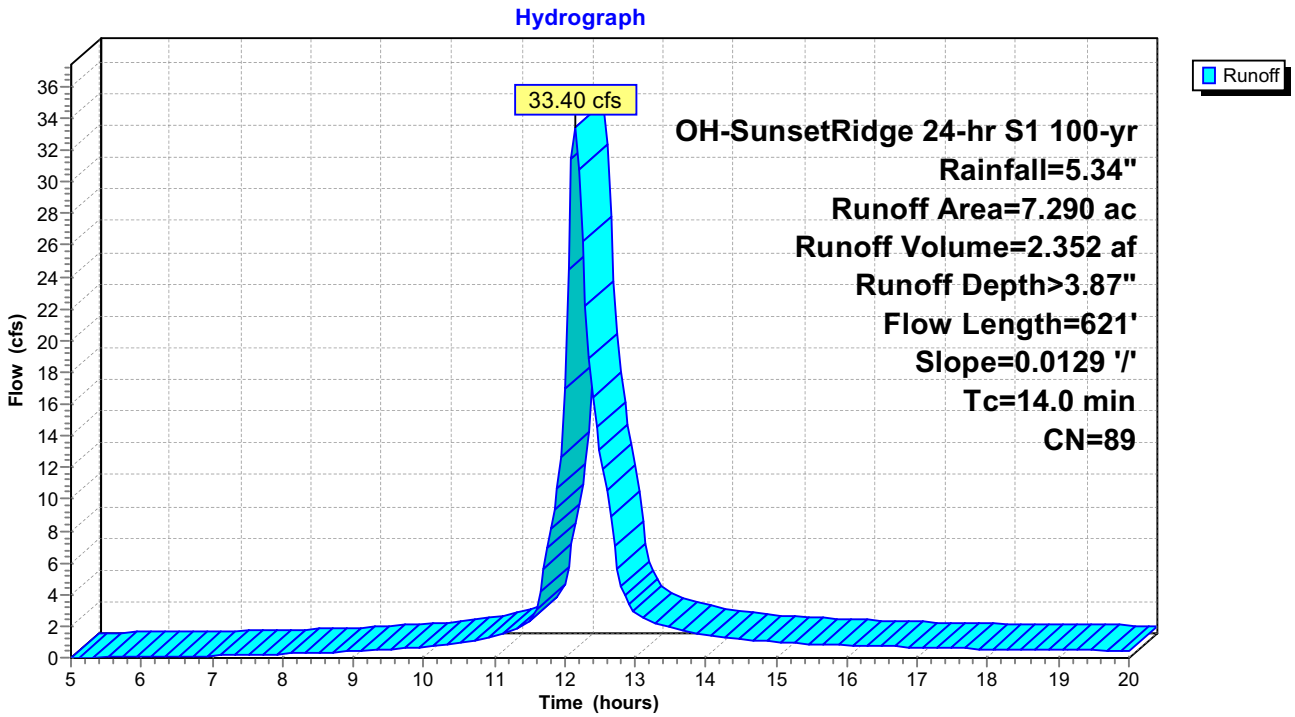
Runoff = 33.40 cfs @ 12.15 hrs, Volume= 2.352 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
7.290	89	Row crops, straight row, Good, HSG D
7.290		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	621	0.0129	0.74		**Lag/CN Method,**

Subcatchment 24S: DA-19



Summary for Subcatchment 25S: DA-20

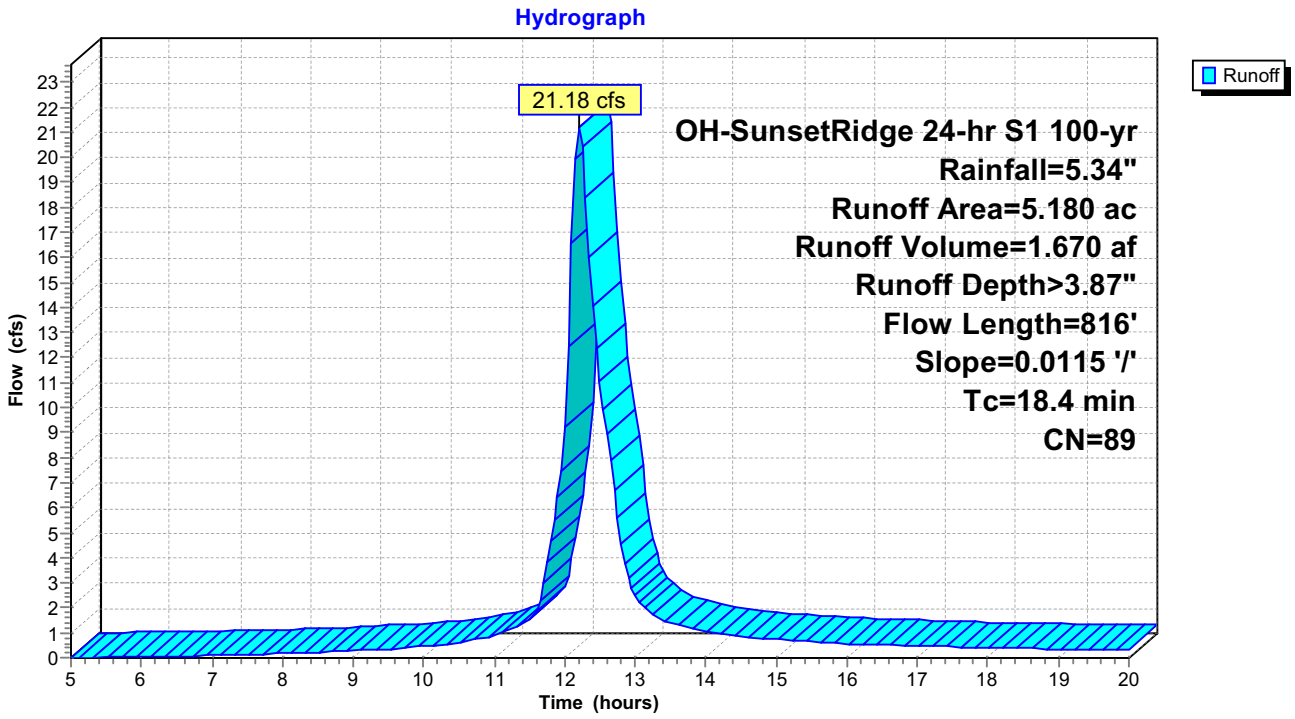
Runoff = 21.18 cfs @ 12.21 hrs, Volume= 1.670 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
5.180	89	Row crops, straight row, Good, HSG D
5.180		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	816	0.0115	0.74		**Lag/CN Method,**

Subcatchment 25S: DA-20



Summary for Subcatchment 34S: DA-21

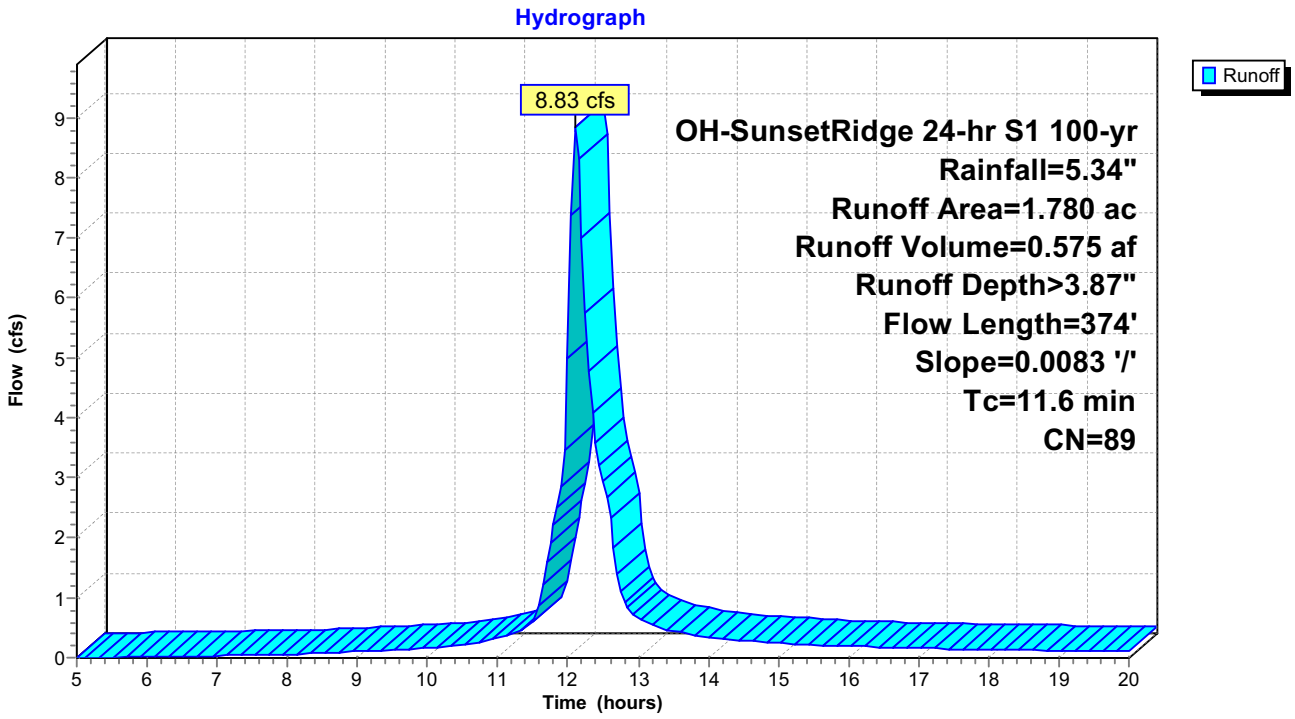
Runoff = 8.83 cfs @ 12.11 hrs, Volume= 0.575 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
1.780	89	Row crops, straight row, Good, HSG D
1.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	374	0.0083	0.54		**Lag/CN Method,**

Subcatchment 34S: DA-21



Summary for Subcatchment 35S: DA-22

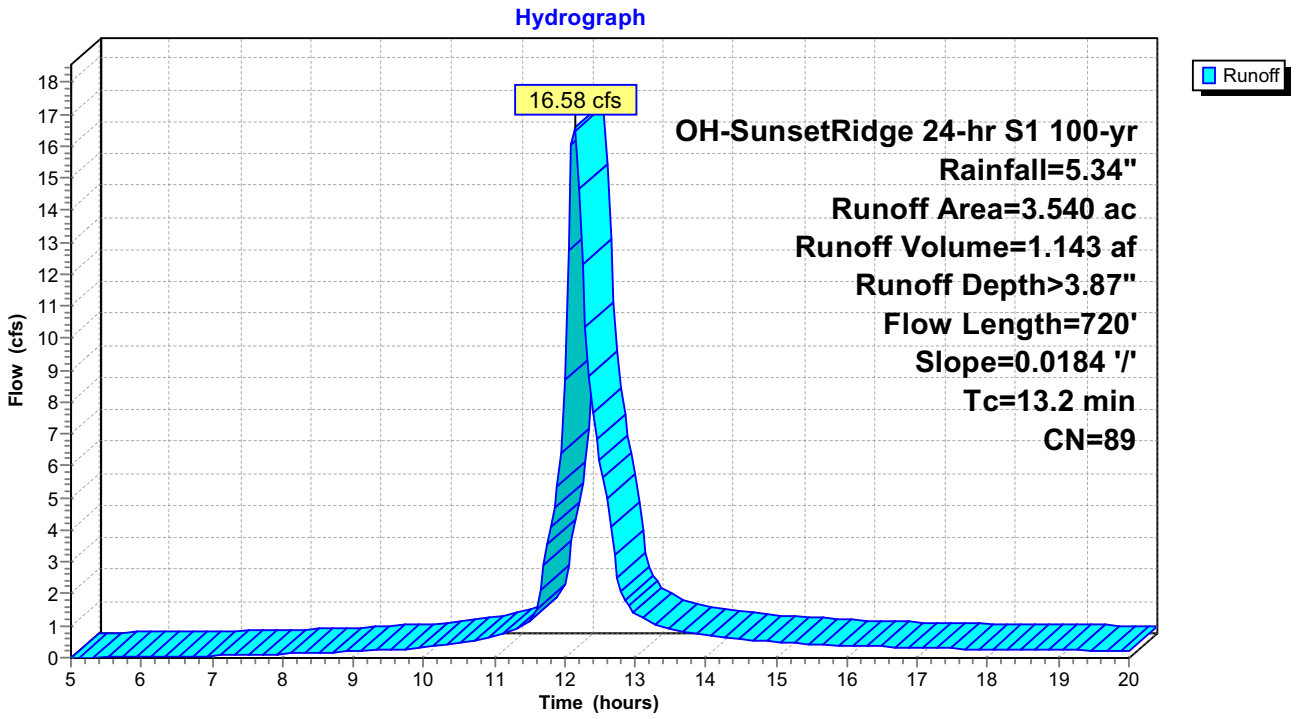
Runoff = 16.58 cfs @ 12.13 hrs, Volume= 1.143 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
3.540	89	Row crops, straight row, Good, HSG D
3.540		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	720	0.0184	0.91		**Lag/CN Method,**

Subcatchment 35S: DA-22



Summary for Subcatchment 36S: DA-23

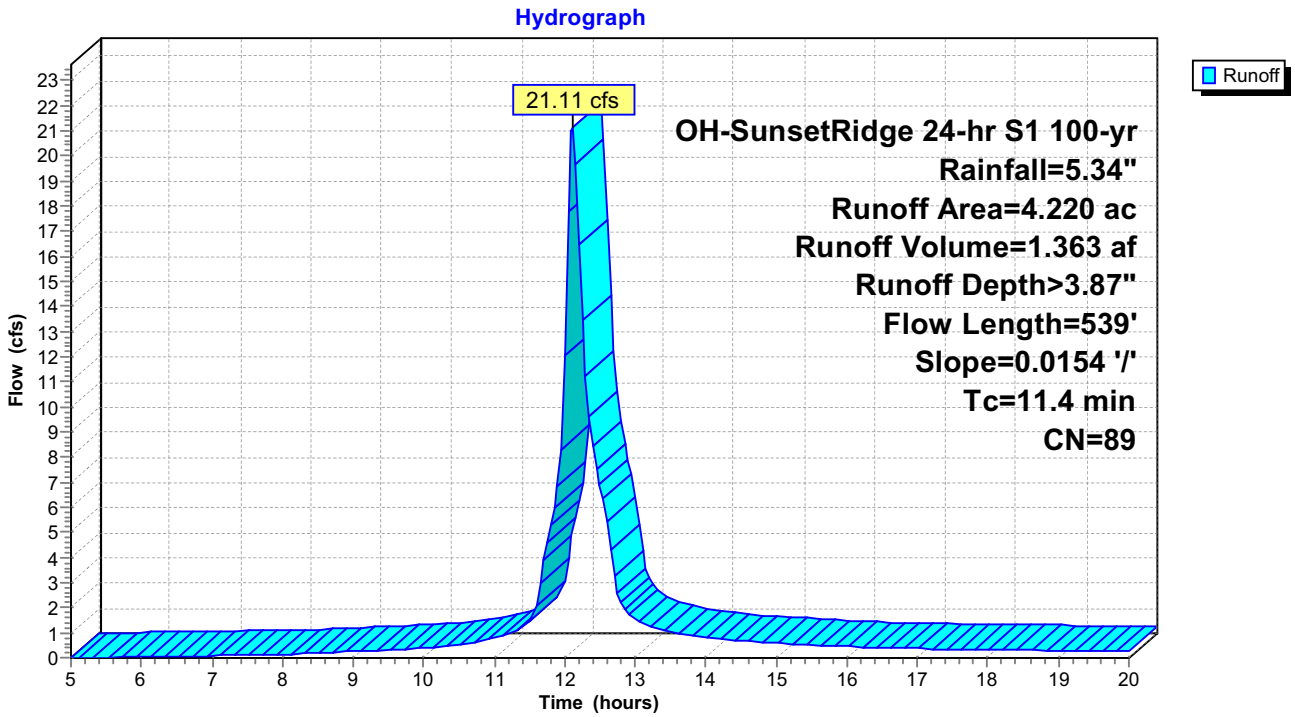
Runoff = 21.11 cfs @ 12.11 hrs, Volume= 1.363 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
4.220	89	Row crops, straight row, Good, HSG D
4.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	539	0.0154	0.79		**Lag/CN Method,**

Subcatchment 36S: DA-23



Summary for Subcatchment 37S: DA-24

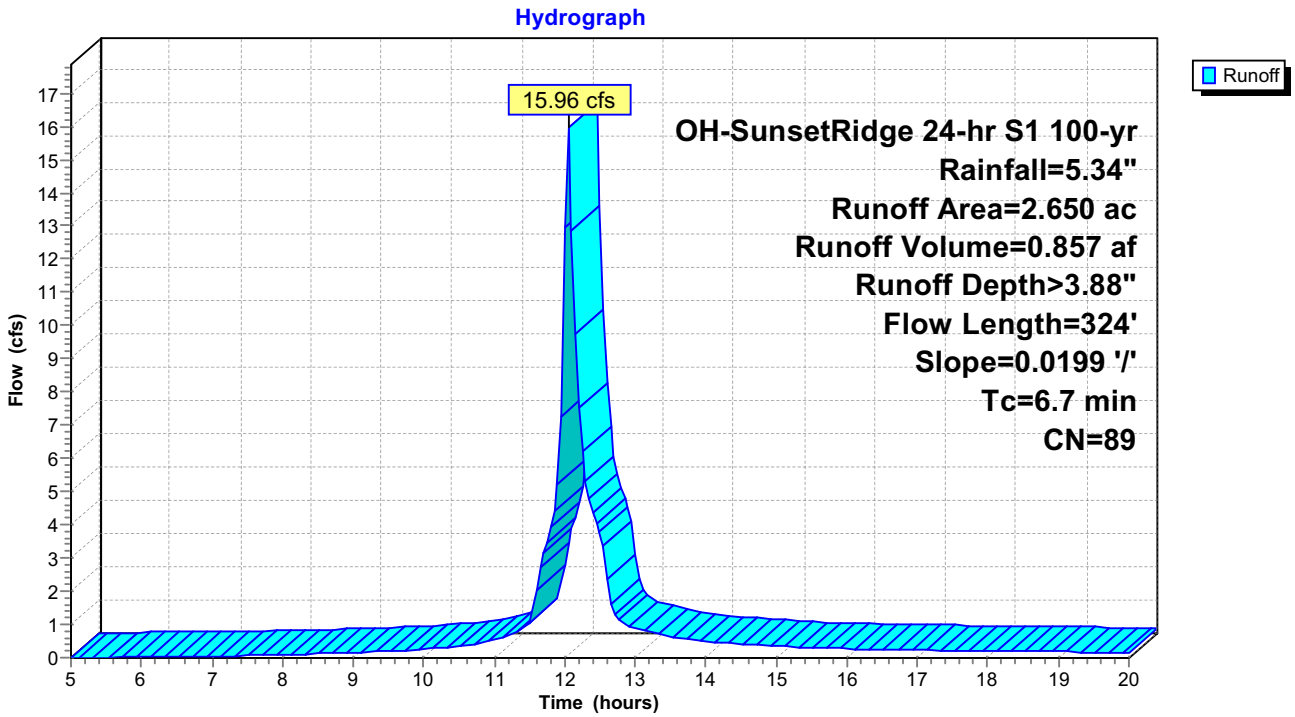
Runoff = 15.96 cfs @ 12.05 hrs, Volume= 0.857 af, Depth> 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
2.650	89	Row crops, straight row, Good, HSG D
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	324	0.0199	0.81		**Lag/CN Method,**

Subcatchment 37S: DA-24



Summary for Subcatchment 38S: DA-25

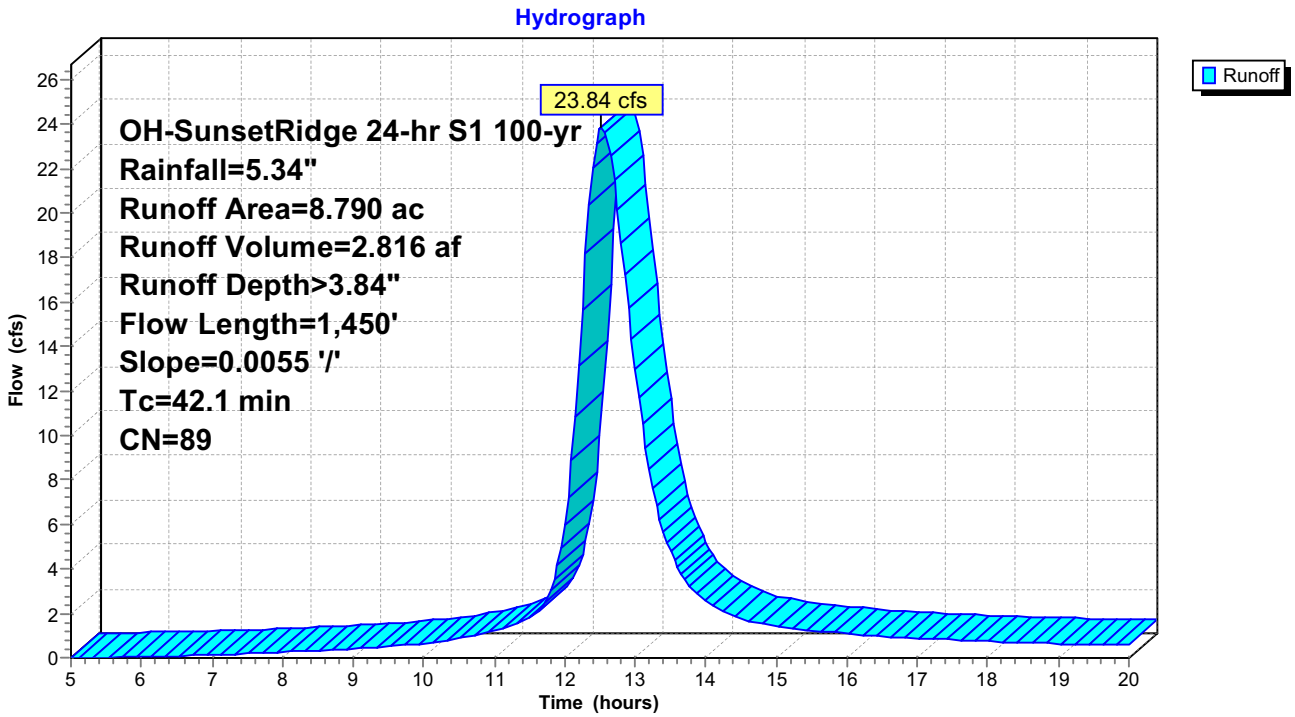
Runoff = 23.84 cfs @ 12.53 hrs, Volume= 2.816 af, Depth> 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.790	89	Row crops, straight row, Good, HSG D
8.790		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
42.1	1,450	0.0055	0.57		**Lag/CN Method,**

Subcatchment 38S: DA-25



Summary for Subcatchment 39S: DA-26

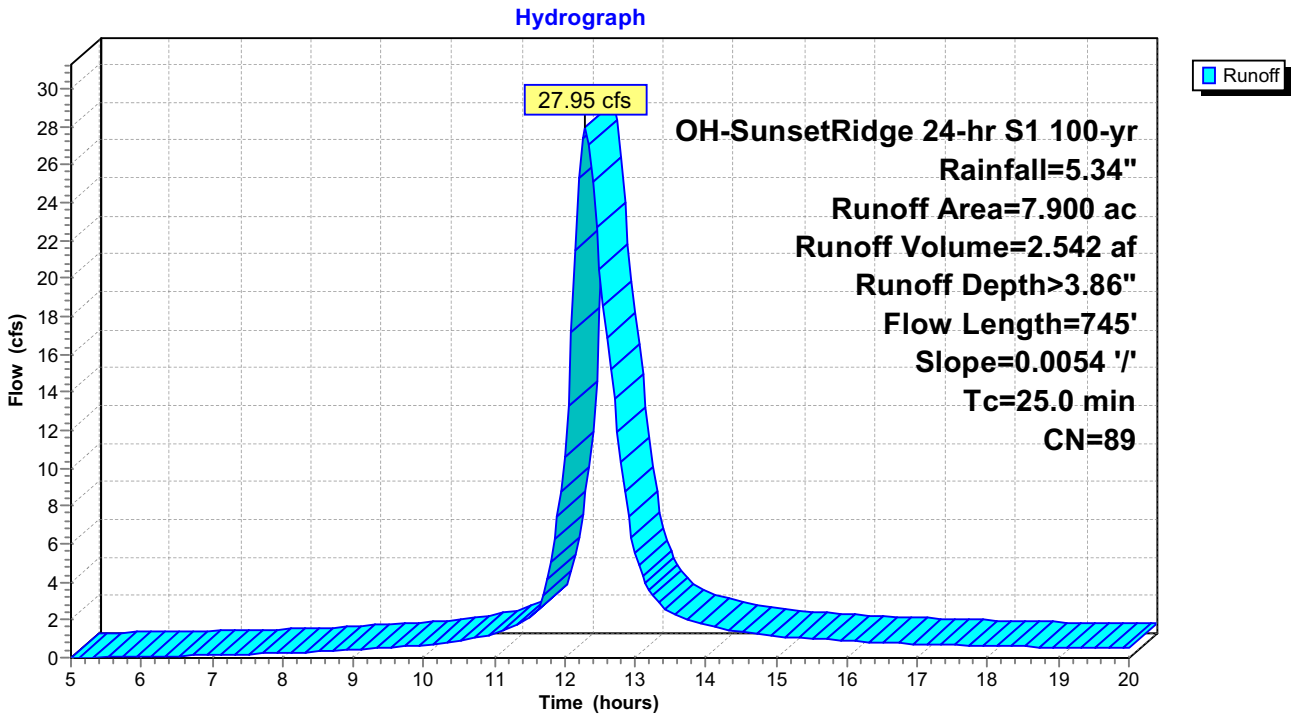
Runoff = 27.95 cfs @ 12.29 hrs, Volume= 2.542 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
7.900	89	Row crops, straight row, Good, HSG D
7.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.0	745	0.0054	0.50		**Lag/CN Method,**

Subcatchment 39S: DA-26



Summary for Subcatchment 40S: DA-27

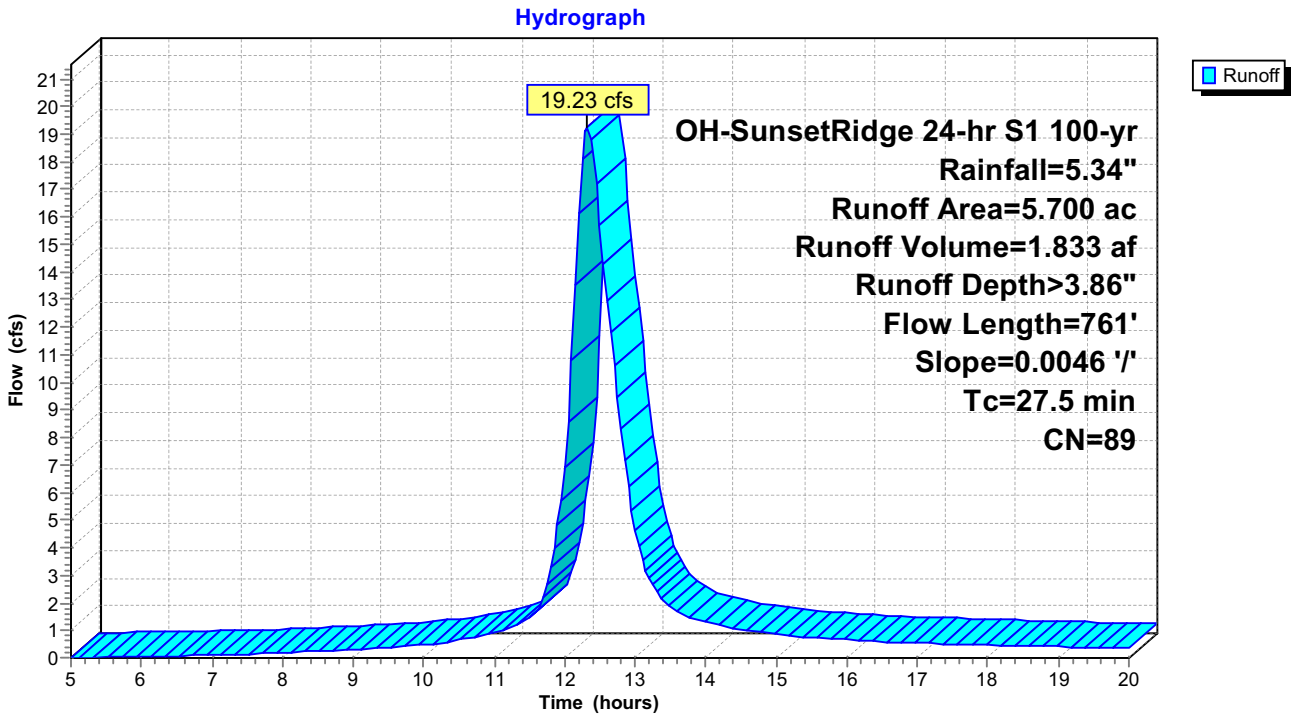
Runoff = 19.23 cfs @ 12.33 hrs, Volume= 1.833 af, Depth> 3.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
5.700	89	Row crops, straight row, Good, HSG D
5.700		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.5	761	0.0046	0.46		**Lag/CN Method,**

Subcatchment 40S: DA-27



Summary for Subcatchment 41S: DA-28

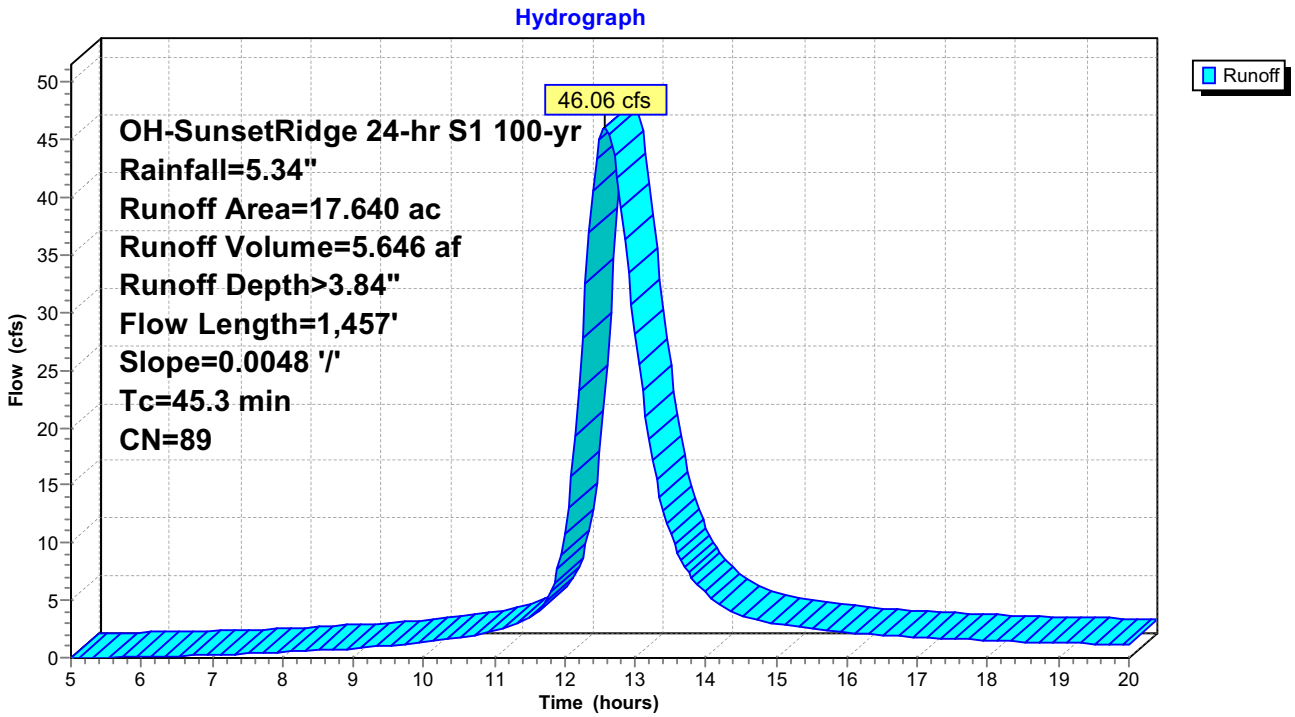
Runoff = 46.06 cfs @ 12.57 hrs, Volume= 5.646 af, Depth> 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
17.640	89	Row crops, straight row, Good, HSG D
17.640		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.3	1,457	0.0048	0.54		**Lag/CN Method,**

Subcatchment 41S: DA-28



Summary for Subcatchment 42S: DA-29

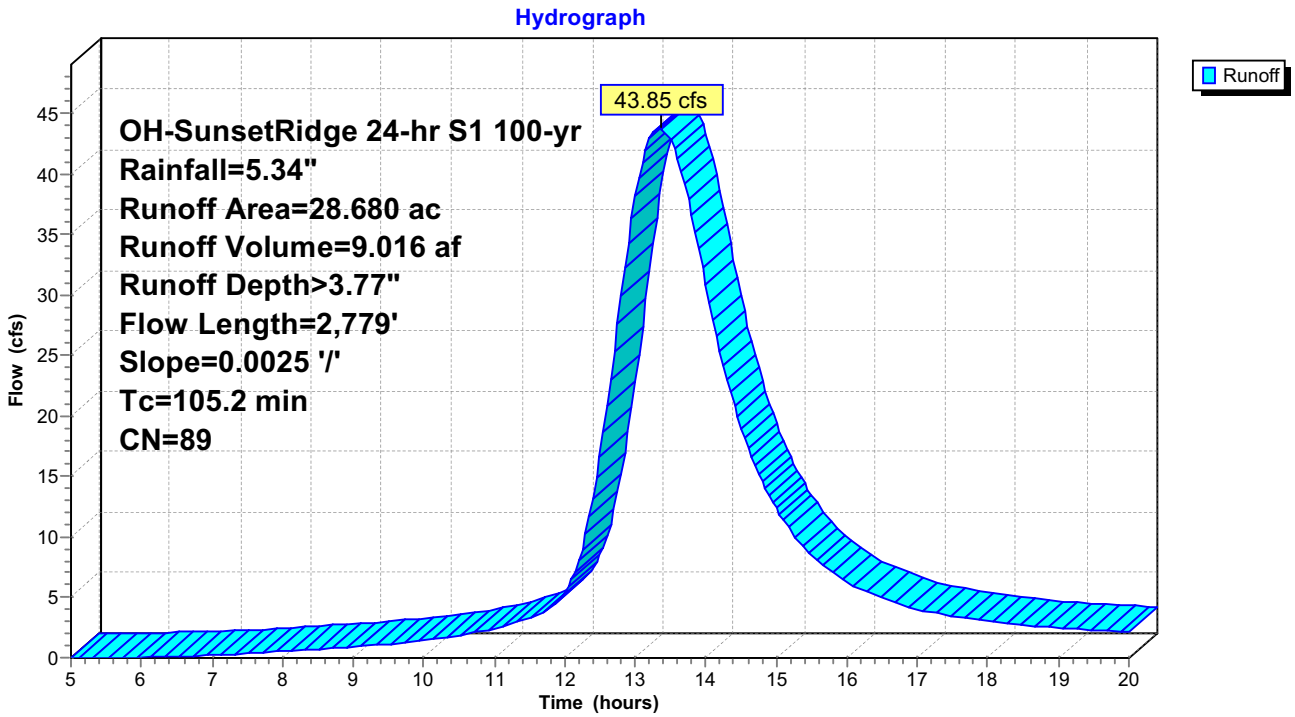
Runoff = 43.85 cfs @ 13.35 hrs, Volume= 9.016 af, Depth> 3.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
28.680	89	Row crops, straight row, Good, HSG D
28.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
105.2	2,779	0.0025	0.44		**Lag/CN Method,**

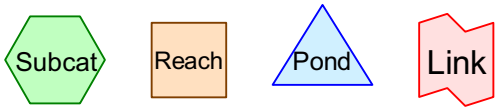
Subcatchment 42S: DA-29



Appendix C

Proposed HydroCAD Results

Proposed



Routing Diagram for 2021-12-06 Pre Post Analysis
Prepared by Westwood Professional Services, Inc., Printed 12/6/2021
HydroCAD® 10.00-22 s/n 03363 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
21.020	96	Gravel surface, HSG D (48S, 49S, 50S, 51S, 52S, 53S, 54S, 56S, 57S, 58S, 59S, 60S, 61S, 62S, 64S, 65S, 66S, 67S, 76S, 77S, 78S, 79S, 80S, 81S, 82S, 83S, 84S)
548.940	78	Meadow, non-grazed, HSG D (48S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56S, 57S, 58S, 59S, 60S, 61S, 62S, 63S, 64S, 65S, 66S, 67S, 76S, 77S, 78S, 79S, 80S, 81S, 82S, 83S, 84S)
9.220	98	Unconnected pavement, HSG D (48S, 49S, 50S, 51S, 52S, 53S, 54S, 56S, 57S, 58S, 61S, 62S, 66S, 80S, 81S, 82S, 83S, 84S)
579.180	**79**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
579.180	HSG D	48S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56S, 57S, 58S, 59S, 60S, 61S, 62S, 63S, 64S, 65S, 66S, 67S, 76S, 77S, 78S, 79S, 80S, 81S, 82S, 83S, 84S
0.000	Other	
579.180		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	21.020	0.000	21.020	Gravel surface	48S, 49S, 50S, 51S, 52S, 53S, 54S, 56S, 57S, 58S, 59S, 60S, 61S, 62S, 64S, 65S, 66S, 67S, 76S, 77S, 78S, 79S, 80S, 81S, 82S, 83S, 84S
0.000	0.000	0.000	548.940	0.000	548.940	Meadow, non-grazed	48S, 49S, 50S, 51S, 52S, 53S, 54S, 55S, 56S, 57S, 58S, 59S, 60S, 61S, 62S, 63S, 64S, 65S, 66S, 67S, 76S, 77S, 78S, 79S, 80S, 81S, 82S, 83S, 84S
0.000	0.000	0.000	9.220	0.000	9.220	Unconnected pavement	48S, 49S, 50S, 51S, 52S, 53S, 54S, 56S, 57S, 58S, 61S, 62S, 66S, 80S, 81S, 82S, 83S, 84S
0.000	**0.000**	**0.000**	**579.180**	**0.000**	**579.180**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 48S: DA-01 Runoff Area=26.430 ac 0.04% Impervious Runoff Depth>1.42"
Flow Length=1,305' Slope=0.0072 '/' Tc=47.8 min CN=79 Runoff=26.54 cfs 3.130 af

Subcatchment 49S: DA-02 Runoff Area=16.670 ac 0.06% Impervious Runoff Depth>1.39"
Flow Length=1,699' Slope=0.0026 '/' Tc=98.2 min CN=79 Runoff=10.27 cfs 1.935 af

Subcatchment 50S: DA-03 Runoff Area=16.800 ac 11.90% Impervious Runoff Depth>1.49"
Flow Length=933' Slope=0.0050 '/' Tc=41.2 min UI Adjusted CN=80 Runoff=19.23 cfs 2.089 af

Subcatchment 51S: DA-04 Runoff Area=17.810 ac 13.03% Impervious Runoff Depth>1.49"
Flow Length=1,141' Slope=0.0041 '/' Tc=53.4 min UI Adjusted CN=80 Runoff=17.54 cfs 2.204 af

Subcatchment 52S: DA-05 Runoff Area=13.720 ac 34.04% Impervious Runoff Depth>1.87"
Flow Length=539' Slope=0.0150 '/' Tc=13.4 min CN=85 Runoff=34.34 cfs 2.142 af

Subcatchment 53S: DA-06 Runoff Area=8.750 ac 0.11% Impervious Runoff Depth>1.36"
Flow Length=705' Slope=0.0048 '/' Tc=36.9 min CN=78 Runoff=9.65 cfs 0.993 af

Subcatchment 54S: DA-07 Runoff Area=62.460 ac 0.05% Impervious Runoff Depth>1.38"
Flow Length=1,973' Slope=0.0023 '/' Tc=117.7 min CN=79 Runoff=33.58 cfs 7.188 af

Subcatchment 55S: DA-08 Runoff Area=6.400 ac 0.00% Impervious Runoff Depth>1.37"
Flow Length=447' Slope=0.0100 '/' Tc=17.7 min CN=78 Runoff=10.18 cfs 0.731 af

Subcatchment 56S: DA-09 Runoff Area=26.020 ac 0.04% Impervious Runoff Depth>1.36"
Flow Length=909' Slope=0.0086 '/' Tc=33.8 min CN=78 Runoff=29.97 cfs 2.955 af

Subcatchment 57S: DA-10 Runoff Area=18.870 ac 0.05% Impervious Runoff Depth>1.35"
Flow Length=1,487' Slope=0.0050 '/' Tc=65.6 min CN=78 Runoff=14.84 cfs 2.117 af

Subcatchment 58S: DA-11 Runoff Area=35.470 ac 0.03% Impervious Runoff Depth>1.37"
Flow Length=803' Slope=0.0135 '/' Tc=24.4 min CN=78 Runoff=48.31 cfs 4.042 af

Subcatchment 59S: DA-12 Runoff Area=9.150 ac 0.00% Impervious Runoff Depth>1.43"
Flow Length=1,004' Slope=0.0113 '/' Tc=30.9 min CN=79 Runoff=11.62 cfs 1.090 af

Subcatchment 60S: DA-13 Runoff Area=9.750 ac 0.00% Impervious Runoff Depth>1.43"
Flow Length=700' Slope=0.0114 '/' Tc=23.1 min CN=79 Runoff=14.37 cfs 1.165 af

Subcatchment 61S: DA-14 Runoff Area=68.350 ac 0.04% Impervious Runoff Depth>1.41"
Flow Length=1,812' Slope=0.0055 '/' Tc=71.1 min CN=79 Runoff=53.33 cfs 8.023 af

Subcatchment 62S: DA-15 Runoff Area=134.110 ac 0.04% Impervious Runoff Depth>1.39"
Flow Length=2,632' Slope=0.0050 '/' Tc=100.5 min CN=79 Runoff=82.05 cfs 15.553 af

Subcatchment 63S: DA-16 Runoff Area=2.190 ac 0.00% Impervious Runoff Depth>1.37"
Flow Length=456' Slope=0.0075 '/' Tc=20.8 min CN=78 Runoff=3.23 cfs 0.250 af

Subcatchment 64S: DA-17 Runoff Area=5.020 ac 0.00% Impervious Runoff Depth>1.36"
Flow Length=680' Slope=0.0051 '/' Tc=34.7 min CN=78 Runoff=5.71 cfs 0.570 af

Subcatchment 65S: DA-18 Runoff Area=7.840 ac 0.00% Impervious Runoff Depth>1.43"
Flow Length=660' Slope=0.0079 '/' Tc=26.4 min CN=79 Runoff=10.81 cfs 0.936 af

Subcatchment 66S: DA-19 Runoff Area=7.290 ac 0.14% Impervious Runoff Depth>1.44"
Flow Length=621' Slope=0.0129 '/' Tc=19.7 min CN=79 Runoff=11.60 cfs 0.872 af

Subcatchment 67S: DA-20 Runoff Area=5.180 ac 0.00% Impervious Runoff Depth>1.43"
Flow Length=816' Slope=0.0115 '/' Tc=26.0 min CN=79 Runoff=7.21 cfs 0.618 af

Subcatchment 76S: DA-21 Runoff Area=1.780 ac 0.00% Impervious Runoff Depth>1.50"
Flow Length=374' Slope=0.0083 '/' Tc=15.9 min CN=80 Runoff=3.29 cfs 0.223 af

Subcatchment 77S: DA-22 Runoff Area=3.540 ac 0.00% Impervious Runoff Depth>1.50"
Flow Length=720' Slope=0.0184 '/' Tc=18.0 min CN=80 Runoff=6.19 cfs 0.444 af

Subcatchment 78S: DA-23 Runoff Area=4.220 ac 0.00% Impervious Runoff Depth>1.44"
Flow Length=539' Slope=0.0154 '/' Tc=16.1 min CN=79 Runoff=7.37 cfs 0.505 af

Subcatchment 79S: DA-24 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>1.51"
Flow Length=324' Slope=0.0199 '/' Tc=9.1 min CN=80 Runoff=6.13 cfs 0.333 af

Subcatchment 80S: DA-25 Runoff Area=8.790 ac 0.11% Impervious Runoff Depth>1.48"
Flow Length=1,450' Slope=0.0055 '/' Tc=57.7 min CN=80 Runoff=8.29 cfs 1.086 af

Subcatchment 81S: DA-26 Runoff Area=7.900 ac 0.13% Impervious Runoff Depth>1.43"
Flow Length=745' Slope=0.0054 '/' Tc=35.2 min CN=79 Runoff=9.39 cfs 0.940 af

Subcatchment 82S: DA-27 Runoff Area=5.700 ac 0.18% Impervious Runoff Depth>1.43"
Flow Length=761' Slope=0.0046 '/' Tc=38.8 min CN=79 Runoff=6.43 cfs 0.677 af

Subcatchment 83S: DA-28 Runoff Area=17.640 ac 0.06% Impervious Runoff Depth>1.41"
Flow Length=1,457' Slope=0.0048 '/' Tc=63.9 min CN=79 Runoff=14.90 cfs 2.076 af

Subcatchment 84S: DA-29 Runoff Area=28.680 ac 0.03% Impervious Runoff Depth>1.29"
Flow Length=2,779' Slope=0.0025 '/' Tc=153.1 min CN=78 Runoff=12.05 cfs 3.090 af

Total Runoff Area = 579.180 ac Runoff Volume = 67.979 af Average Runoff Depth = 1.41"
98.41% Pervious = 569.960 ac 1.59% Impervious = 9.220 ac

Summary for Subcatchment 48S: DA-01

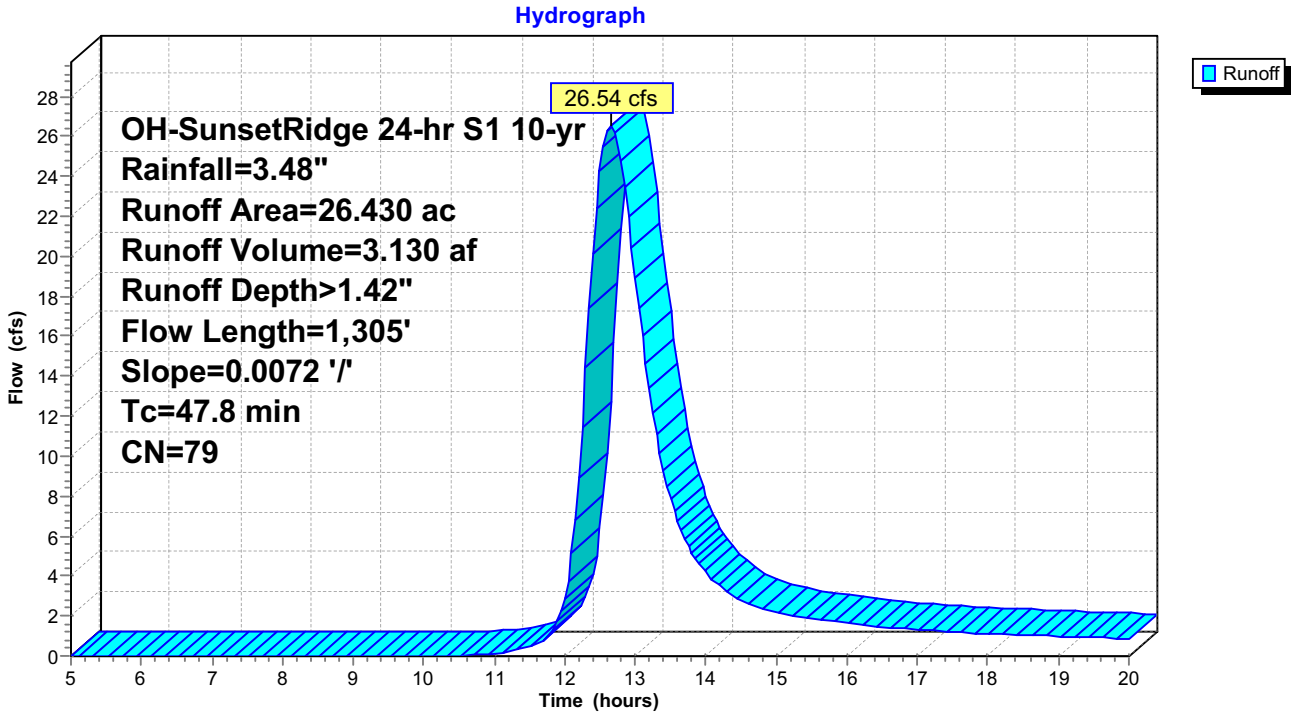
Runoff = 26.54 cfs @ 12.65 hrs, Volume= 3.130 af, Depth> 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
25.020	78	Meadow, non-grazed, HSG D
1.400	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
26.430	79	Weighted Average
26.420		99.96% Pervious Area
0.010		0.04% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.8	1,305	0.0072	0.46		**Lag/CN Method,**

Subcatchment 48S: DA-01



Summary for Subcatchment 49S: DA-02

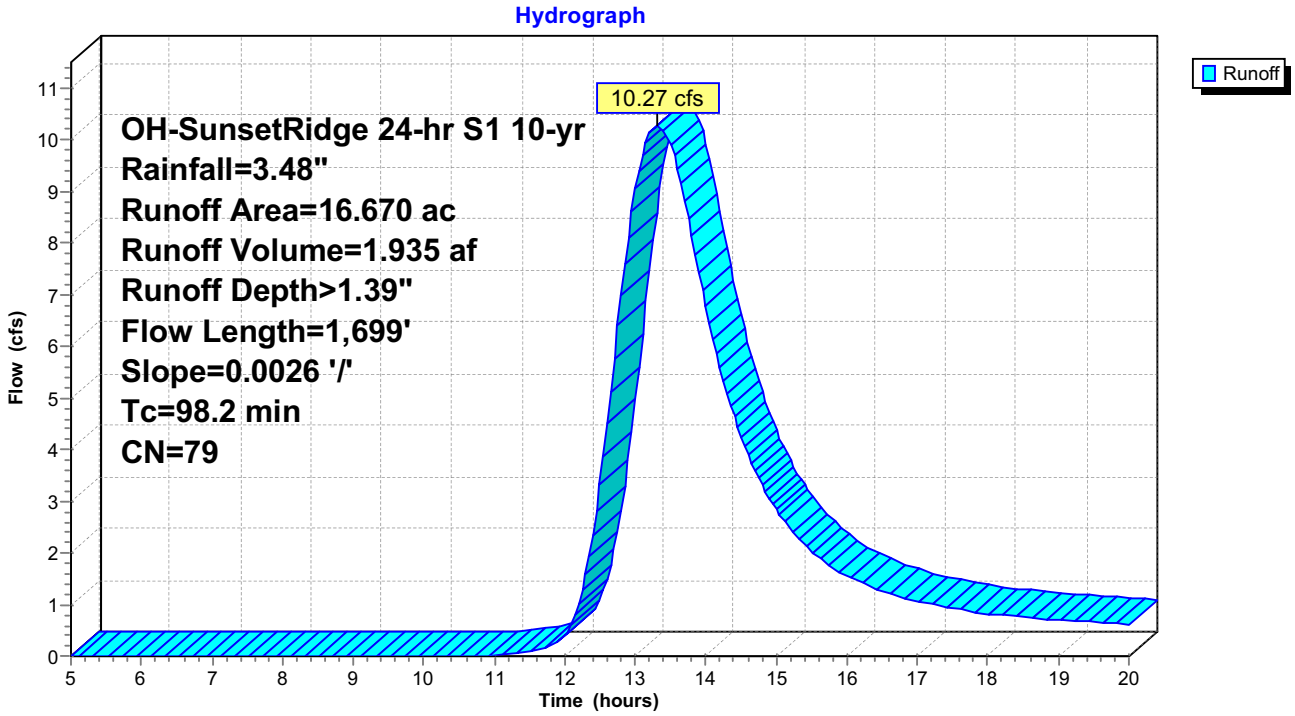
Runoff = 10.27 cfs @ 13.31 hrs, Volume= 1.935 af, Depth> 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
16.190	78	Meadow, non-grazed, HSG D
0.470	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
16.670	79	Weighted Average
16.660		99.94% Pervious Area
0.010		0.06% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	1,699	0.0026	0.29		**Lag/CN Method,**

Subcatchment 49S: DA-02



Summary for Subcatchment 50S: DA-03

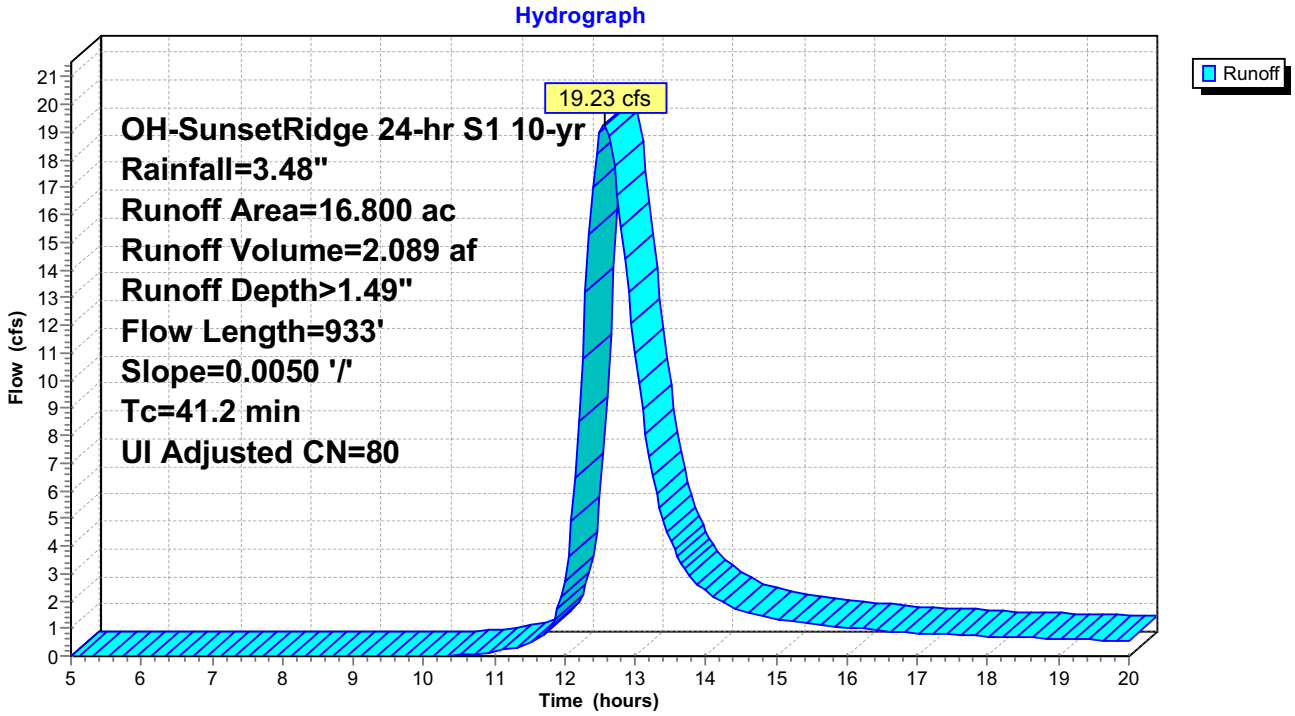
Runoff = 19.23 cfs @ 12.56 hrs, Volume= 2.089 af, Depth> 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Adj	Description
14.440	78		Meadow, non-grazed, HSG D
0.360	96		Gravel surface, HSG D
2.000	98		Unconnected pavement, HSG D
16.800	81	80	Weighted Average, UI Adjusted
14.800			88.10% Pervious Area
2.000			11.90% Impervious Area
2.000			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.2	933	0.0050	0.38		**Lag/CN Method,**

Subcatchment 50S: DA-03



Summary for Subcatchment 51S: DA-04

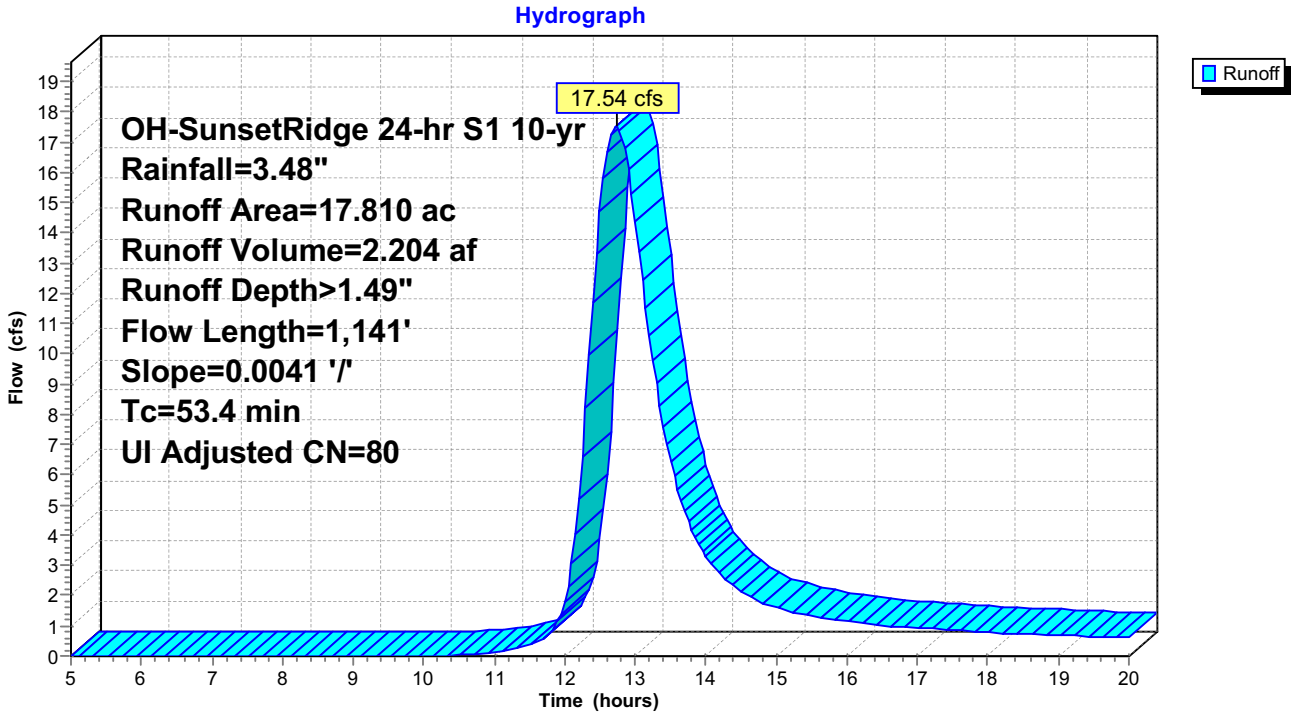
Runoff = 17.54 cfs @ 12.73 hrs, Volume= 2.204 af, Depth> 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Adj	Description
15.040	78		Meadow, non-grazed, HSG D
0.450	96		Gravel surface, HSG D
2.320	98		Unconnected pavement, HSG D
17.810	81	80	Weighted Average, UI Adjusted
15.490			86.97% Pervious Area
2.320			13.03% Impervious Area
2.320			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
53.4	1,141	0.0041	0.36		**Lag/CN Method,**

Subcatchment 51S: DA-04



Summary for Subcatchment 52S: DA-05

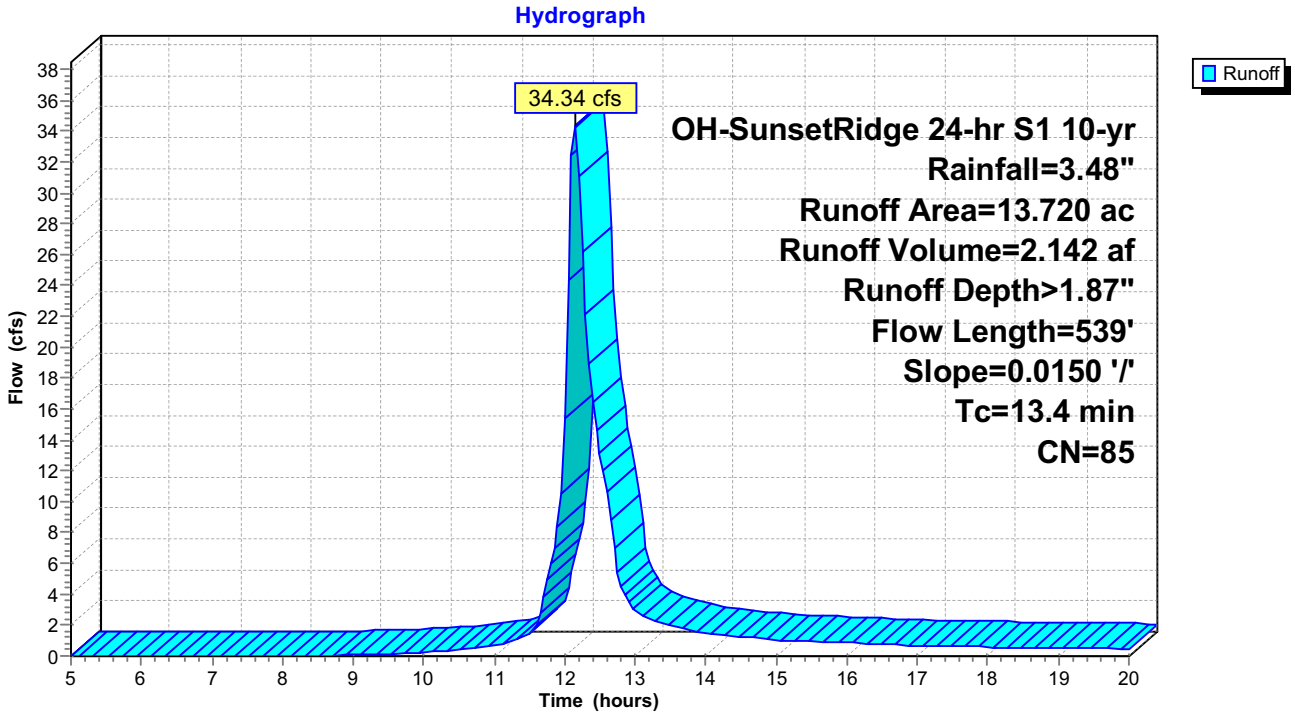
Runoff = 34.34 cfs @ 12.14 hrs, Volume= 2.142 af, Depth> 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.920	78	Meadow, non-grazed, HSG D
0.130	96	Gravel surface, HSG D
4.670	98	Unconnected pavement, HSG D
13.720	85	Weighted Average
9.050		65.96% Pervious Area
4.670		34.04% Impervious Area
4.670		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	539	0.0150	0.67		**Lag/CN Method,**

Subcatchment 52S: DA-05



Summary for Subcatchment 53S: DA-06

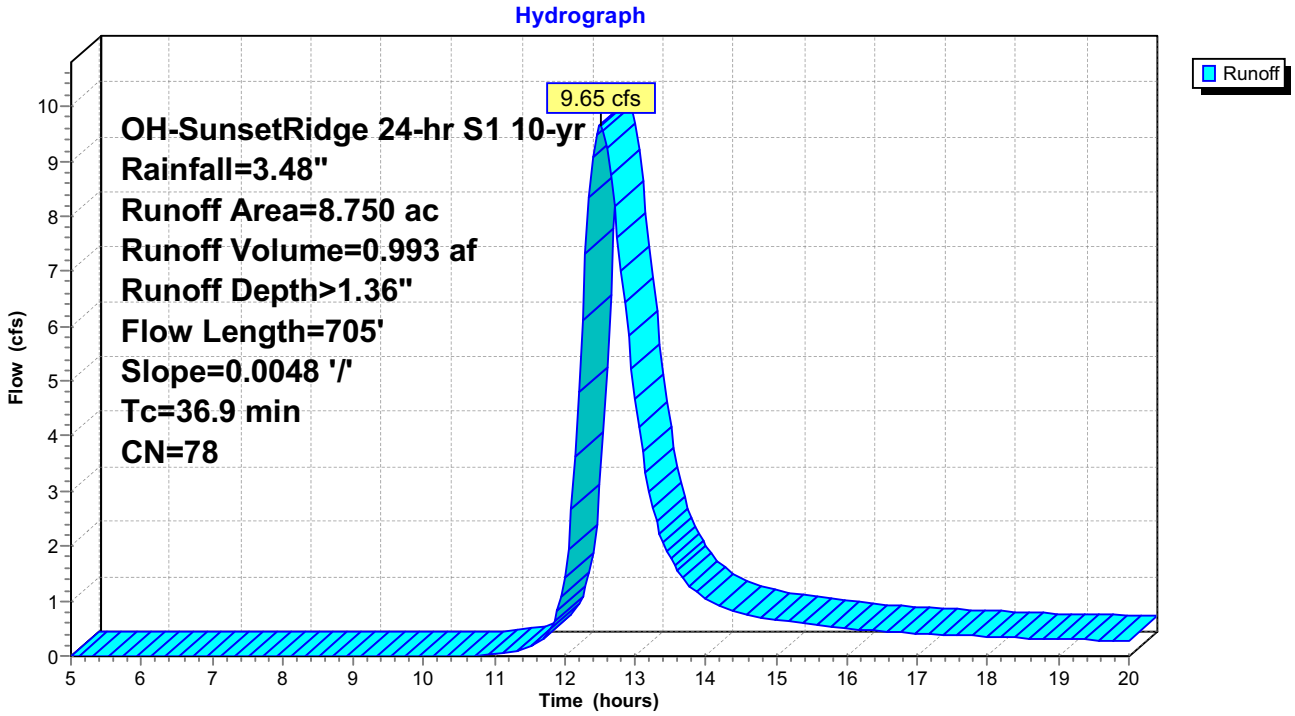
Runoff = 9.65 cfs @ 12.51 hrs, Volume= 0.993 af, Depth> 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.520	78	Meadow, non-grazed, HSG D
0.220	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
8.750	78	Weighted Average
8.740		99.89% Pervious Area
0.010		0.11% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.9	705	0.0048	0.32		**Lag/CN Method,**

Subcatchment 53S: DA-06



Summary for Subcatchment 54S: DA-07

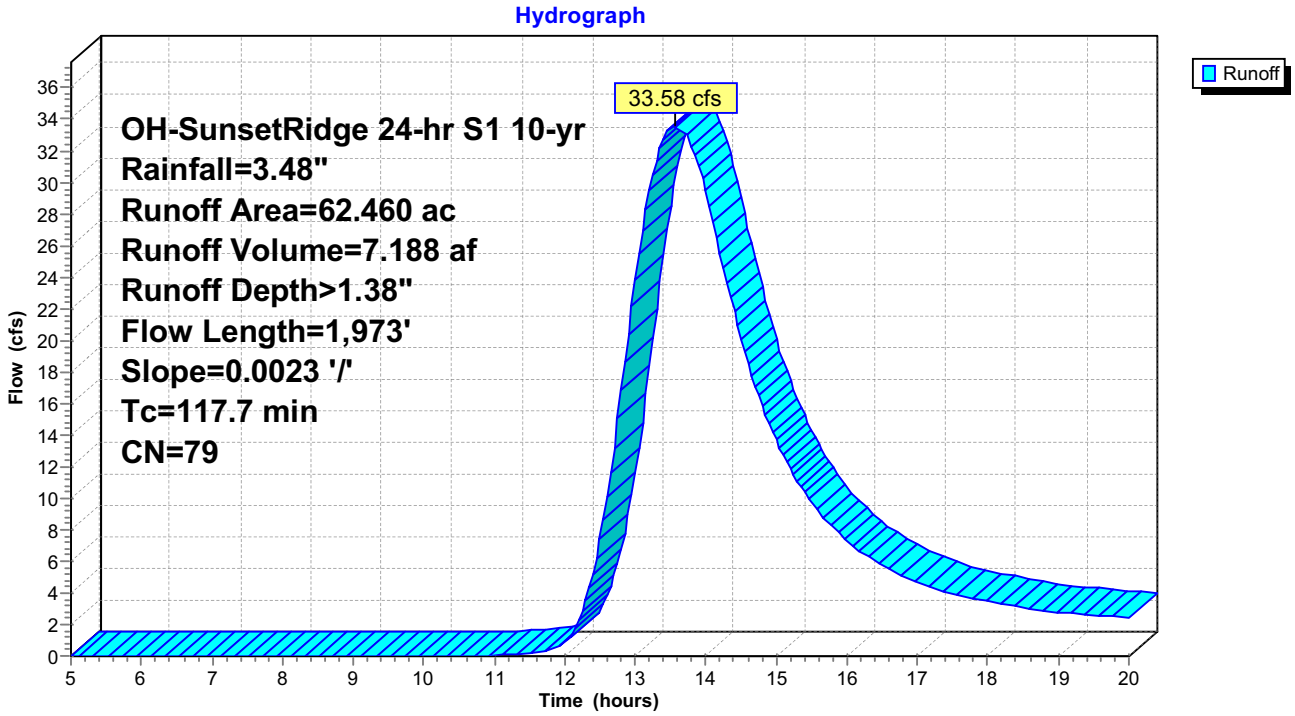
Runoff = 33.58 cfs @ 13.56 hrs, Volume= 7.188 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
59.830	78	Meadow, non-grazed, HSG D
2.600	96	Gravel surface, HSG D
0.030	98	Unconnected pavement, HSG D
62.460	79	Weighted Average
62.430		99.95% Pervious Area
0.030		0.05% Impervious Area
0.030		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
117.7	1,973	0.0023	0.28		**Lag/CN Method,**

Subcatchment 54S: DA-07



Summary for Subcatchment 55S: DA-08

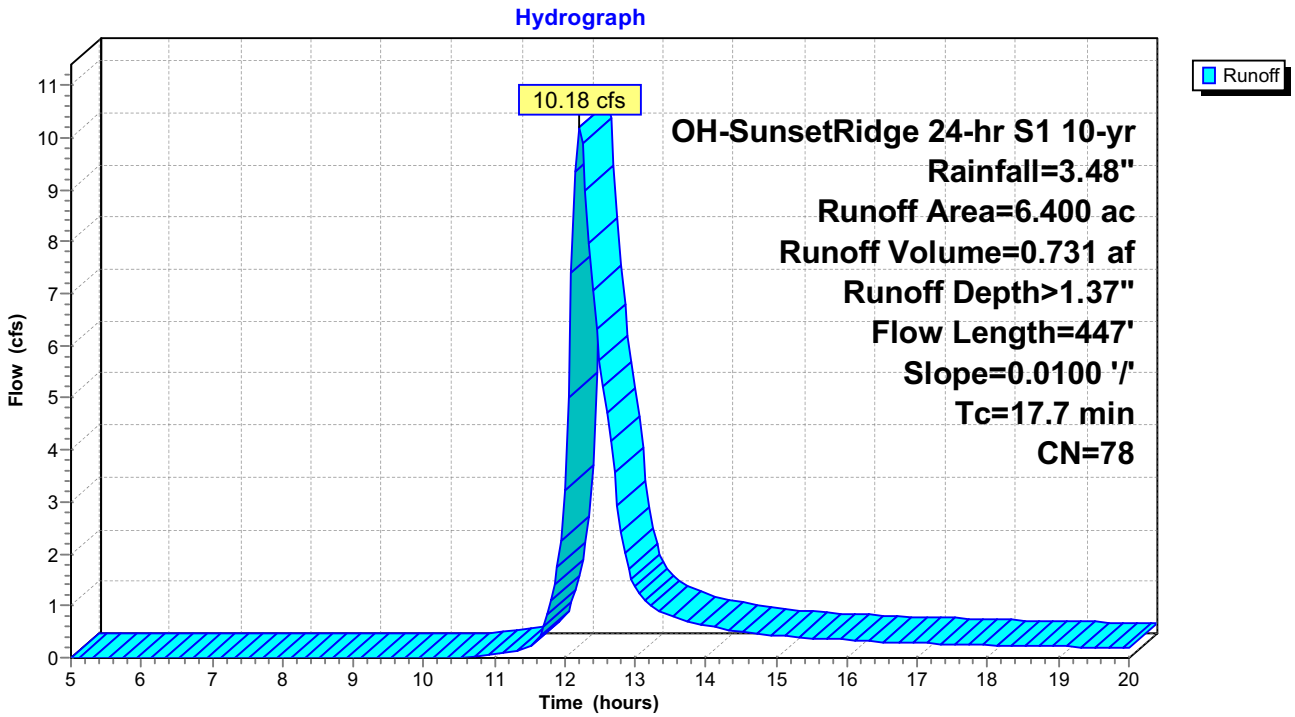
Runoff = 10.18 cfs @ 12.21 hrs, Volume= 0.731 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
6.400	78	Meadow, non-grazed, HSG D
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	447	0.0100	0.42		**Lag/CN Method,**

Subcatchment 55S: DA-08



Summary for Subcatchment 56S: DA-09

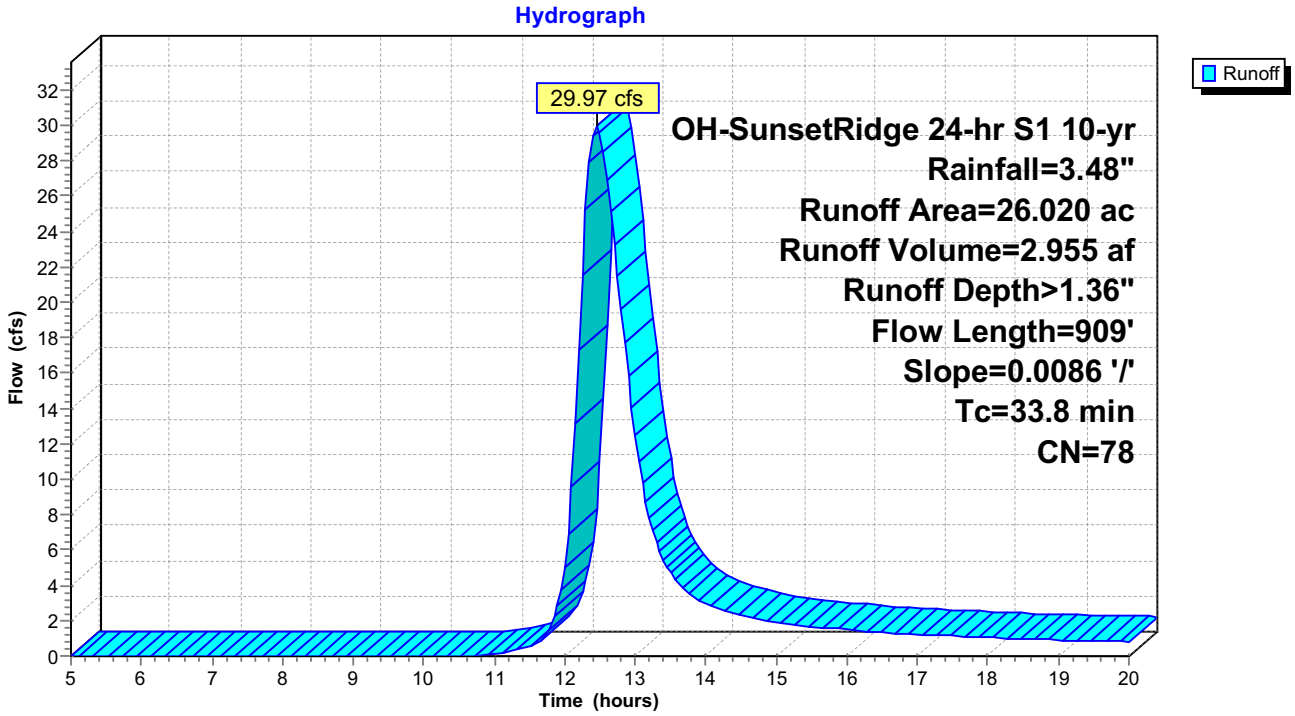
Runoff = 29.97 cfs @ 12.45 hrs, Volume= 2.955 af, Depth> 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
25.490	78	Meadow, non-grazed, HSG D
0.520	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
26.020	78	Weighted Average
26.010		99.96% Pervious Area
0.010		0.04% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.8	909	0.0086	0.45		**Lag/CN Method,**

Subcatchment 56S: DA-09



Summary for Subcatchment 57S: DA-10

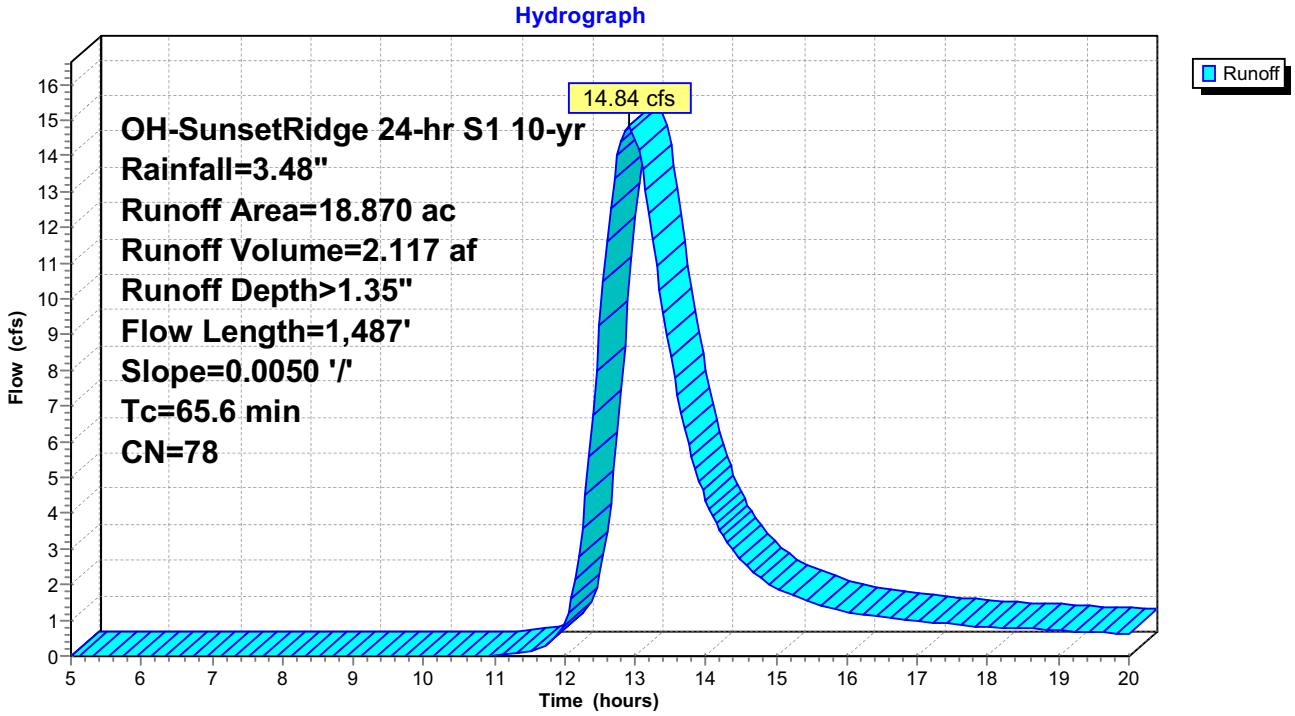
Runoff = 14.84 cfs @ 12.90 hrs, Volume= 2.117 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
18.500	78	Meadow, non-grazed, HSG D
0.360	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
18.870	78	Weighted Average
18.860		99.95% Pervious Area
0.010		0.05% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
65.6	1,487	0.0050	0.38		**Lag/CN Method,**

Subcatchment 57S: DA-10



Summary for Subcatchment 58S: DA-11

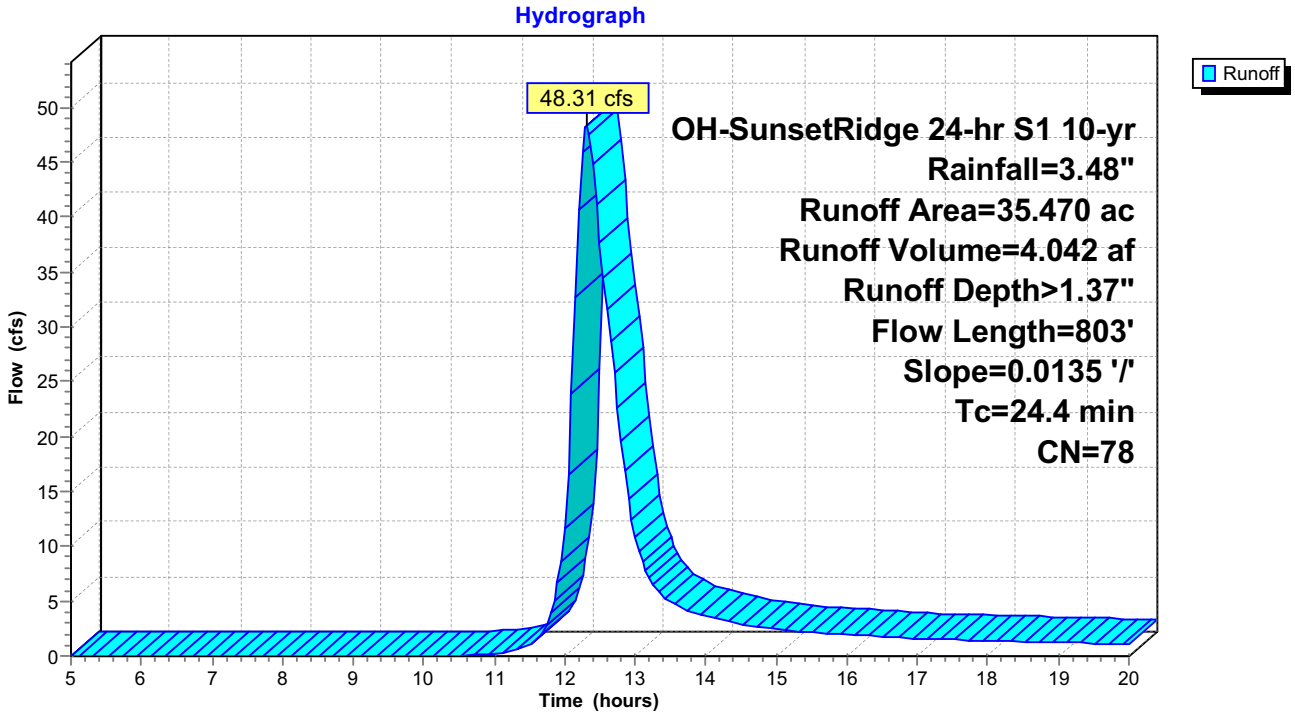
Runoff = 48.31 cfs @ 12.31 hrs, Volume= 4.042 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
34.490	78	Meadow, non-grazed, HSG D
0.970	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
35.470	78	Weighted Average
35.460		99.97% Pervious Area
0.010		0.03% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.4	803	0.0135	0.55		**Lag/CN Method,**

Subcatchment 58S: DA-11



Summary for Subcatchment 59S: DA-12

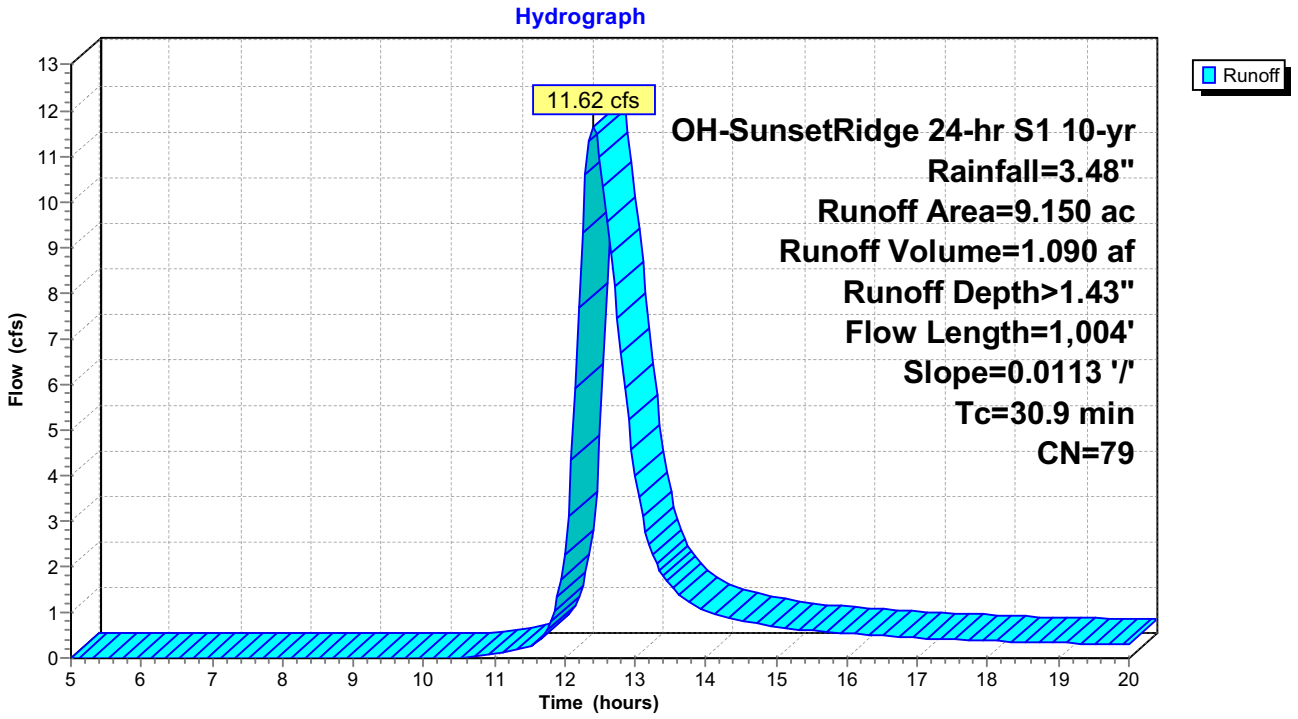
Runoff = 11.62 cfs @ 12.41 hrs, Volume= 1.090 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.760	78	Meadow, non-grazed, HSG D
0.390	96	Gravel surface, HSG D
9.150	79	Weighted Average
9.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.9	1,004	0.0113	0.54		**Lag/CN Method,**

Subcatchment 59S: DA-12



Summary for Subcatchment 60S: DA-13

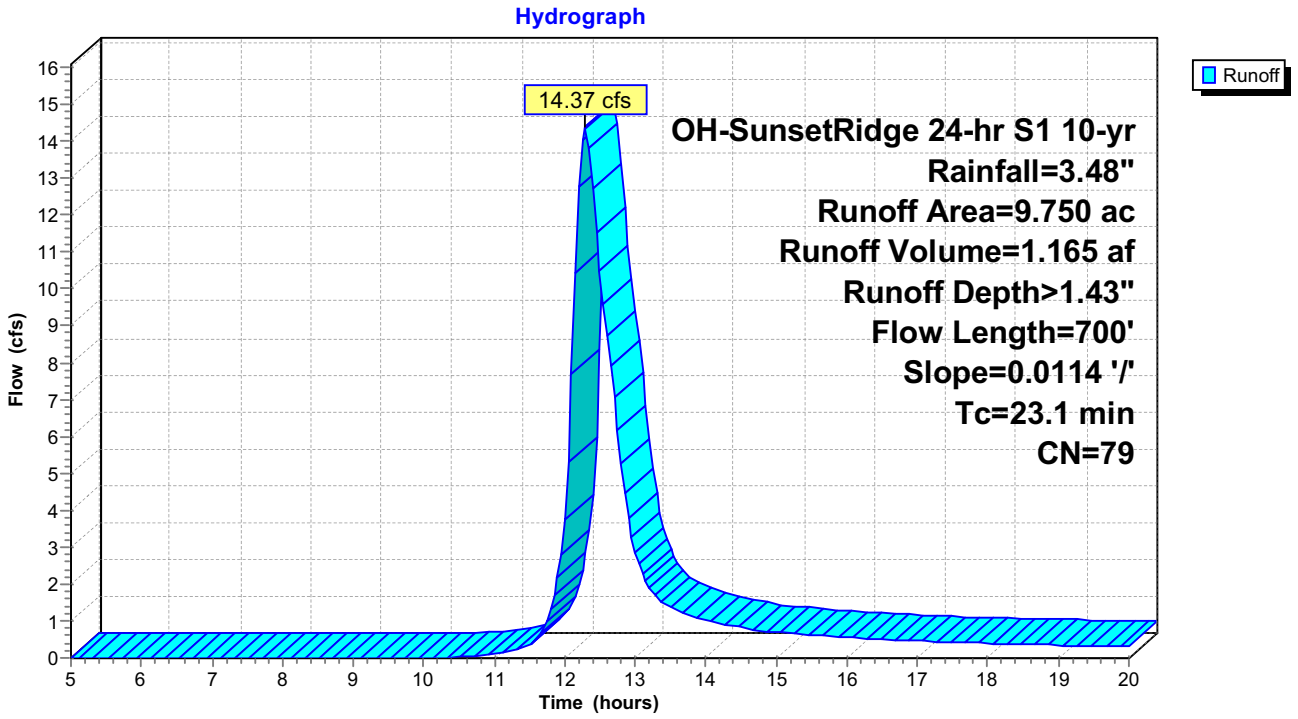
Runoff = 14.37 cfs @ 12.29 hrs, Volume= 1.165 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
9.220	78	Meadow, non-grazed, HSG D
0.530	96	Gravel surface, HSG D
9.750	79	Weighted Average
9.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	700	0.0114	0.51		**Lag/CN Method,**

Subcatchment 60S: DA-13



Summary for Subcatchment 61S: DA-14

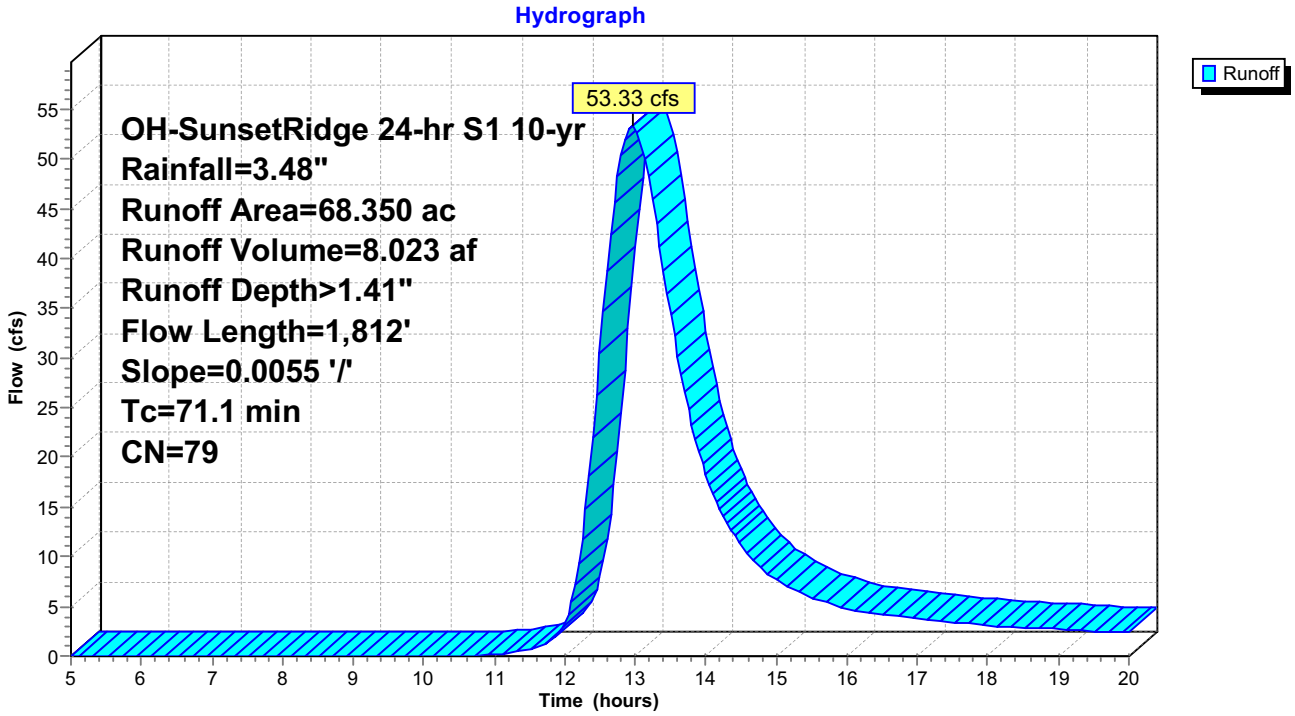
Runoff = 53.33 cfs @ 12.96 hrs, Volume= 8.023 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
66.160	78	Meadow, non-grazed, HSG D
2.160	96	Gravel surface, HSG D
0.030	98	Unconnected pavement, HSG D
68.350	79	Weighted Average
68.320		99.96% Pervious Area
0.030		0.04% Impervious Area
0.030		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
71.1	1,812	0.0055	0.42		**Lag/CN Method,**

Subcatchment 61S: DA-14



Summary for Subcatchment 62S: DA-15

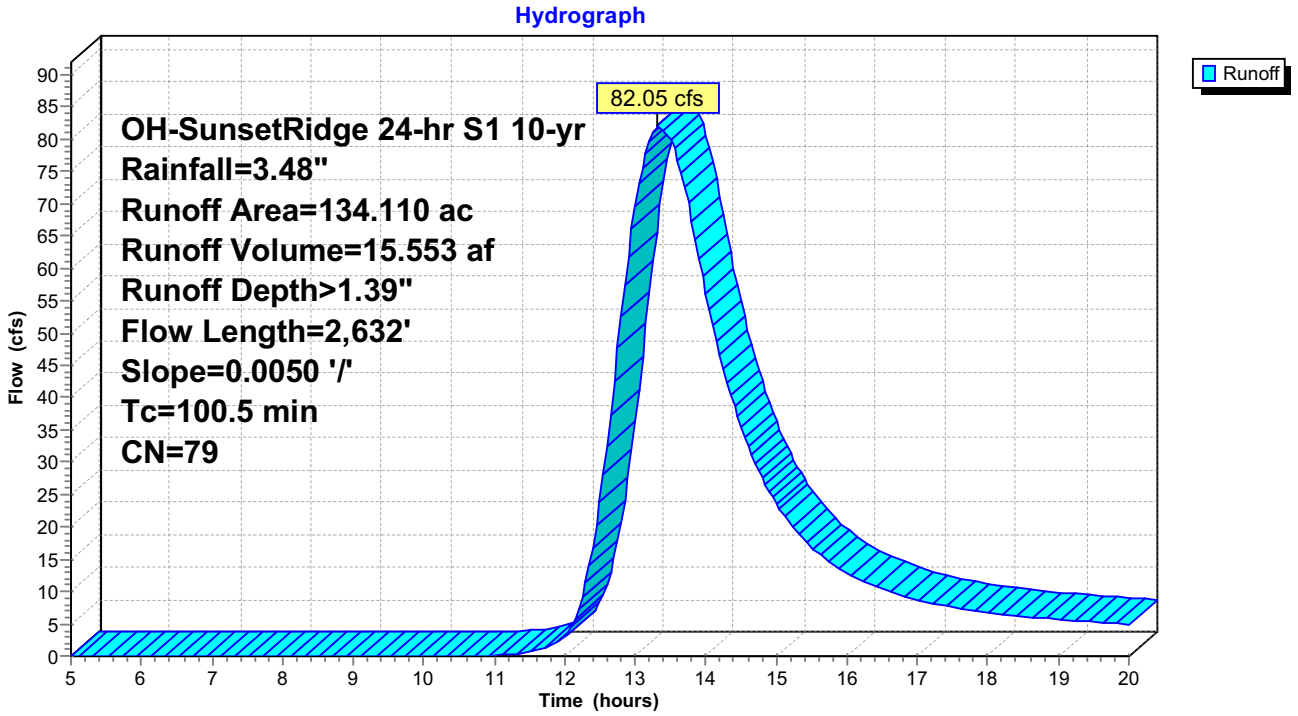
Runoff = 82.05 cfs @ 13.32 hrs, Volume= 15.553 af, Depth> 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
129.020	78	Meadow, non-grazed, HSG D
5.040	96	Gravel surface, HSG D
0.050	98	Unconnected pavement, HSG D
134.110	79	Weighted Average
134.060		99.96% Pervious Area
0.050		0.04% Impervious Area
0.050		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
100.5	2,632	0.0050	0.44		**Lag/CN Method,**

Subcatchment 62S: DA-15



Summary for Subcatchment 63S: DA-16

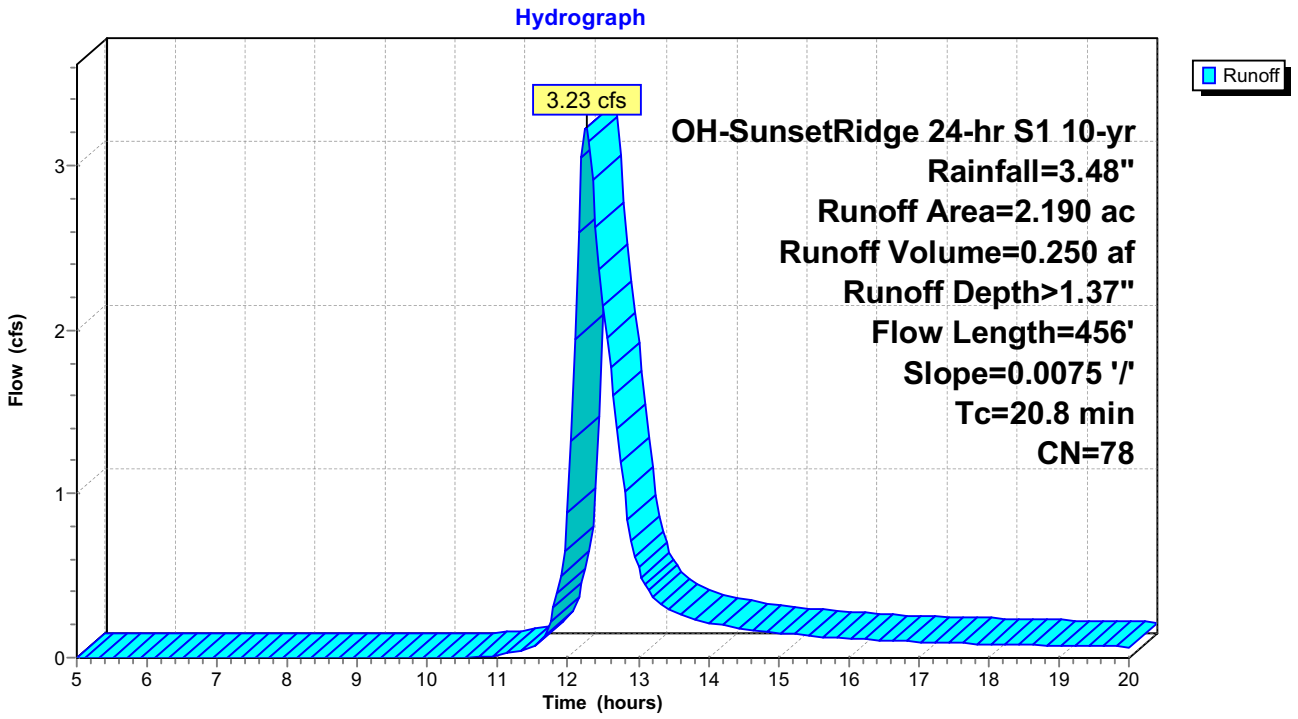
Runoff = 3.23 cfs @ 12.26 hrs, Volume= 0.250 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
2.190	78	Meadow, non-grazed, HSG D
2.190		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	456	0.0075	0.37		**Lag/CN Method,**

Subcatchment 63S: DA-16



Summary for Subcatchment 64S: DA-17

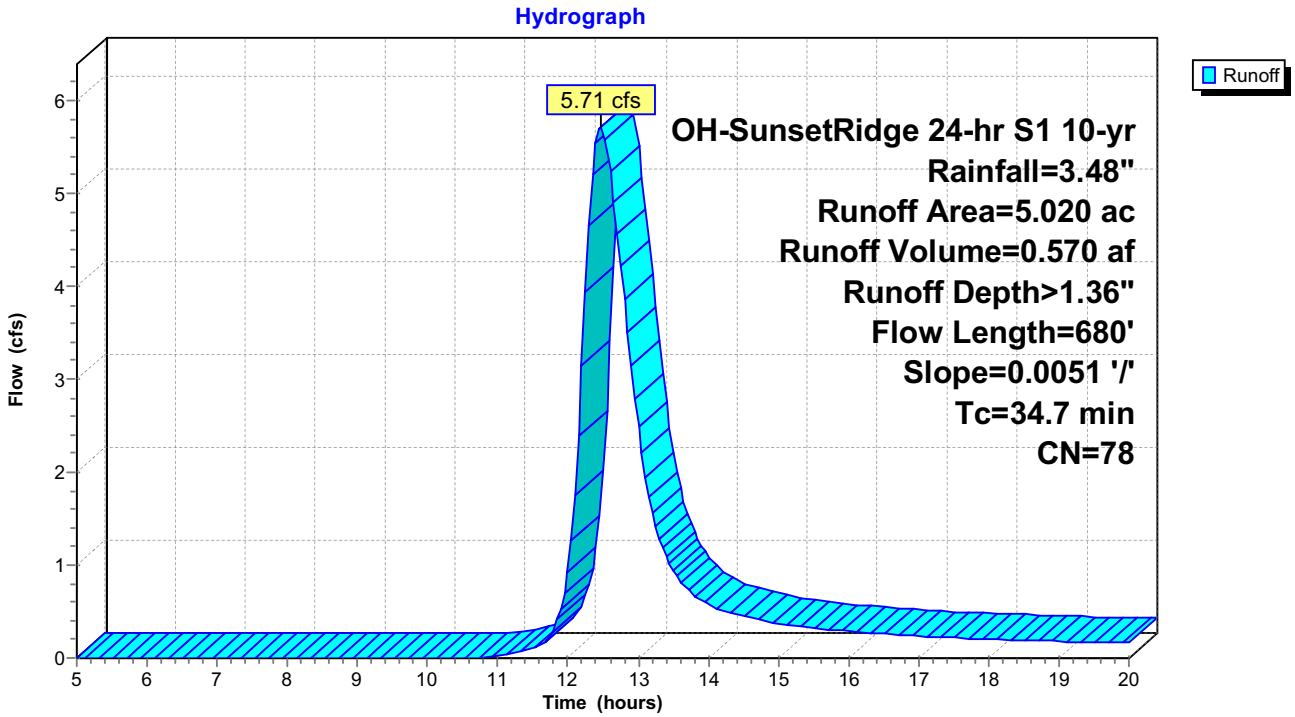
Runoff = 5.71 cfs @ 12.47 hrs, Volume= 0.570 af, Depth> 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
4.890	78	Meadow, non-grazed, HSG D
0.130	96	Gravel surface, HSG D
5.020	78	Weighted Average
5.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.7	680	0.0051	0.33		**Lag/CN Method,**

Subcatchment 64S: DA-17



Summary for Subcatchment 65S: DA-18

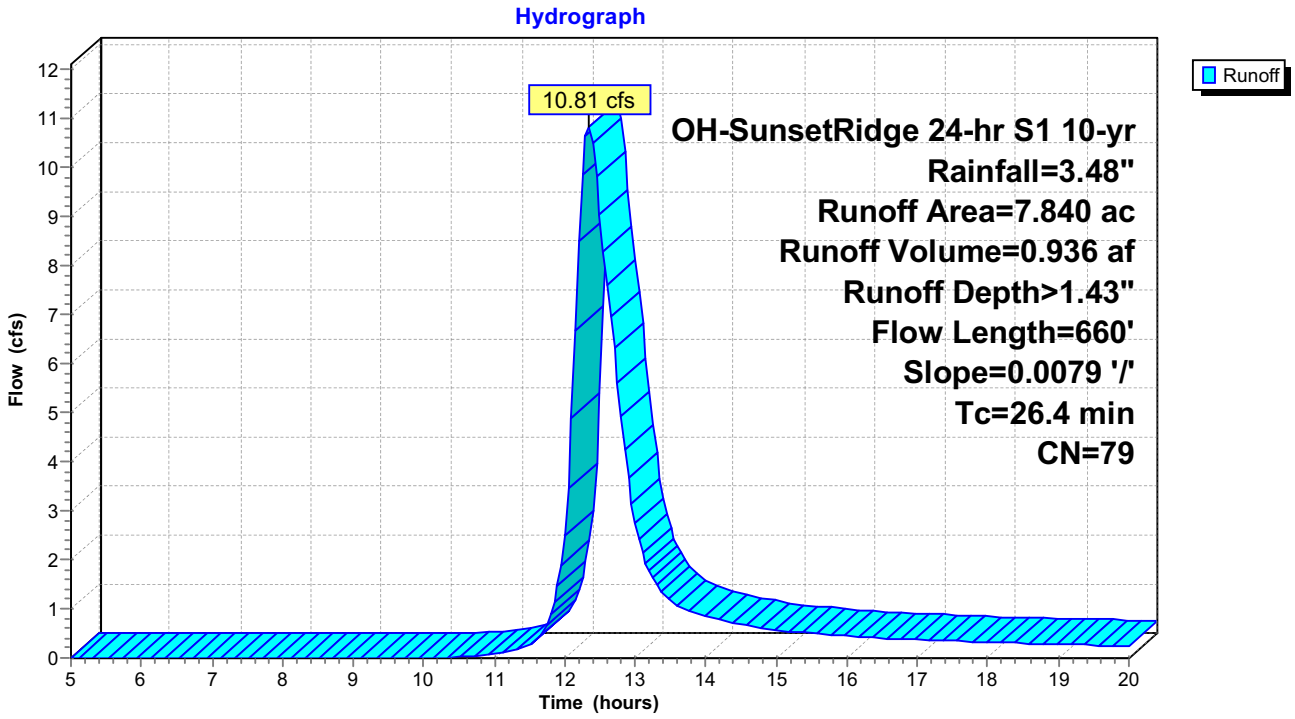
Runoff = 10.81 cfs @ 12.34 hrs, Volume= 0.936 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
7.250	78	Meadow, non-grazed, HSG D
0.590	96	Gravel surface, HSG D
7.840	79	Weighted Average
7.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.4	660	0.0079	0.42		**Lag/CN Method,**

Subcatchment 65S: DA-18



Summary for Subcatchment 66S: DA-19

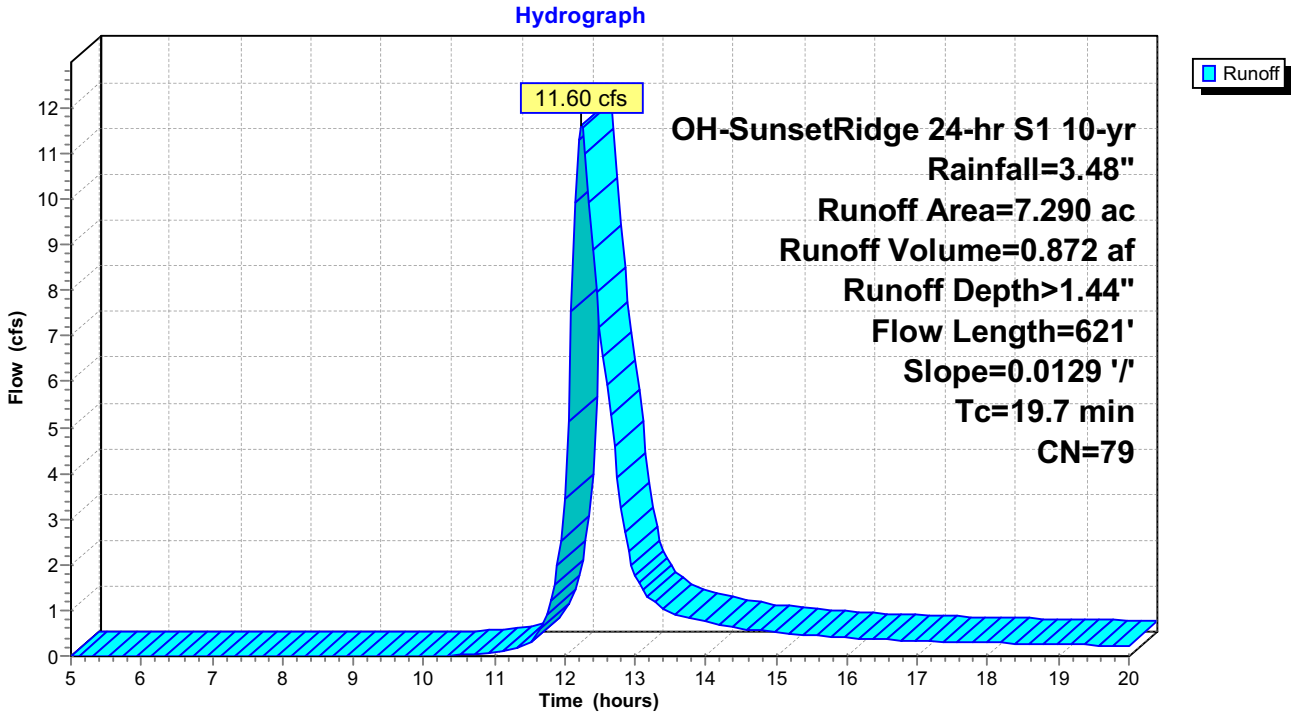
Runoff = 11.60 cfs @ 12.24 hrs, Volume= 0.872 af, Depth> 1.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
6.950	78	Meadow, non-grazed, HSG D
0.330	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
7.290	79	Weighted Average
7.280		99.86% Pervious Area
0.010		0.14% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	621	0.0129	0.53		**Lag/CN Method,**

Subcatchment 66S: DA-19



Summary for Subcatchment 67S: DA-20

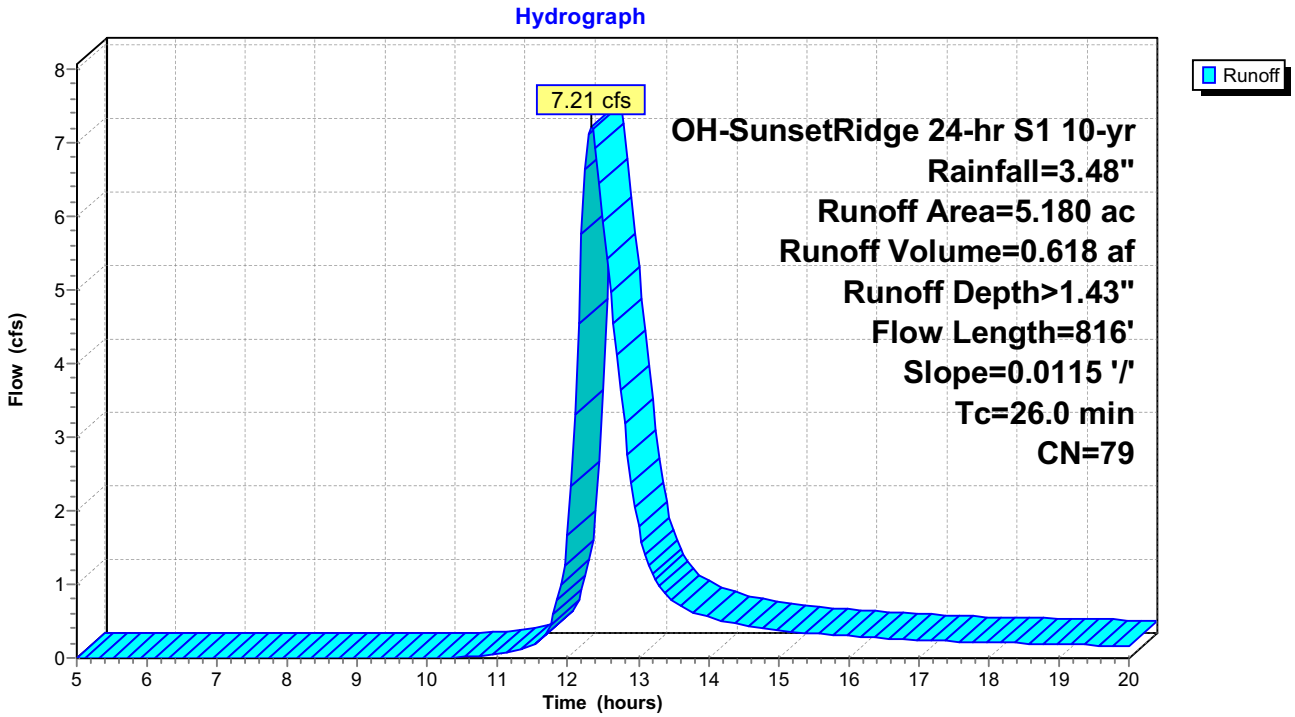
Runoff = 7.21 cfs @ 12.34 hrs, Volume= 0.618 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
4.860	78	Meadow, non-grazed, HSG D
0.320	96	Gravel surface, HSG D
5.180	79	Weighted Average
5.180		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.0	816	0.0115	0.52		**Lag/CN Method,**

Subcatchment 67S: DA-20



Summary for Subcatchment 76S: DA-21

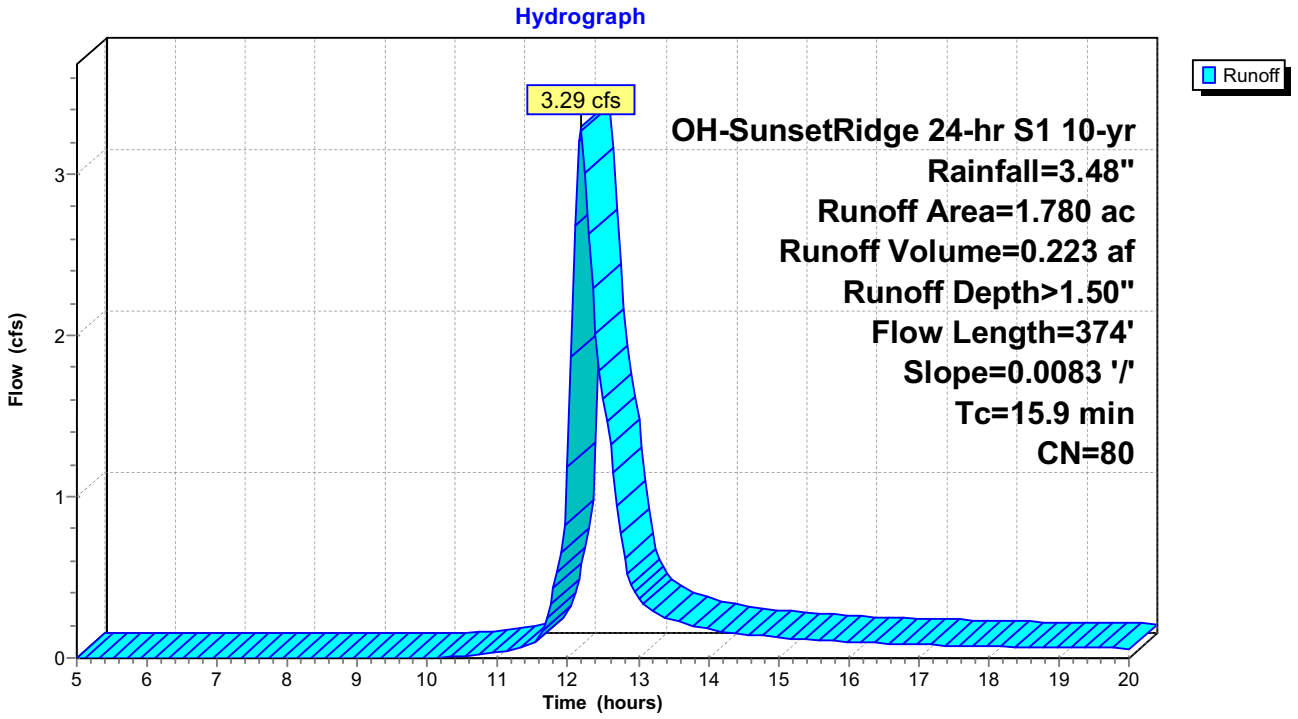
Runoff = 3.29 cfs @ 12.19 hrs, Volume= 0.223 af, Depth> 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
1.610	78	Meadow, non-grazed, HSG D
0.170	96	Gravel surface, HSG D
1.780	80	Weighted Average
1.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	374	0.0083	0.39		**Lag/CN Method,**

Subcatchment 76S: DA-21



Summary for Subcatchment 77S: DA-22

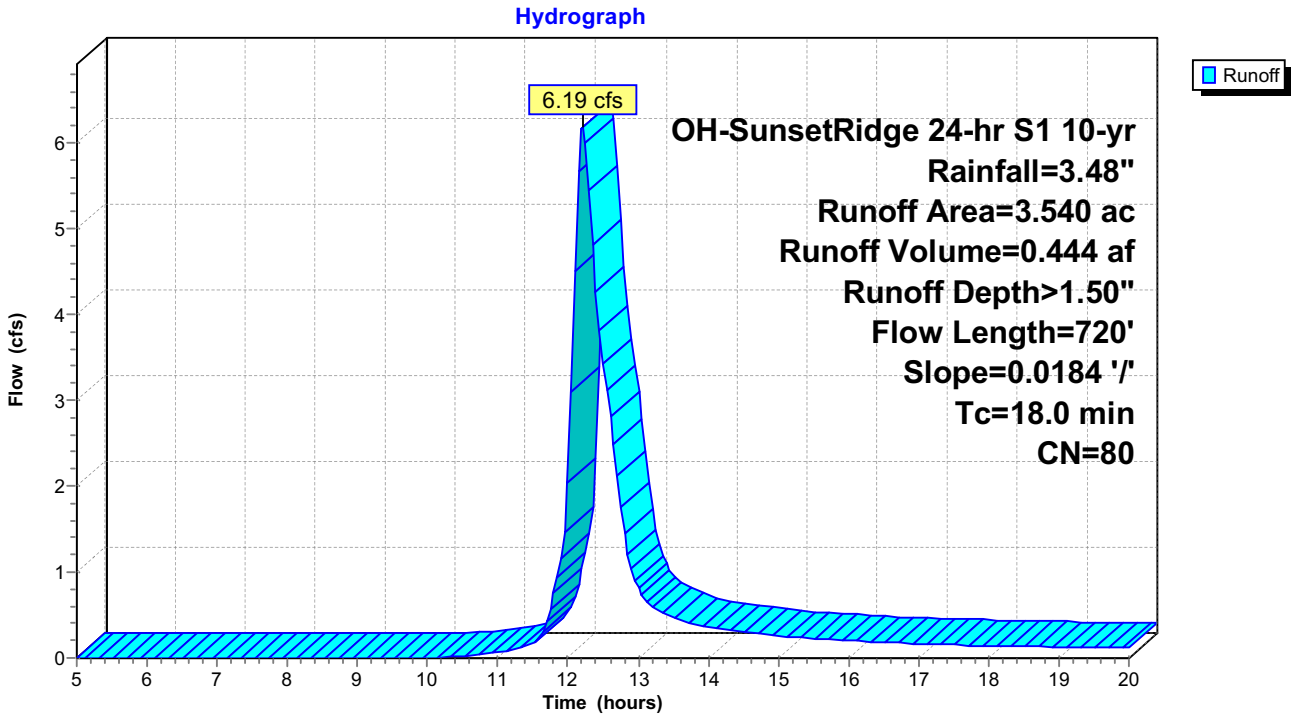
Runoff = 6.19 cfs @ 12.21 hrs, Volume= 0.444 af, Depth> 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
3.240	78	Meadow, non-grazed, HSG D
0.300	96	Gravel surface, HSG D
3.540	80	Weighted Average
3.540		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	720	0.0184	0.67		**Lag/CN Method,**

Subcatchment 77S: DA-22



Summary for Subcatchment 78S: DA-23

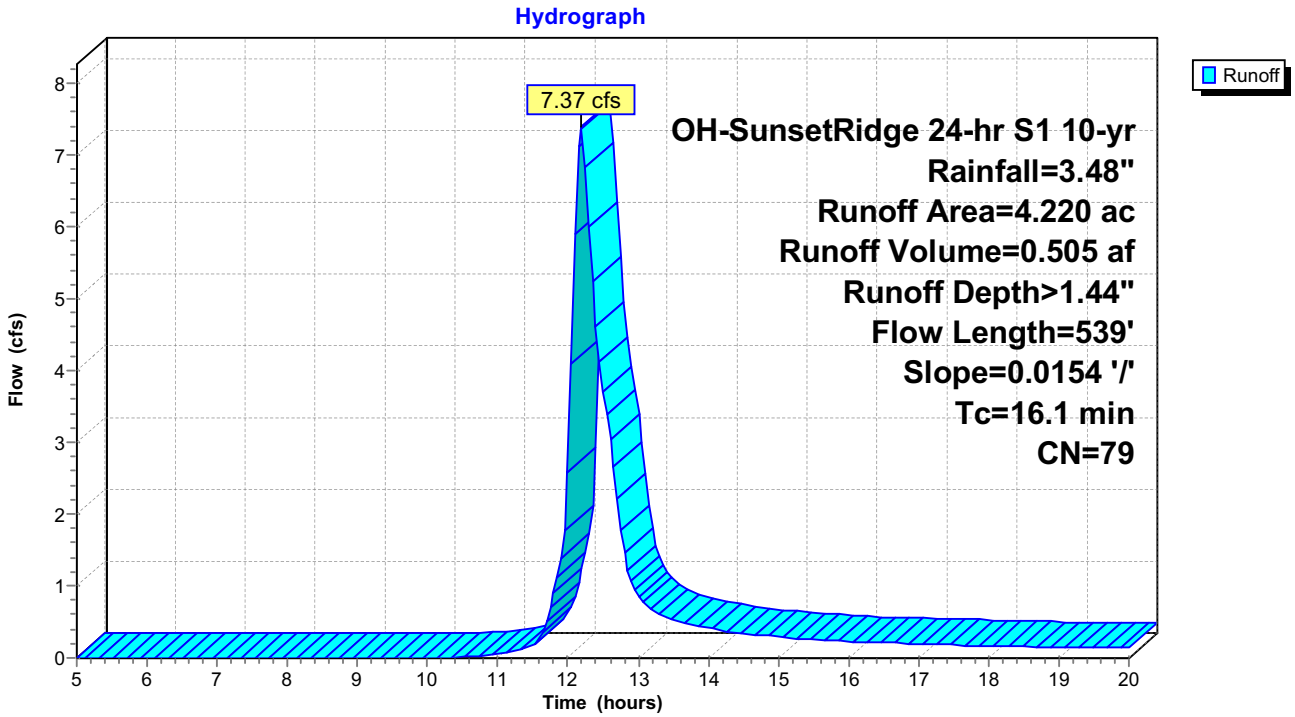
Runoff = 7.37 cfs @ 12.19 hrs, Volume= 0.505 af, Depth> 1.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
4.010	78	Meadow, non-grazed, HSG D
0.210	96	Gravel surface, HSG D
4.220	79	Weighted Average
4.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	539	0.0154	0.56		**Lag/CN Method,**

Subcatchment 78S: DA-23



Summary for Subcatchment 79S: DA-24

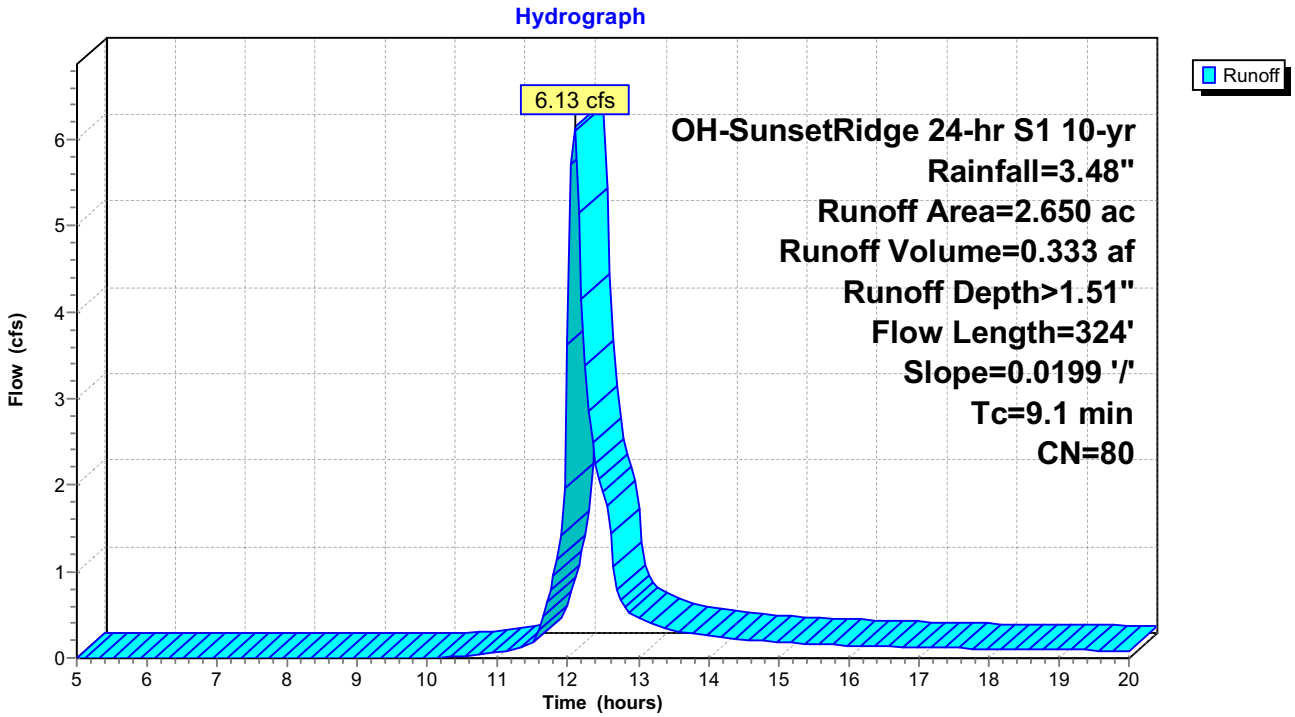
Runoff = 6.13 cfs @ 12.09 hrs, Volume= 0.333 af, Depth> 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
2.420	78	Meadow, non-grazed, HSG D
0.230	96	Gravel surface, HSG D
2.650	80	Weighted Average
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	324	0.0199	0.59		**Lag/CN Method,**

Subcatchment 79S: DA-24



Summary for Subcatchment 80S: DA-25

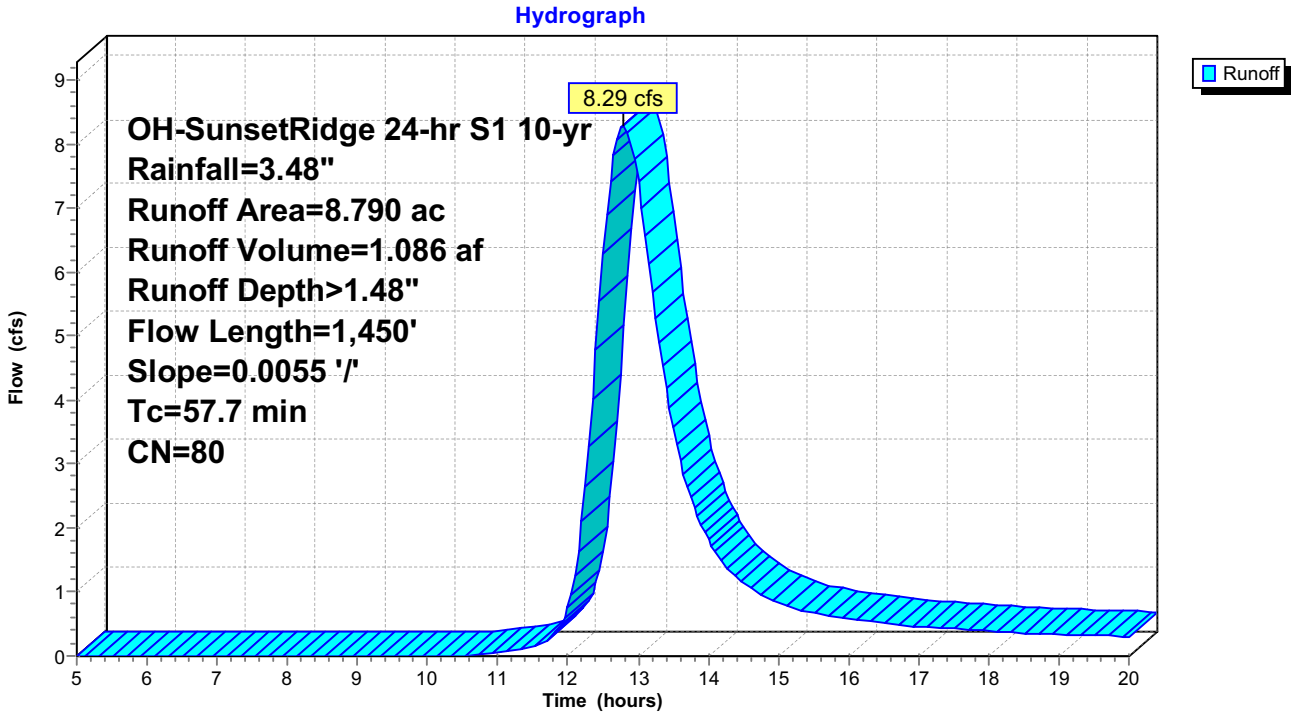
Runoff = 8.29 cfs @ 12.79 hrs, Volume= 1.086 af, Depth> 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
8.020	78	Meadow, non-grazed, HSG D
0.760	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
8.790	80	Weighted Average
8.780		99.89% Pervious Area
0.010		0.11% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
57.7	1,450	0.0055	0.42		**Lag/CN Method,**

Subcatchment 80S: DA-25



Summary for Subcatchment 81S: DA-26

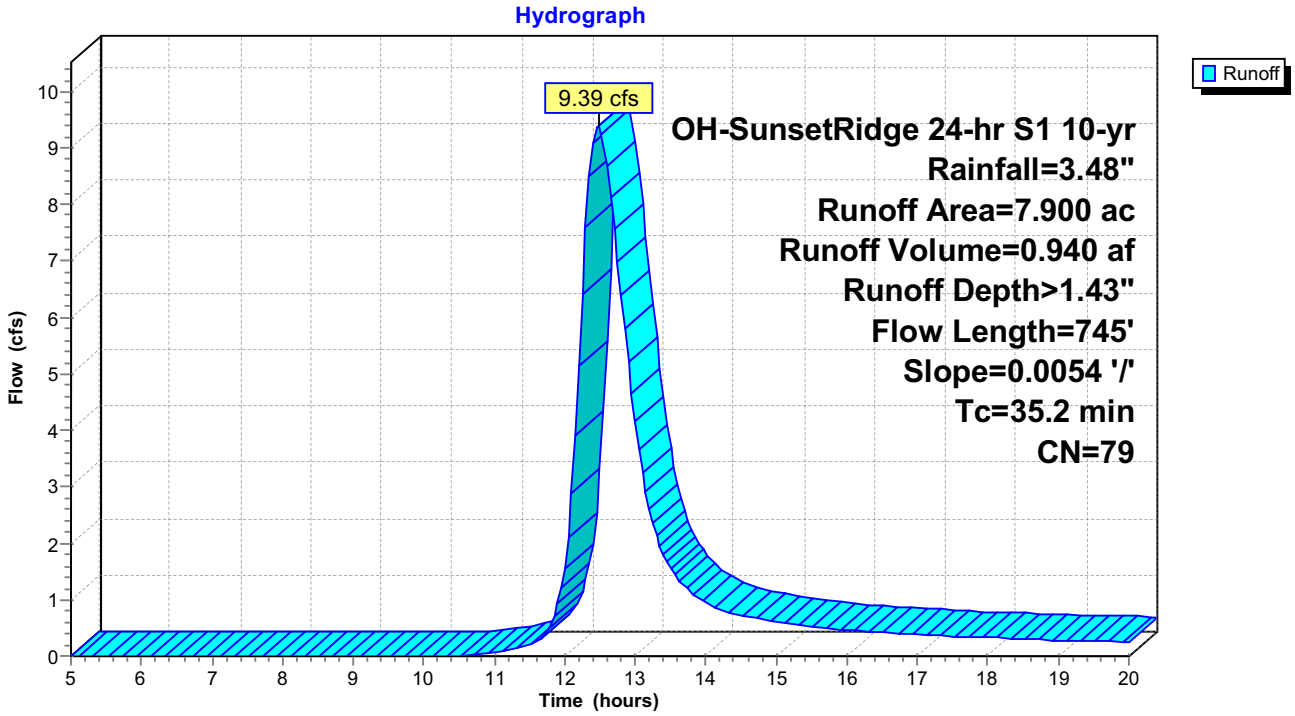
Runoff = 9.39 cfs @ 12.48 hrs, Volume= 0.940 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
7.290	78	Meadow, non-grazed, HSG D
0.600	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
7.900	79	Weighted Average
7.890		99.87% Pervious Area
0.010		0.13% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.2	745	0.0054	0.35		**Lag/CN Method,**

Subcatchment 81S: DA-26



Summary for Subcatchment 82S: DA-27

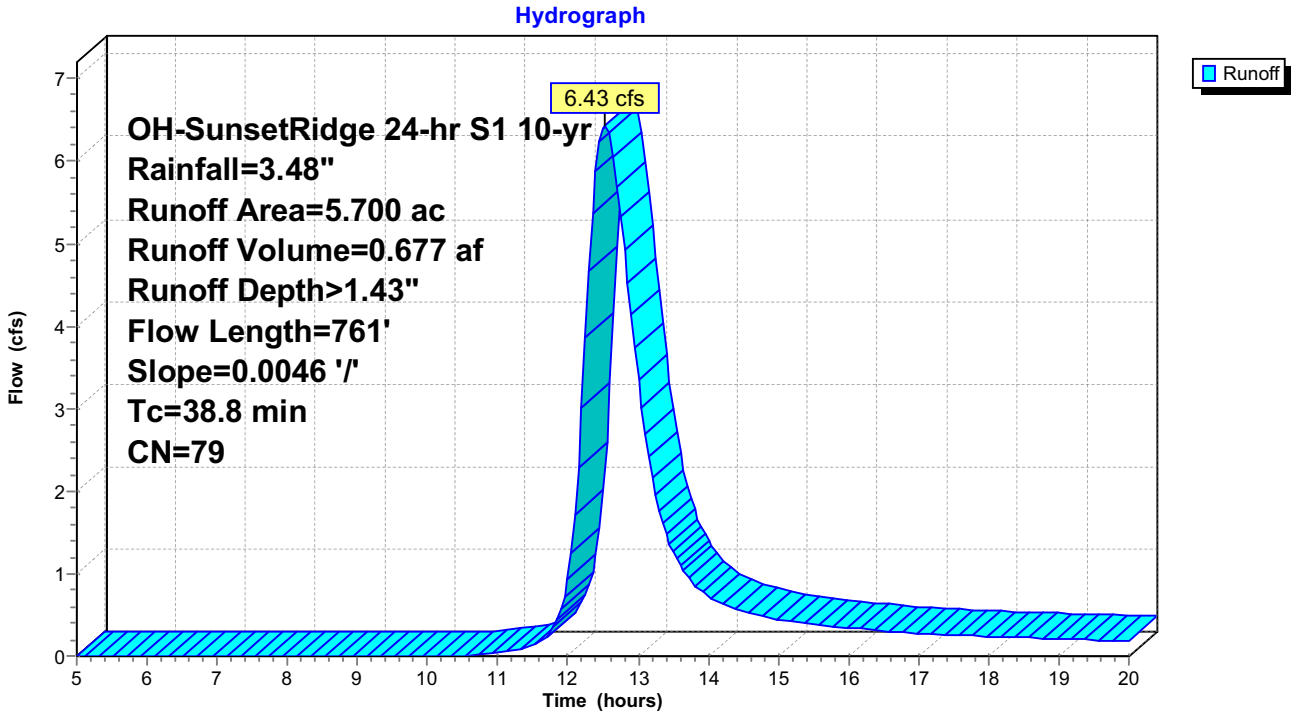
Runoff = 6.43 cfs @ 12.53 hrs, Volume= 0.677 af, Depth> 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
5.300	78	Meadow, non-grazed, HSG D
0.390	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
5.700	79	Weighted Average
5.690		99.82% Pervious Area
0.010		0.18% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.8	761	0.0046	0.33		**Lag/CN Method,**

Subcatchment 82S: DA-27



Summary for Subcatchment 83S: DA-28

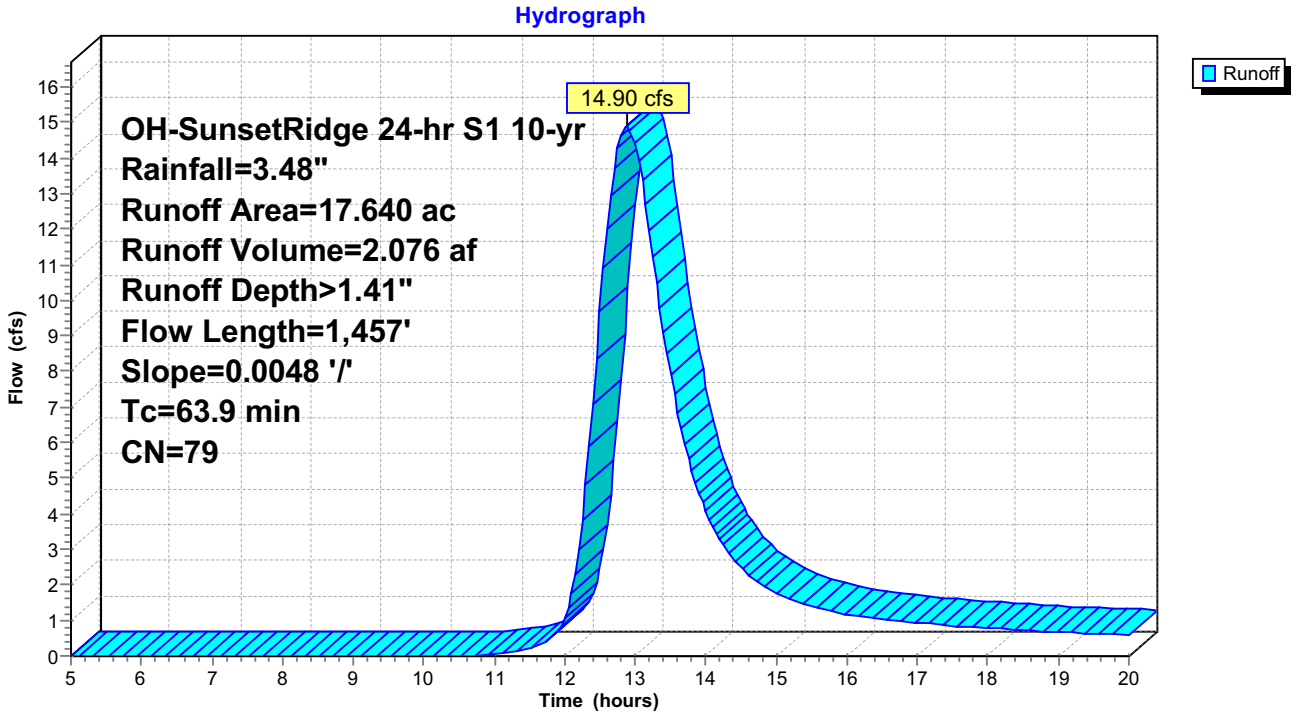
Runoff = 14.90 cfs @ 12.87 hrs, Volume= 2.076 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
16.820	78	Meadow, non-grazed, HSG D
0.810	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
17.640	79	Weighted Average
17.630		99.94% Pervious Area
0.010		0.06% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
63.9	1,457	0.0048	0.38		**Lag/CN Method,**

Subcatchment 83S: DA-28



Summary for Subcatchment 84S: DA-29

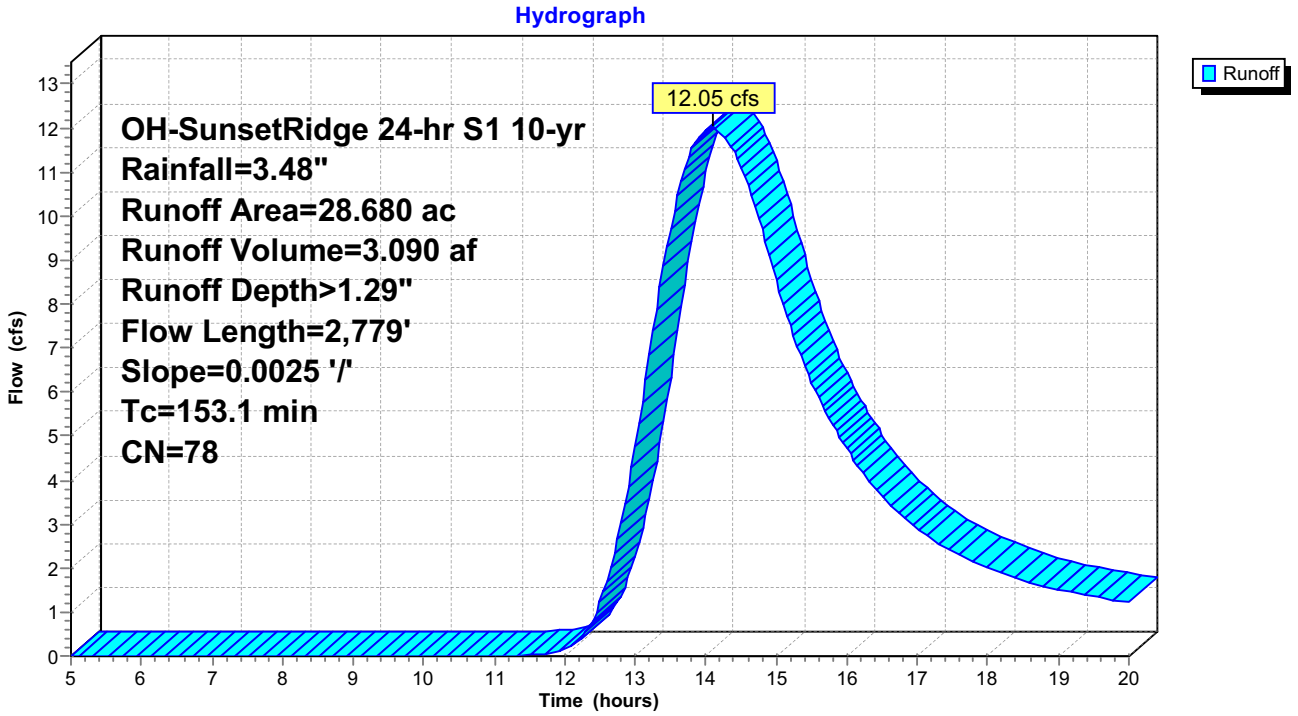
Runoff = 12.05 cfs @ 14.10 hrs, Volume= 3.090 af, Depth> 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 10-yr Rainfall=3.48"

Area (ac)	CN	Description
28.090	78	Meadow, non-grazed, HSG D
0.580	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
28.680	78	Weighted Average
28.670		99.97% Pervious Area
0.010		0.03% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
153.1	2,779	0.0025	0.30		**Lag/CN Method,**

Subcatchment 84S: DA-29



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 48S: DA-01 Runoff Area=26.430 ac 0.04% Impervious Runoff Depth>2.86"
Flow Length=1,305' Slope=0.0072 '/' Tc=47.8 min CN=79 Runoff=51.65 cfs 6.302 af

Subcatchment 49S: DA-02 Runoff Area=16.670 ac 0.06% Impervious Runoff Depth>2.81"
Flow Length=1,699' Slope=0.0026 '/' Tc=98.2 min CN=79 Runoff=20.37 cfs 3.903 af

Subcatchment 50S: DA-03 Runoff Area=16.800 ac 11.90% Impervious Runoff Depth>2.96"
Flow Length=933' Slope=0.0050 '/' Tc=41.2 min UI Adjusted CN=80 Runoff=36.62 cfs 4.143 af

Subcatchment 51S: DA-04 Runoff Area=17.810 ac 13.03% Impervious Runoff Depth>2.95"
Flow Length=1,141' Slope=0.0041 '/' Tc=53.4 min UI Adjusted CN=80 Runoff=33.56 cfs 4.375 af

Subcatchment 52S: DA-05 Runoff Area=13.720 ac 34.04% Impervious Runoff Depth>3.47"
Flow Length=539' Slope=0.0150 '/' Tc=13.4 min CN=85 Runoff=58.34 cfs 3.963 af

Subcatchment 53S: DA-06 Runoff Area=8.750 ac 0.11% Impervious Runoff Depth>2.78"
Flow Length=705' Slope=0.0048 '/' Tc=36.9 min CN=78 Runoff=19.00 cfs 2.027 af

Subcatchment 54S: DA-07 Runoff Area=62.460 ac 0.05% Impervious Runoff Depth>2.79"
Flow Length=1,973' Slope=0.0023 '/' Tc=117.7 min CN=79 Runoff=67.04 cfs 14.512 af

Subcatchment 55S: DA-08 Runoff Area=6.400 ac 0.00% Impervious Runoff Depth>2.80"
Flow Length=447' Slope=0.0100 '/' Tc=17.7 min CN=78 Runoff=19.76 cfs 1.492 af

Subcatchment 56S: DA-09 Runoff Area=26.020 ac 0.04% Impervious Runoff Depth>2.78"
Flow Length=909' Slope=0.0086 '/' Tc=33.8 min CN=78 Runoff=58.96 cfs 6.035 af

Subcatchment 57S: DA-10 Runoff Area=18.870 ac 0.05% Impervious Runoff Depth>2.75"
Flow Length=1,487' Slope=0.0050 '/' Tc=65.6 min CN=78 Runoff=29.60 cfs 4.329 af

Subcatchment 58S: DA-11 Runoff Area=35.470 ac 0.03% Impervious Runoff Depth>2.79"
Flow Length=803' Slope=0.0135 '/' Tc=24.4 min CN=78 Runoff=94.40 cfs 8.253 af

Subcatchment 59S: DA-12 Runoff Area=9.150 ac 0.00% Impervious Runoff Depth>2.88"
Flow Length=1,004' Slope=0.0113 '/' Tc=30.9 min CN=79 Runoff=22.40 cfs 2.194 af

Subcatchment 60S: DA-13 Runoff Area=9.750 ac 0.00% Impervious Runoff Depth>2.88"
Flow Length=700' Slope=0.0114 '/' Tc=23.1 min CN=79 Runoff=27.51 cfs 2.343 af

Subcatchment 61S: DA-14 Runoff Area=68.350 ac 0.04% Impervious Runoff Depth>2.84"
Flow Length=1,812' Slope=0.0055 '/' Tc=71.1 min CN=79 Runoff=104.92 cfs 16.166 af

Subcatchment 62S: DA-15 Runoff Area=134.110 ac 0.04% Impervious Runoff Depth>2.81"
Flow Length=2,632' Slope=0.0050 '/' Tc=100.5 min CN=79 Runoff=162.87 cfs 31.374 af

Subcatchment 63S: DA-16 Runoff Area=2.190 ac 0.00% Impervious Runoff Depth>2.80"
Flow Length=456' Slope=0.0075 '/' Tc=20.8 min CN=78 Runoff=6.29 cfs 0.510 af

Subcatchment 64S: DA-17 Runoff Area=5.020 ac 0.00% Impervious Runoff Depth>2.78"
Flow Length=680' Slope=0.0051 '/' Tc=34.7 min CN=78 Runoff=11.24 cfs 1.164 af

Subcatchment 65S: DA-18 Runoff Area=7.840 ac 0.00% Impervious Runoff Depth>2.88"
Flow Length=660' Slope=0.0079 '/' Tc=26.4 min CN=79 Runoff=20.76 cfs 1.882 af

Subcatchment 66S: DA-19 Runoff Area=7.290 ac 0.14% Impervious Runoff Depth>2.89"
Flow Length=621' Slope=0.0129 '/' Tc=19.7 min CN=79 Runoff=22.13 cfs 1.754 af

Subcatchment 67S: DA-20 Runoff Area=5.180 ac 0.00% Impervious Runoff Depth>2.88"
Flow Length=816' Slope=0.0115 '/' Tc=26.0 min CN=79 Runoff=13.85 cfs 1.244 af

Subcatchment 76S: DA-21 Runoff Area=1.780 ac 0.00% Impervious Runoff Depth>2.98"
Flow Length=374' Slope=0.0083 '/' Tc=15.9 min CN=80 Runoff=6.12 cfs 0.443 af

Subcatchment 77S: DA-22 Runoff Area=3.540 ac 0.00% Impervious Runoff Depth>2.98"
Flow Length=720' Slope=0.0184 '/' Tc=18.0 min CN=80 Runoff=11.56 cfs 0.879 af

Subcatchment 78S: DA-23 Runoff Area=4.220 ac 0.00% Impervious Runoff Depth>2.89"
Flow Length=539' Slope=0.0154 '/' Tc=16.1 min CN=79 Runoff=13.99 cfs 1.017 af

Subcatchment 79S: DA-24 Runoff Area=2.650 ac 0.00% Impervious Runoff Depth>2.99"
Flow Length=324' Slope=0.0199 '/' Tc=9.1 min CN=80 Runoff=11.25 cfs 0.660 af

Subcatchment 80S: DA-25 Runoff Area=8.790 ac 0.11% Impervious Runoff Depth>2.94"
Flow Length=1,450' Slope=0.0055 '/' Tc=57.7 min CN=80 Runoff=15.91 cfs 2.156 af

Subcatchment 81S: DA-26 Runoff Area=7.900 ac 0.13% Impervious Runoff Depth>2.87"
Flow Length=745' Slope=0.0054 '/' Tc=35.2 min CN=79 Runoff=18.14 cfs 1.891 af

Subcatchment 82S: DA-27 Runoff Area=5.700 ac 0.18% Impervious Runoff Depth>2.87"
Flow Length=761' Slope=0.0046 '/' Tc=38.8 min CN=79 Runoff=12.44 cfs 1.363 af

Subcatchment 83S: DA-28 Runoff Area=17.640 ac 0.06% Impervious Runoff Depth>2.85"
Flow Length=1,457' Slope=0.0048 '/' Tc=63.9 min CN=79 Runoff=29.17 cfs 4.183 af

Subcatchment 84S: DA-29 Runoff Area=28.680 ac 0.03% Impervious Runoff Depth>2.65"
Flow Length=2,779' Slope=0.0025 '/' Tc=153.1 min CN=78 Runoff=24.43 cfs 6.343 af

Total Runoff Area = 579.180 ac Runoff Volume = 136.901 af Average Runoff Depth = 2.84"
98.41% Pervious = 569.960 ac 1.59% Impervious = 9.220 ac

Summary for Subcatchment 48S: DA-01

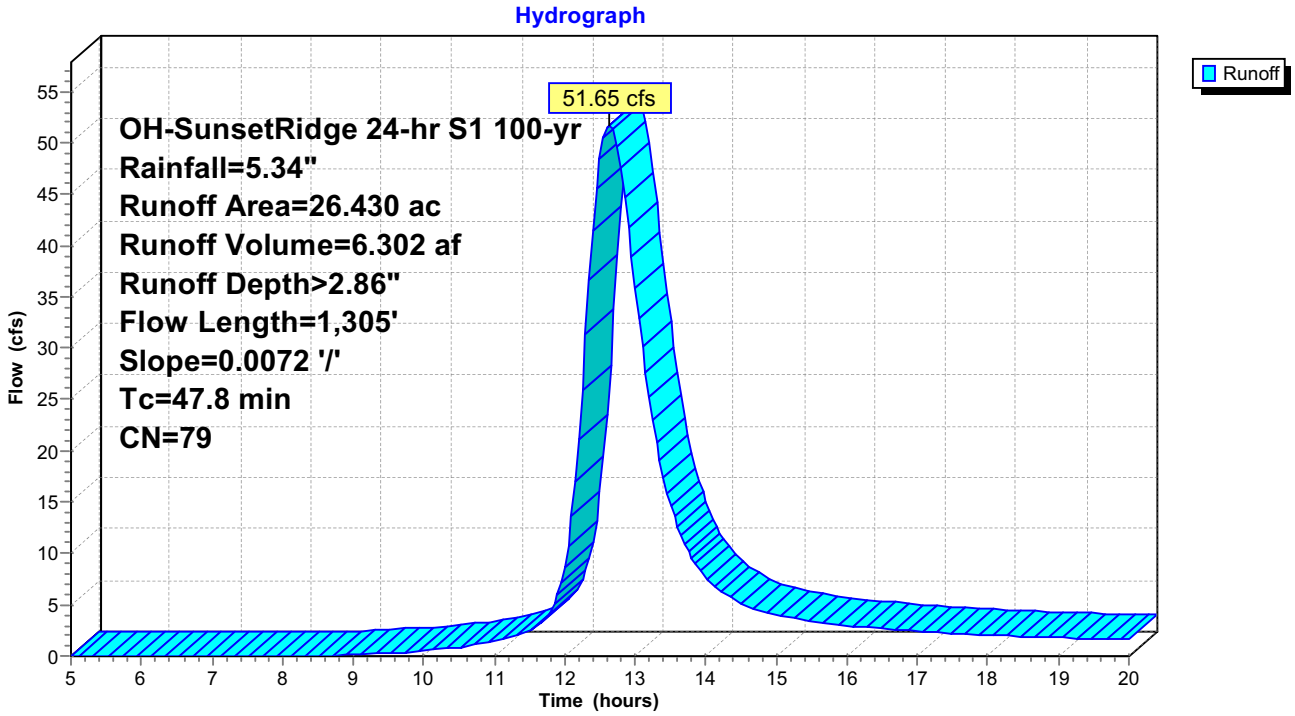
Runoff = 51.65 cfs @ 12.63 hrs, Volume= 6.302 af, Depth> 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
25.020	78	Meadow, non-grazed, HSG D
1.400	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
26.430	79	Weighted Average
26.420		99.96% Pervious Area
0.010		0.04% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.8	1,305	0.0072	0.46		**Lag/CN Method,**

Subcatchment 48S: DA-01



Summary for Subcatchment 49S: DA-02

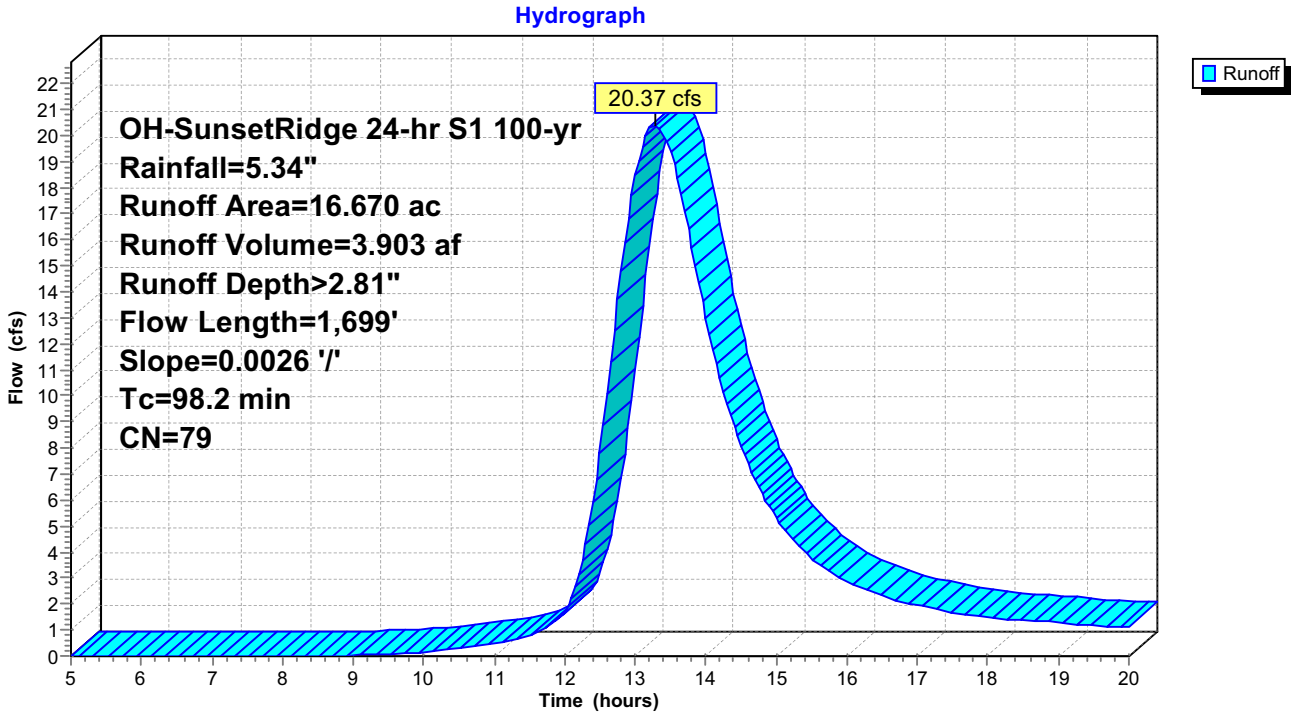
Runoff = 20.37 cfs @ 13.27 hrs, Volume= 3.903 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
16.190	78	Meadow, non-grazed, HSG D
0.470	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
16.670	79	Weighted Average
16.660		99.94% Pervious Area
0.010		0.06% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	1,699	0.0026	0.29		**Lag/CN Method,**

Subcatchment 49S: DA-02



Summary for Subcatchment 50S: DA-03

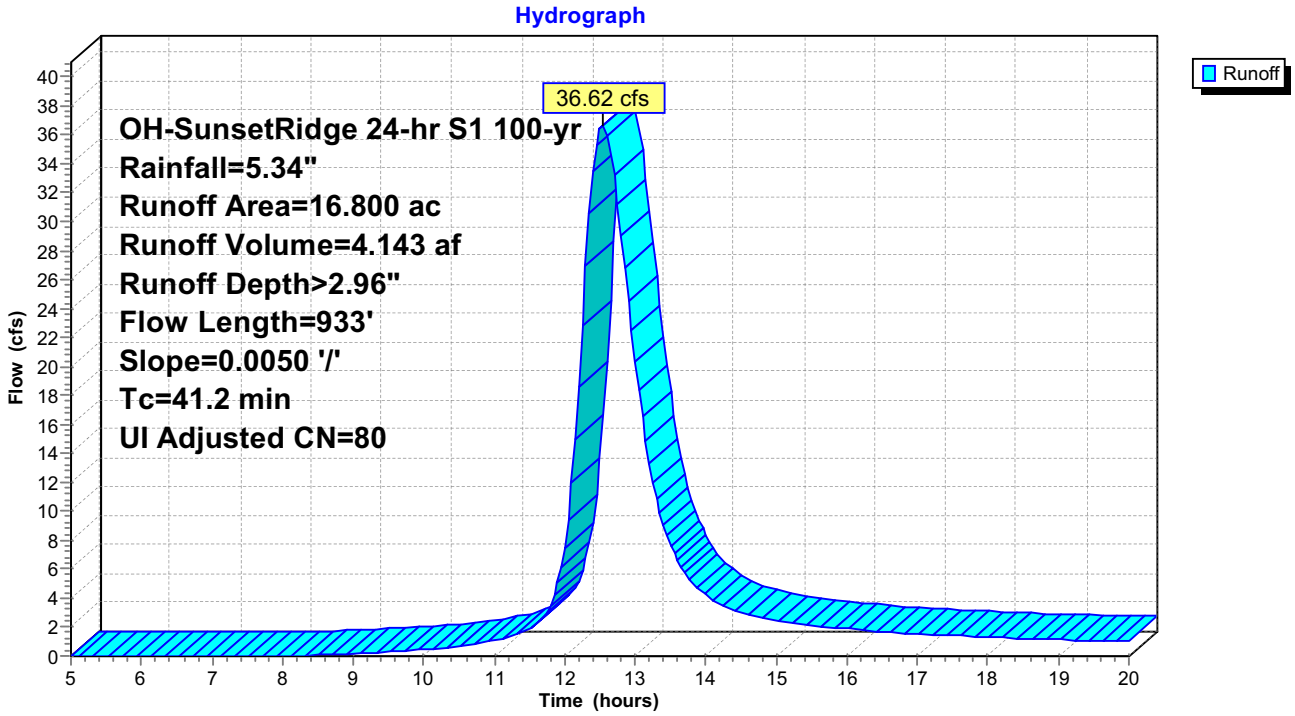
Runoff = 36.62 cfs @ 12.54 hrs, Volume= 4.143 af, Depth> 2.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Adj	Description
14.440	78		Meadow, non-grazed, HSG D
0.360	96		Gravel surface, HSG D
2.000	98		Unconnected pavement, HSG D
16.800	81	80	Weighted Average, UI Adjusted
14.800			88.10% Pervious Area
2.000			11.90% Impervious Area
2.000			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
41.2	933	0.0050	0.38		**Lag/CN Method,**

Subcatchment 50S: DA-03



Summary for Subcatchment 51S: DA-04

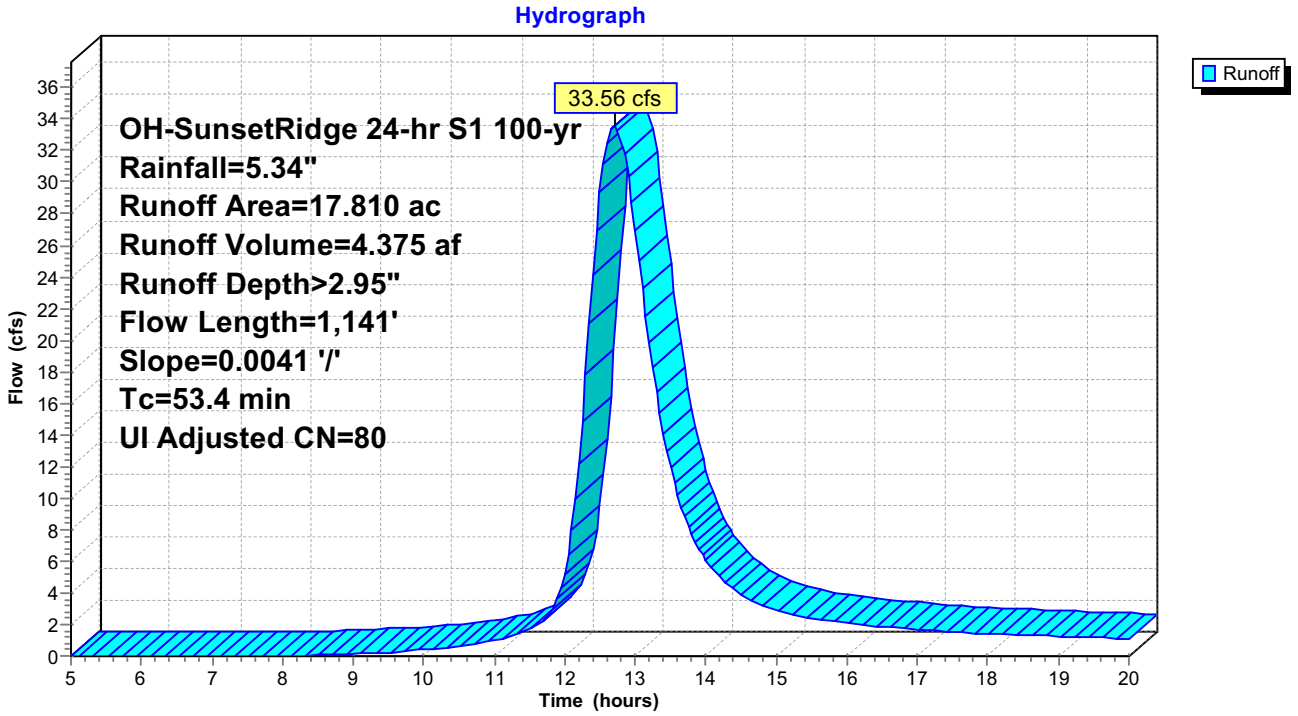
Runoff = 33.56 cfs @ 12.71 hrs, Volume= 4.375 af, Depth> 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Adj	Description
15.040	78		Meadow, non-grazed, HSG D
0.450	96		Gravel surface, HSG D
2.320	98		Unconnected pavement, HSG D
17.810	81	80	Weighted Average, UI Adjusted
15.490			86.97% Pervious Area
2.320			13.03% Impervious Area
2.320			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
53.4	1,141	0.0041	0.36		**Lag/CN Method,**

Subcatchment 51S: DA-04



Summary for Subcatchment 52S: DA-05

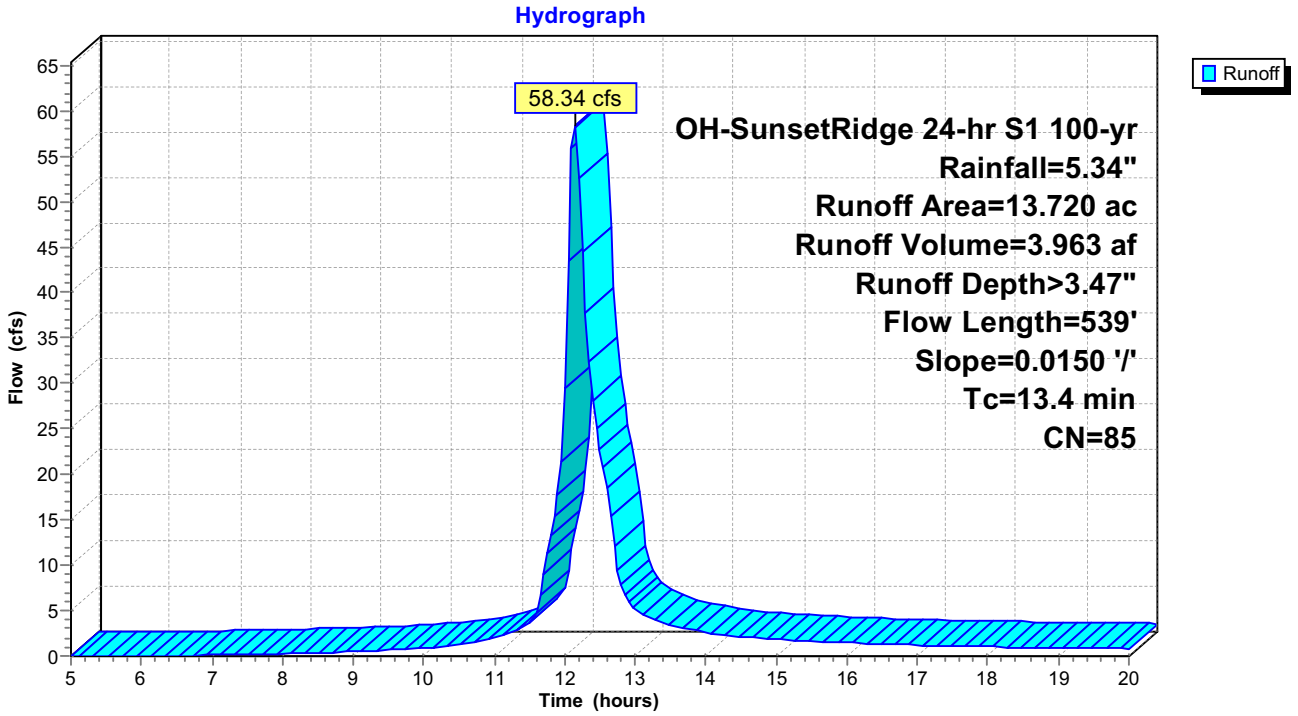
Runoff = 58.34 cfs @ 12.14 hrs, Volume= 3.963 af, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.920	78	Meadow, non-grazed, HSG D
0.130	96	Gravel surface, HSG D
4.670	98	Unconnected pavement, HSG D
13.720	85	Weighted Average
9.050		65.96% Pervious Area
4.670		34.04% Impervious Area
4.670		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	539	0.0150	0.67		**Lag/CN Method,**

Subcatchment 52S: DA-05



Summary for Subcatchment 53S: DA-06

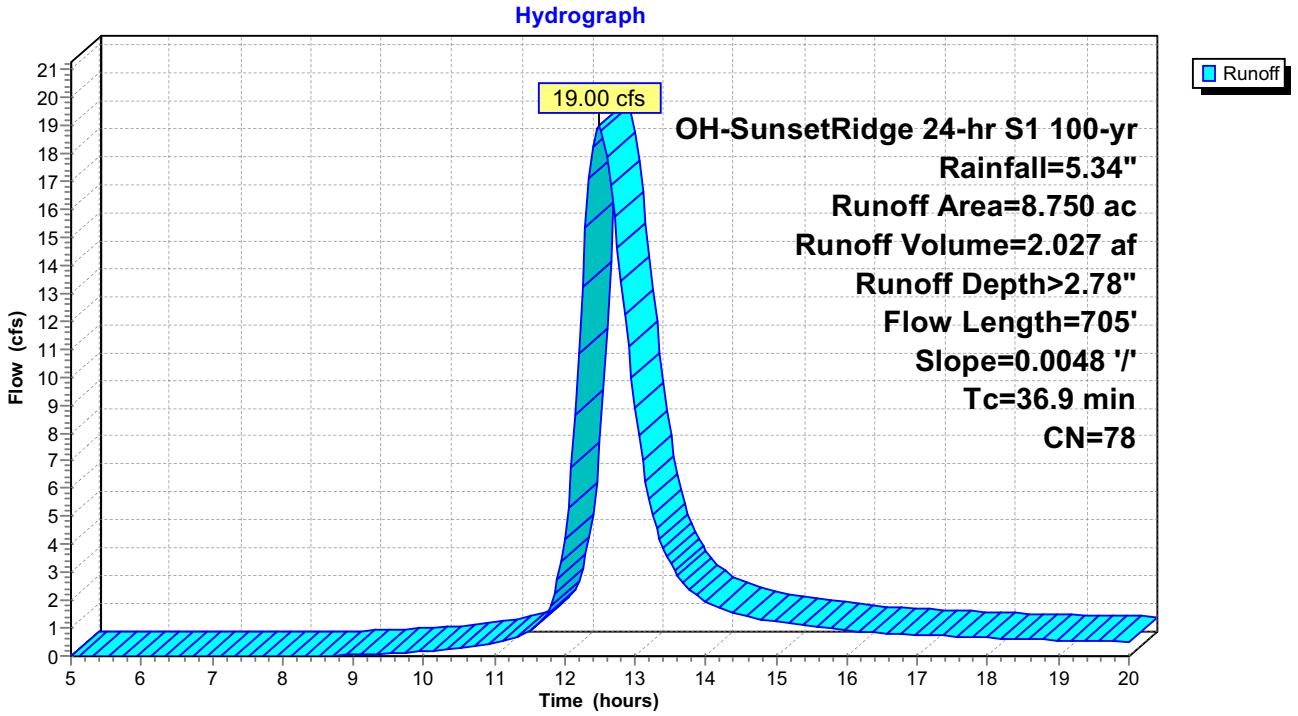
Runoff = 19.00 cfs @ 12.49 hrs, Volume= 2.027 af, Depth> 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.520	78	Meadow, non-grazed, HSG D
0.220	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
8.750	78	Weighted Average
8.740		99.89% Pervious Area
0.010		0.11% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.9	705	0.0048	0.32		**Lag/CN Method,**

Subcatchment 53S: DA-06



Summary for Subcatchment 54S: DA-07

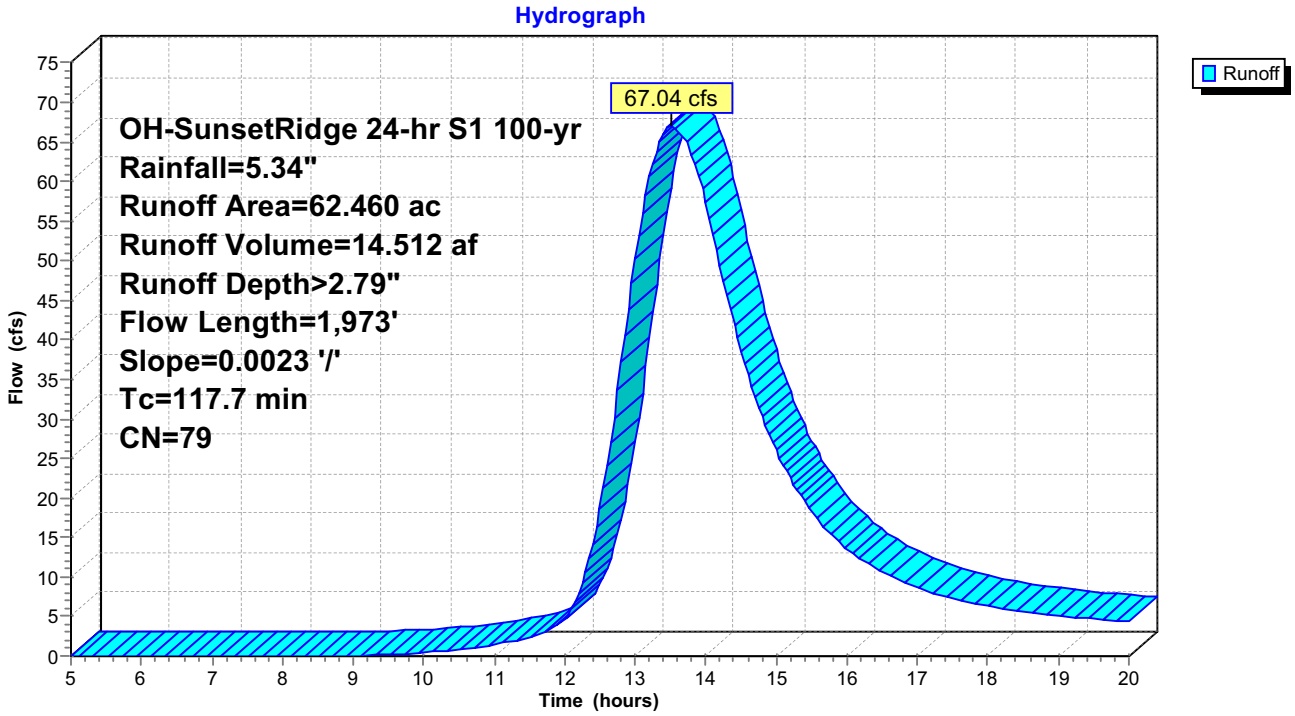
Runoff = 67.04 cfs @ 13.50 hrs, Volume= 14.512 af, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
59.830	78	Meadow, non-grazed, HSG D
2.600	96	Gravel surface, HSG D
0.030	98	Unconnected pavement, HSG D
62.460	79	Weighted Average
62.430		99.95% Pervious Area
0.030		0.05% Impervious Area
0.030		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
117.7	1,973	0.0023	0.28		**Lag/CN Method,**

Subcatchment 54S: DA-07



Summary for Subcatchment 55S: DA-08

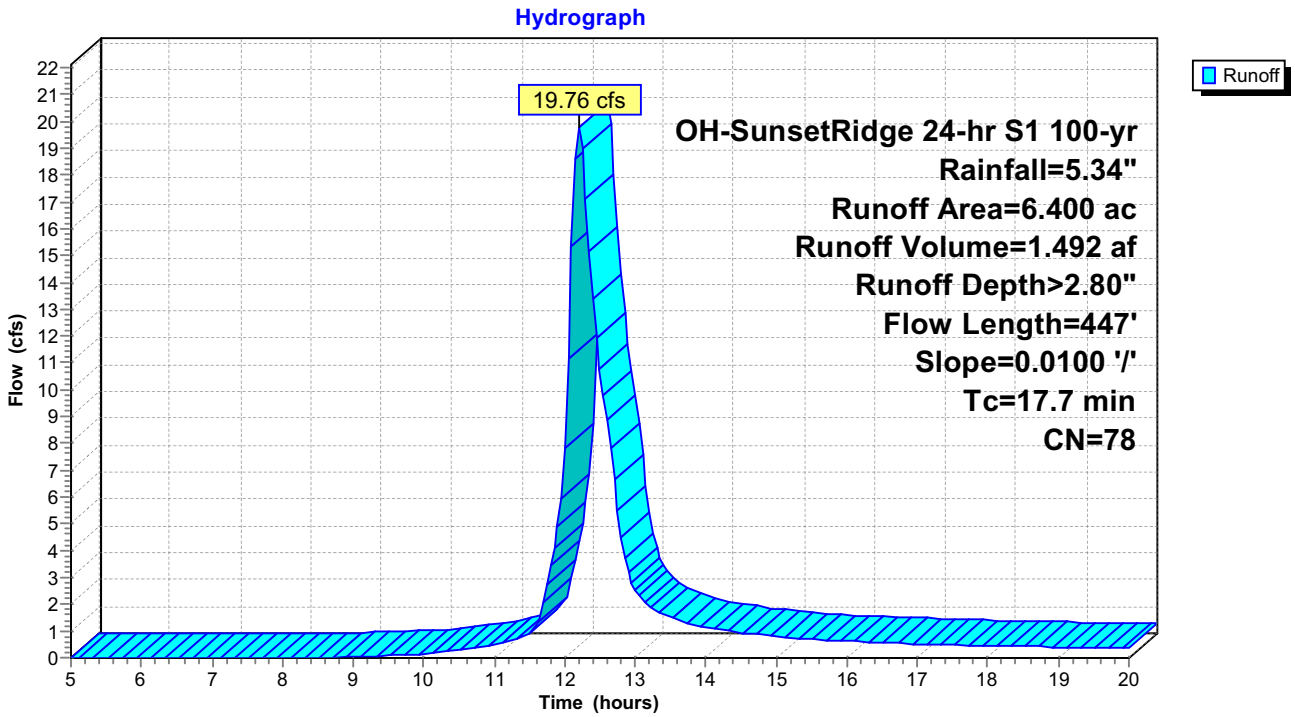
Runoff = 19.76 cfs @ 12.21 hrs, Volume= 1.492 af, Depth> 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
6.400	78	Meadow, non-grazed, HSG D
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	447	0.0100	0.42		**Lag/CN Method,**

Subcatchment 55S: DA-08



Summary for Subcatchment 56S: DA-09

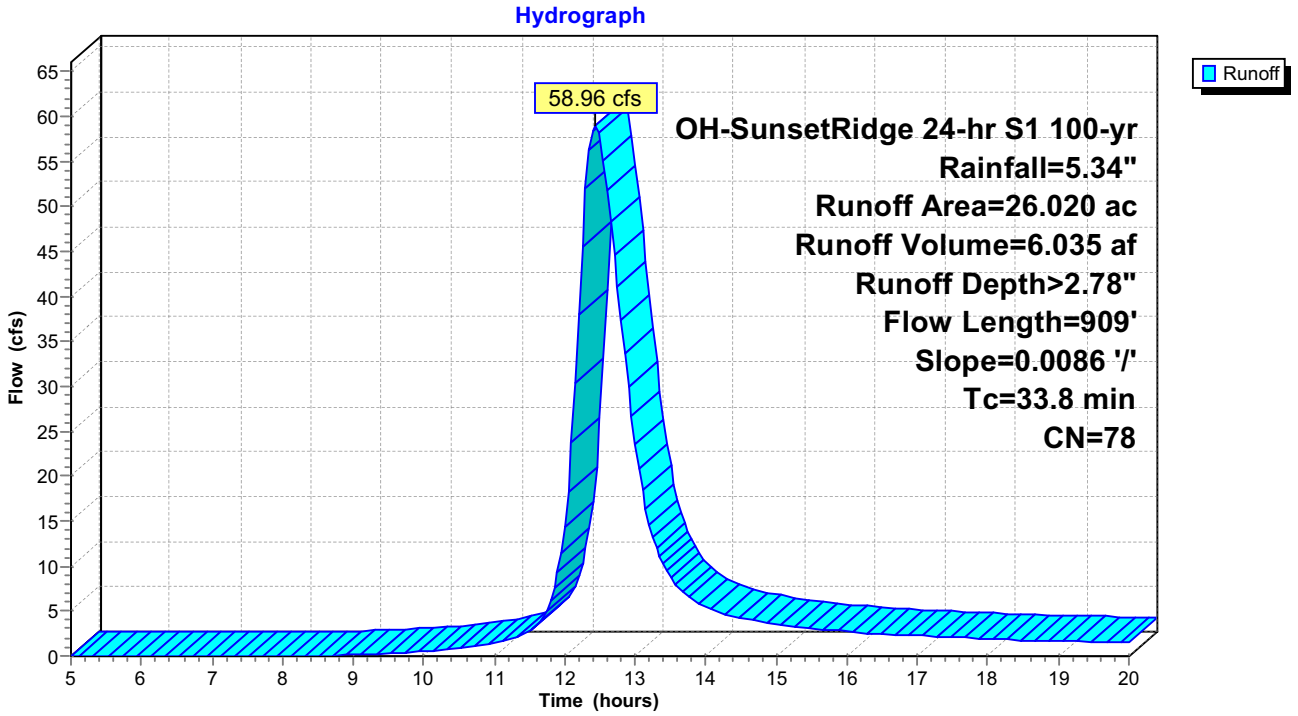
Runoff = 58.96 cfs @ 12.44 hrs, Volume= 6.035 af, Depth> 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
25.490	78	Meadow, non-grazed, HSG D
0.520	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
26.020	78	Weighted Average
26.010		99.96% Pervious Area
0.010		0.04% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.8	909	0.0086	0.45		**Lag/CN Method,**

Subcatchment 56S: DA-09



Summary for Subcatchment 57S: DA-10

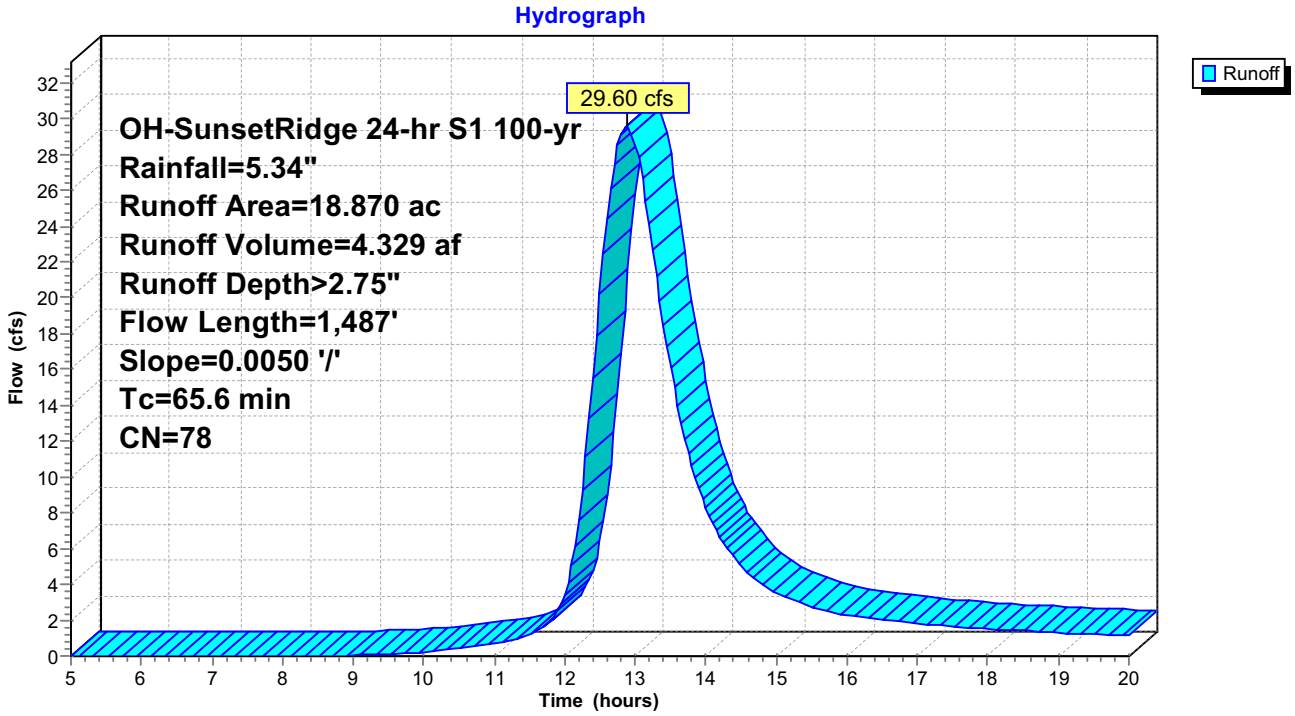
Runoff = 29.60 cfs @ 12.88 hrs, Volume= 4.329 af, Depth> 2.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
18.500	78	Meadow, non-grazed, HSG D
0.360	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
18.870	78	Weighted Average
18.860		99.95% Pervious Area
0.010		0.05% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
65.6	1,487	0.0050	0.38		**Lag/CN Method,**

Subcatchment 57S: DA-10



Summary for Subcatchment 58S: DA-11

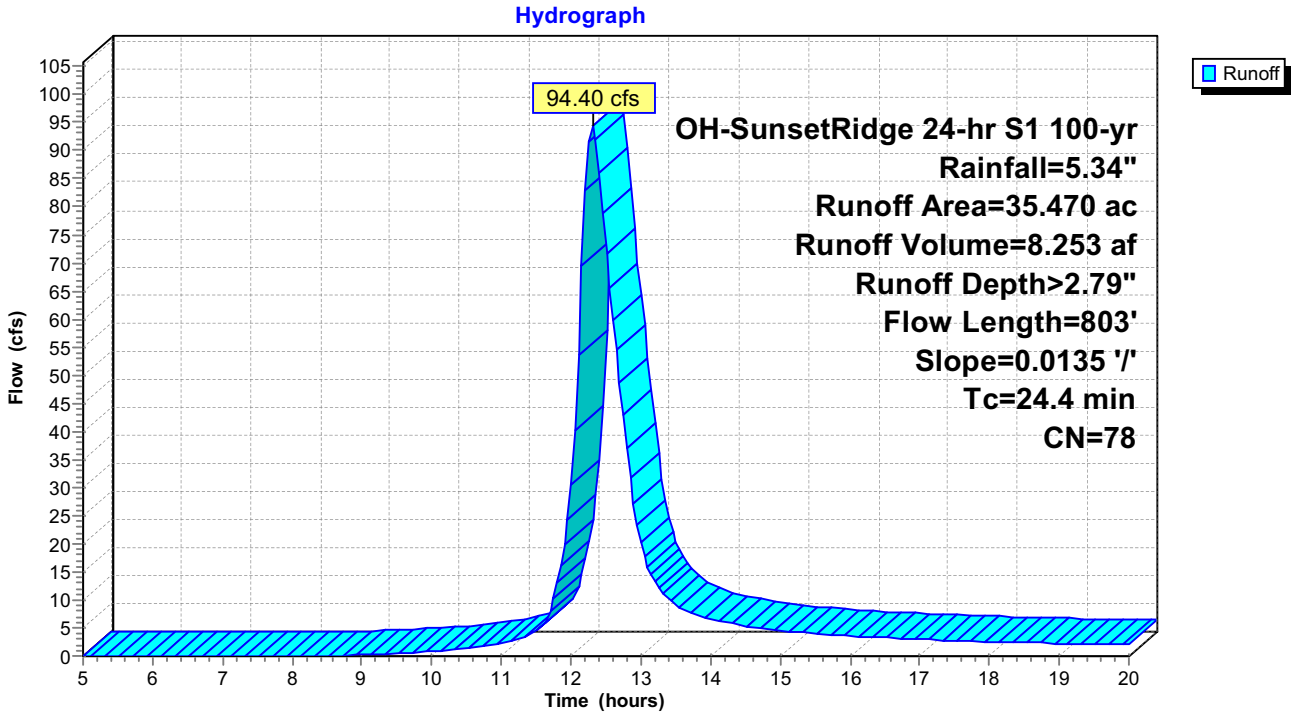
Runoff = 94.40 cfs @ 12.30 hrs, Volume= 8.253 af, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
34.490	78	Meadow, non-grazed, HSG D
0.970	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
35.470	78	Weighted Average
35.460		99.97% Pervious Area
0.010		0.03% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.4	803	0.0135	0.55		**Lag/CN Method,**

Subcatchment 58S: DA-11



Summary for Subcatchment 59S: DA-12

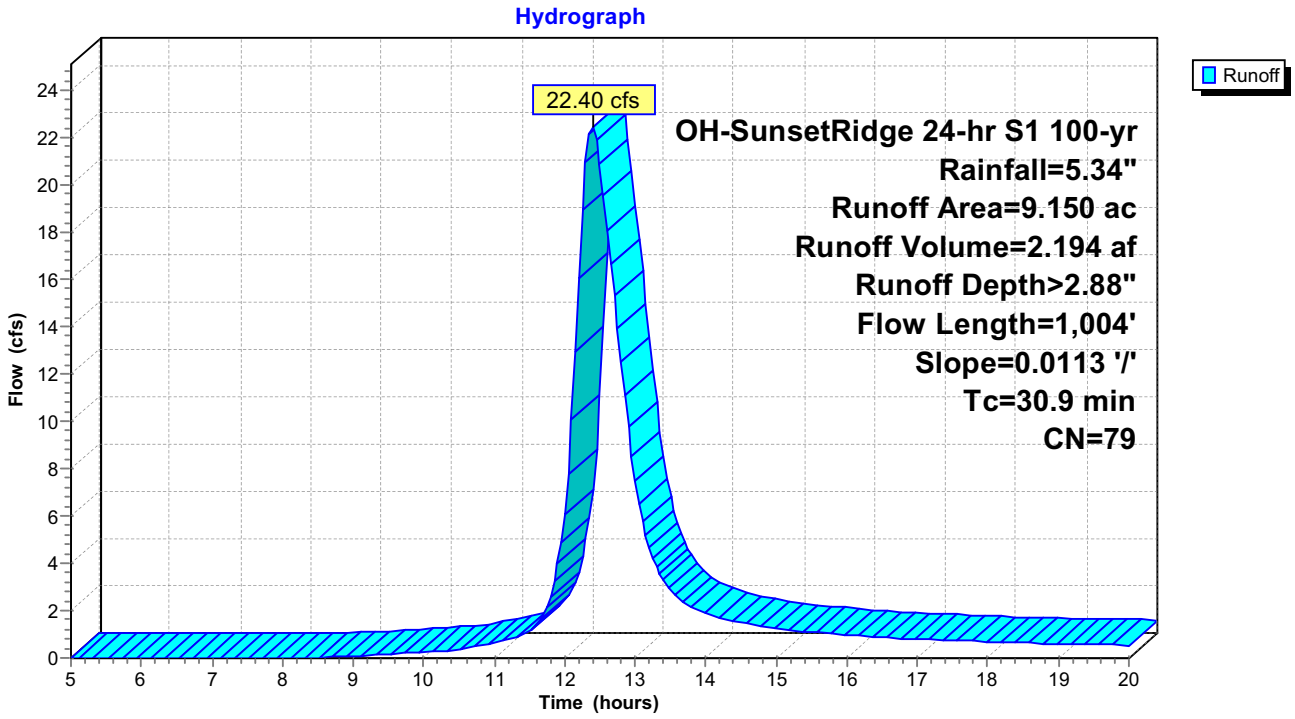
Runoff = 22.40 cfs @ 12.39 hrs, Volume= 2.194 af, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.760	78	Meadow, non-grazed, HSG D
0.390	96	Gravel surface, HSG D
9.150	79	Weighted Average
9.150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.9	1,004	0.0113	0.54		**Lag/CN Method,**

Subcatchment 59S: DA-12



Summary for Subcatchment 60S: DA-13

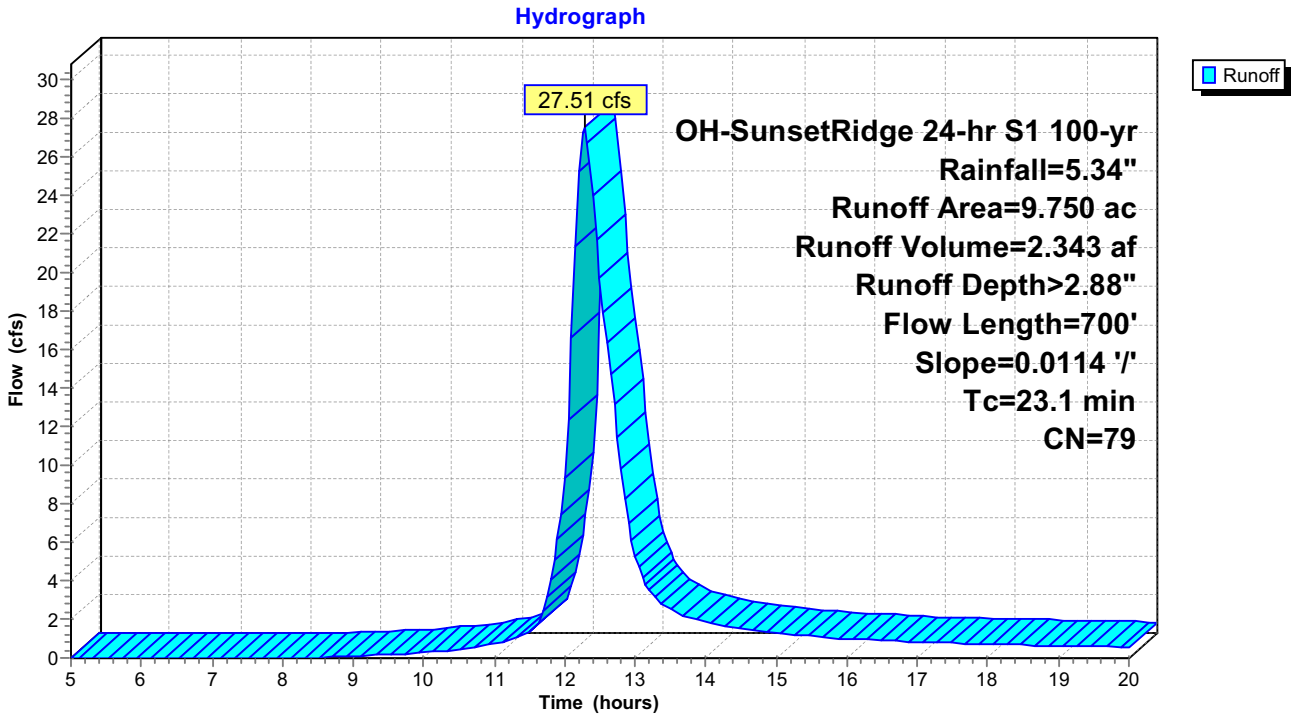
Runoff = 27.51 cfs @ 12.28 hrs, Volume= 2.343 af, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
9.220	78	Meadow, non-grazed, HSG D
0.530	96	Gravel surface, HSG D
9.750	79	Weighted Average
9.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	700	0.0114	0.51		**Lag/CN Method,**

Subcatchment 60S: DA-13



Summary for Subcatchment 61S: DA-14

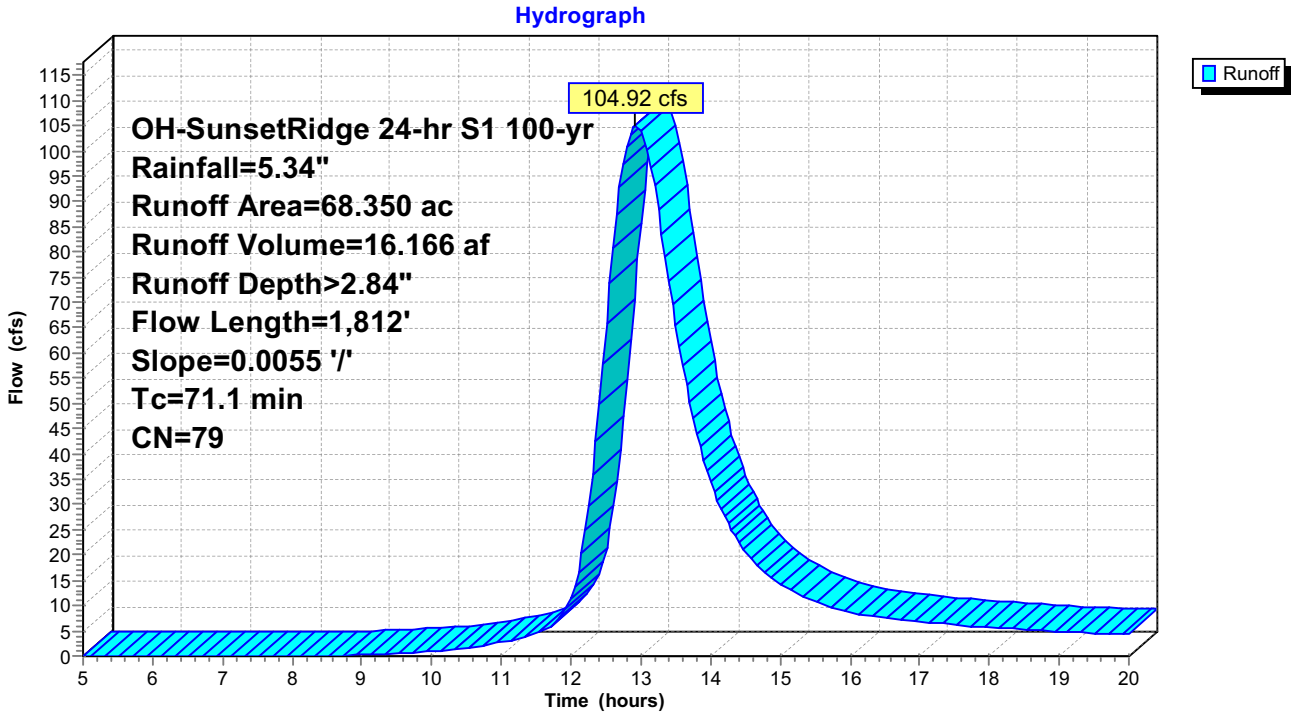
Runoff = 104.92 cfs @ 12.93 hrs, Volume= 16.166 af, Depth> 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
66.160	78	Meadow, non-grazed, HSG D
2.160	96	Gravel surface, HSG D
0.030	98	Unconnected pavement, HSG D
68.350	79	Weighted Average
68.320		99.96% Pervious Area
0.030		0.04% Impervious Area
0.030		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
71.1	1,812	0.0055	0.42		**Lag/CN Method,**

Subcatchment 61S: DA-14



Summary for Subcatchment 62S: DA-15

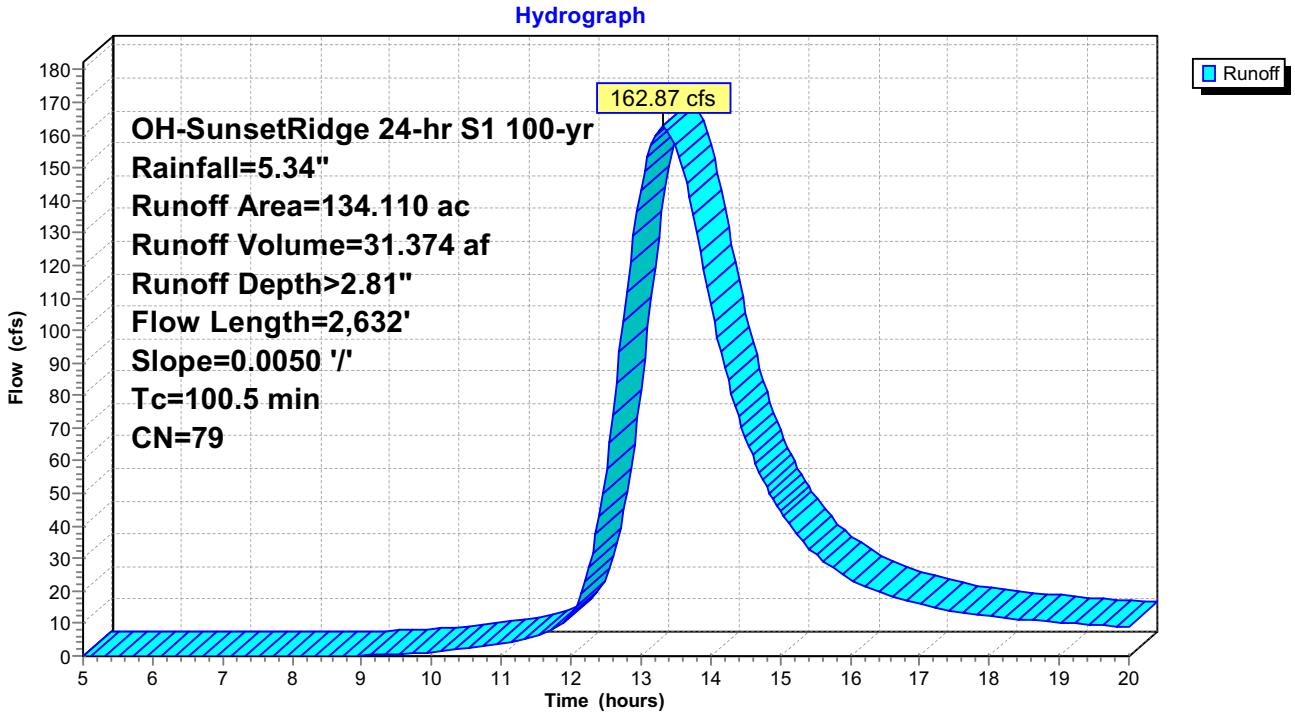
Runoff = 162.87 cfs @ 13.30 hrs, Volume= 31.374 af, Depth> 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
129.020	78	Meadow, non-grazed, HSG D
5.040	96	Gravel surface, HSG D
0.050	98	Unconnected pavement, HSG D
134.110	79	Weighted Average
134.060		99.96% Pervious Area
0.050		0.04% Impervious Area
0.050		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
100.5	2,632	0.0050	0.44		**Lag/CN Method,**

Subcatchment 62S: DA-15



Summary for Subcatchment 63S: DA-16

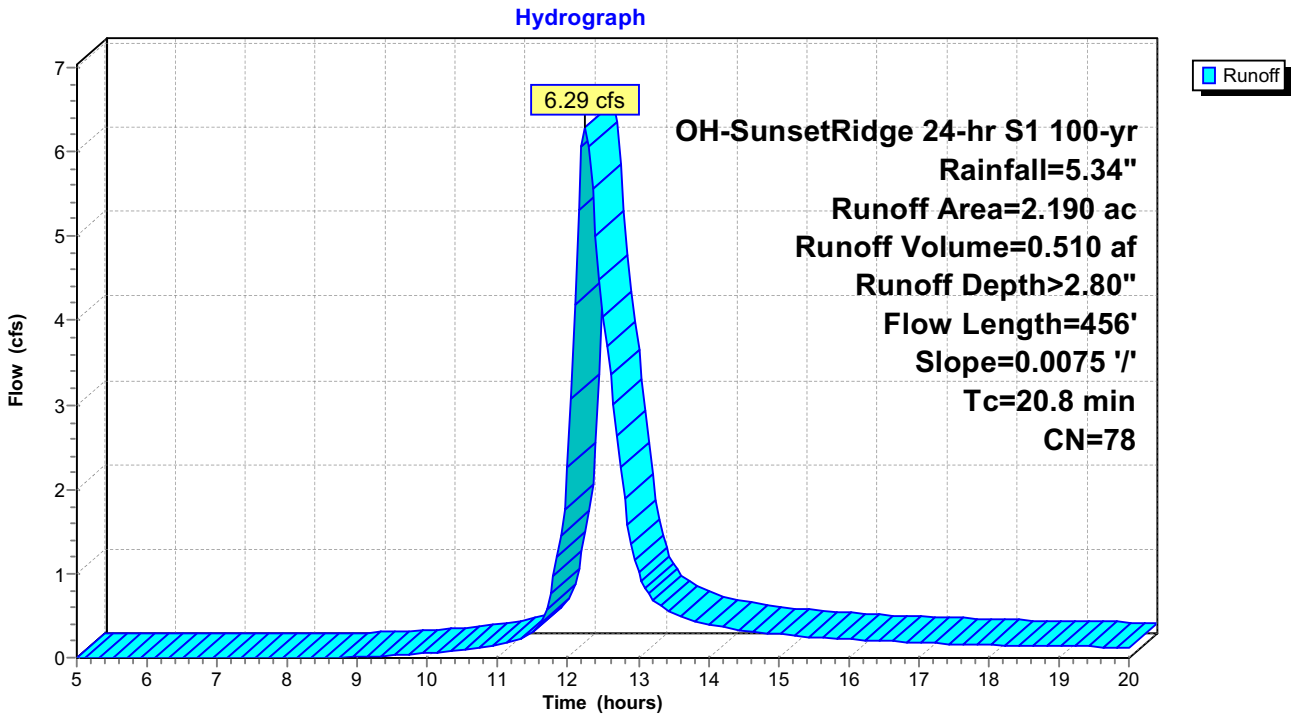
Runoff = 6.29 cfs @ 12.25 hrs, Volume= 0.510 af, Depth> 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
2.190	78	Meadow, non-grazed, HSG D
2.190		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	456	0.0075	0.37		**Lag/CN Method,**

Subcatchment 63S: DA-16



Summary for Subcatchment 64S: DA-17

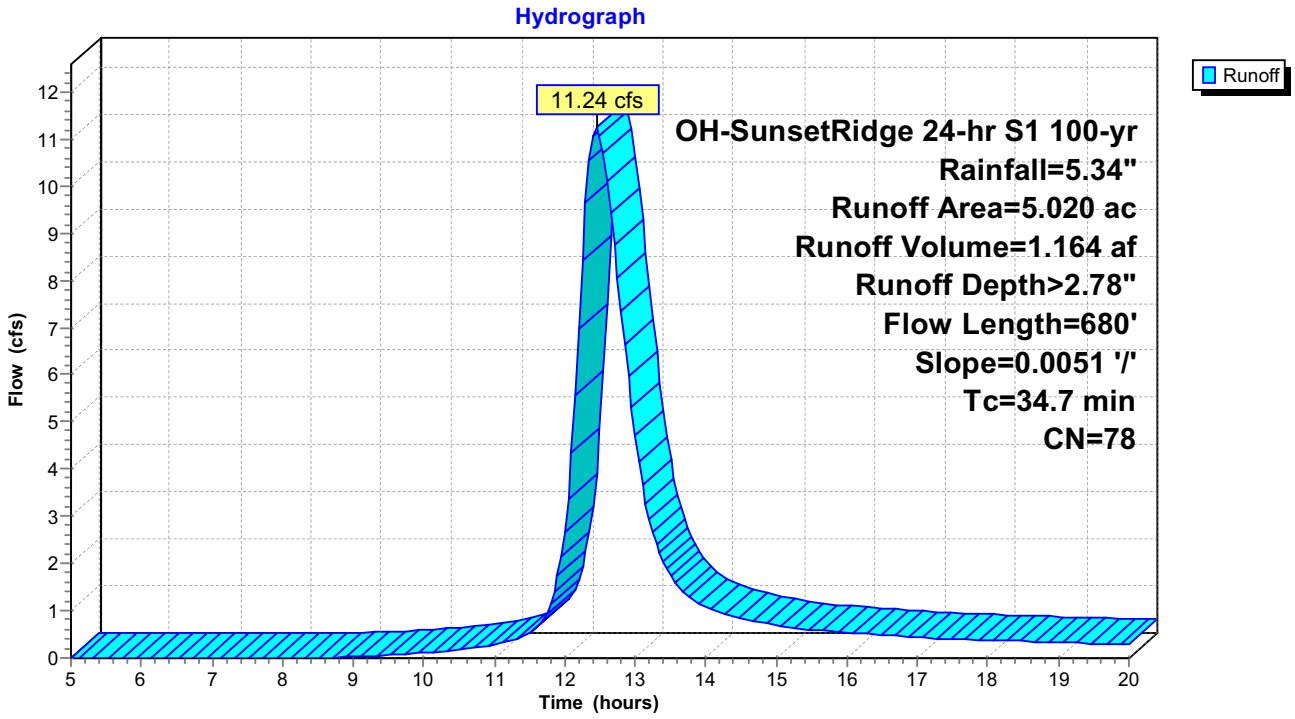
Runoff = 11.24 cfs @ 12.45 hrs, Volume= 1.164 af, Depth> 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
4.890	78	Meadow, non-grazed, HSG D
0.130	96	Gravel surface, HSG D
5.020	78	Weighted Average
5.020		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.7	680	0.0051	0.33		**Lag/CN Method,**

Subcatchment 64S: DA-17



Summary for Subcatchment 65S: DA-18

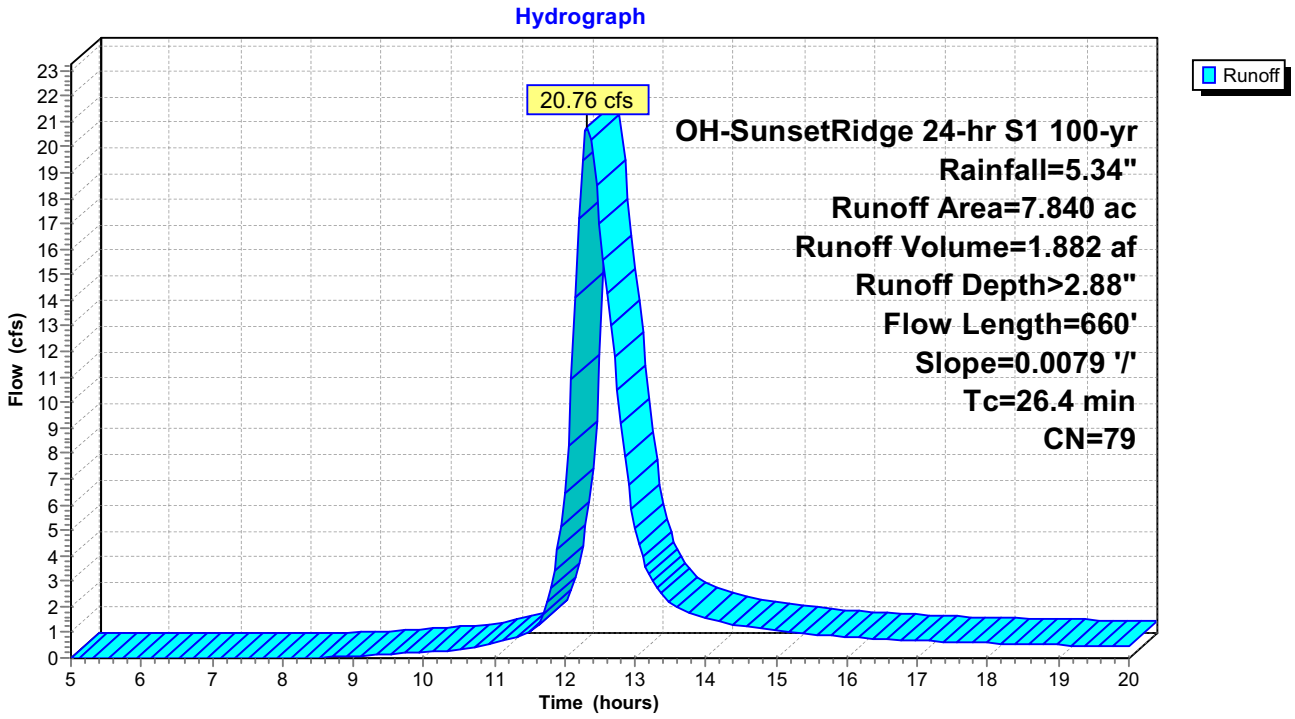
Runoff = 20.76 cfs @ 12.33 hrs, Volume= 1.882 af, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
7.250	78	Meadow, non-grazed, HSG D
0.590	96	Gravel surface, HSG D
7.840	79	Weighted Average
7.840		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.4	660	0.0079	0.42		**Lag/CN Method,**

Subcatchment 65S: DA-18



Summary for Subcatchment 66S: DA-19

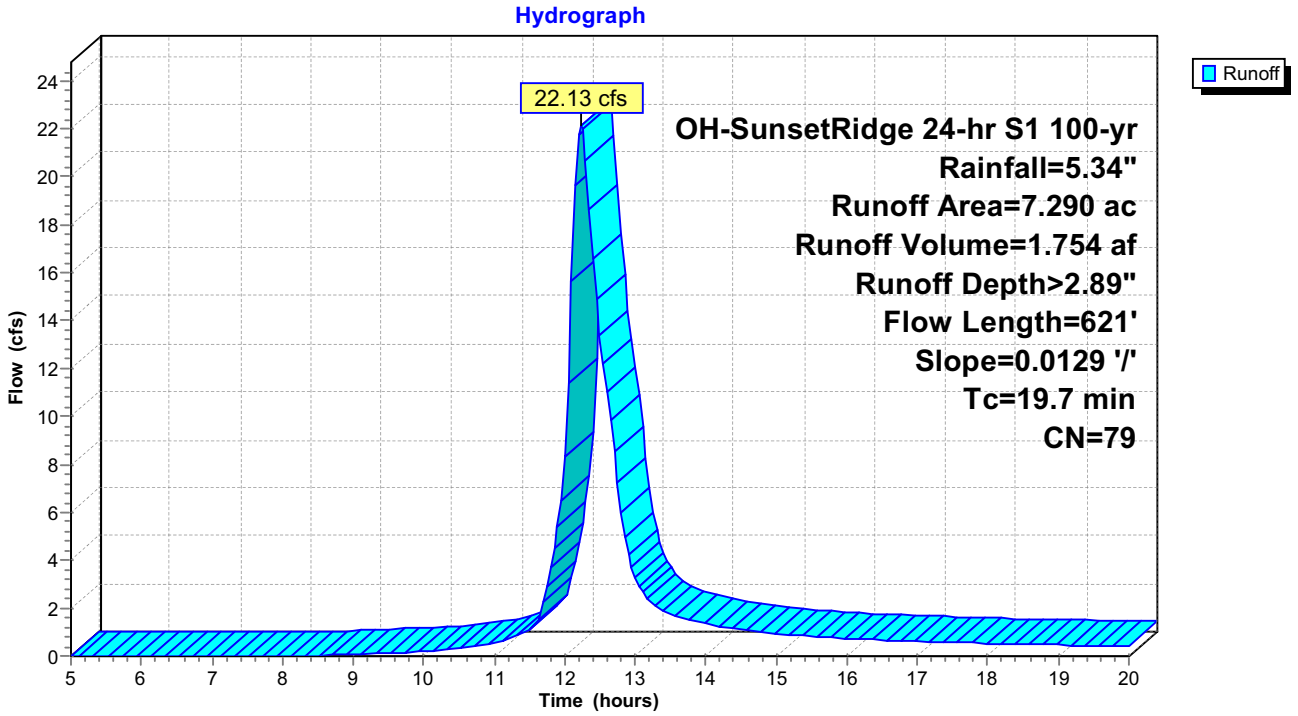
Runoff = 22.13 cfs @ 12.23 hrs, Volume= 1.754 af, Depth> 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
6.950	78	Meadow, non-grazed, HSG D
0.330	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
7.290	79	Weighted Average
7.280		99.86% Pervious Area
0.010		0.14% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	621	0.0129	0.53		**Lag/CN Method,**

Subcatchment 66S: DA-19



Summary for Subcatchment 67S: DA-20

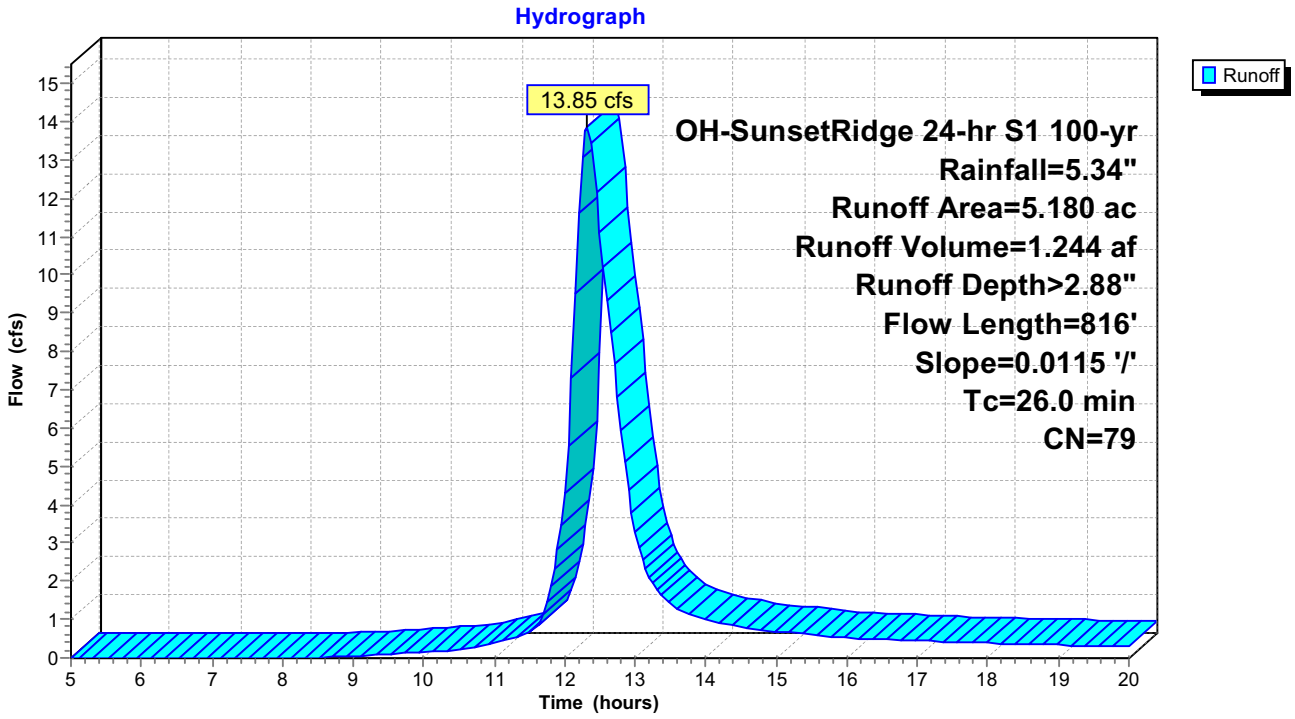
Runoff = 13.85 cfs @ 12.32 hrs, Volume= 1.244 af, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
4.860	78	Meadow, non-grazed, HSG D
0.320	96	Gravel surface, HSG D
5.180	79	Weighted Average
5.180		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.0	816	0.0115	0.52		**Lag/CN Method,**

Subcatchment 67S: DA-20



Summary for Subcatchment 76S: DA-21

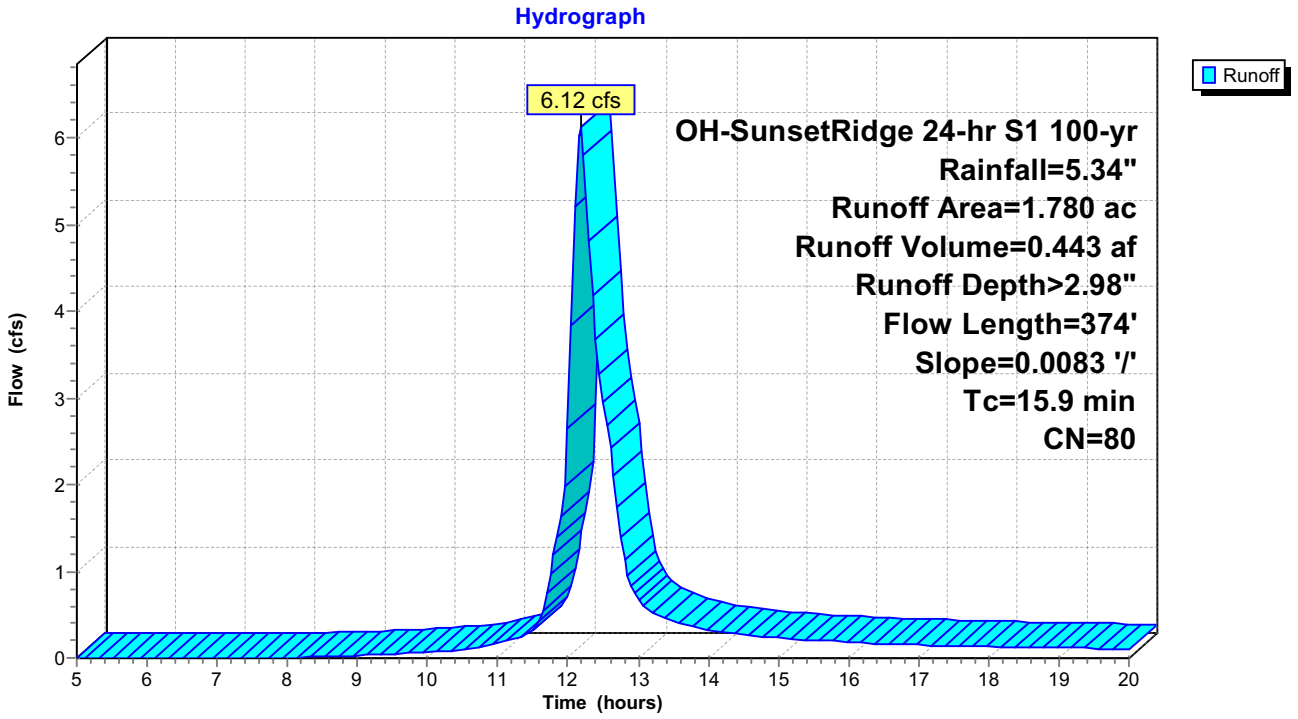
Runoff = 6.12 cfs @ 12.18 hrs, Volume= 0.443 af, Depth> 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
1.610	78	Meadow, non-grazed, HSG D
0.170	96	Gravel surface, HSG D
1.780	80	Weighted Average
1.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	374	0.0083	0.39		**Lag/CN Method,**

Subcatchment 76S: DA-21



Summary for Subcatchment 77S: DA-22

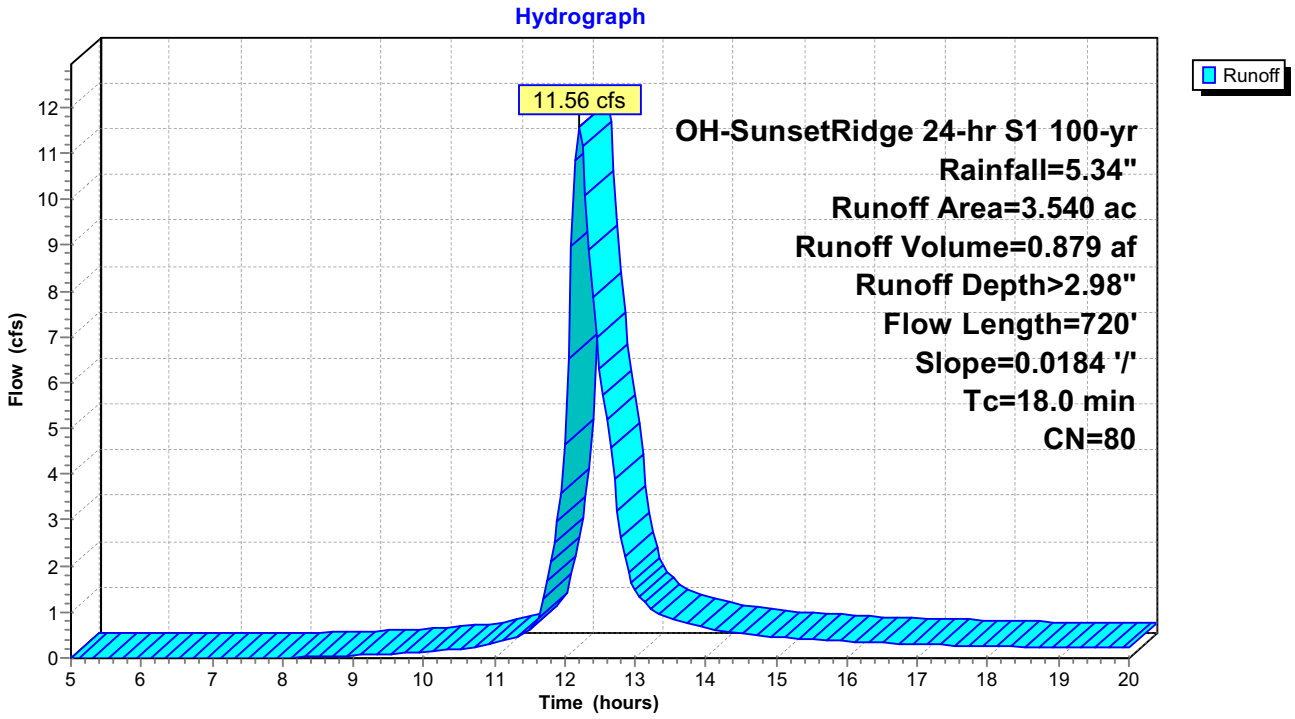
Runoff = 11.56 cfs @ 12.21 hrs, Volume= 0.879 af, Depth> 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
3.240	78	Meadow, non-grazed, HSG D
0.300	96	Gravel surface, HSG D
3.540	80	Weighted Average
3.540		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	720	0.0184	0.67		**Lag/CN Method,**

Subcatchment 77S: DA-22



Summary for Subcatchment 78S: DA-23

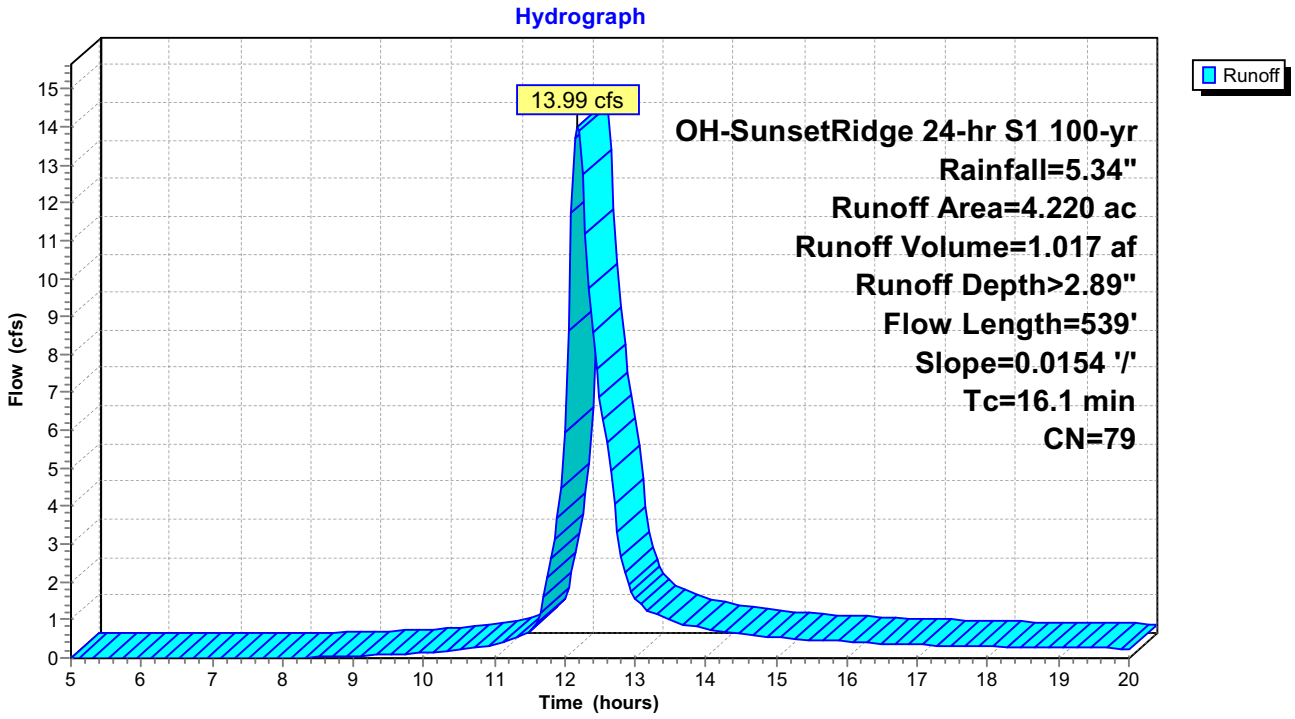
Runoff = 13.99 cfs @ 12.18 hrs, Volume= 1.017 af, Depth> 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
4.010	78	Meadow, non-grazed, HSG D
0.210	96	Gravel surface, HSG D
4.220	79	Weighted Average
4.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	539	0.0154	0.56		**Lag/CN Method,**

Subcatchment 78S: DA-23



Summary for Subcatchment 79S: DA-24

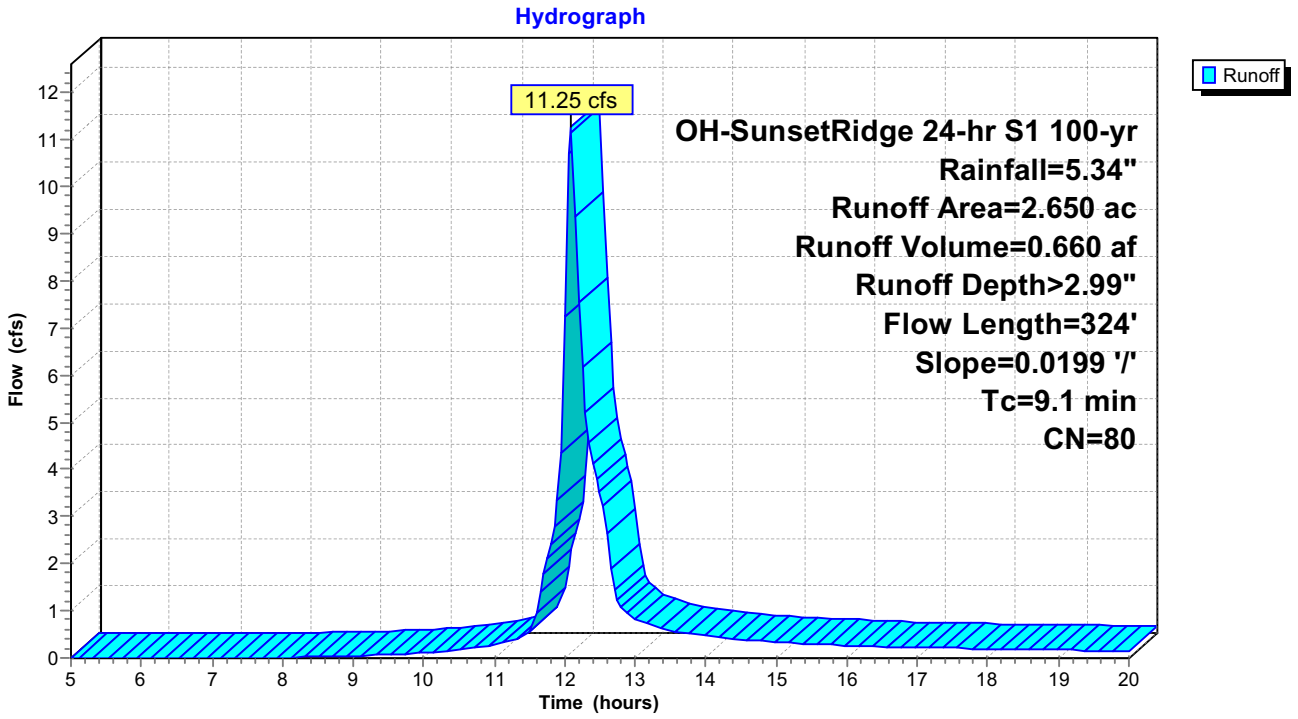
Runoff = 11.25 cfs @ 12.08 hrs, Volume= 0.660 af, Depth> 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
2.420	78	Meadow, non-grazed, HSG D
0.230	96	Gravel surface, HSG D
2.650	80	Weighted Average
2.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	324	0.0199	0.59		**Lag/CN Method,**

Subcatchment 79S: DA-24



Summary for Subcatchment 80S: DA-25

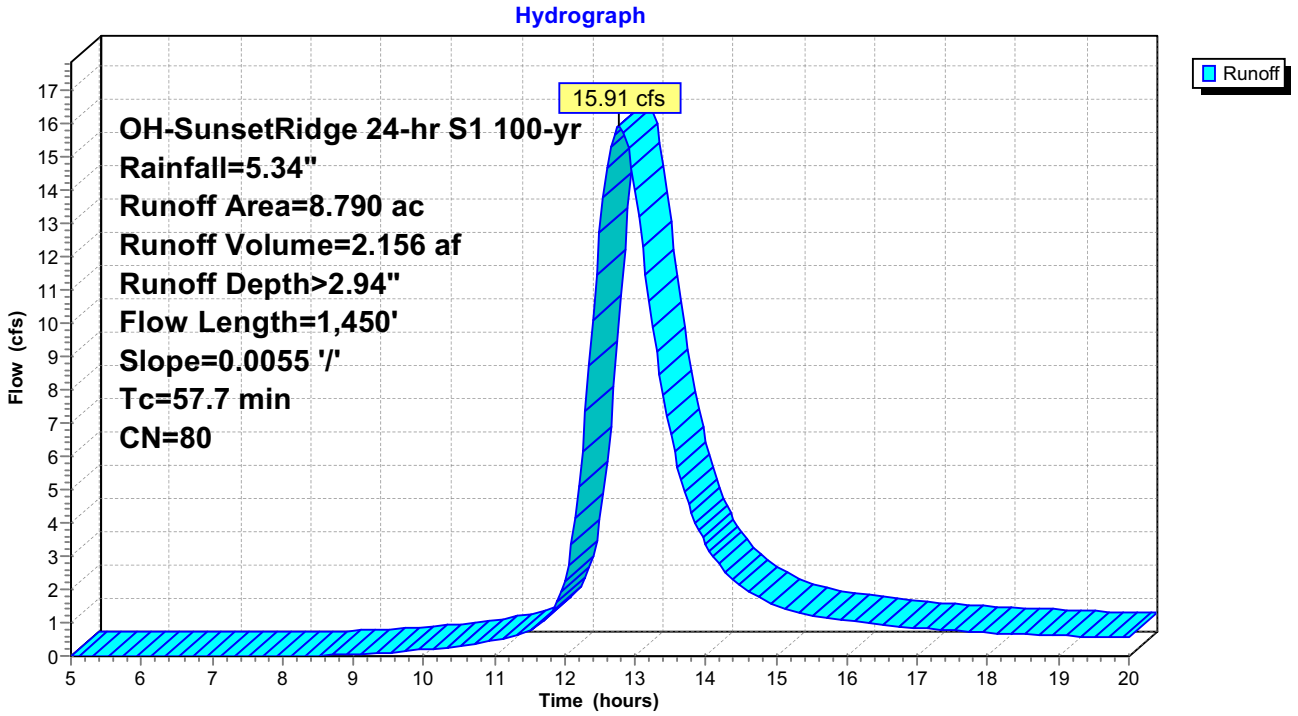
Runoff = 15.91 cfs @ 12.77 hrs, Volume= 2.156 af, Depth> 2.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
8.020	78	Meadow, non-grazed, HSG D
0.760	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
8.790	80	Weighted Average
8.780		99.89% Pervious Area
0.010		0.11% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
57.7	1,450	0.0055	0.42		**Lag/CN Method,**

Subcatchment 80S: DA-25



Summary for Subcatchment 81S: DA-26

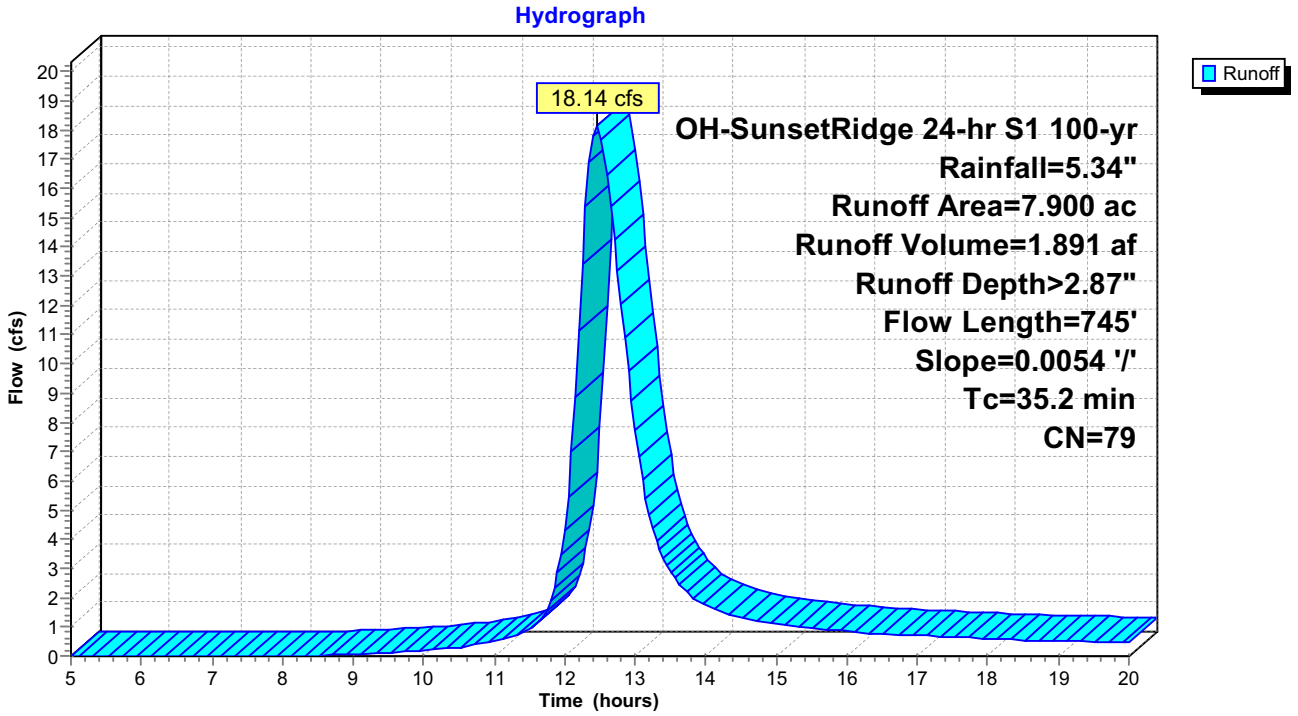
Runoff = 18.14 cfs @ 12.46 hrs, Volume= 1.891 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
7.290	78	Meadow, non-grazed, HSG D
0.600	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
7.900	79	Weighted Average
7.890		99.87% Pervious Area
0.010		0.13% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.2	745	0.0054	0.35		**Lag/CN Method,**

Subcatchment 81S: DA-26



Summary for Subcatchment 82S: DA-27

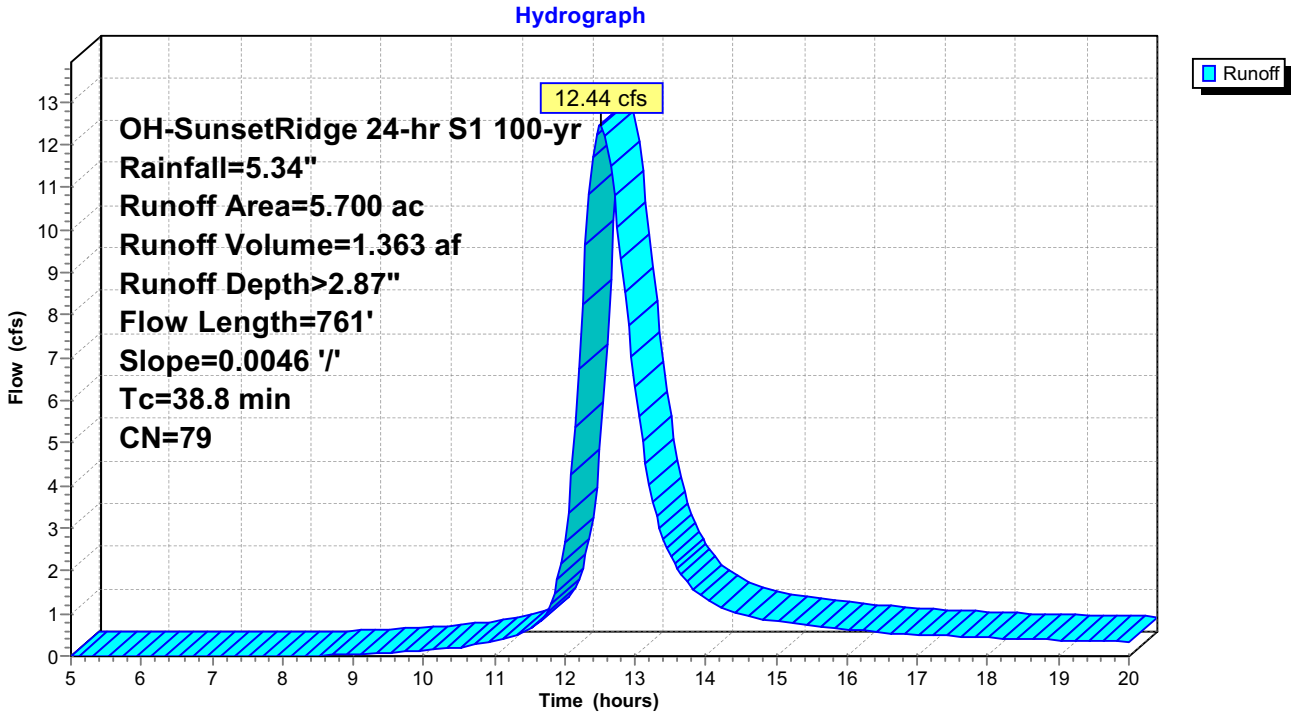
Runoff = 12.44 cfs @ 12.51 hrs, Volume= 1.363 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
5.300	78	Meadow, non-grazed, HSG D
0.390	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
5.700	79	Weighted Average
5.690		99.82% Pervious Area
0.010		0.18% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.8	761	0.0046	0.33		**Lag/CN Method,**

Subcatchment 82S: DA-27



Summary for Subcatchment 83S: DA-28

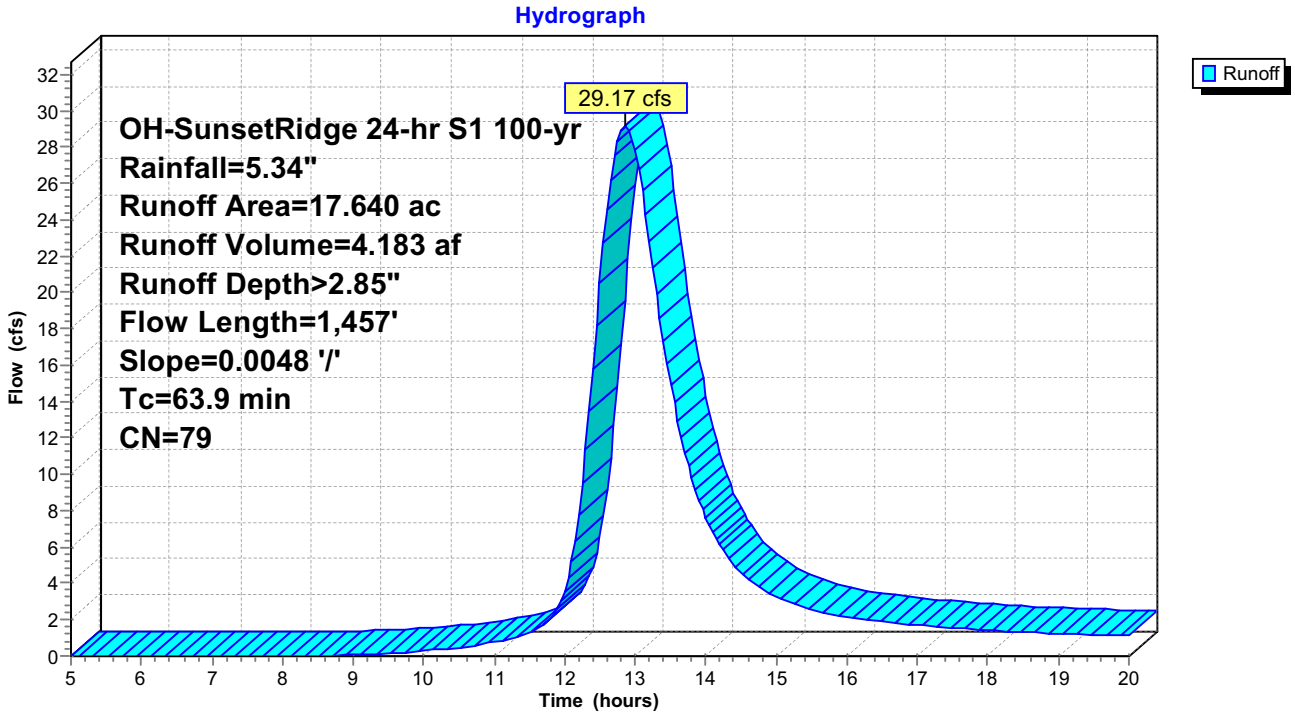
Runoff = 29.17 cfs @ 12.85 hrs, Volume= 4.183 af, Depth> 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
16.820	78	Meadow, non-grazed, HSG D
0.810	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
17.640	79	Weighted Average
17.630		99.94% Pervious Area
0.010		0.06% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
63.9	1,457	0.0048	0.38		**Lag/CN Method,**

Subcatchment 83S: DA-28



Summary for Subcatchment 84S: DA-29

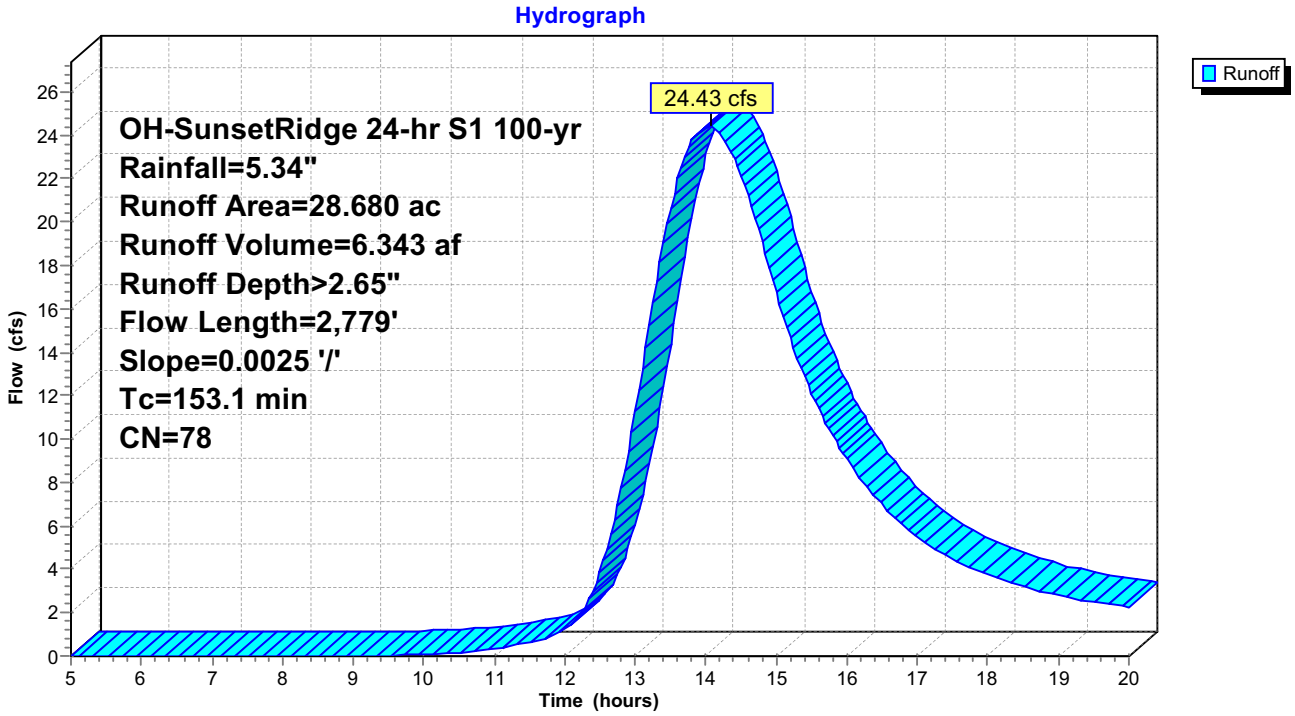
Runoff = 24.43 cfs @ 14.08 hrs, Volume= 6.343 af, Depth> 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
OH-SunsetRidge 24-hr S1 100-yr Rainfall=5.34"

Area (ac)	CN	Description
28.090	78	Meadow, non-grazed, HSG D
0.580	96	Gravel surface, HSG D
0.010	98	Unconnected pavement, HSG D
28.680	78	Weighted Average
28.670		99.97% Pervious Area
0.010		0.03% Impervious Area
0.010		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
153.1	2,779	0.0025	0.30		**Lag/CN Method,**

Subcatchment 84S: DA-29



Appendix D

Ohio EPA Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays

Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays

Background

Although the area under and between ground-mounted solar panel arrays may be covered in vegetation (normally considered pervious), the elevated panels alter the volume, velocity and discharge pattern of storm water runoff and associated pollutants and therefore do require post-construction storm water management under OHC00005 (Part III.G.2.e, pp. 19-27). Paved or gravel roads and support buildings associated with the solar panel array as well as any gravel surfaces under or around the panel arrays must also include post-construction storm water management.

Post-Construction Storm Water Management Options

There are several factors that determine the entire installation's effect on runoff and feasible storm water management options. In some cases, runoff from roads, buildings and the solar panels can be managed through the standard post-construction practices listed in tables 4a and 4b of the CGP. For many facilities, storm water runoff from the solar panels can be simply managed by disconnection to the vegetated ground surface under and between the elevated panels provided 1) an ungraded, uncompacted soil profile exists, 2) dense and healthy vegetation can be maintained over the entire surface, and 3) runoff from the panels can be managed as non-erosive, sheet flow. The disconnection length ($L_{Disconnection}$) provided depends upon the width of the row of solar panels (W_{Panel}) and the width of the open gap width between the panel rows ($W_{Row\ Gap}$) as shown in Figure 1 below.

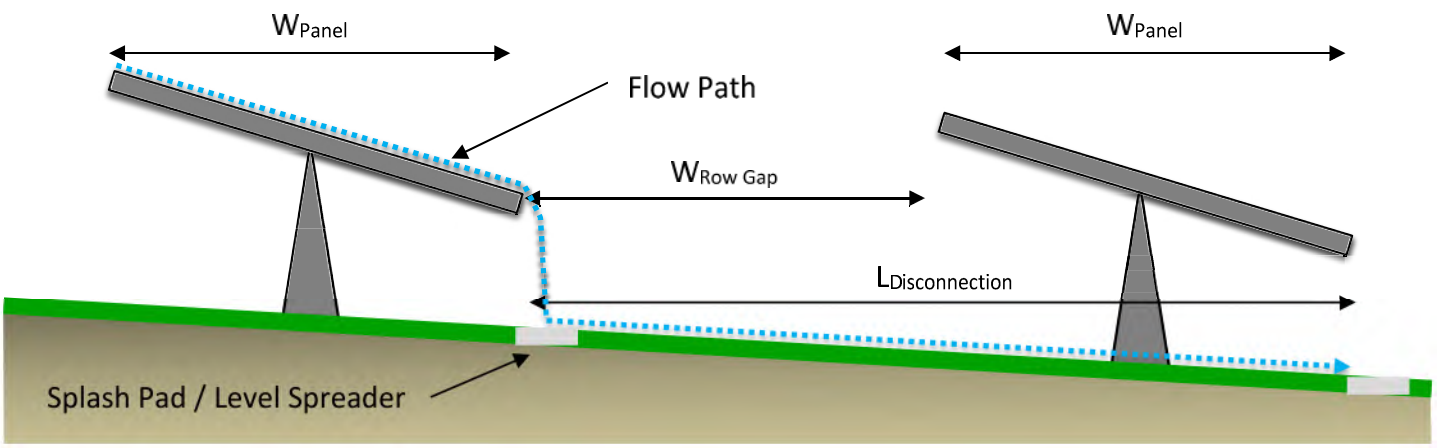


Figure 1: Schematic profile of solar panel array providing impervious area disconnection.

Runoff Reduction Spacing

The Runoff Reduction credit values for impervious area disconnection can be used to determine the $L_{Disconnection}$ needed based upon the W_{Panel}. Where the entire panel area is grass, this can be viewed as a needed ratio of W_{Panel} to $W_{Row\ Gap}$ for the entire length of the panel row.

For panel arrays on Hydrologic Soil Group (HSG) A or B soils and on soils that have been functionally restored, the disconnection length required is two times the solar panel width on a horizontal plane, which equates to a 1:1 spacing ratio. On HSG C or D soils without restoration, the disconnection length required is 3.5 times the solar panel width on a horizontal plane, or a 2.5:1 spacing ratio.

General Permit OHC000005: Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays

Other Design Considerations

- Gravel or paved access roads and equipment pads as well as solar panels that drain onto to them may require traditional practices if impervious disconnection is not feasible.
- This guidance assumes the ground support structure and foundation are minimal (less than five percent of the area), will allow vegetation, and will not disrupt sheet flow. Otherwise, the area underneath the panels may not be included in the disconnection area.
- To limit erosion at the drip edge, it is recommended the panel drip edge be no more than 10 feet above the ground.
- If the panel position is fixed, a narrow stone drip pad may be used to protect the ground surface from erosion and promote sheet flow.
- If the panels track or rotate, the disconnection length shown in the previous diagram will vary and must be shown to be acceptable in all panel positions.
- The Storm Water Pollution Prevention Plan (SW3P) should include typical drawings and calculations for large panel arrays. Specific controls for access roads and other infrastructure must also be detailed.
- Utilize low- and slow-growing grass varieties to reduce compaction and damage from frequent mowing. Include cool-season, warm-season, shade-resistant, and legumes as necessary to develop a dense, year-round groundcover.

References

Maryland Department of the Environment. 2013. *Stormwater Design Guidance – Solar Panel Installation*.

North Carolina Department of Environmental Quality. 2018. S*tormwater Design Manual*, *E-6 Solar Farms.*

Ohio Department of Natural Resources. 2006 (with updates). *Rainwater and Land Development Manual*.

Ohio Environmental Protection Agency. 2018. *General Permit Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System*. Ohio EPA Permit Number OHC000005. April 23, 2018.

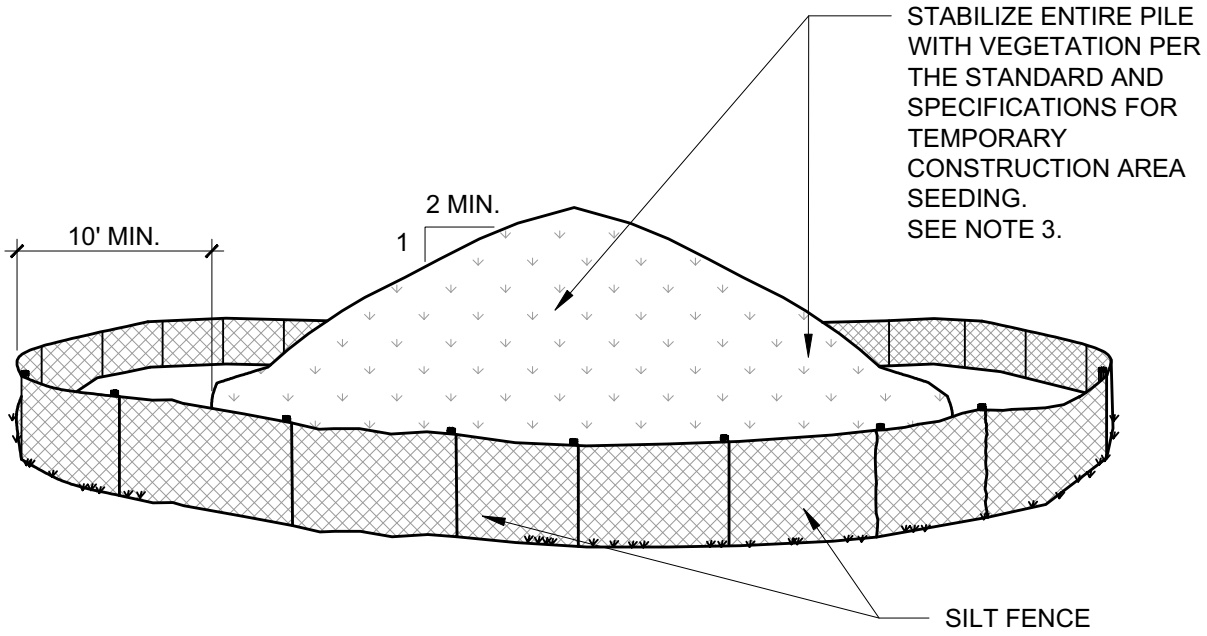
Pennsylvania Department of Environmental Protection, Bureau of Clean Water. 2019. *Chapter 102 Permitting for Solar Panel Farms, Frequently Asked Questions*. January 2, 2019.

Contact

For more information, contact Michael Joseph at ***michael.joseph@epa.ohio.gov*** or (614) 644-2001.

Appendix E

Standard Temporary Erosion and Sediment Control BMP Details



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY, STABILIZED AND LOCATED AWAY FROM KNOWN WORK AREAS TO PREVENT RELOCATION.
2. MAXIMUM STOCKPILE HEIGHT SHALL BE 12 FEET.
3. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, INSTALLED PER SILT FENCE DETAIL, THEN STABILIZED IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING WITHIN 7 DAYS OF COMPLETION.
4. A PERIMETER DIKE/SWALE SHALL BE LOCATED UP-SLOPE OF THE TOPSOIL STOCKPILE TO DIVERT STORMWATER AROUND THE STOCKPILE.

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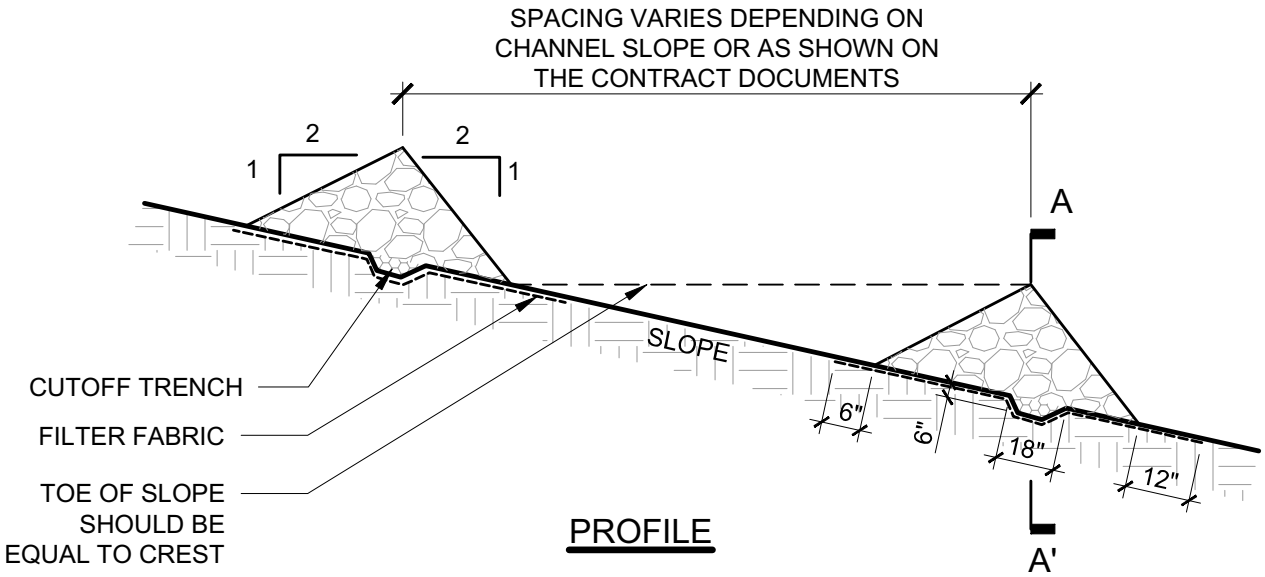
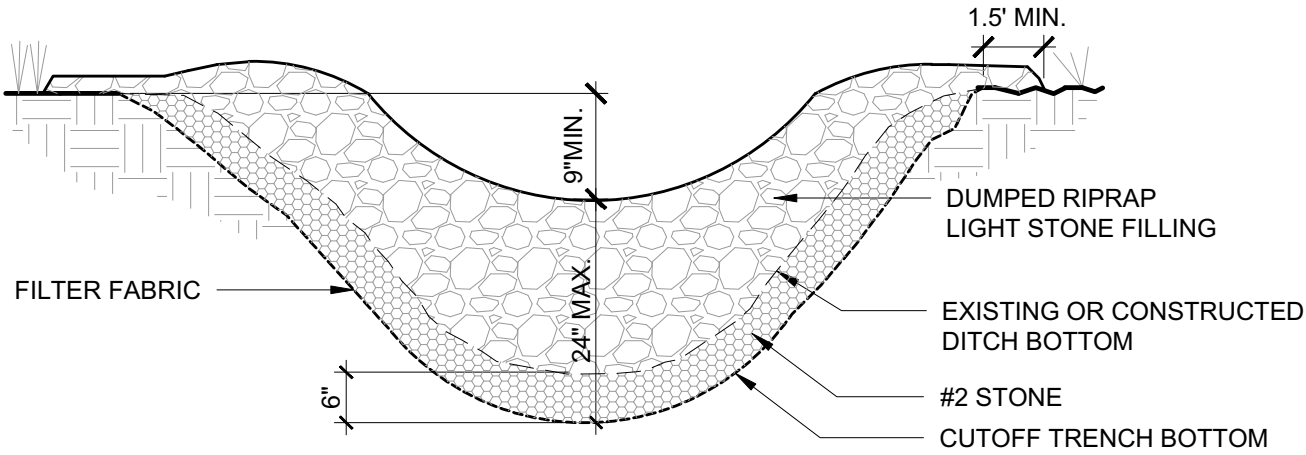
PROJECT TITLE: **EXAMPLE BMP**	**EDR** JOB NUMBER:
DRAWING TITLE: **STABILIZED SOIL STOCKPILE**	DRAWING NUMBER: 1.0
DRAWN BY: **HP** / CHECKED BY: **TD**	SCALE: **NTS** / DATE: **01/09/2020**



PROFILE



SECTION A-A'

NOTES:

1. STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT STORMWATER FROM FLOWING AROUND THE CHECK DAM.
3. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
4. MAXIMUM DRAINAGE AREA 2 ACRES.

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PROJECT TITLE: **EXAMPLE BMP**		**EDR** JOB NUMBER:	
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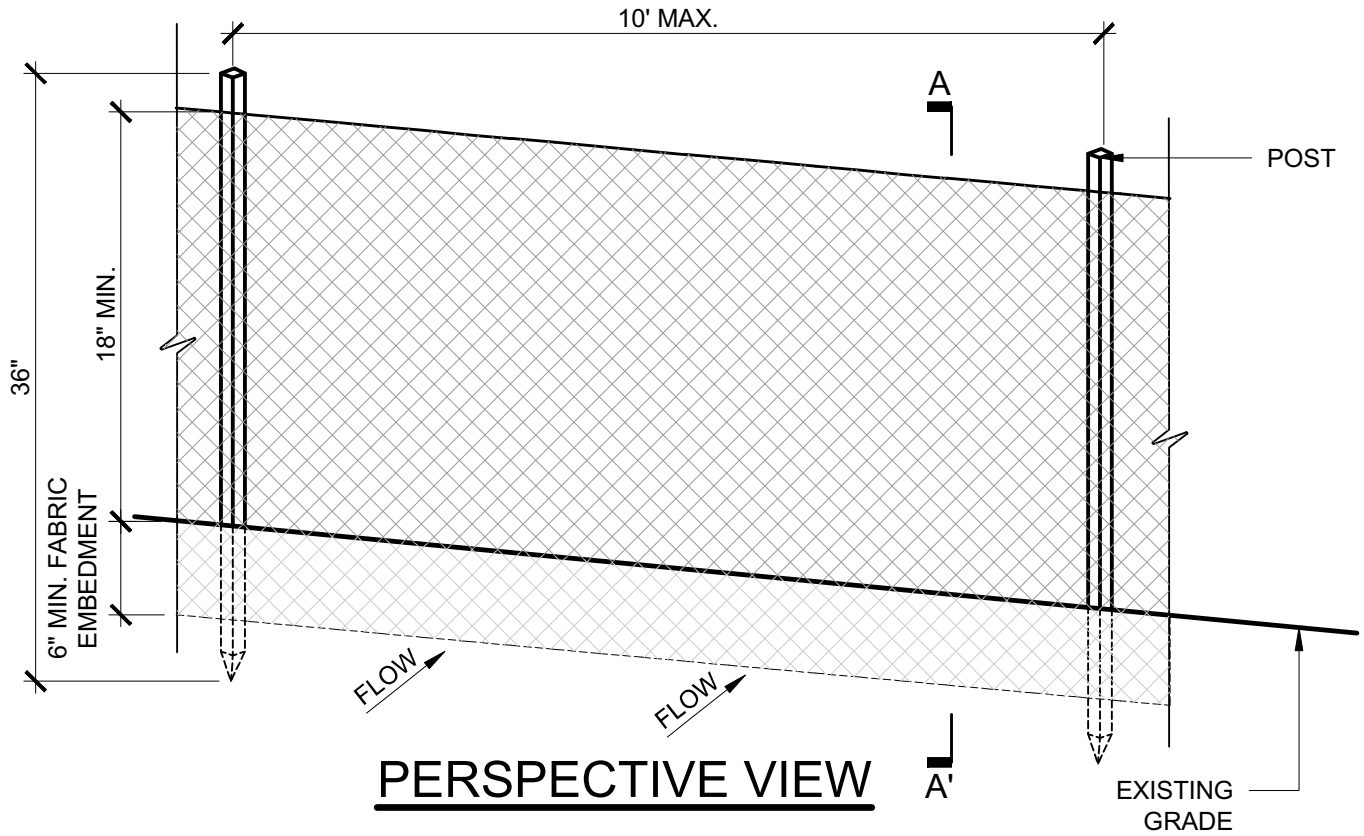
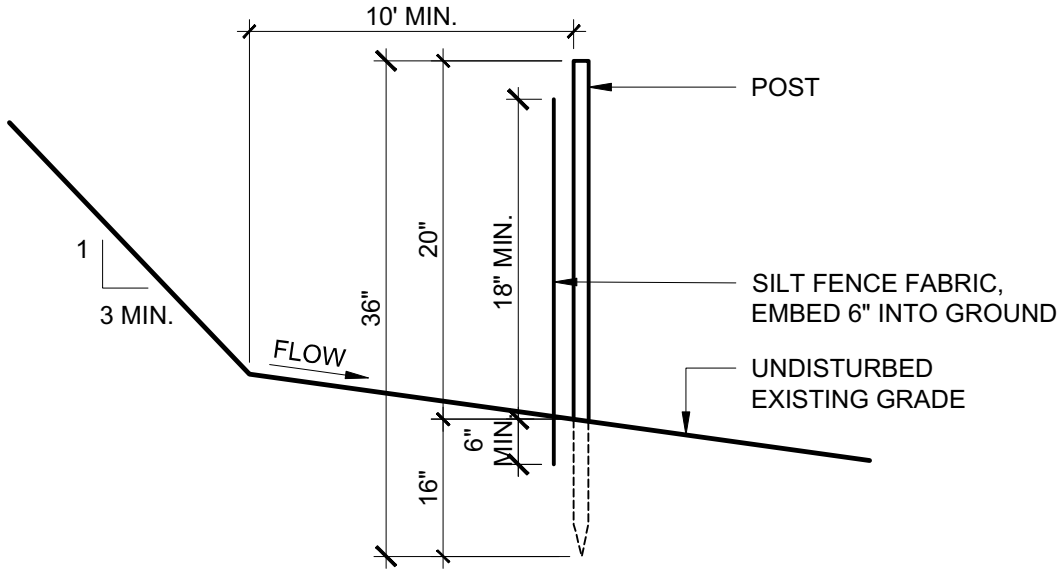
DRAWN BY: **HP**	CHECKED BY: **TD**	SCALE: **NTS**	DATE: **01/09/2020**



PERSPECTIVE VIEW



SECTION A-A'

NOTES:

1. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
2. PREFABRICATED UNITS SHALL MEET THE MINIMUM REQUIREMENTS SHOWN.
3. MAINTENANCE SHALL BE PERFORMED IMMEDIATELY AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

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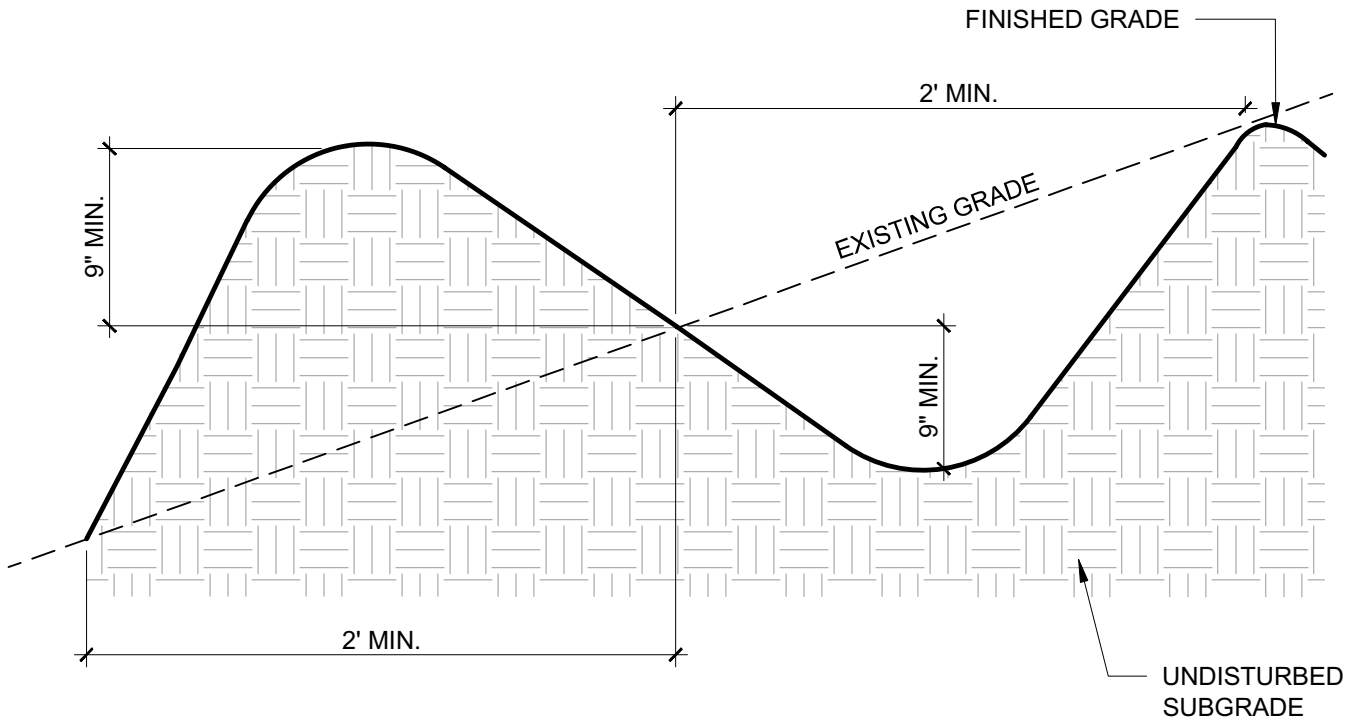
PROJECT TITLE: **EXAMPLE BMP**		**EDR** JOB NUMBER:	
DRAWING TITLE: **SILT FENCE**		DRAWING NUMBER: 3.0	
DRAWN BY: **HP**	CHECKED BY: **TD**	SCALE: **NTS**	DATE: **01/09/2020**



CROSS SECTION

NOTES:

1. ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE DOWNWARD SLOPE TO A STABILIZED OUTLET.
2. DIVERTED RUNOFF FROM DISTURBED AREAS SHALL BE CONVEYED TO AN APPROVED SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD AND SPECIFICATIONS FOR PERIMETER DIKE/SWALE.
5. STABILIZATION OF THE AREA DISTURBED BY THE DIKE/SWALE SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING LOCATED ON PAGE 13 OF THE OHIO DEPARTMENT OF TRANSPORTATION HANDBOOK FOR SEDIMENT AND EROSION CONTROL.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT AND/OR SWPPP INSPECTION.
7. MAX DRAINAGE AREA LIMIT: 2 ACRES.

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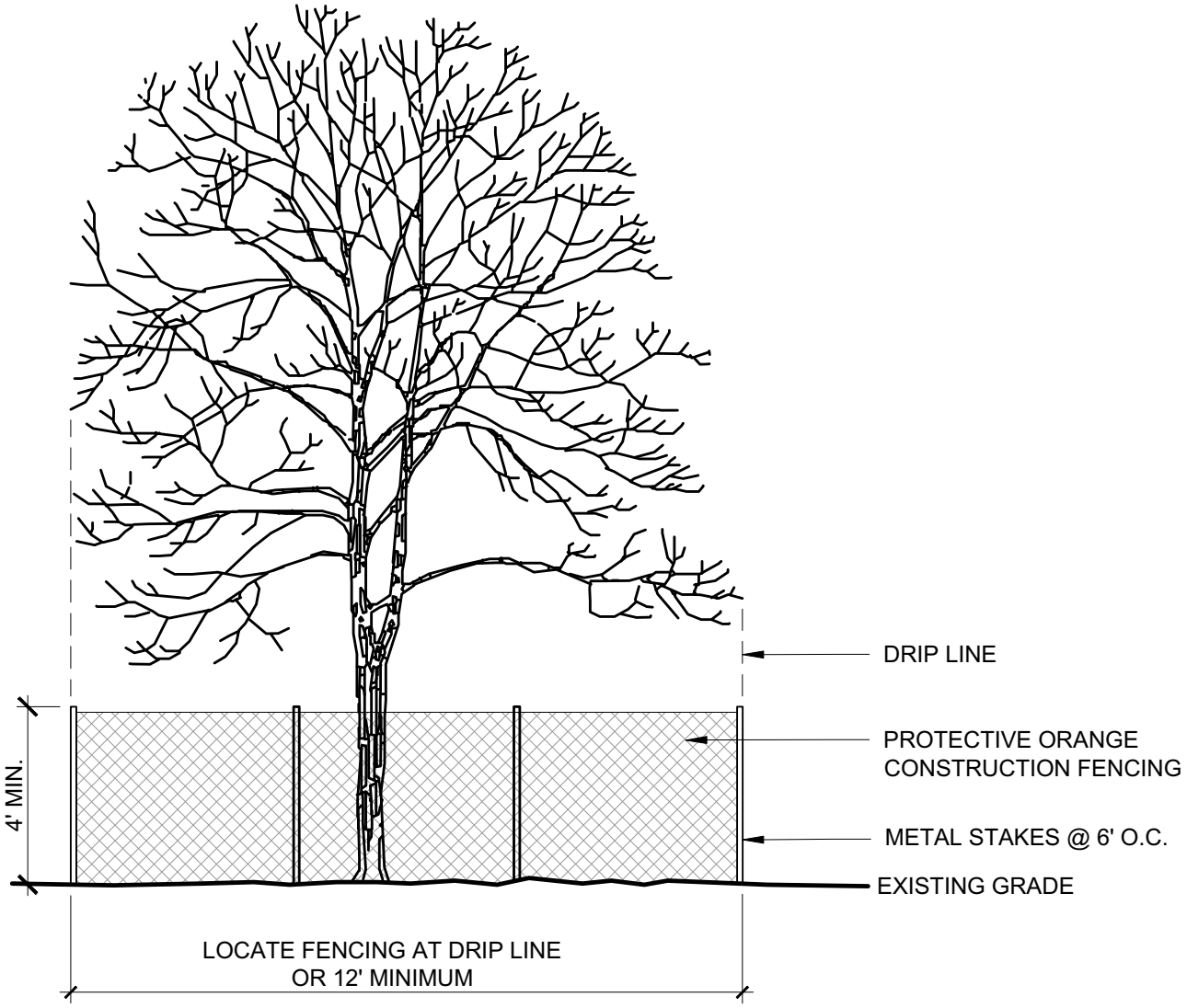
PROJECT TITLE: **EXAMPLE BMP**		**EDR** JOB NUMBER:	
DRAWING TITLE: **PERIMETER DIKE OR SWALE**		DRAWING NUMBER: 4.0	
DRAWN BY: **HP**	CHECKED BY: **TD**	SCALE: **NTS**	DATE: **01/09/2020**



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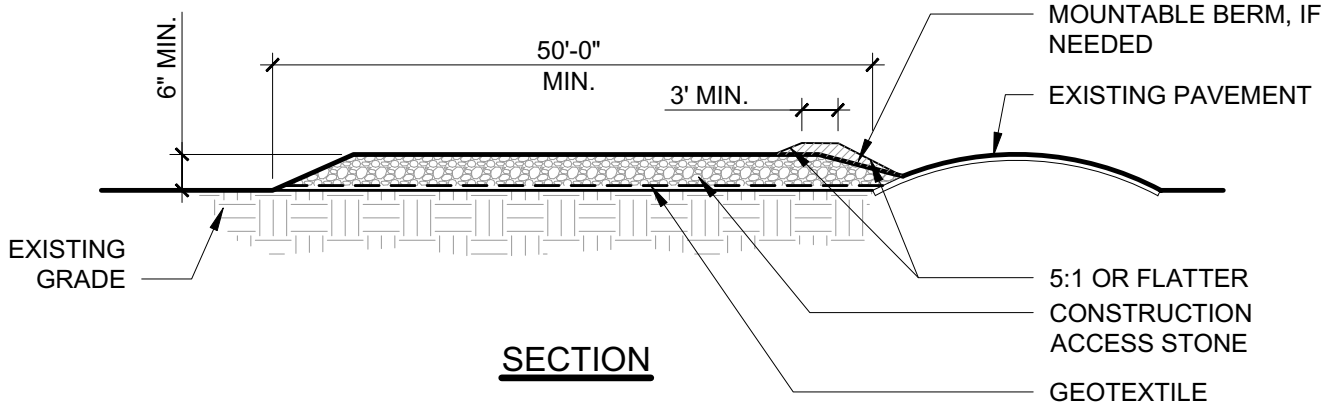
PROJECT TITLE: **EXAMPLE BMP**	**EDR** JOB NUMBER:
DRAWING TITLE: **VEGETATION PROTECTION**	DRAWING NUMBER: 5.0
DRAWN BY: **HP** / CHECKED BY: **TD**	SCALE: **NTS** / DATE: **01/09/2020**



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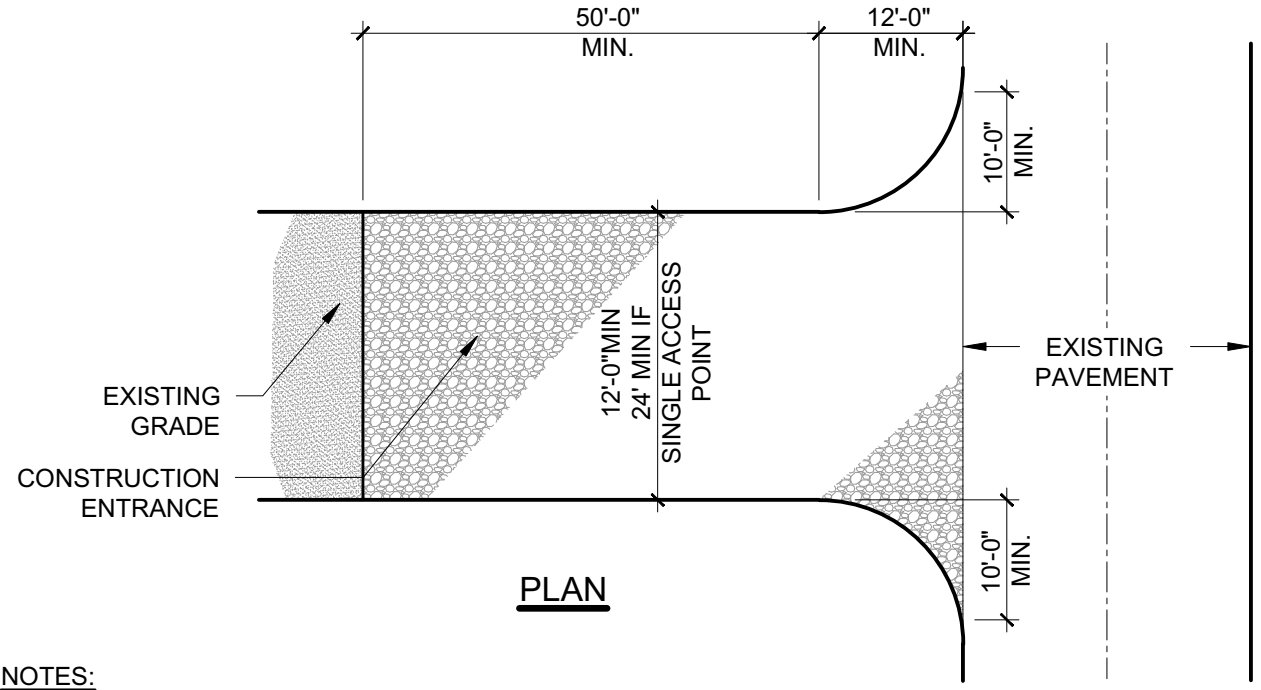

PLAN

NOTES:

1. CONSTRUCTION ACCESS STONE SIZE - MATRIX OF #4 AND #5 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. GEOTEXTILE:
   - 2.A. MIRAFI 500X OR APPROVED EQUAL.
   - 2.B. SHALL BE PLACED UNDER THE ENTIRE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO PLACING OF STONE.
3. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED ACROSS THE STABILIZED CONSTRUCTION ACCESS. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHALL BE USED.
4. MAINTENANCE - THE CONSTRUCTION ACCESS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
5. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ACCESS ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE..

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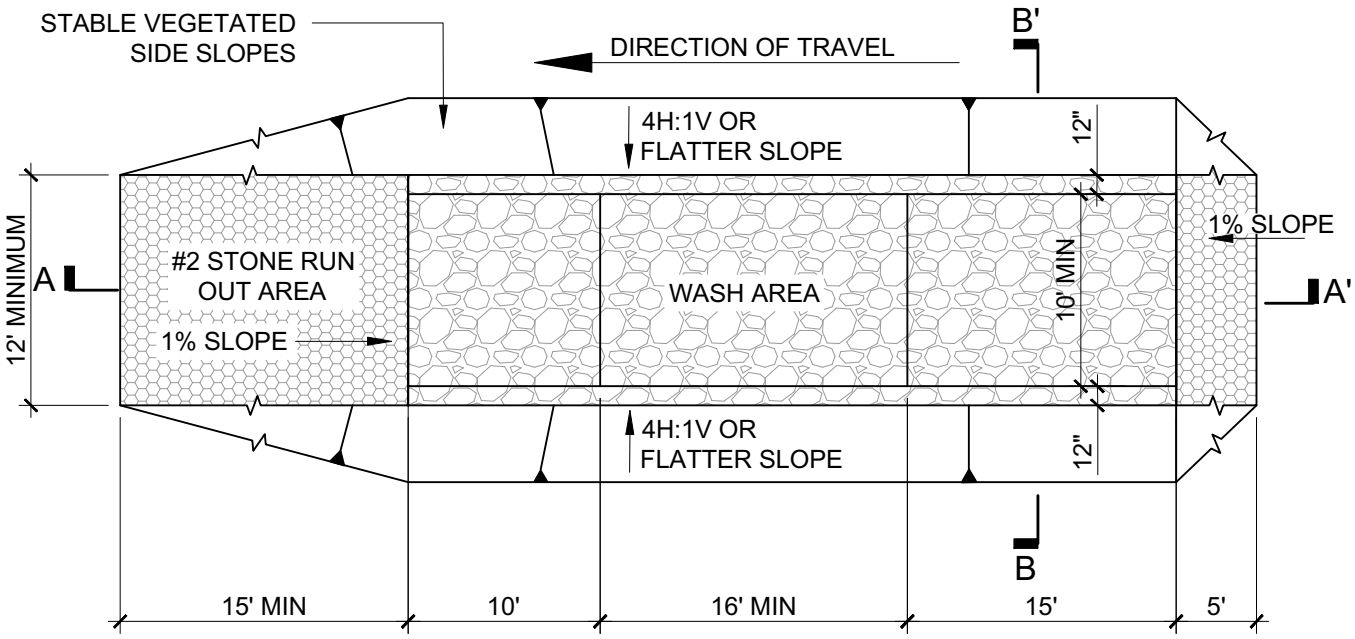
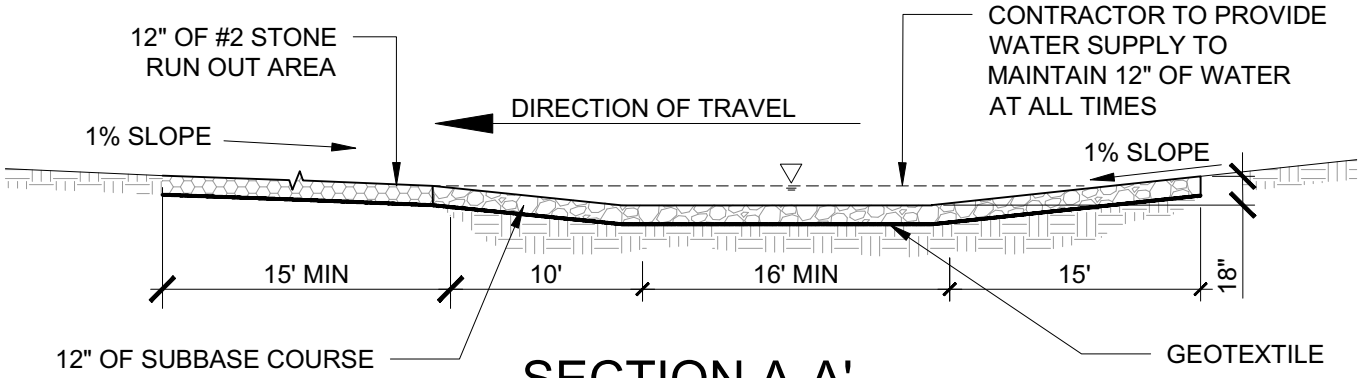
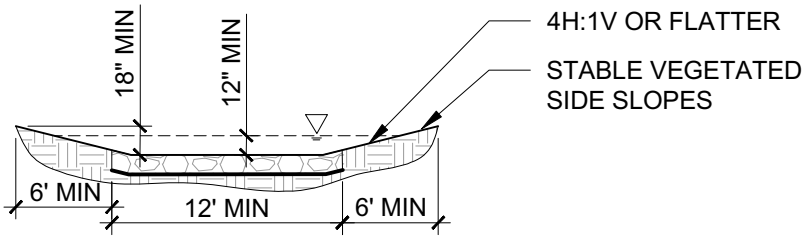
PROJECT TITLE: **EXAMPLE BMP**	**EDR** JOB NUMBER:
DRAWING TITLE: **STABILIZED CONSTRUCTION ACCESS**	DRAWING NUMBER: 6.0
DRAWN BY: **HP** / CHECKED BY: **TD**	SCALE: **NTS** / DATE: **01/09/2020**



PLAN



SECTION A-A'



SECTION B-B'

NOTES:

1. THE WHEEL WASH SHALL BE CONSTRUCTED AND STABILIZED (INCLUDING VEGETATION) PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM WHEEL WASH ON A DAILY BASIS. MORE FREQUENT REMOVAL MAY BE NECESSARY BASED ON USE AND SITE CONDITIONS.
3. WASH WATER SHALL BE DISCHARGED TO AN APPROVED SEDIMENT TRAP.

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PROJECT TITLE: **EXAMPLE BMP**	**EDR** JOB NUMBER:
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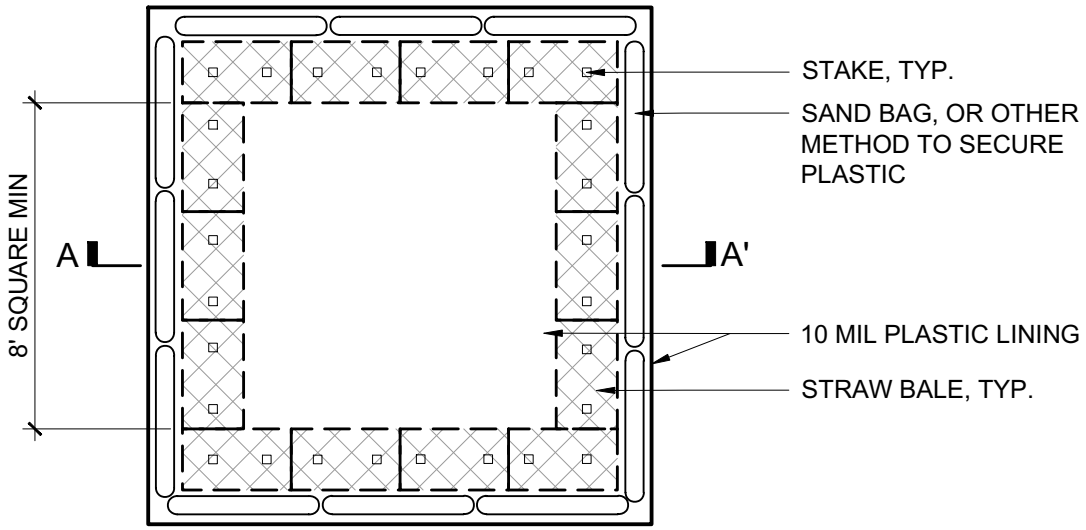
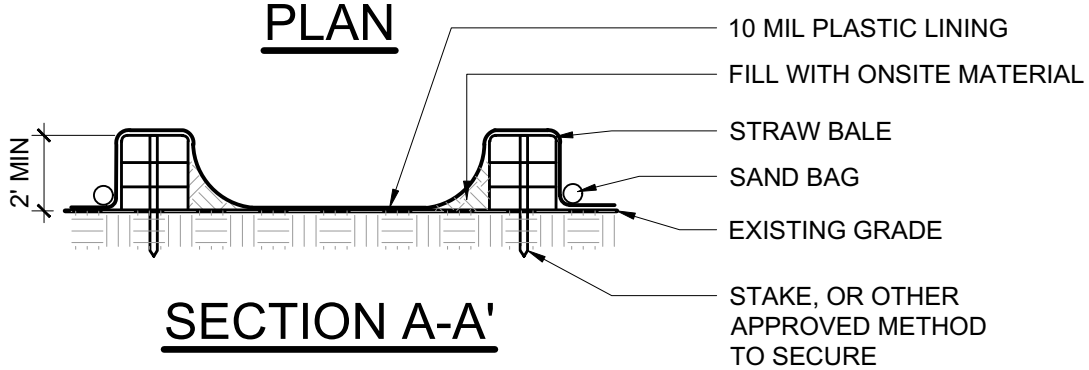
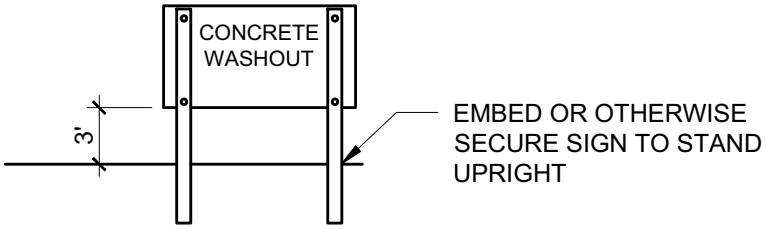
DRAWN BY: **HP** / CHECKED BY: **TD**	SCALE: **NTS** / DATE: **01/09/2020**



PLAN



SECTION A-A'



CONCRETE WASHOUT SIGN

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING, CONSTRUCTION, AND INTEGRITY OF THE WASHOUT. THE CAPACITY OF THE WASHOUT SHALL BE 60 GALLONS PER TRUCK TO BE CLEANED WITHIN THE EXPECTED MAINTENANCE FREQUENCY. ADDITIONAL CAPACITY SHALL BE PROVIDED TO ACCOMMODATE RAINFALL.
2. OTHER METHODS OF CONCRETE WASHOUT CONTAINMENT MAY BE UTILIZED IF APPROVED BY THE OWNER'S REPRESENTATIVE.
3. LOCATE WASHOUT AREA AT LEAST 100' FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES.
4. THE PLASTIC LINING SHALL BE MAINTAINED IN A WATER TIGHT CONDITION AND SHALL BE REPLACED AT EVERY CLEANING.
5. DO NOT ALLOW RUNOFF TO ENTER THIS AREA.
6. THE CONCRETE WASHOUT SIGN SHALL BE PLACED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

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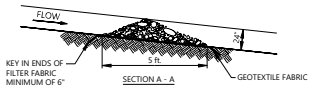
P. 315.471.0688

PROJECT TITLE: **EXAMPLE BMP**		**EDR** JOB NUMBER:	
DRAWING TITLE: **CONCRETE WASHOUT AREA**		DRAWING NUMBER: 8.0	
DRAWN BY: **HP**	CHECKED BY: **TD**	SCALE: **NTS**	DATE: **01/09/2020**

ROCK CHECK SHALL BE USED WHERE NEEDED AS A FILTER MEDIA, OR WHERE EROSION CONTROL BLANKETS AND/OR FIBER ROLLS DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL.

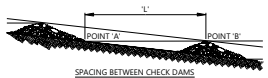
VIEW LOOKING UPSTREAM

KEY STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT OVER FLOW AROUND DAM.



SECTION A - A

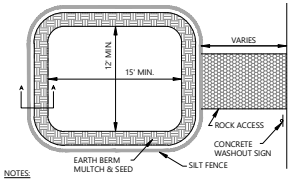
'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.



SPACING BETWEEN CHECK DAMS

Westwood	TEMPORARY ROCK CHECK DAM	01

AN APPROVED ALTERNATE MAY BE USED
USE AS NEEDED



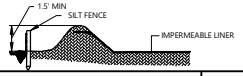
NOTES:
CONCRETE WASHOUT AREAS WILL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.

IMPERMEABLE LINER INCLUDES 10 MIL POLYLINER OR COMPACTED CLAY LINER.

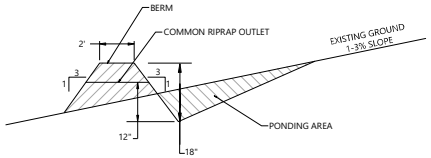
ALTERNATE WASHOUT SYSTEMS CAN BE USED IN LIEU OF WHAT IS SHOWN IN THIS DETAIL.

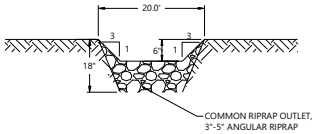
REMOVE CONCRETE WASHOUT AREAS AFTER CONSTRUCTION.

SECTION A-A



Westwood	CONCRETE WASHOUT AREA	02





NOTES:
1. CUT CREATED FROM PONDING SHALL BE USED AS FILL TO BUILD BERM
2. ROCK OUTLETS TO BE PLACED AT LOW AREAS PER FIELD CONDITIONS OR EVERY 500 FEET.
3. RIP RAP SHALL BE 3"-5" ANGULAR RIPRAP

Westwood	TOPSOIL SEDIMENT CONTROL BERM	03

UPDATED APPENDIX F

DRAIN TILE MITIGATION PLAN

south branch solar

Drain Tile Mitigation Plan

South Branch Solar
Hancock County, Ohio

December 2021

Table of Contents

Attachments

1. Introduction

South Branch Solar, LLC (South Branch) proposes to construct a 129.6 MWac solar generating facility, South Branch Solar (the Project or Facility) in Hancock County, Ohio. The Project will be located in Washington Township, immediately north of the Village of Arcadia. The Project site consists of approximately 700 acres of predominantly undeveloped farmland, with evidence of harvested crops and drain tiles to aid in drainage of the fields. South Branch has developed the following Drain Tile Mitigation Plan for the Project to cover the proper care and maintenance of drain tile systems to ensure continued productivity of the farmland.

2. Drain Tile Identification & Enhancement

South Branch has contracted with Boes Quality Drainage to support drain tile locating efforts on the Project. Drain tile locating services will consist of coordination with the county engineer, private landowner interviews, review of aerial imagery, and visual field observations to locate and global positioning system (GPS) exact location of drain tile. Data on the existing drain tile system will be aggregated to create a comprehensive mapping of known and suspected drain tile systems. Landowner coordination and field investigations are ongoing during permitting efforts and the mapping will be updated upon receipt of additional information and prior to construction.

Additionally, in coordination with Hancock County Public Health and South Branch reviewed potential impacts to household sanitary lines which might flow into outlet drain tiles (Outlets) in the Project Area. Two such sanitary lines were identified through review of public records. Boes Quality Drainage subsequently mapped the lines in the Project Area.

To reduce the potential for infiltration of sediment into Outlets, sediment traps will be installed and sized throughout the Project Area, based on the number of laterals and the area covered by the lateral tile. This is intended to catch and settle out sediment that could possibly enter the drainage system through a damaged lateral drain tile. The sediment traps will be accessible from the surface to facilitate the removal of sediment from the traps on an as-needed basis. For Outlets carrying drainage water from neighboring properties, sub-mains will be installed to collect drainage water from laterals. The sub-mains will send the water from the laterals into a sediment trap to collect sediment from laterals before the water goes into the mains. This will reduce infiltration of sediment into Outlets carrying water from neighboring properties.

Attachment A provides existing mapping of the drain tile system based on the expertise of Boes Quality Drainage, desktop aerial photography, and consultation with landowners.

3. Drain Tile Avoidance

South Branch will implement the following drain tile avoidance measures prior to construction:

In order to project Outlets and the two sanitary lines during construction and to provide convenient access throughout the life of the Project, 50' no-build corridors (25' off centerline) have been established for those features, as depicted in Attachment B. The drain tile dataset will be shown on the final construction plans or on a separate exhibit, as required.

To the greatest extent practicable, existing lateral drain tile will be avoided.

4. Damaged Drain Tile Identification

Even under ideal circumstances, some drain tile damage during construction is unavoidable. The following techniques will be utilized to identify damaged drain tile during Project construction activities:

For excavation associated with the installation of collection lines and foundation slabs, any broken tile system will likely be visible along the boundary of the excavated area.

In the event drain tile is damaged during pile installation, the location will be assessed for the need for repair, as discussed in more detail in Section 5, Drain Tile Repair.

It is possible that drain tile damage is not noted immediately upon the event, as damage may become evident over time. Evidence of damage may include unexpected flows of water out of the ground, ponding, wet spots, or the formation of localized voids in dry conditions. Construction crews will regularly monitor and assess the Project Area for any such conditions. Should conditions indicative of damaged tile be noted, the location will be assessed for the need for repair based on the specifications below in Section 5, Drain Tile Repair.

5. Drain Tile Repair

The following protocols will be implemented if broken drain tile is identified:

a) Unless otherwise agreed to by the landowner, underground drain tile mains that are within the footprint of the Facility, or extend beyond it, that are damaged from construction will be repaired by a qualified contractor promptly after discovery, or as weather and soil conditions allow.

    i) If it cannot be determined if a drain tile line extends onto neighboring parcels based on field assessment and/or mapping dataset, the line will be treated as a main line and be subject to repair, regardless of landowner agreements.

b) Prior to construction, low-lying areas, where ponding is most likely to occur in the event active lateral drain tiles are damaged, will be surveyed by a local expert familiar with the Project Area and abutting properties, using best practices familiar to the surrounding community.

i) Locations of active lateral drain tile will be mapped using GPS and compared to Project design parameters.

ii) The identified locations will be used to re-route drain tile or adjust Project design to avoid damage.

iii) In instances where neither re-routing or design modification are feasible, surveyed locations will be used to guide repairs which will be undertaken promptly after discovery, or as weather and soil conditions allow.

c) All repairs will be completed by a qualified contractor, and will consist of the following:

i) Drain tile lines that are subject to repair shall be repaired at a minimum to the standard details provided in Attachment C.

ii) Any new drain tile lines will be of comparable quality to the original and will be installed to restore the underground drainage capacity found onsite prior to construction.

iii) All subsurface drains subject to repair shall be repaired or replaced with materials of equal or higher quality and of equal or larger capacity inside diameter as those that were damaged or removed.

iv) To the greatest extent practicable, the subsurface drain repair shall maintain the original alignment, grading, and water flow.

d) The locations of all subsurface drains that are damaged and/or repaired will be documented. The location will be recorded on Project mapping, a photo will be collected, and a description of the repair will be documented and available to the landowner at their request.

6. Complaint Resolution

South Branch is committed to addressing landowner concerns regarding drain tile repair and maintenance. Per the Complaint Resolution Plan developed for the Facility, landowners may file concerns:

By phone, using the Project-specific phone number identified for use during the construction and operations and maintenance (O&M) phases. Once established, these phone numbers will be provided to local officials, posted on signage at the Project entrance, and reflected on the Project website.

In person, by visiting the temporary construction office onsite during the construction phase, or the permanent O&M facility during normal business hours. Complaints can be filed with the construction manager or O&M staff.

In writing, by filing a written complaint to the local construction office or O&M facility.

Electronically, using a dedicated Project email account provided on the Project website (www.southbranchsolar.com), correspondence, and on signage.

South Branch will work to address landowner concerns related to drainage in a timely manner.

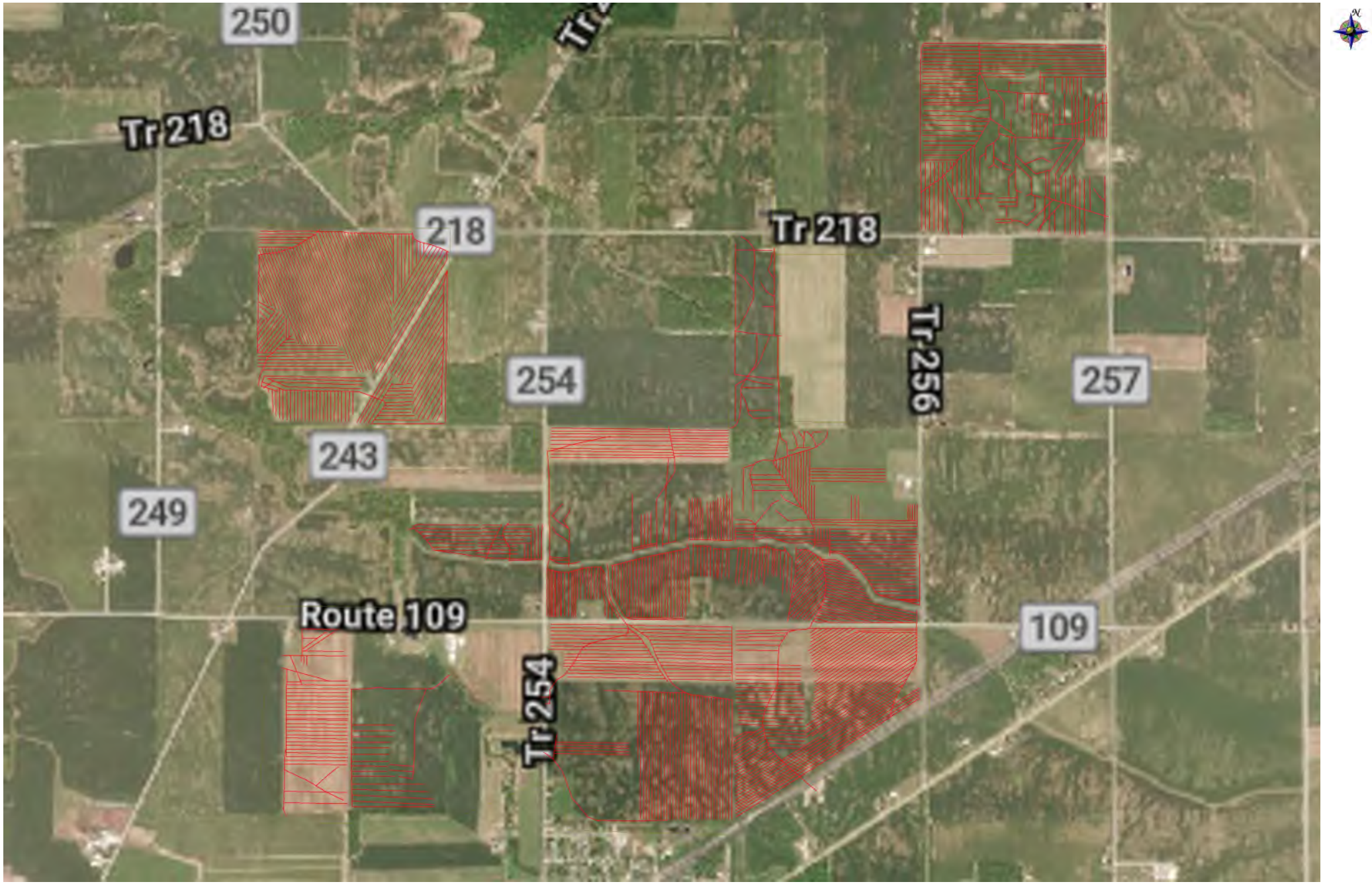
7. References

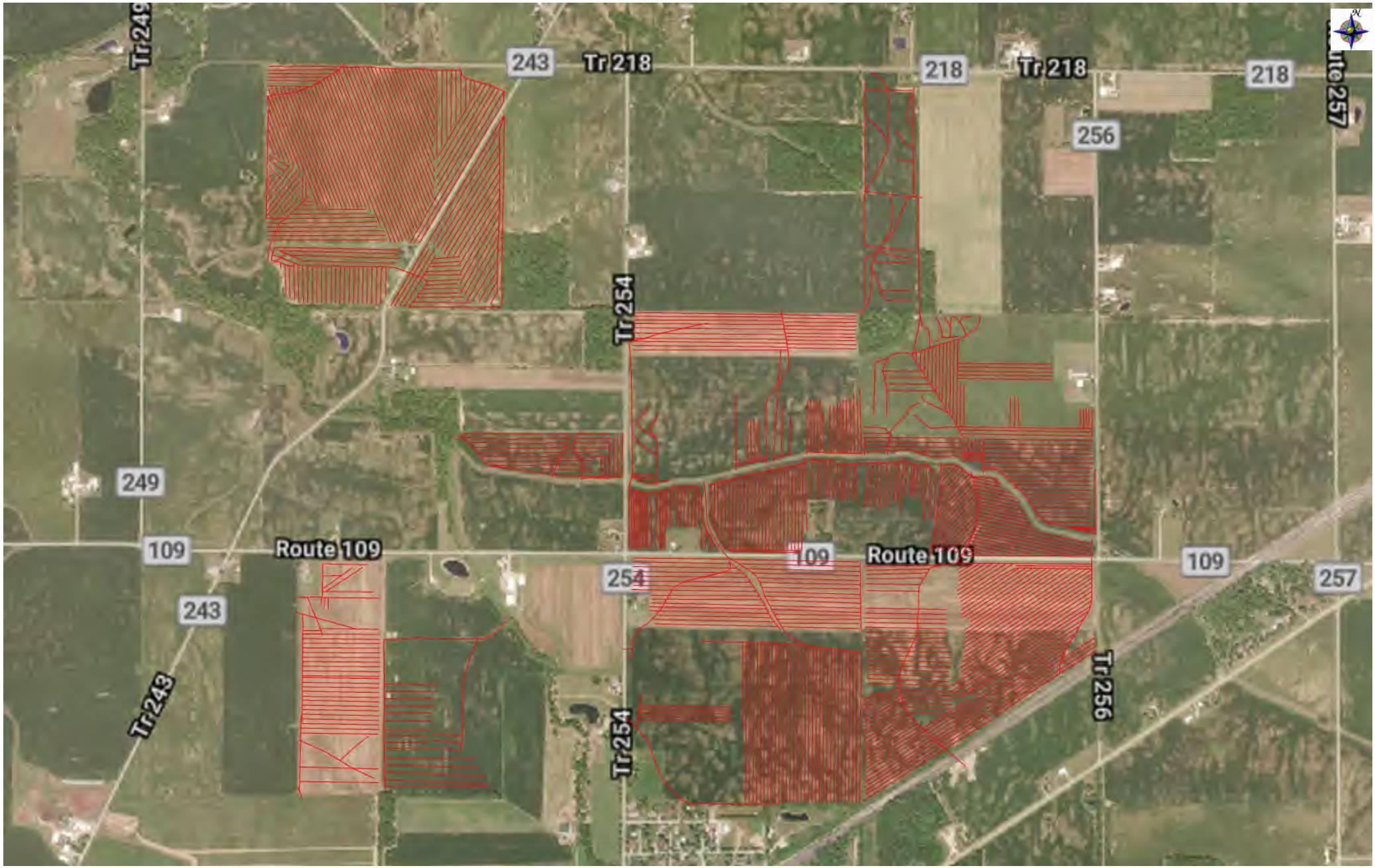
Ohio Department of Agriculture. Ohio Pipeline Standards and Construction Specifications. 2015. Accessed February 2021. https://agri.ohio.gov/wps/wcm/connect/gov/553ebd44-98e5-485c-a78d-49156289a388/PIPELINE+STANDARD+12-28-15new+letterhead.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-553ebd44-98e5-485c-a78d-49156289a388-nbcL.gv

Tom Huddleston, Huddleston McBride Land Drainage. (2021). *Agricultural Drainage Considerations Including Modifications and Maintenance Recommendations for Ground Mounted Solar Projects Within Existing Agricultural Land Use Areas.*

Attachment A

Existing Drain Tile Aerial Identification Mapping


250
Tr 218
218
Tr 218
254
Tr 256
257
243
249
Route 109
109
Tr 254


Tr 249
243
Tr 218
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Route 257
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Tr 254
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Route 109
109
Route 109
109
254
257
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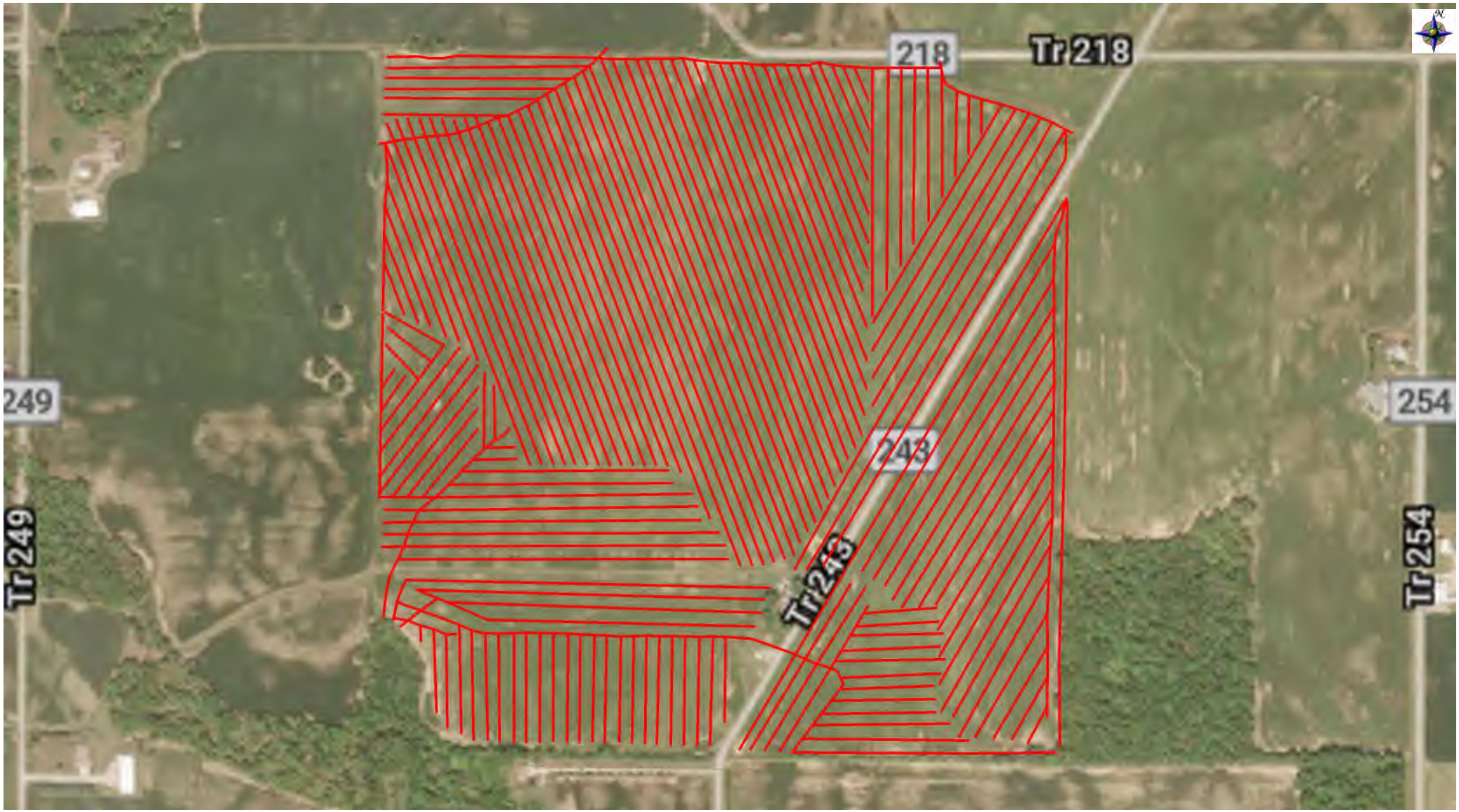
Tr 243
Tr 254
Tr 256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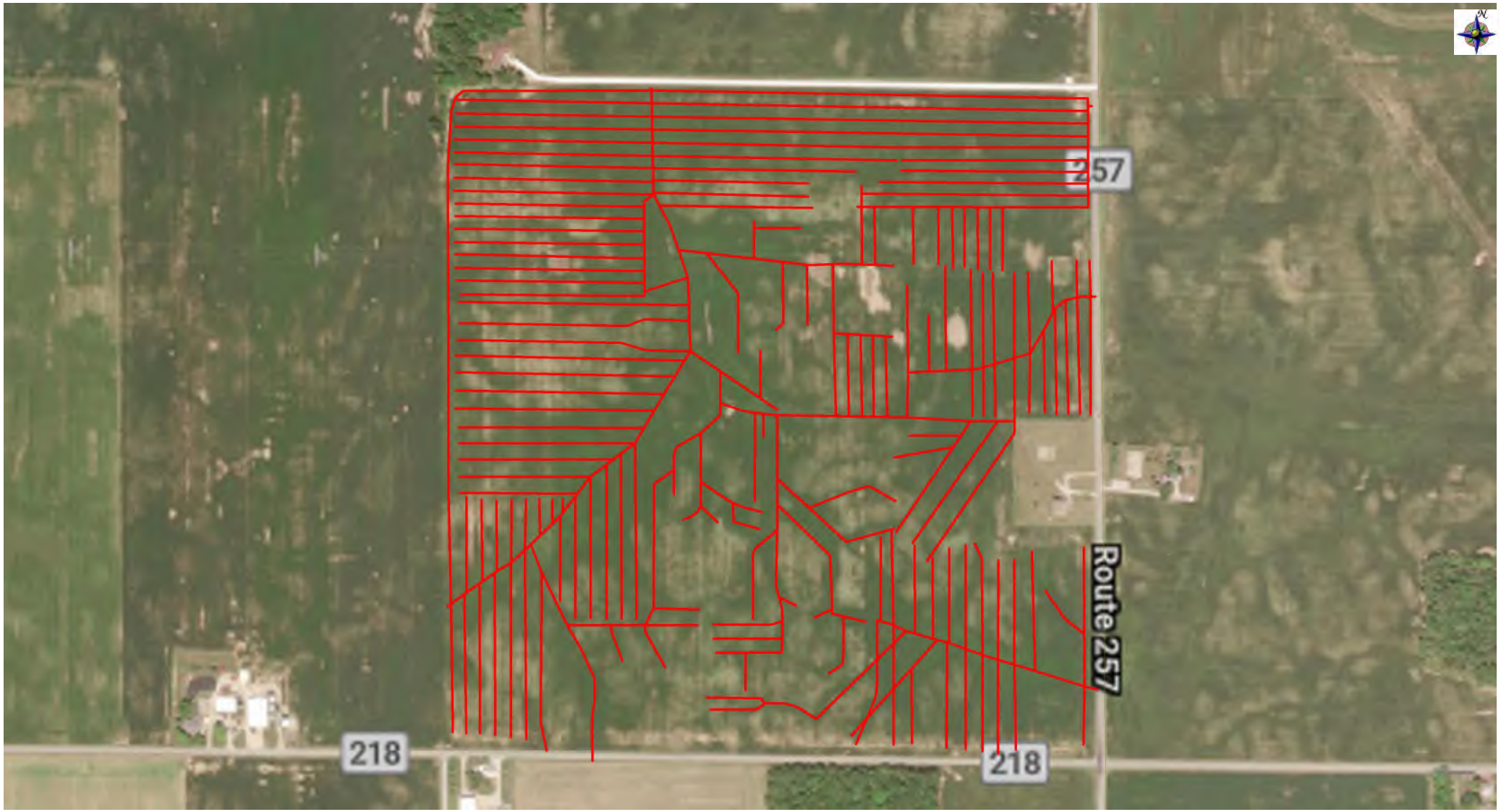
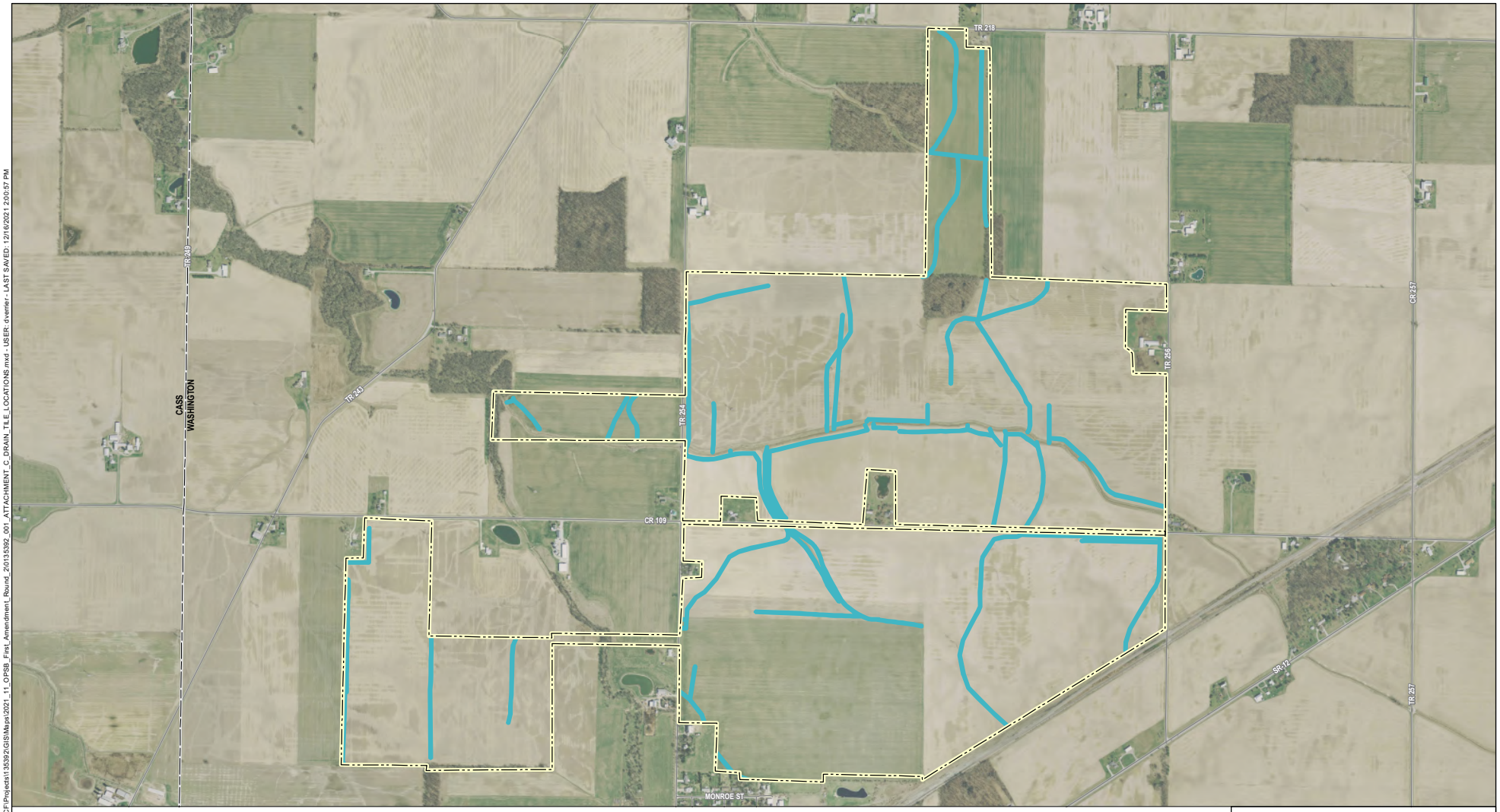

257
Route 257
218
218

Attachment B

Drain Tile Protection Corridors



LEGEND

- ROAD
- TOWNSHIP BOUNDARY
- 50-FOOT DRAIN TILE CORRIDOR
- PROJECT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
3. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
4. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

0 1,000 2,000
SCALE IN FEET

HALEY ALDRICH

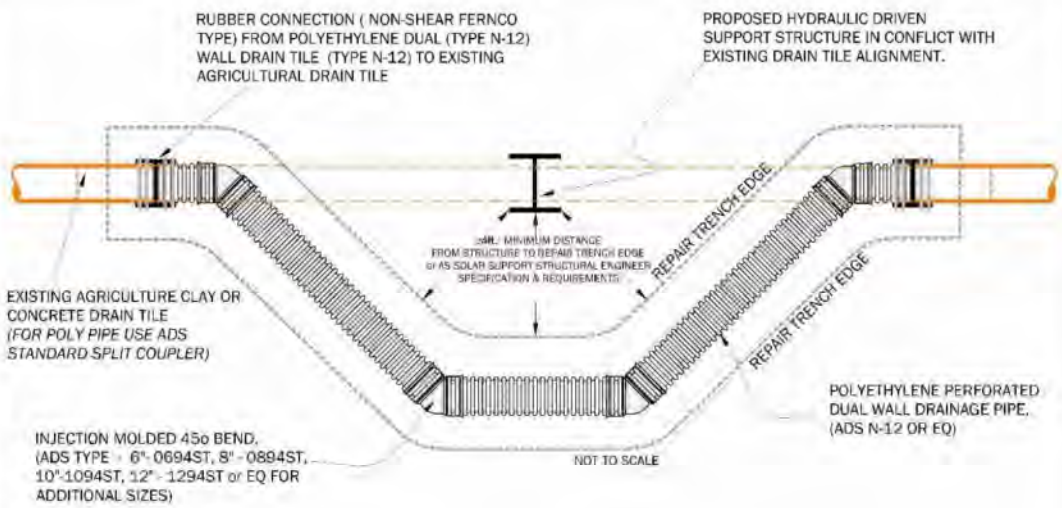
Attachment B
Drain Tile Locations

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_11_OPSB_First_Amendment_Round_2\0135392_001_ATTACHMENT_C_DRAIN_TILE_LOCATIONS.mxd - USER: dverrier - LAST SAVED: 12/16/2021 2:00:57 PM

Attachment C

Typical Drain Tile Repair Construction Details

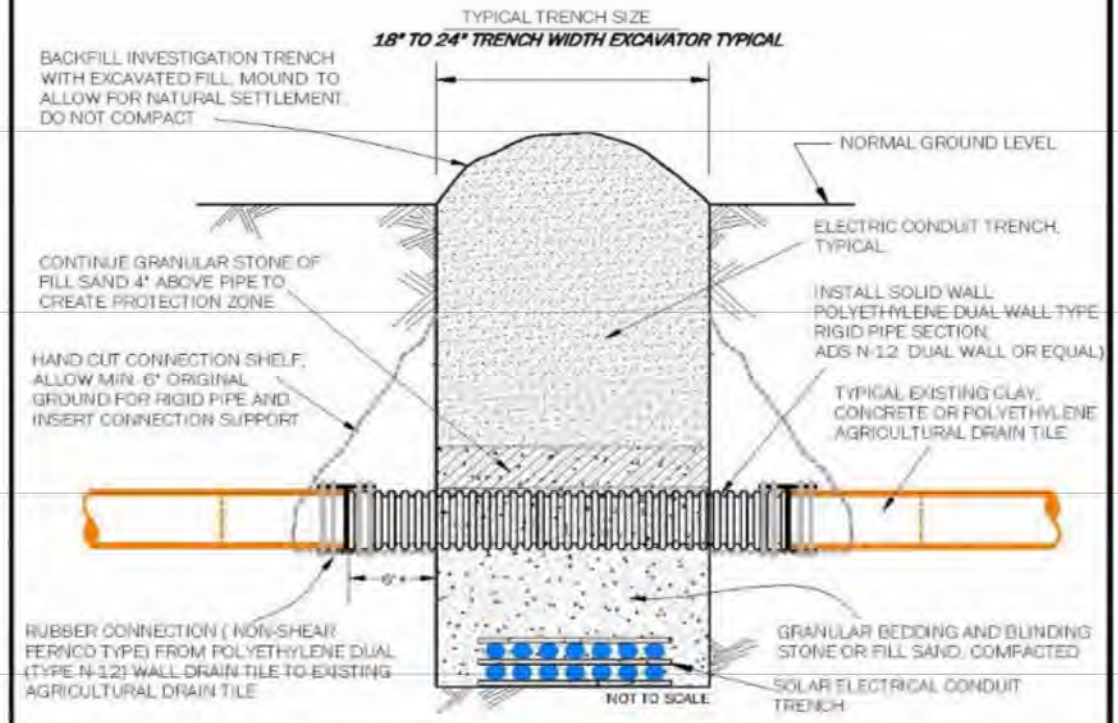


SAFETY NOTE: OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

EXISTING DRAIN TILE BYPASS REROUTE

FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING DRAIN TILE REROUTE WHICH IS IN CONFLICT WITH FIXED IMPROVEMENT
INSTALLED AS MODIFICATION TO ORIGINAL ROUTE
HUDDLESTON - McBRIDE TYPICAL SECTION NO. 360D

TYPICAL CONSTRUCTION SECTION [360D].



SAFETY NOTE: OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

EXISTING CLAY DRAIN TILE REPAIR SECTION AT ELECTRIC CONDUIT TRENCH

FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING AGRICULTURAL DRAIN TILE REPLACEMENT SECTION
TYPICAL REPAIR SECTION FOR DRAIN TILE REPAIR AT ELECTRIC CONDUIT TRENCH
HUDDLESTON DRAINAGE TYPICAL SECTION NO. 62A

TYPICAL CONSTRUCTION SECTION [62A].

UPDATED APPENDIX G

ADDITIONAL PUBLIC INVOLVEMENT PROGRAM MATERIALS

LEEWARD
renewable energy

South Branch Solar

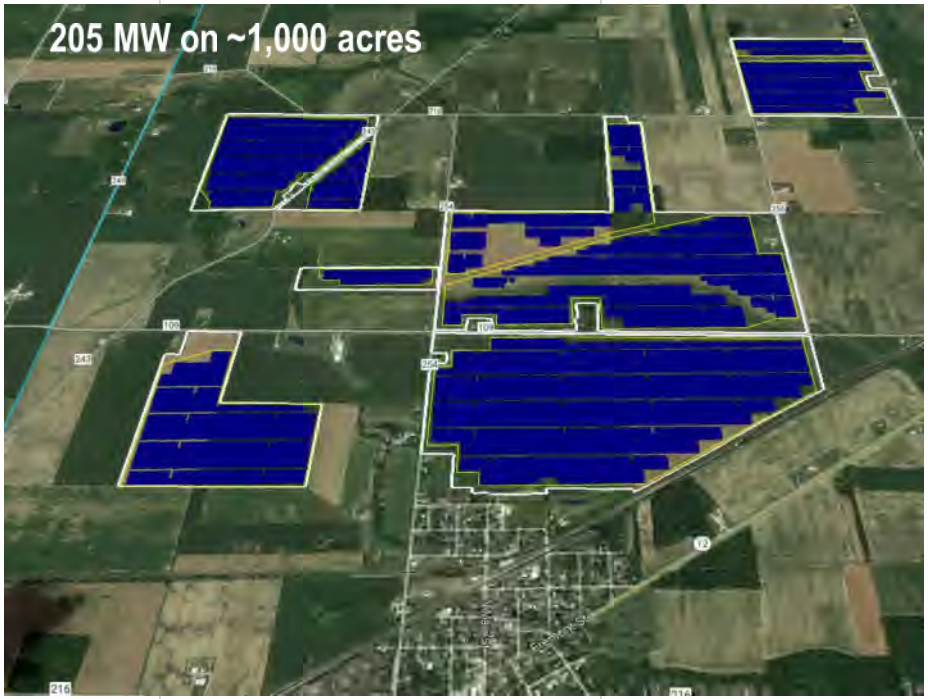
Project Update - December 2021

LISTENING TO THE COMMUNITY

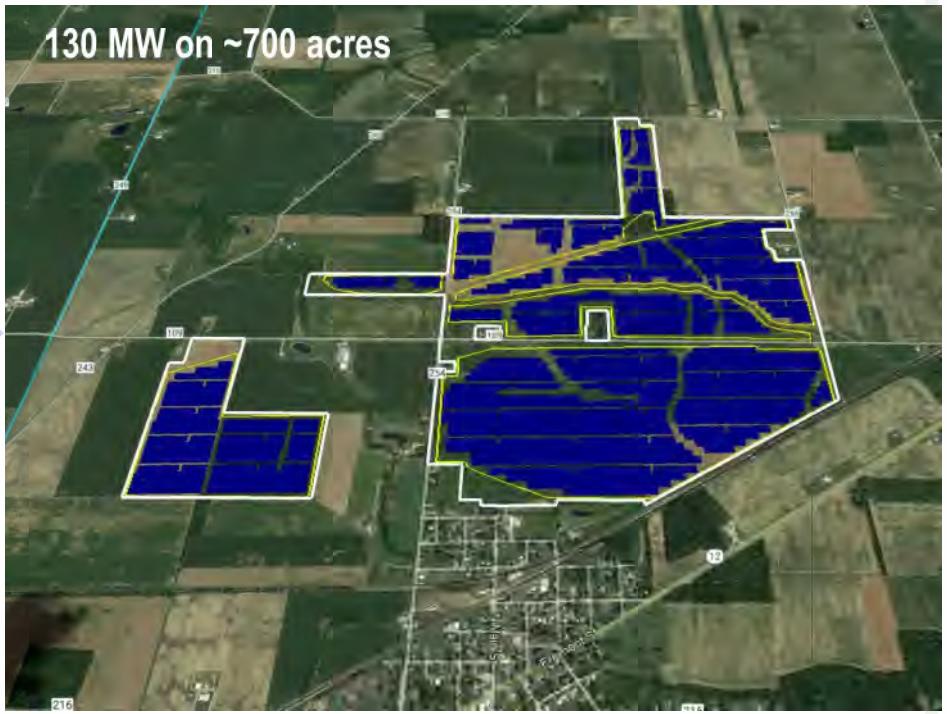
LEEWARD renewable energy

Common Concerns and How We Plan to Address	
Aesthetics	• The facility will incorporate enhanced setbacks and landscaping to soften the profile of project infrastructure. • Generous landscaping will be deployed in one of three levels of intensity, depending on the setting and abutting properties. • Agricultural perimeter fencing, consisting of wooden posts and wire woven mesh with a 6" gap at the bottom for wildlife, will be used in lieu of chain link.
Property Values	• Utility-scale solar facilities are a passive use of the land. Compared to many "by-right" uses, the operational facility will result in less dust, odor, noise, etc. • The facility will impose minimal burden to local services while at the same time generating a substantial amount of revenue that can be used to enhance local services • Significant steps are being taken to minimize viewshed concerns to sensitive receptors. • Property value impact studies have not demonstrated a measurable negative impact resulting from solar facilities.
Farmland Preservation	• The new project footprint of approximately 700 acres represents less than 0.3 percent of the land under cultivation in Hancock County. • The site will be developed with preservation and restoration in mind which will allow it to be returned to agricultural use rapidly. • A barn and other livestock facilities have been excluded from the development area, allowing for continued use, including a tenant who has kept cattle in the barn for 40 years. • Discussions with 4H are underway to provide limited access to the facility as an educational resource for studying the compatibility of utility-scale solar and agriculture.
Stormwater & Drain Tile Management	• Converting land cover from row crops to meadow reduces runoff rates in most drainage areas by more than 40% and 30% for the 10-year storm and 100-year storm events, respectively. The runoff volume in most drainage areas is reduced by more than 30% and 20% for the 10-year storm and 100-year storm events, respectively. • Boes Quality Drainage (BQD) has been retained to advise on drain tile matters and to liaise with the community on related issues of concern. • A robust Drain Tile Management plan establishes a framework for protecting both outlet drain tile, as well as the later network in sensitive areas. Ongoing study and discussion with the community will help refine this process through construction, during the operational phase of the project and during decommissioning • Setbacks have been established (25' from centerline) from outlet drain tiles to facilitate maintenance and repairs.
Sanitary Drainage Systems	• In consultation with Hancock County Public Health, four residences were identified on abutting properties which utilize outlet tiles which cross the Project Area to convey household sewer and wastewater discharges away from sanitary systems. • BQD visited each site to document the location and other specifications of the lines within the Project Area so that they can be protected during construction and operations. • Where possible, a representative of BQD met with homeowners.
Noise	• Project sound sources will not increase daytime sound levels at non-participating residences within 250 ft by more than 1 dB above ambient.
Washington Township ROW	• The new, more compact design will not utilize the ROW along Township Road 218.
Electromagnetic Fields (EMFs)	• Solar arrays generate weak electromagnetic fields (EMFs) during the day that dissipate at short distances. • EMFs are generated in the same extremely low frequency range as electrical appliances and wiring found in most homes and buildings. • In a study of three solar projects in Massachusetts, electric field levels measured along the boundary of each project did not exceed background levels.

MAJOR DESIGN REVISION BEING PROPOSED

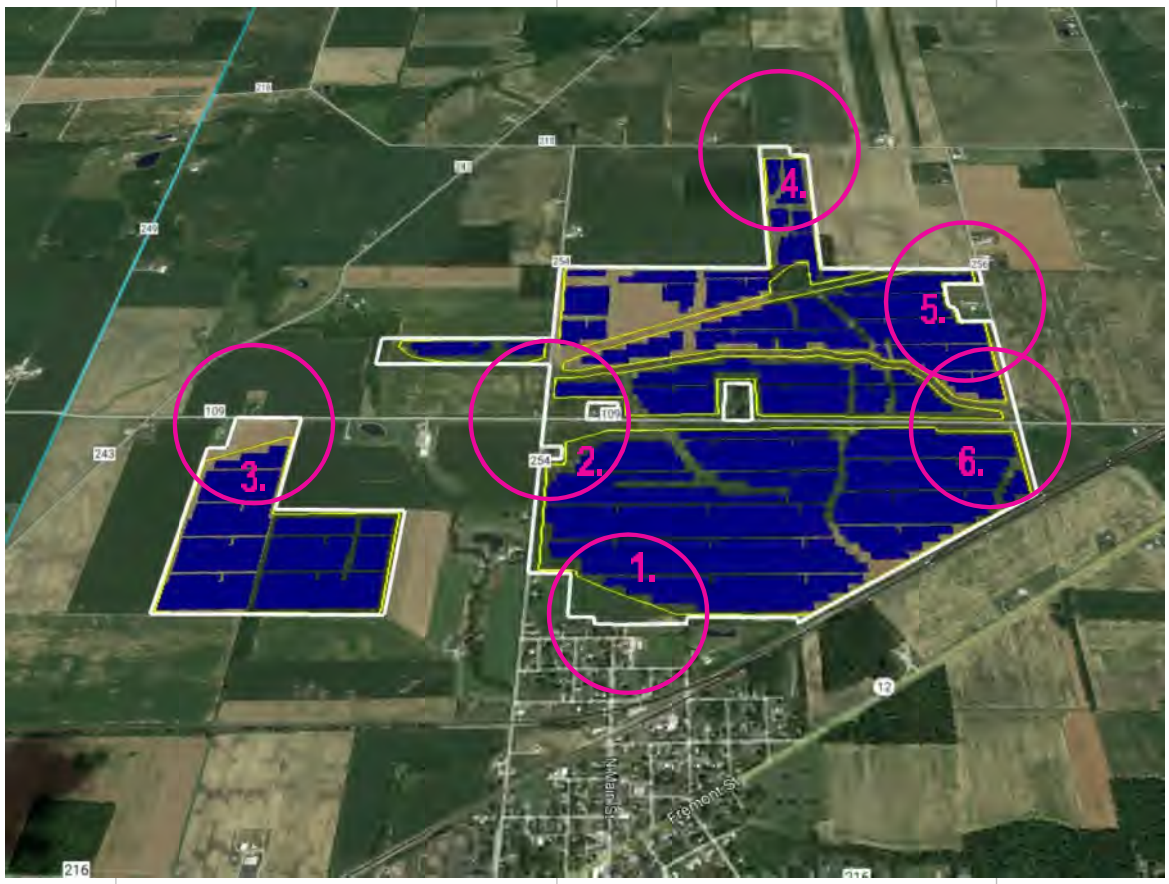


ORIGINAL DESIGN



REVISED DESIGN

ADDITIONAL REVISIONS



Community Feedback Driven Design Modifications

1. 8-acre buffer and enhanced landscaping north of Village
Sets back off a key 8" diameter drain tile and provides a significant buffers Village of Arcadia

2. 6-ac Buffer, 109 and 254
Selective panel placement limits exposure to abutting landowners

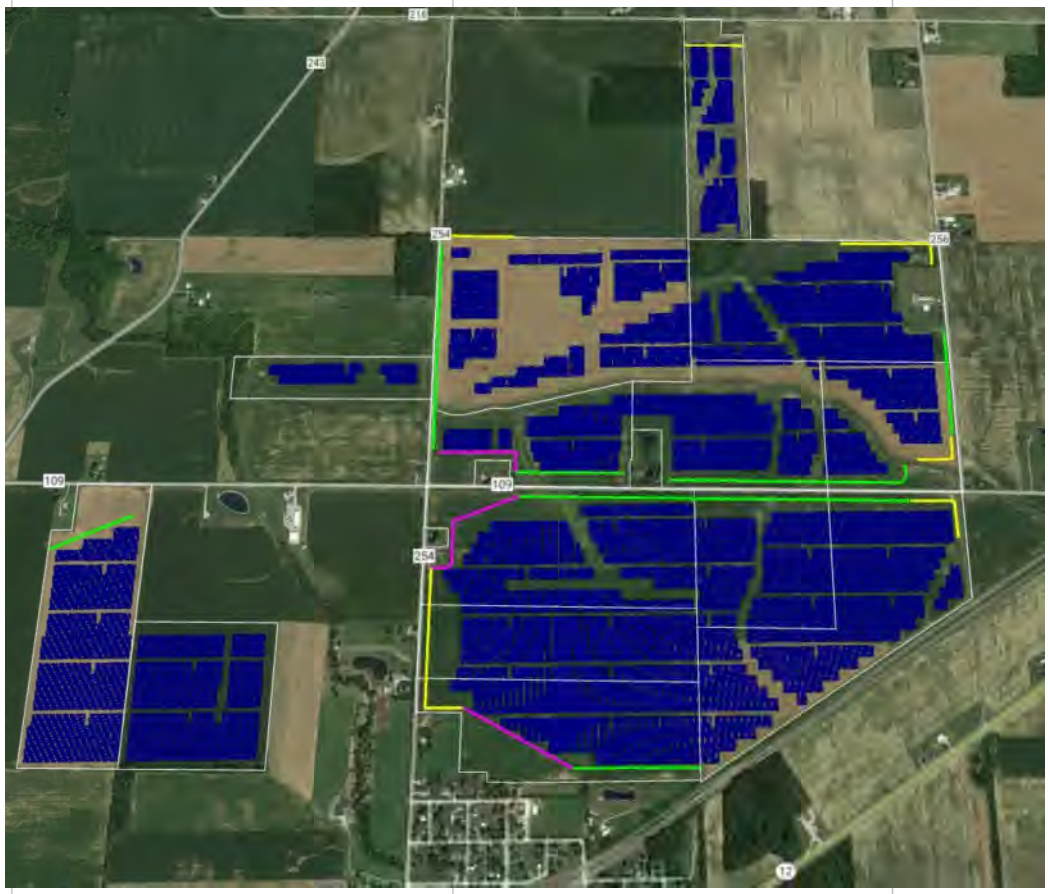
3. Enhanced Setback, west 109
Selective panel placement limits exposure to abutting landowners

4. Enhanced Setback, 218
Selective panel placement limits exposure to abutting landowners

5. 6-acre no build
Preserves existing agricultural use and maintains owner-renter relationship

6. Enhanced Setback, east 109
Selective panel placement limits exposure to abutting landowner.

LANDSCAPING PLANS



Three Levels of Landscaping Intensity

Landscape Buffer 1 (green): *Vertical Softening* - intended for use in areas with the potential for frequent viewers but without prolonged viewer duration.

Landscape Buffer 2 (yellow): *Moderate Screening* - intended for locations where
viewer may have the potential to see Project features, but where the layout buffer results in a reduced visual effect.

Landscape Buffer 3 (pink): *High Level of Screening* - intended for use when stationary adjacent uses could be affected by a direct view of the Project.

VISUAL SIMULATIONS | Monroe Street

Before

After

VISUAL SIMULATIONS | County Road 109

Before

After

50' DRAIN TILE CORRIDORS (25' SETBACK)

Robust Drain Tile Management Plan

1. BQD has a working knowledge of drain tile locations within the Project Area.

2. Mapped tile locations have been provided to aid in project design and will be verified with field methods.

3. Corridors have been established to provide access for maintenance and repair during Construction and Operations.

4. Sewer lines that utilize outlet tiles located in Project Area have been identified in coordination with Public Heatlh and have been mapped in the field by BQD.

COMMUNITY SUPPORT

"The South Branch Solar Farm will be a positive economic driver for decades to come and I urge the approval of this project."

"The more I have been made aware of this project, the more I have realized how great of an opportunity this is for our area."

"First, this site brings new jobs to the county, Secondly, it makes this community more economically diverse. Finally, I support private property rights."

"I can personally see past the loud voices against this project. What I see is good paying jobs for neighbors. What I see is more revenue to the county. This is a great economic engine for our community."

"I am a supporter of economic progress and believe this project's economic benefits are undeniable. Through improving our local school systems and creating long term maintenance and operation jobs, Leeward Energy's project will be a massive economic asset to Hancock County."

"I write to you to request that you consider allowing the South Branch Solar Farm in the County. I work as an electrician and a member of IBEW Loc 8. This means more than just clean energy. Myself and my fellow electricians rely on big projects like this for work."

"Our County has a chance to create jobs, and see large investments made in our community by a private company. This opportunity does not come in front of us every day and we should do everything we can to take advantage of it. Please support the construction of South Branch solar farm."

"I have lived in the community my entire life. I would like you to consider the South Branch Solar Farm because of the long-term effects. Economically it brings in money for roads and schools for decades. Job wise it brings local jobs for myself and people like me for at least a generation. This is a huge investment for our community."

Source: Application of South Branch Solar, LLC; OPSB Case Record

UPDATED APPENDIX I

ECONOMIC IMPACT STUDY ADDENDUM

Economic Impacts of the South Branch Solar Project (129.6 MW case)

Gilbert Michaud, David Jenkins, Michael J. Zimmer

December 2021

Prepared by

OHIO UNIVERSITY

VOINOVICH SCHOOL OF LEADERSHIP AND PUBLIC AFFAIRS

1. Economic Impacts by Project Phase

For the project expenses and local spending as a result of the construction and O&M of South Branch Solar, we assume that 80% of the labor originates in Ohio, given that the property tax exemption only applies to projects where 80% of employees during the construction phase are Ohio-domiciled.[1] Table 1 presents the one-time, construction phase economic impacts of South Branch Solar in the 129.6 MW case, as opposed to the 205 MW case displayed in the main report. For a discussion of our methodology, please refer to the main report. As shown below, this project would support 757 total construction phase jobs in Ohio and generate a one-time total economic impact of over $125 million.

Table 1. Construction Phase Economic Impacts of South Branch Solar, 129.6 MW

	Employment	Labor Income	Value Added	Total Economic Impact
Direct Effect	294	$21,853,400	$24,437,800	$27,624,400
Indirect Effect	282	$19,197,800	$33,031,400	$67,541,800
Induced Effect	181	$10,036,600	$17,495,800	$30,055,800
Total Effect	**757**	**$51,087,800**	**$74,965,000**	**$125,222,000**
Multiplier	**2.57**	**2.34**	**3.07**	**4.53**

Note. Values may not perfectly sum due to rounding.

Next, Table 2 presents the *annual* O&M phase economic impacts of South Branch Solar in the 129.6 MW case. Each year, South Branch Solar will support 11 total jobs in Ohio (including 6 direct jobs) and generate a total annual economic impact of nearly $3.9 million.

Table 2. O&M Phase Economic Impacts of South Branch Solar, 129.6 MW

	Employment	Labor Income	Value Added	Total Economic Impact
Direct Effect	6	$808,800	$1,333,500	$2,818,200
Indirect Effect	3	$193,600	$338,200	$660,100
Induced Effect	2	$133,900	$233,400	$400,900
Total Effect	**11**	**$1,136,300**	**$1,905,100**	**$3,879,200**
Multiplier	**1.83**	**1.40**	**1.43**	**1.38**

[1] See: Bricker & Eckler. (2011). *Ohio General Assembly reforms renewable and advanced energy tax policy.* Retrieved from http://www.bricker.com/documents/publications/2223.pdf.

Compared to other power generation assets, solar energy facilities have relatively lower O&M requirements. Regular maintenance such as inverter servicing, ground-keeping, module cleaning, or site security is relatively easy, and can be performed by the owner or local contractors. The monitoring of facility performance can be achieved remotely by the original equipment manufacturer or another asset manager.[2] We want to reiterate that facility decommissioning is *not* analyzed in this study, but it is likely additive and will increase the economic benefits of the South Branch Solar project, meaning that our calculations represent conservative estimates.

2. Tax Impacts

The South Branch Solar Project has entered into a payment in lieu of taxes (PILOT) program with Hancock County. The 129.6 MW-AC case will result in annual tax revenues of $9,000 per megawatt, or $1,165,500. Of this, a significant portion will directly benefit Village of Arcadia schools, with additional funds provided to Washington Township and other Hancock County tax entities to support other community benefits.

[2] International Finance Corporation. (2015). *Utility-scale solar photovoltaic power plants*. Retrieved from https://www.ifc.org/wps/wcm/connect/f05d3e00498e0841bb6fbbe54d141794/IFC+olar+eport_Web+08pdf?MOD=AJPERES.

UPDATED APPENDIX L

DECOMMISSIONING PLAN

DECOMMISSIONING PLAN

SOUTH BRANCH SOLAR
WASHINGTON TOWNSHIP
HANCOCK COUNTY, OH

Prepared for:

South Branch Solar, LLC

6688 N Central Expressway Suite 500

Dallas, TX 75206 Contact:

Rob Kalbouss

Prepared By:

Kimley-Horn & Associates, Inc.

2400 Corporate Exchange Dr. Suite 120

Columbus, OH 43231

Contact: Derik Leary, P.E.

Prepared on: October 27, 2021

Revised on: November 24, 2021

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Appendices

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1.0 INTRODUCTION

Background

South Branch Solar, LLC (Project Company) is developing the South Branch Solar Project (Project) on approximately 715 acres of leased land. The Project will be located in Washington Township, Hancock County, Ohio. The project will have several access points. The central project area will be accessed along the east and west sides of Township Rd. 254. The southwestern project site can be accessed along Township Rd. 109, approximately 0.3 miles east of the intersection of Township Rd. 243 and Township Rd. 109. The geographical coordinates are 41°7'34.60"N, 83°30'55.61"W and the Solar Project is anticipated to remain operational for 35-40 years. Refer to **Appendix A: C.101 Overall Site Plan** for general location and project layout.

The Project is planned to occupy approximately 715-acres of agricultural land for the solar field. The site is bound to the east and west by agricultural fields, to the south by residential properties and agricultural fields, and to the north by woodland and agricultural fields. Site topography is moderately sloped and slopes from the southeast to the northwest with drainage towards the South Branch of the Portage River. The Federal Emergency Management Agency (FEMA) has designated the project areas as Zone X, outside the 0.2% chance annual flood plain.

This Decommissioning Plan (Plan) is developed in compliance with Ohio Power Siting Board and industry standards.

This Plan covers the following elements of the Solar Photovoltaic (PV) portion of the development:

- Removal off-site for disposal of all Project Components as defined, including any underground structures to at least 3 feet below-grade;
- Revegetation, restoration and road repair activities;
- Decommissioning escrow account.

If the Project ceases to perform its intended function for more than twelve (12) months, the Project will be completely removed within twelve (12) months, and the site restored in accordance with this Decommissioning Plan and Ohio Power Siting Board rules and regulations.

2.0 PROJECT COMPONENTS

The Project Components that are subject to decommissioning include the Solar PV equipment summarized below. The decommissioning activities associated with these components are discussed in Section 3.0 of this Plan.

PV Equipment

The Project will use Solar Photovoltaic (PV) modules mounted on single axis trackers installed on steel pile foundations.

Internal Power Collection System

The PV-generated DC power will be collected from each of the multiple rows of PV modules through one or more combiner boxes and conveyed to inverters. The inverters will convert the DC power to AC power. A project substation will be constructed to covert the electricity voltage, as necessary. The project will be interconnected into the existing Overhead Power Lines running northeast through the site between Township Rd. 254 and Township Rd. 256.

Inverters, transformers, and PV combining switchgear will be mounted on concrete or pile foundations.

Earthwork

It is anticipated the site will require minimal grading for the Project. Site grading and drainage will be conducted in accordance with Final Engineering plans approved by Washington Township, Hancock County, and the Ohio Power Siting Board.

Roads

Access to the Project areas will be via Township Rd. 109 and Township Road 254. The site access roads will be constructed in accordance with Washington Township and Hancock County requirements. The on-site access roads will be compacted dirt or gravel in accordance with the Final Geotechnical Report.

Fencing

The Project site will be fenced with an approximately seven-foot-high fence for security purposes. Entry gates will be provided at the site access points on Township Rd. 109 and Township Road 254.

3.0 PROJECT DECOMMISSIONING AND RECYLCING

Decommissioning includes removal of above-ground and below-ground structures relating to the Solar PV portion of the Project. Only minor grading is anticipated during construction; and therefore, will require limited to no grading following decommissioning. Temporary erosion and sedimentation control Best Management Practices will be implemented during the decommissioning phase of the Project.

Decommissioning Preparation

The first step in the decommissioning process will be to assess existing site conditions and prepare the site for demolition. Onsite storage area(s) will be established, for collection and temporary storage of demolition debris, pending final transportation and disposal and/or recycling according to the procedures listed below.

Permits and Approvals Required for Decommissioning

It is anticipated that an NPDES Permit from the Ohio Environmental Protection Agency Division of Surface Water (DSW) will be required. The site is not anticipated to impact waters of the United States or Threatened or Endangered species; thus, no federal approvals are expected. Appropriate applications for permits will be submitted and approved prior to decommissioning activities, including any permits required through the Soil and Water Conservation District, Washington Township, and/or Hancock County.

PV Equipment Removal and Recycling

During decommissioning, Project components owned by the Project Company that are no longer needed will be removed from the site and recycled or disposed of at an appropriately licensed disposal facility. Above ground portions of the PV module supports will be removed. Below ground portions of the PV module supports will be removed entirely where practical. Those supports that are more firmly anchored may be cut off to a safe depth of at least three (3) feet below grade (except for parcel 510000130930 which shall be to a depth of four (4) feet) or to the depth of bedrock, and the remaining support may be left in place. This depth will avoid impact of underground equipment on future farming or other construction activities. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the onsite equipment being used. The debris and equipment will be processed for transportation and delivery to an appropriately licensed disposal facility or recycling center. Modules will be disposed of or recycled in accordance with local, state, and federal regulations.

Internal Power Collection System

The combiner boxes, cables, inverters, and transformers will be dismantled. The concrete foundations will be broken up, removed and recycled. If ground-screw or steel foundations are used, they will be removed and recycled. The underground cable and conduit will be removed where less than three (3) feet below grade (except for parcel 510000130930 which shall be to a depth of four (4) feet). Overhead conductors will be removed from the poles, and the poles and pole foundations will be removed. Aluminum from the conductors will be recycled or removed from the site to an appropriately licensed disposal facility. All components of the project substation including, but not limited to, foundations, buildings, machinery, equipment, cabling, and connections to transmission lines will be removed.

Roads

Unless requested in writing by the landowner, gravel from on-site access roads will be removed and recycled. Once the gravel is removed, the soil below the gravel along compacted dirt access roads will be scarified a depth of 18-inches and blended, as noted in the Site Restoration section below.

Fencing

Unless requested in writing by the landowner, project site perimeter fence will be removed at the end of the decommissioning project. Since the Project site is not currently fenced, this includes removal of all posts, footings, fencing material, gates, etc. to return the site to pre-Project condition.

Landscaping

Unless requested in writing by the landowner to be removed, all vegetative landscaping and screening installed as part of the Project will be left in place. Landscape areas in which landscaping is removed will be restored as noted in the Site Restoration section below.

Site Restoration

Once removal of all Project equipment and landscaping is complete, all areas of the Project site that were traversed by vehicles and construction and/or decommission equipment that exhibit compaction and rutting, will be restored by the Project Company. All prior agricultural land will be ripped at least 18 inches deep or to the extent practicable and all pasture will be ripped at least 12 inches deep or to the extent practicable. The existence of drain tile lines or underground utilities may necessitate less ripping depth. Once this is complete, seed will be distributed for the establishment of vegetative land cover.

4.0 FUTURE LAND USE

The Project site is currently agricultural land. All solar panels will be removed from the property and the land will be restored so that it can be returned to agricultural use at the end of the Project life cycle. This Decommissioning Plan is consistent with Ohio Power Siting Board (OPSB) requirements to return the land to its pre-Project conditions, suitable for agricultural use.

5.0 PROJECT DECOMMISSION COSTS AND FINANCIAL ASSURANCE

This Decommissioning Plan will be updated prior to Construction and will consider salvage value of the Solar PV components of the Project. All solar components will be repurposed, salvaged, recycled, or hauled offsite for disposal. Solar components that are anticipated to have resale or salvage value that may be used to offset the cost of decommissioning include solar modules, racking system, steel piles, inverters, and transformers. Materials that have no value at the time of decommissioning will be recycled when possible or hauled offsite to a licensed solid waste disposal facility. A Project decommissioning cost estimate was created based on the South Branch Solar – Overall Site Plan included in **Appendix A.** See Table 1 below for a current decommissioning cost estimate, including salvage value. Industry standard prices in 2021 for removal costs were determined using RS Means cost data. Removal costs includes materials, contractor installation/demolition, mobilization and demobilization, overhead and profit, and performance bonding.

In the event that the Total Decommission Cost (decommission costs minus salvage value) is a net positive number, the Project Company will post decommissioning funds in the form of a surety bond, letter of credit, guaranty, including affiliate guaranty or other financial assurance consistent with the Final Decommissioning Cost Estimate. This Decommissioning Plan and financial assurance will be reviewed every 5 years to assess the value of the financial assurance versus the Total Decommission Cost.

Kimley»Horn

TABLE 1
SOUTH BRANCH SOLAR DECOMMISSIONING COST ESTIMATE[1]

NO.	ITEMS	QUANTITY	UNITS	PRICE	COST
1	Mobilization	1	LS	$264,255	$264,255
2	SWPPP, Erosion Control Measures	1	LS	$399,990	$399,990
3	Seeding	597	AC	$208	$124,176
4	Ripping 12"-18'' topsoil/scarifying access road and rough grading existing soil	597	AC	$99	$59,103
5	Remove and Recycle Chain Link Fence, 7' High	66,500	LF	$4.34	$288,610
6	Disconnection and Demolition of Switchyard/Substation Equipment	2	EA	$66,754	$133,508
7	Removal and Recycle AC Cables	39,648	LF	$0.19	$7,533
8	Remove and Recycle DC Cables	632,140	LF	$0.18	$113,786
9	Backfill AC and DC trenches	99,670	LF	$0.18	$17,941
10	Remove and Recycle Inverters	40	EA	$242	$9,680
11	Removed and Recycle Photovoltaic Modules	296,676	EA	$9.00	$2,670,084
12	Remove and Recycle Piles (10'W6x7 piles @ 25' OC assumed)	22,885	EA	$13	$297,505
13	Remove and Recycle Support Assemblies	4,113	EA	$204	$839,052
14	Contaminated Soils Testing	1	LS	$2,000	$2,000
15	Reclamation Monitoring and Maintenance	1	LS	$5,000	$5,000
16	Transportation[2]	1	LS	$310,800	$310,800
				SUB-TOTAL OF DECOMMISSION COSTS	**$5,542,023**
17	Remove and Recycle Chain Link Fence, 12' High[3]	66,500	LF	$0.19	$12,635
18	Remove and Recycle Switchyard/Substation Equipment[4]	2	EA	$13,351	$26,702
19	Removal and Recycle AC Cables[3]	39,648	LF	$0.08	$3,172
20	Remove and Recycle DC Cables[3]	632,140	LF	$0.08	$50,572
21	Removed and Recycle Photovoltaic Modules[5]	296,676	EA	$4.96	$1,471,513
22	Remove and Recycle Piles[3] (10'W6x7 piles @ 25' OC assumed)	22,885	EA	$3.70	$84,675
23	Remove and Recycle Support Assemblies[3]	4,113	EA	$16.17	$66,508
				SUB-TOTAL OF SALVAGE VALUES	**$1,715,777**
TOTAL (DECOMMISSION COSTS – SALVAGE VALUE)					**$3,827,246**

[1] *This Engineer's Opinion of Probable Construction Cost is based upon the Overall Site Plan prepared Westwood Professional Services, Inc. dated 11/17/2021. The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. These quantities and costs are subject to change pending Final Engineering and should be updated as necessary.*

[2] *This assumes that approximately 448 trips of a 40,000 lb. capacity demolition roll-off truck will travel 100 miles round trip to a recycling and disposal facility.*

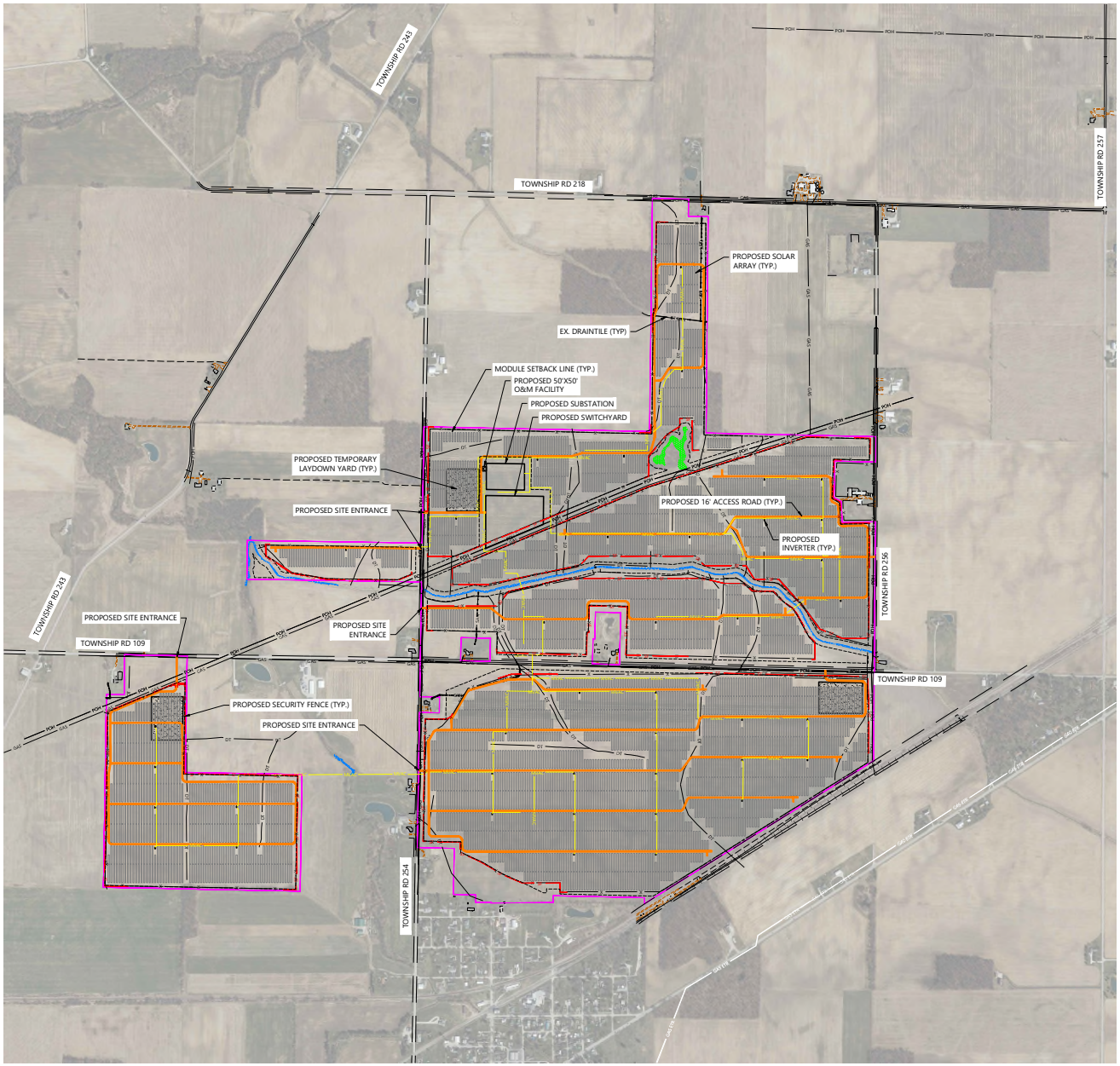
[3] *This Salvage Value Estimate is based off 2021 RS means raw material scrap prices. Material salvage values were based off of current US salvage exchange rates. Material salvage values was determined using the most prevalent salvageable metal in each component: Copper Wire @$0.08/LF (AC and DC Cables) and Steel @ $0.19/LF of fence, @ $3.70/pile, and @ $16.17/assembly.*

[4] *Switchyard/Substation Equipment material salvage value was determined to be 20% of removal costs from past projects of similar size and scope.*

[5] *Photovoltaic Module material salvage rate is based on a depreciation of approximately 29% in year 1, followed by a depreciation of (-8.5%/year) every following year until year 20.*

APPENDIX A

South Branch Solar – C.101 Overall Site Plan



LEGEND:

- PROJECT BOUNDARY
- SECTION LINES
- RIGHT-OF-WAY LINES
- EASEMENT LINES
- EX. TREELINE
- EX. PAVED ROAD
- EX. GRAVEL ROAD
- EX. DRIVEWAY
- EX. RAILROAD
- EX. FENCE LINE
- EX. OVERHEAD POWER
- EX. GAS PIPELINE
- EX. DRAINTILE
- EX. SEPTIC LINE
- PROPOSED FENCE SETBACK LINE
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SILT FENCE
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED COLLECTION
- PROPOSED LAYDOWN YARD
- PROPOSED SUBSTATION/SWITCHYARD
- PROPOSED O&M FACILITY
- DELINEATED WETLANDS
- DELINEATED STREAMS

SYSTEM SPECIFICATIONS	
SYSTEM SIZE - MWDC	160.21
SYSTEM SIZE - MWAC (AT POI)	129.6
DC/AC (AT INVERTER)	1.17
MODULE MODEL	LONGI LR5 72HBD-540M
MODULE RATING (W)	540
MODULE QUANTITY	296,676
STRINGS (27 MODULES PER STRING)	10,988
INVERTER QUANTITY	40

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

LEEWARD renewable energy

6688 N CENTRAL EXPRESSWAY, SUITE 500
DALLAS, TX 75206

REVISIONS:

#	DATE	COMMENT

0' 600' 1200' 1800'

South Branch Solar

Hancock County, OH

Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 11/17/2021

SHEET: C.101

UPDATED APPENDIX N

NOISE EVALUATION

ACENTECH

33 Moulton Street
Cambridge MA 02138
617 499 8000
acentech.com

December 16, 2021

Lynn Gresock
Haley & Aldrich, Inc.
3 Bedford Farms Drive | Suite 301
Bedford, New Hampshire 03110
Email: LGresock@haleyaldrich.com

Subject South Branch Solar Project Noise Evaluation
Hancock County, Ohio
Acentech Project No. 634331

Dear Lynn:

Under contract to Haley & Aldrich, Inc. (Haley & Aldrich), Acentech Incorporated (Acentech) has conducted a noise evaluation for South Branch Solar (the Project), a new solar facility proposed on approximately 700 acres in Washington Township, Hancock County, Ohio (the Project Area). We developed an acoustic model to calculate the expected operational sound levels of each of the noise producing equipment at nearby community receivers. The equipment includes transformers, inverters, and solar panel tracker motors. We have also provided a narrative discussion on construction noise.

EXECUTIVE SUMMARY

Based on the Ohio Power Siting Board (OPSB) guidelines, which generally require that operational energy facility impacts be 5 decibels (dB) or less over measured ambient on an average continuous equivalent sound level (L_{Aeq}) basis at non-participating receptors, we completed a noise evaluation for the Project. All Project impacts are well below the accepted OPSB standard.

We predicted the noise in the community from Project equipment, including inverters, transformers, and tracker motors. Project-only operational nighttime sound levels range from 28 dBA to 37 dBA at the receivers within 250 ft of the Project Area, resulting in no increase in sound level over the ambient conditions. Predicted Project-only operational daytime sound levels range from 37 dBA to 46 dBA; we did not predict an increase in sound levels over the ambient greater than 1 dB. The predicted daytime sound levels were conservative because they assumed that all the tracker motors would operate at the same time and continuously. Nighttime sound levels were conservative because they assume inverters and transformers will be active.

Receivers further from the Project Area, for example, further south within the Village of Arcadia will have even less influence by the Project and, thus, lower operational noise exposures. For reference, 30 to 40 dBA is typical of interior sound levels, such as in a bedroom, while 50 dBA is typical of outdoor ambient conditions half a mile from a major highway (e.g., 1,000 cars/hour, with vehicles at a speed of 60 miles per hour [mph]).

The construction noise estimates were based on typical construction equipment and distances from construction activities to residential receivers. These predictions range from 56 dBA to 90 dBA. For a number of reasons, the predicted construction sound levels are conservative, representing a “worst case scenario” for noise emission. Actual noise exposure will vary depending on the schedule of construction and the location of the equipment.

GLOSSARY OF TERMS

dB – decibel, unweighted sound level. Note that this can be used to refer to relative increases in sound level as well as overall sound level.

dBA – A-weighted sound level. Note that this only refers to overall sound level, never relative increases in sound level.

L_{A10} – the A-weighted sound pressure level (dBA) exceeded 10% of the measurement interval.

L_{A50} – the A-weighted sound pressure level (dBA) exceeded 50% of the measurement interval.

L_{A90} – the A-weighted sound pressure level (dBA) exceeded 90% of the measurement interval.

L_{Aeq} – the A-weighted average continuous equivalent sound pressure level (dBA). Often referred to as L_{eq}.

L_{dn} – day-night average sound level, defined as the 24-hour A-weighted equivalent sound level (dBA), with a 10-dB penalty applied to nighttime levels.

L_p – Sound Pressure Level, dB relative to 20 micro-Pascals.

L_w – Sound Power Level, dB relative to 1 pico-watt.

PROJECT NOISE GUIDELINES

OPSB

No noise rules or regulations exist at the state level in Ohio, but the Project falls under the purview of the OPSB. The OPSB generally requires that operational energy facility impacts be 5 dB or less over measured ambient on an L_{Aeq} basis at non-participating receptors.

Other Local Ordinances

The Project Area is located in Washington Township and immediately north of the Village of Arcadia. We are not aware of any quantitative noise regulations within these jurisdictions, but the OPSB rules will supersede all local regulations.

BACKGROUND NOISE SURVEY

The ambient noise determination completed for the Project used standard methods based on good acoustical engineering principles and generally followed ANSI/ASA S1.13-2020. With the help of a local representative of Haley & Aldrich, Acentech performed unattended noise measurements from April 9 to April 19, 2021 using two Rion NL-52 sound level meters (SLMs). The SLMs met the requirements of ANSI/ASA S1.4-2014/Part 1 for a Class 1 sound level meter. The equipment is calibrated annually as well as field calibrated immediately prior to use.

We were not able to observe on-site weather conditions for the duration of the measurements. Historical meteorological data from a nearby MET tower (Weather Station ID: KOHVANDA8, via Weather Underground) indicates average daily temperatures ranged from 45 to 55 degrees F, and there was some measurable precipitation between April 9 and 11, 2021.

The two locations of our SLMs are shown in Figure 1 below. We obtained data in 1-hr intervals, including L_{Aeq} and other statistical metrics (e.g., L_{A10}, L_{A50}, L_{A90}).

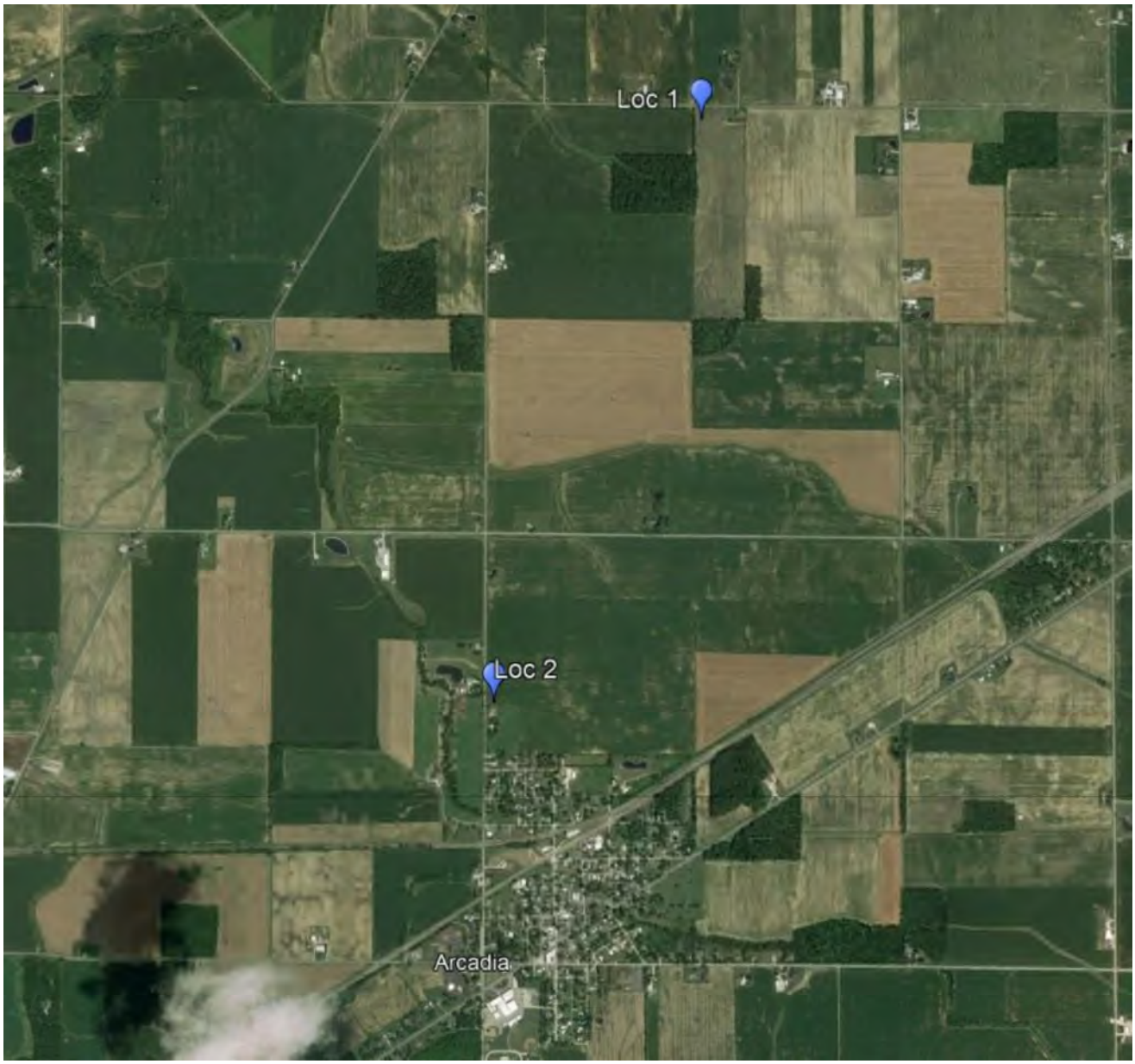


Figure 1: Measurement locations

Figures 2 and 3, attached, present time histories of environmental sound levels measured at the two monitoring locations. These plots include the following acoustic descriptors:

- $L_{Aeq,\ 1\text{-}hr}$ – the equivalent sound level, which includes both steady background sounds (e.g., distant traffic) plus short-term intrusive sounds (e.g. local car passerby).
- $L_{A10,\ 1\text{-}hr}$ – the sound level exceeded 10% of the measurement interval, in this case 6 minutes of each hour. Typical of brief transient sound events.
- $L_{A50,\ 1\text{-}hr}$ – the sound level exceeded 50% of the measurement interval, in this case 30 minutes of each hour. The median sound level.
- $L_{A90,\ 1\text{-}hr}$ – the sound level exceeded 90% of the measurement interval, in this case 54 minutes of each hour. Typical of continuous sounds, and often similar to the minimum sound level.

Table 1 below summarizes the average sound metrics measured at each location based on time of day. L_{Aeq} was calculated from $L_{Aeq,\ 1\text{-hr}}$ for the entire daytime and nighttime periods, respectively. Statistics (L_{A10}, L_{A50}, L_{A90}) presented are the average of the 1-hr statistics measured during the daytime and nighttime period, respectively. The day-night average sound level (L_{dn}) is defined as the 24-hour A-weighted equivalent sound level, with a 10-dB penalty applied to nighttime levels.

Table 1: Summary of average measured ambient sound levels

Location	Day (7 am – 10 pm)				Night (10 pm – 7 am)				Day/Night
	L_{Aeq}	L_{A10}	L_{A50}	L_{A90}	L_{Aeq}	L_{A10}	L_{A50}	L_{A90}	L_{dn}
Loc. 1	50	50	41	35	46	44	33	28	54
Loc. 2	52	50	42	37	51	45	36	32	57

Noise Goals

When added to the existing ambient sound levels, the *Project-only* sound levels that correspond with a 5 dB increase above ambient (L_{Aeq}) at each monitoring location are summarized below in Table 2 (e.g., 50 dBA ambient plus 54 dBA *Project-only* sound contribution results in a 55 dBA combined sound level).

Table 2: Project-Only Sound Levels corresponding with a 5 dB increase over ambient L_{Aeq}

Location	Project-Only Sound Level Guideline (dBA)	
	Daytime (7 am – 10 pm)	Nighttime (10 pm – 7 am)
1	54	50
2	56	55

OPERATIONAL NOISE EVALUATION

Acentech developed an acoustic model of the proposed Project and surrounding neighborhood. The acoustic model was developed using Cadna/A software to estimate the contributions of various noise sources to the community sound levels. Cadna/A complies with international standard ISO 9613-2 “Attenuation of sound during propagation outdoors -- Part 2: General method of calculation.”

The noise producing equipment at the proposed Project includes:

- Inverters with integrated MV transformers (quantity: 40). Basis of design is Sungrow SG3150-MW, with a MV transformer rated at 3150 kVA with an output voltage of 34.5 kV.
- Substation transformers (quantity: 1). 120 MVA 138 kV. No model number is available at this time as they are custom units to be designed. We have modeled sound levels based on a similar unit, which provided sound pressure level at 1 m; we added 3 dB to these sound levels to account for measurement uncertainty. We have assumed the spectra of the unit based on prior project experience.
- Tracker motors (quantity: ~3,000). Basis of design is NEXTracker Horizon Single Axis Tracker motor. Sound pressure levels provided at 0.3 m at full load test conditions. We have assumed the spectra of the unit based on prior project experience.

The site plan used in this modeling is enclosed in Appendix A. Table 3 provides the input sound power level (L_w) we have assumed for the equipment.

Table 3: Equipment Octave Band Sound Power Level

Equipment	Octave Band Center Frequency (Hz)									Overall Sound Power (dBA)
	31.5	63	125	250	500	1,000	2,000	4,000	8,000	
	Sound Power Level (dB re 1 pico-watt)									
Inverter with integrated MV Transformer	83	76	81	74	70	69	70	77	68	80
Substation Transformer	127	120	111	99	94	84	78	73	68	99
Tracker Motor	94	81	75	71	70	67	62	58	56	72

Nighttime Operation

For nighttime operation, we understand that normally the inverters and tracker motors will be inactive, but the transformers will likely be energized and producing noise. For this Project, the distribution transformers are integrated into the inverters, so we have assumed that the equipment within the inverters (i.e., the transformer) will run at night and we assumed that to have the associated sound level as noted in Table 3.

RESULTS

We calculated noise levels at 20 existing non-participating residences (NP1 through NP20) and one participating residence (P1) in the area within 250 ft the Project, shown in Figure 4. Calculated noise levels at other residences further from the project are shown in the sound contours, described below. We calculated the sound level at these locations with receiver heights of 1.5 meters. We compared modeled noise levels to the noise guidance summarized above.

Sound Levels at Non-Participating Residences

Table 4, enclosed, presents the estimated daytime and nighttime sound levels for the Project, the combined future sound level (Project plus ambient), and the predicted increase over ambient at the nearby residences. The ambient is defined as the ambient L_{Aeq}, as shown above in Table 1. For reference, 30-40 dBA is typical of interior sound levels in a bedroom, and 50 dBA is typical of ambient conditions half a mile from a major highway (e.g., 1000 cars/hour, vehicle speed of 60 mph).

We have predicted that Project sound sources will not increase daytime sound levels at non-participating residences within 250 ft by more than 1 dB above ambient. These results are also conservative because they assume the tracker motors will all be operating at the same time and continuously, when in reality they will not all operate at the same time and typically run for 5-10 seconds every 1-2 minutes.

We do not predict any increase over ambient sound levels for nighttime.

Both daytime and nighttime sound levels are well below the accepted OPSB standard.

Sound Contours

Figure 5 shows Project-only daytime sound contours for the rest of the Project area, calculated at a height of 1.5 meters, from 25 dBA to 50 dBA in 5-dB increments. Figure 6 shows Project-only nighttime sound contours.

Receivers further from the project area, further south within the Village of Arcadia, will have even smaller project operational noise exposures. Locations beyond the 25 dBA contour are not anticipated to have significant Project noise impacts.

CONSTRUCTION NOISE EVALUATION

Our evaluation of construction noise emissions to the surrounding community is based on documentation provided by Haley & Aldrich describing the construction phases for a similar solar facility. The phases described below may take place concurrently at different areas throughout the Project Area, and thus will affect different residential receivers at different times.

- Phase 1: Grading and other site preparation
- Phase 2: Installation of array foundations (assumed by pile driving)
- Phase 3: Solar panel assembly
- Phase 4: Inverter pad and substation construction
- Phase 5: Array commissioning, waste removal, site clean-up

We based our analysis on our own understanding of typical equipment associated with these activities. Expected equipment includes graders, backhoes, pile drivers, dump trucks, cranes and various delivery trucks. We have identified sound levels associated with this equipment based on USEPA guidance[1] and other relevant references, including Ohio solar farm OPSB submittals. Table 5 below presents the typical equipment and sound levels used in our assessment for each phase. All values are sound pressure levels at 50 ft. For our analysis, we have assumed that near any given non-participating receiver, only one of each piece of equipment listed will be operating simultaneously at that particular location.

Table 5: Equipment sound levels

Phase	Equipment Maximum Sound Pressure Level at 50 ft (dBA)	Combined Maximum Sound Pressure Level of Expected Equipment at 50 ft (dBA)
1	Grader (85 dBA), Backhoe (83 dBA), Dump Truck (85 dBA)	89
2	Pile Driver (100 dBA), Backhoe (83 dBA), Dump Truck (85 dBA)	100
3	Backhoe (83 dBA), Crane (83 dBA), Dump Truck (85 dBA)	89
4	Concrete Truck (85 dBA), Backhoe (83 dBA), Crane (83 dBA)	89
5	Garbage Truck (85 dBA), Dump Truck (85 dBA), Backhoe (83 dBA)	85

We also note that not all phases and their respective activities will be carried out at the same distances from receivers. While the closest distance to a non-participating residence from the Project Area boundaries is approximately 46 ft, no noise-producing activities are anticipated to occur that close to the residences. Grading, for instance, will be performed throughout selected areas of the entire Project Area, including at areas as close as 178 ft from non-participating residences. Grading is expected to be minimal. In contrast, the closest inverter pad to a non-participating residence is 636 ft and the closest solar panel is approximately 160 ft from a non-participating residence. The minimum distance between construction activity and the nearest non-participating residence by phase is listed below:

- Phase 1: 178 ft setback
- Phase 2: 160 ft setback
- Phase 3: 160 ft setback
- Phase 4: 636 ft setback
- Phase 5: 160 ft setback

[1] Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, EPA (1971).

These varying distances are reflected in Table 6, which shows predicted noise levels for each phase at four distances. For a number of reasons, the predicted sound levels in Table 6 are conservative, representing a "worst case scenario" for noise emission. For example, Phase 2 activities include pile driving, which control the combined maximum sound pressure level reported below, but pile driving will not occur for 100% of the time during Phase 2. All of our sound level predictions are also conservative in that they do not take into account ground absorption, atmospheric attenuation, or natural barriers. Furthermore, the combined sound levels assume that multiple pieces of equipment associated with a particular phase will be operating at the same time and in close proximity.

Table 6: Construction Estimated Sound Levels by Phase

Phase	Combined Maximum Sound Pressure Level of Expected Equipment at 50 ft (dBA)	Predicted Maximum Sound Level (dBA)			
		Receiver at 178 ft	Receiver at 160 ft	Receiver at 636 ft	Receiver at 1500 ft
1	89	78	79	67	60
2	100	-	90	78	71
3	89	-	79	67	60
4	89	-	-	67	60
5	85	-	75	63	56

* * * * *

Please contact me at 617-499-8027 or aodom@acentech.com with any questions or comments.

Sincerely,

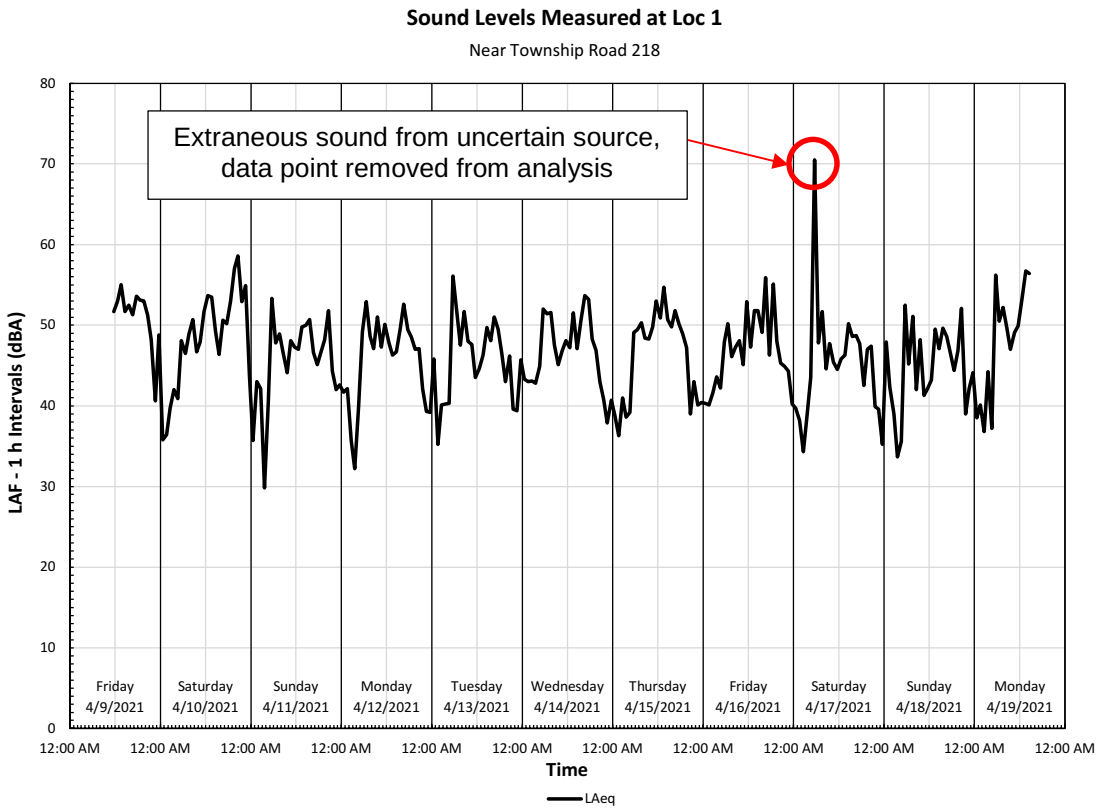
ACENTECH INCORPORATED

Alex Odom
Consultant

Cc: Michael Bahtiarian, Josh Brophy (Acentech)

Encl: Figures 2-6
Table 4
Appendix A: Site Plan

FIGURE 2: Sound Levels Measured at Location 1



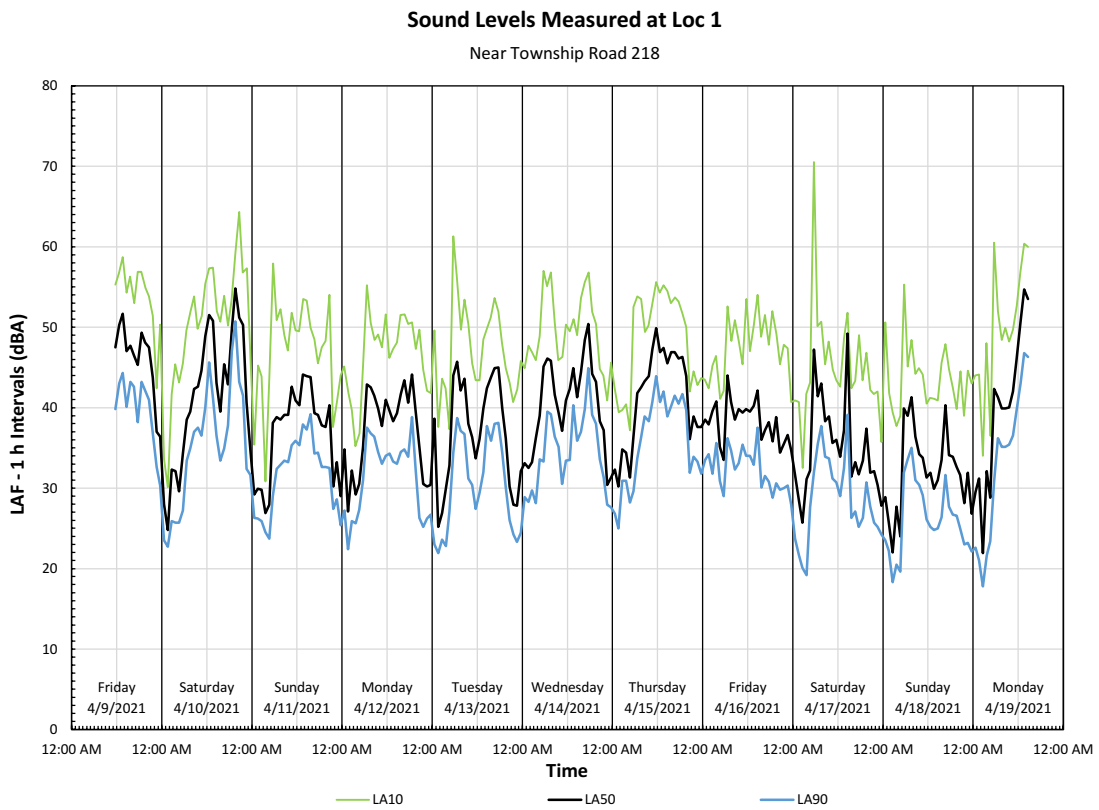
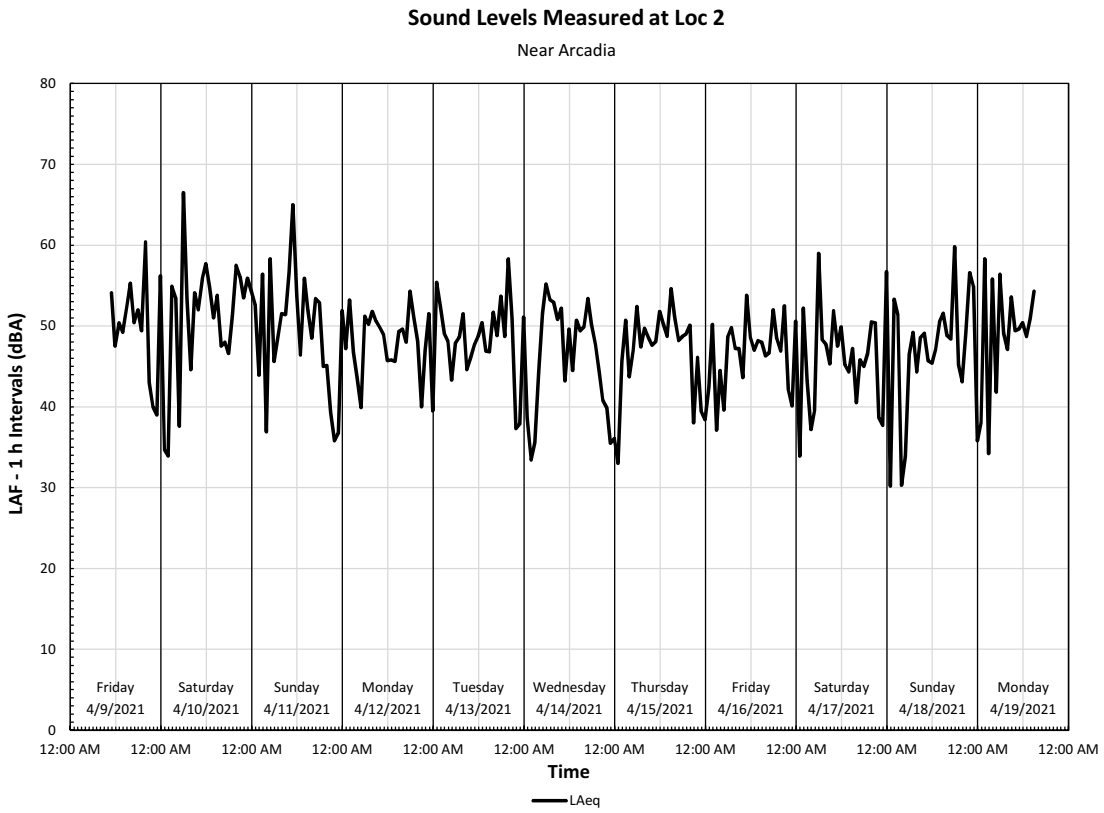


FIGURE 3: Sound Levels Measured at Location 2



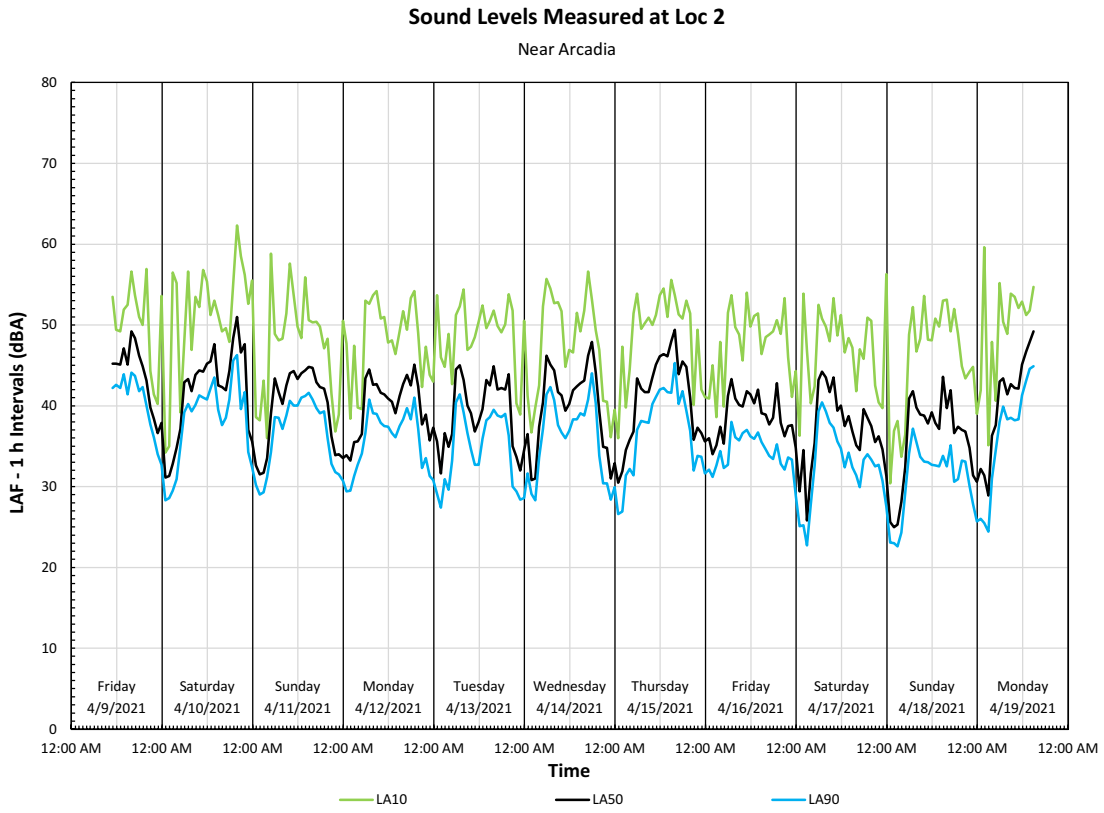


FIGURE 4: Modeled residential receivers

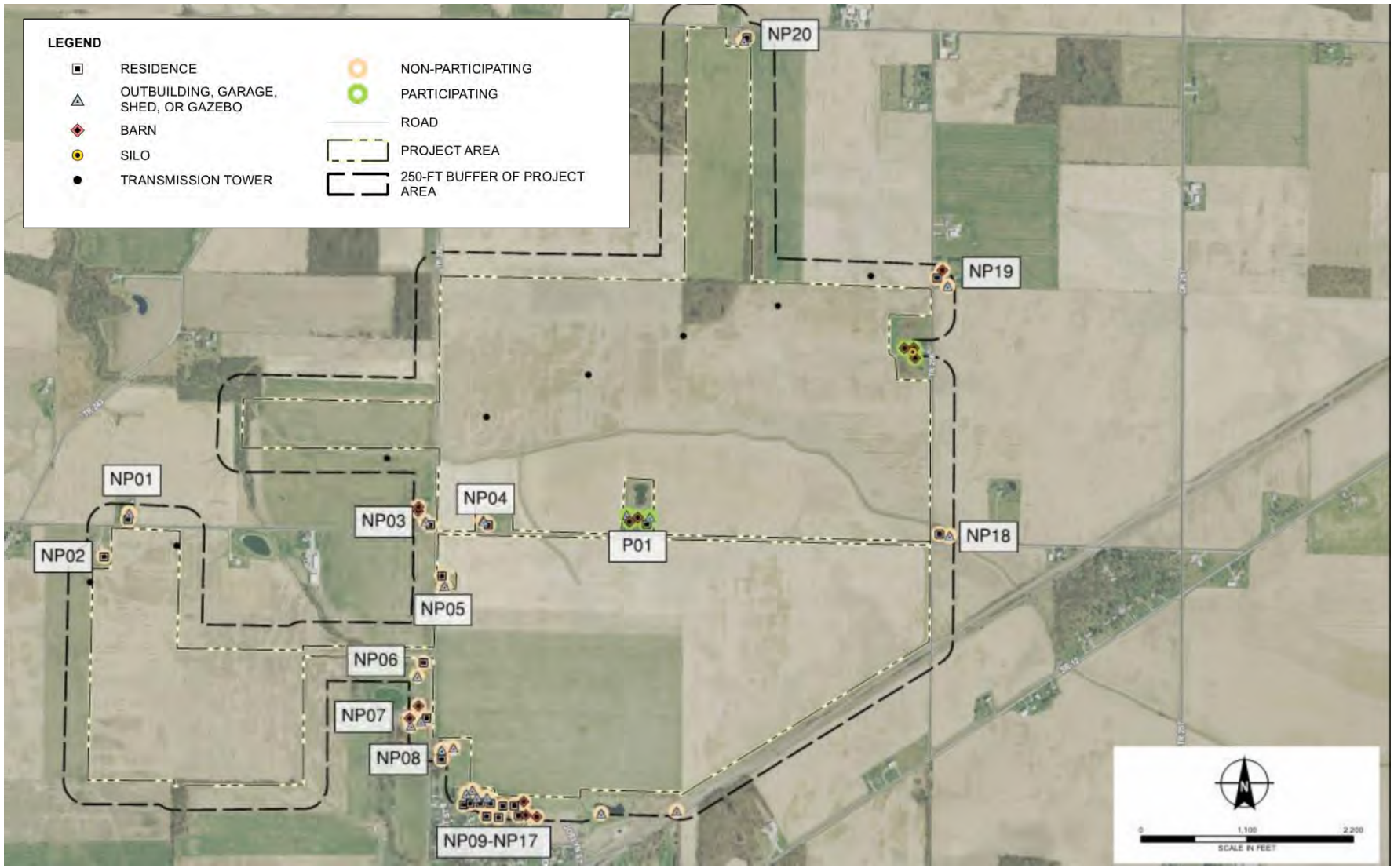


Table 4: Modeling Results

Receiver	Ambient (dBA)		Calculated Project Only Sound Level (dBA)		Combined Future Sound Level (dBA)		Expected Increase over Ambient (dB)	
	Day	Night	Day	Night	Day	Night	Day	Night
P01	52	51	46	37	53	51	1	0
NP01	52	51	37	29	52	51	0	0
NP02	52	51	39	29	52	51	0	0
NP03	52	51	41	35	52	51	0	0
NP04	52	51	44	37	53	51	1	0
NP05	52	51	43	35	53	51	1	0
NP06	52	51	42	31	52	51	0	0
NP07	52	51	41	30	52	51	0	0
NP08	52	51	39	29	52	51	0	0
NP09	52	51	38	28	52	51	0	0
NP10	52	51	38	28	52	51	0	0
NP11	52	51	39	29	52	51	0	0
NP12	52	51	39	29	52	51	0	0
NP13	52	51	39	29	52	51	0	0
NP14	52	51	40	29	52	51	0	0
NP15	52	51	38	28	52	51	0	0
NP16	52	51	38	28	52	51	0	0
NP17	52	51	39	28	52	51	0	0
NP18	52	51	41	29	52	51	0	0
NP19	50	46	38	30	50	46	0	0
NP20	50	46	39	31	50	46	0	0

FIGURE 5: Project-Only Daytime Sound Contours (dBA)

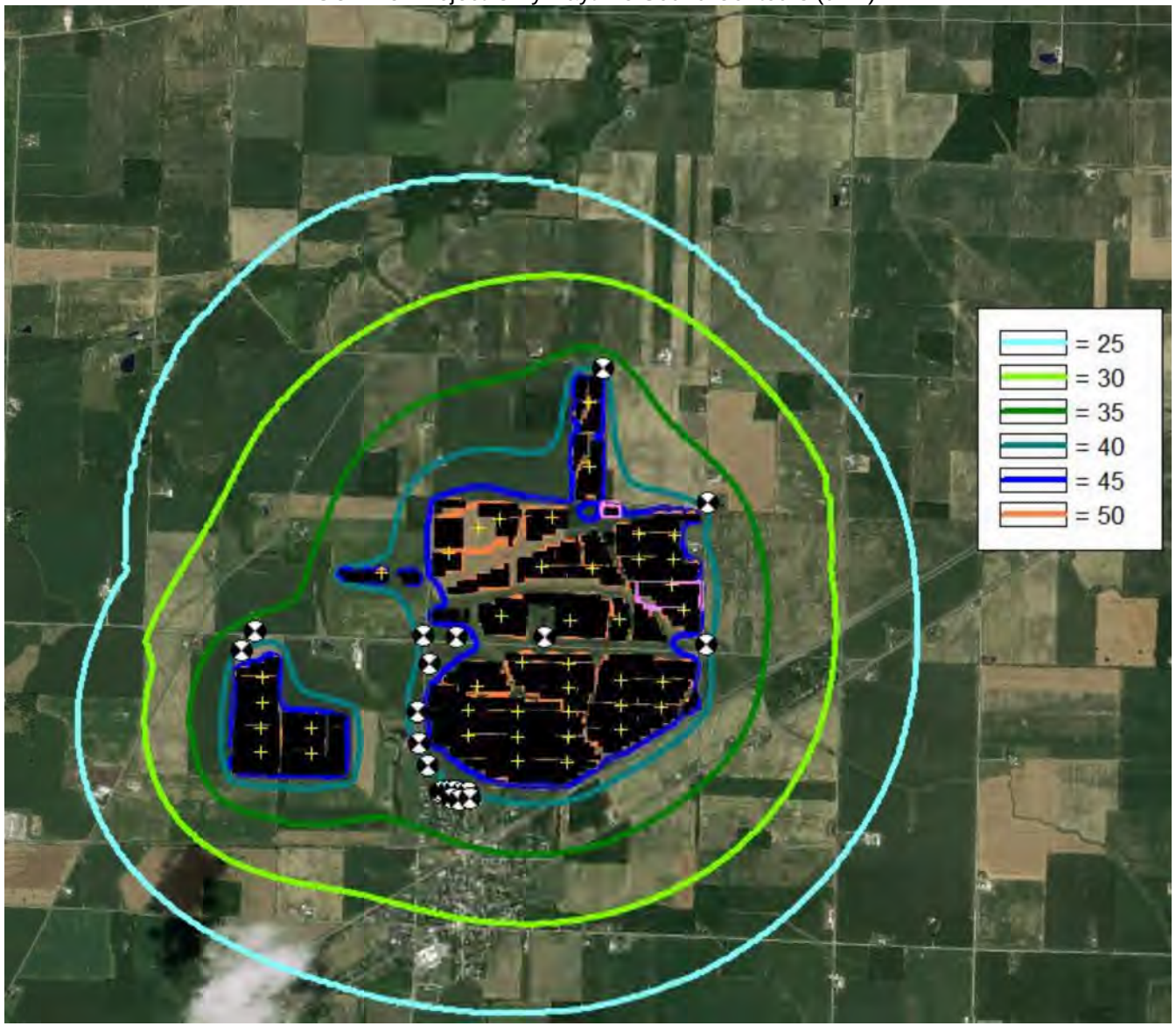
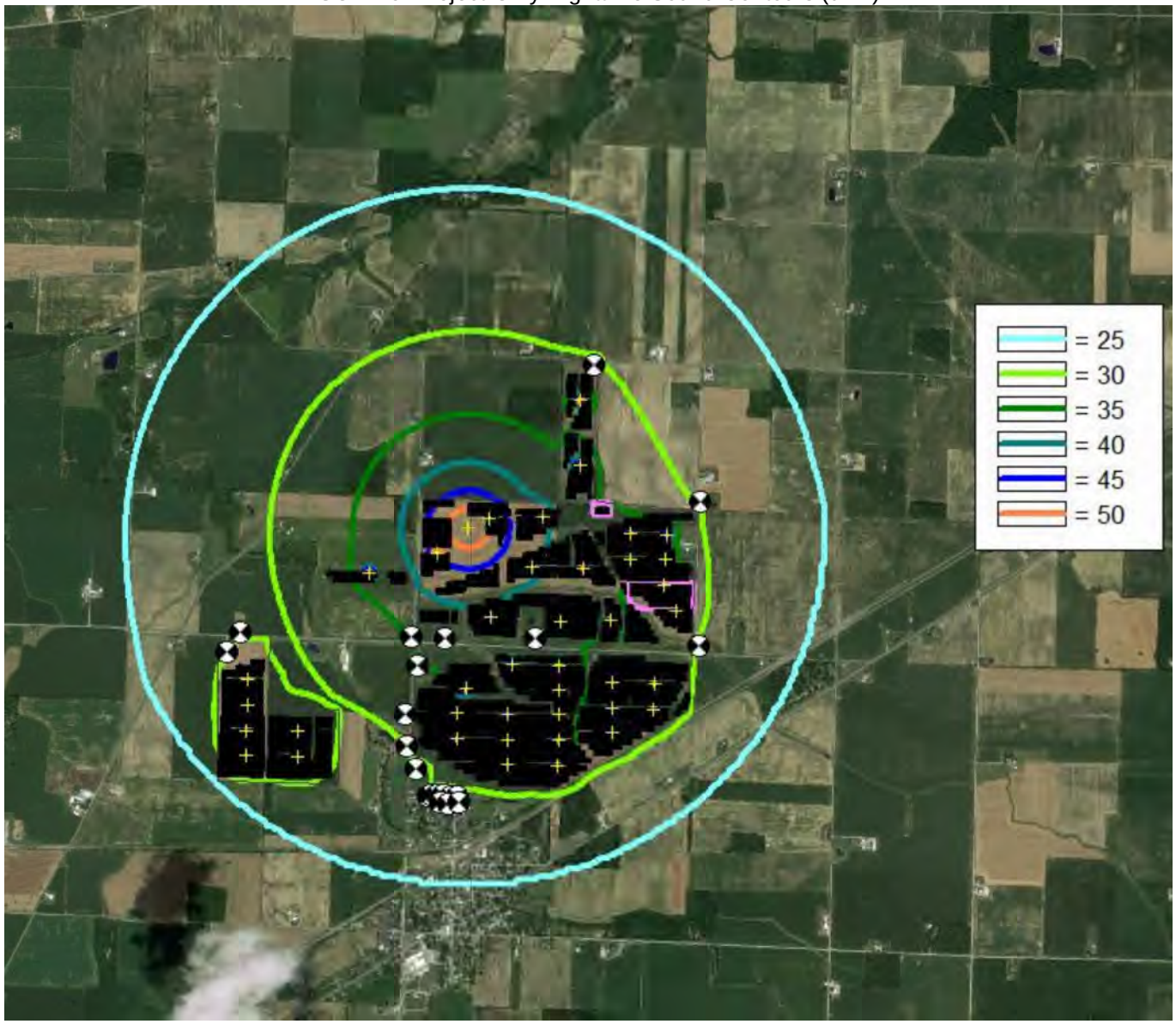
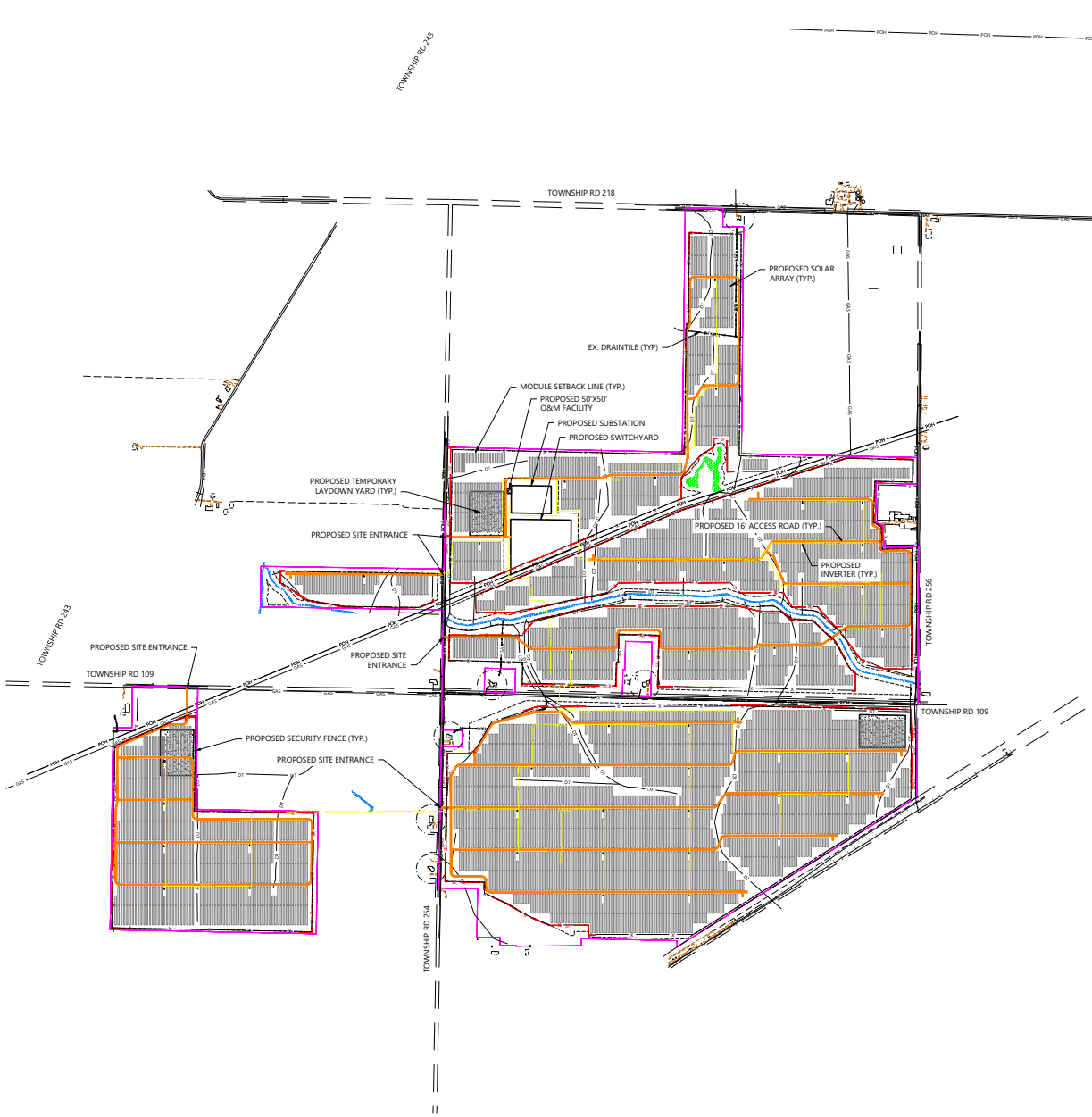


FIGURE 6: Project-Only Nighttime Sound Contours (dBA)



Appendix A – Site Plan



LEGEND:

- PROJECT BOUNDARY
- SECTION LINES
- RIGHT-OF-WAY LINES
- EASEMENT LINES
- EX. TREELINE
- EX. PAVED ROAD
- EX. GRAVEL ROAD
- EX. DRIVEWAY
- EX. RAILROAD
- EX. FENCE LINE
- EX. OVERHEAD POWER
- EX. GAS PIPELINE
- EX. DRAINTILE
- EX. SEPTIC LINE
- PROPOSED FENCE SETBACK LINE
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SILT FENCE
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED COLLECTION
- PROPOSED LAYDOWN YARD
- PROPOSED SUBSTATION/SWITCHYARD
- PROPOSED O&M FACILITY
- DELINEATED WETLANDS
- DELINEATED STREAMS

SYSTEM SPECIFICATIONS	
SYSTEM SIZE - MWDC	160.21
SYSTEM SIZE - MWAC (AT POI)	129.6
DC/AC (AT INVERTER)	1.17
MODULE MODEL	LONGI LR5 72HBD-540M
MODULE RATING (W)	540
MODULE QUANTITY	296,676
STRINGS (27 MODULES PER STRING)	10,988
INVERTER QUANTITY	40

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

LEEWARD RENEWABLE ENERGY

6688 N CENTRAL EXPRESSWAY, SUITE 500
DALLAS, TX 75206

REVISIONS:

#	DATE	COMMENT

0' 600' 1200' 1800'

South Branch Solar

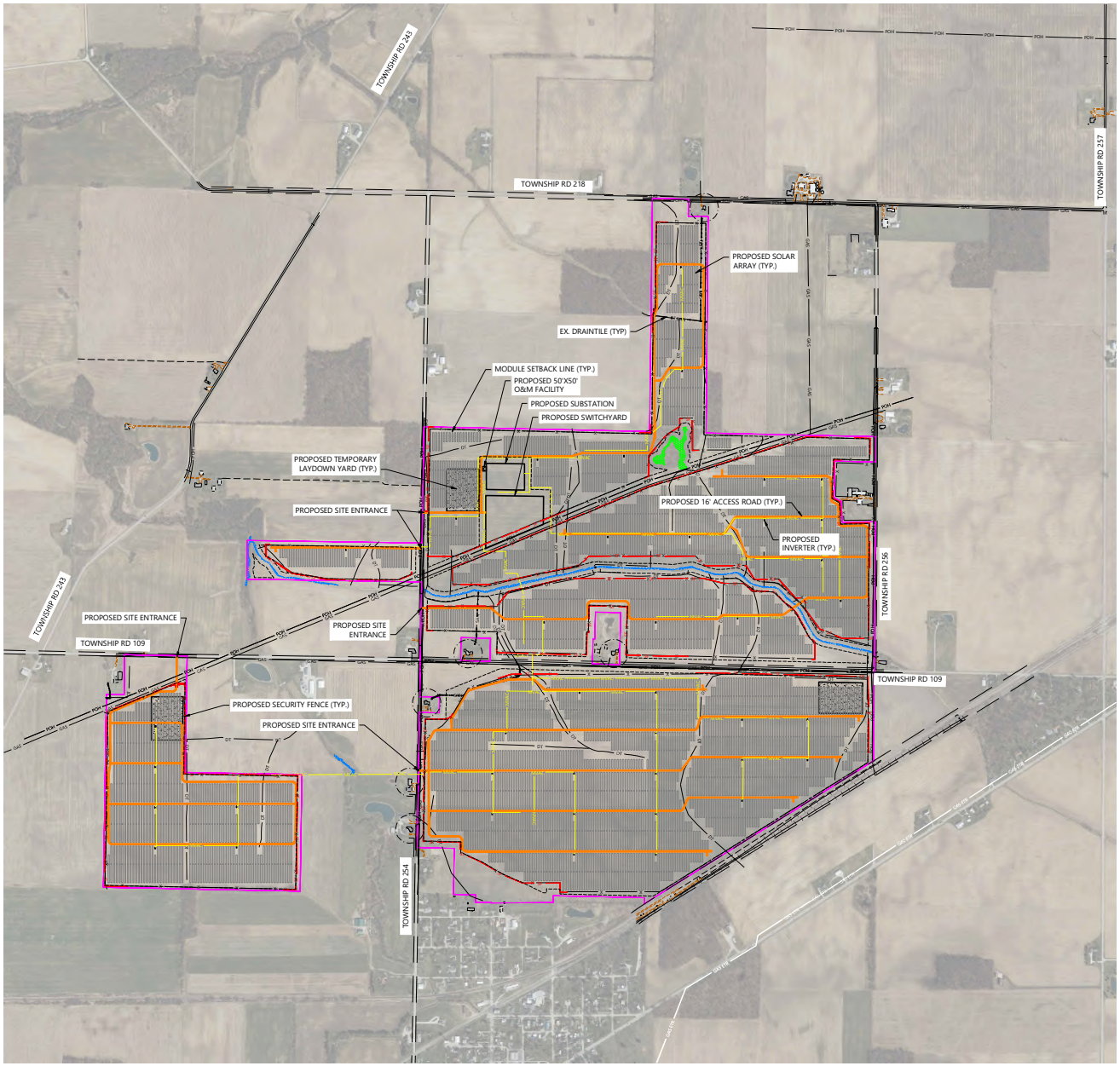
Hancock County, OH

Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 11/16/2021

SHEET: C.100



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REVISIONS:

#	DATE	COMMENT

0' 600' 1200' 1800'

South Branch Solar

Hancock County, OH

Overall Site Plan

NOT FOR CONSTRUCTION

DATE: 11/16/2021

SHEET: C.101

UPDATED APPENDIX Q

ADDITIONAL CULTURAL RESOURCES CONSULTATION

Request for Additional SHPO Review – November 2021

HALEY & ALDRICH, INC.
3 Bedford Farms Drive
Bedford, NH 03110
603.625.5353

November 23, 2021

Ohio History Connection
800 E. 17th Avenue
Columbus, OH 43211

Attention: Kristen Koehlinger
Project Reviews Manager

Subject: South Branch Solar Historic Architecture Survey – 2021-HAN-51637

Dear Ms. Koehlinger:

Thank you for your letter of November 18, 2021 confirming that no adverse effect from the proposed project on historic structures is anticipated. To support this position, you had recommended that the planned vegetative screening between the project and resource S-149 be documented in a Memorandum of Understanding between the applicant and your office as the basis for determining that effects on that resource would be minimized.

As discussed, the project is preparing to submit to the Ohio Power Siting Board an adjusted layout that would not add property, but rather would eliminate parcels previously proposed for use. Figure 1 illustrates the now-proposed Project Area. With the adjusted Project Area, resource S-149 would be located approximately 1 mile from the Project Area boundaries.

Given this distance, we believe that no impact would result to resource S-149 and that a Memorandum of Understanding would not be required. We look forward to your review of this information, and to additional coordination with your office, as appropriate.

Sincerely yours,

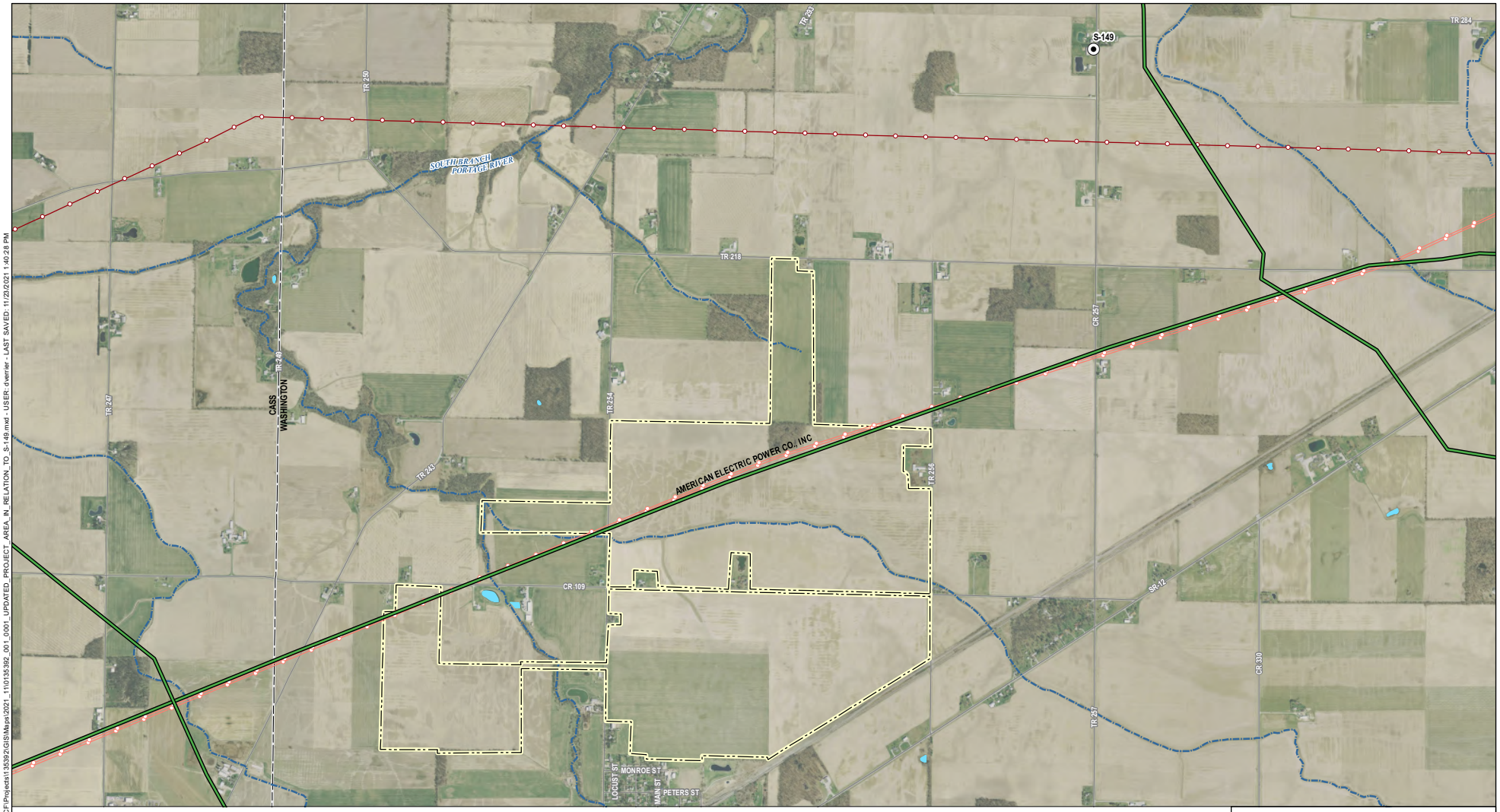
HALEY & ALDRICH, INC.

Lynn Gresock

Lynn Gresock
Principal Consultant

cc: Diana Welling

\\haleyaldrich.com\share\CF\Projects\135392\Cultural Resources\Historic Structures\South Branch Solar - Historic Architecture Followup_11-23-21.docx



LEGEND

- S-149
- 138kV TRANSMISSION LINE
- 345kV TRANSMISSION LINE
- NATURAL GAS PIPELINE
- STREAM OR RIVER
- ROAD
- LAKE OR POND
- TOWNSHIP BOUNDARY
- PROJECT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. kV = KILOVOLTS
3. STREAMS, RIVERS, AND WATERBODIES DATA SOURCE: USGS NATIONAL HYDROGRAPHY DATASET (NHD)
4. ELECTRIC TRANSMISSION LINES DATA SOURCE: DEPARTMENT OF HOMELAND SECURITY (DHS) HOMELAND INFRASTRUCTURE FOUNDATION-LEVEL DATA (HIFLD)
5. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
6. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
7. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

N

0 1,500 3,000
SCALE IN FEET

HALEY ALDRICH

Figure 1
Updated Project Area in Relation to S-149

South Branch Solar
Hancock County, Ohio

GIS FILE PATH: \\haleyaldrich.com\share\CFI\Projects\135392\GIS\Maps\2021_1110135392_001_0001_UPDATED_PROJECT_AREA_IN_RELATION_TO_S-149.mxd - USER: dwerrier - LAST SAVED: 11/29/2021 1:40:28 PM

SHPO Review Letter – November 2021

In reply, please refer to:
2021-HAN-51637

November 18, 2021

Lynn Grescok
Haley & Aldrich, Inc.
3 Bedford Farms Drive, Ste 301
Bedford, New Hampshire 03110

RE: South Branch Solar Project – Revised History-Architecture Reconnaissance Survey
Washington Township, Hancock County, Ohio

Dear Ms. Grescok:

This letter is in response to correspondence received on September 10, 2021, and additional information received on October 20, 2021. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *History/Architecture Investigations for the 404.7ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock, Ohio* (Weller, 2021), revised based on comments provided by the SHPO office on October 7, 2021. In the report, two hundred three (203) properties were surveyed. Of these properties, two (2) were recommended as eligible for listing in the National Register of Historic Places (NRHP), and all were recommended as having no adverse effect from the proposed project. The SHPO agrees with these recommendations, except for resource S-149 (1316 County Road 257). It is the opinion of the SHPO that this property, although altered, retains enough integrity to be eligible under Criteria A and C. In addition, because this property shares a boundary line with the proposed project, we feel this is an adverse effect on the eligible property.

In the information received on October 20, we were informed that applicant in planning to install vegetative screening along the northern and eastern edges of the project area. This will help minimize the adverse effect the project will have on resource S-149. It is recommended that this mitigation be memorialized in a Memorandum of Understanding between the applicant at the SHPO.

Please note that this determination of effects is for above ground resources only. The archaeological component of the project is being coordinated separately. Our office looks forward to additional coordination for the project with Haley & Aldrich, Inc.

If you have any questions, please contact me at kkoehlinger@ohiohistory.org or (614) 298-2000. Thank you for your cooperation.

Sincerely,

Diana Welling, Department Head & Deputy State Historic Preservation Officer for Resource Protection and Review

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

RPR Serial No: 1090556

Historic Architecture Investigation Report

History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

Austin White

October 20, 2021

1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435
Fax: 614.485.9439
www.wellercrm.com

History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

By

Austin White

Submitted By:

Weller & Associates, Inc.
1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435 Fax: 614.485.9439

Prepared For:

Haley & Aldrich, Inc.
3 Bedford Farms Drive
Bedford, NH 03110

Lead Agency:

Ohio Power Siting Board (OPSB)

Austin White, P.I.

October 20, 2021

W-2914

Abstract

In May, July, and August of 2021, Weller & Associates, Inc. (Weller) conducted History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project (the Project) in Washington Township, Hancock County, Ohio (the Project Area) for which the Ohio Power Siting Board (OPSB) is the lead agency. The work was conducted in a manner suitable for a Section 106 survey and report format for submission if a federal agency were to be involved. Therefore, Weller recommends a finding of "no adverse effect to historic properties" for this Project.

The Project is a proposed solar facility. At the time of these investigations, the Project properties were in use as agricultural fields.

The literature review (conducted for a 5-mile radius around the Project Area, herein referred to as the study area) identified 40 previously recorded Ohio Historic Inventory resources; only four of these are located within 2 miles of the Project Area, and none were determined to be National Register of Historic Places (NRHP) eligible. Four NRHP properties (including a district) were identified, although none were located within 2 miles of the Project Area. The four Determination of Eligibility (DOE) properties identified were the same properties later determined to be NRHP eligible. A total of 15 Ohio Genealogical Society cemeteries (OGS) were identified within 5 miles of the Project Area, although all were located within settlements where line-of-sight toward the Project Area was obscured. A total of 43 Ohio Archaeological Inventory (OAI) sites were identified within 5 miles of the Project Area, although only one was located within 2 miles of the Project Area. Finally, 24 previously conducted cultural resource management surveys were identified within the 5-mile Study Area. None of these that were confirmed to be extant are located within or have any intercept with the current Project properties. Most of the previously recorded architectural resources and properties are located within or on the edge of urban centers, notably the City of Fostoria.

The field survey was conducted for an Area of Potential Effect (APE) defined as a 2-mile radius from the Project Area (the Survey Area), with northern portions of the Village of Arcadia evaluated but not documented due to structure density and obstructed line-of-sight. A total of 202 field recorded resources and four reidentified previously recorded OHIs were identified in the Survey Area, including the Village of Arcadia, located immediately south of the Project Area. Two OHI forms were also completed for the field recorded AR-10/ HAN0072605 and S-131/HAN0072705 resources, located approximately 0.42 miles and 1.3 mile south of the Project Area, respectively, and in the case of the latter resource, south of the Village of Arcadia. It is Weller's opinion that these resources are eligible for individual listing on the NRHP under Criterion C.

The Assessment of Effects for AR-10/ HAN0072605 and S-131/HAN0072705 determined that, due to nearly two-mile distance and sufficient screening by

vegetation and buildings (notably, the Village of Arcadia is located between the latter property and the Project Area), the Project would not constitute an adverse effect on these two resources.

The remaining 200 field recorded and four re-identified previously recorded OHIs within the Study Area are ineligible for listing in the NRHP under Criteria A, B, and C due to a lack of associative significance, a loss of character defining features, and extensive alterations, including additions inconsistent with original structure style.

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290. East view of S-181 from Township Road 254, Washington Township, Hancock County.
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294. Southwest view of HAN0066705, Washington Township, Hancock County.
295. Southeast view of S-183 from Township Road 254, Washington Township, Hancock County.
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297. Northwest view of S-185 from the intersection of County Road 214 and Township Road 248, Cass Township, Hancock County.
298. Northwest view of S-186 from Township Road 218, Cass Township, Hancock County.
299. Southwest view of S-187 from Township Road 218, Cass Township, Hancock County.
300. North view of S-188 from Township Road 218, Cass Township, Hancock County.
301. East view of S-189 from Township Road 247, Cass Township, Hancock County.
302. South view of S-190 from County Road 209, Washington Township, Hancock County.
303. View of 79001942/ “Tanglewood” and Project Area obscured by vegetations and distance, facing southwest from North Union Street, Fostoria.

Introduction

In May, July, and August of 2021, Weller & Associates, Inc. (Weller) conducted History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project (the Project) in Washington Township, Hancock County, Ohio (the Project Area), shown on Figure 1. These investigations were necessary to identify any sites or properties and to evaluate them for the National Register of Historic Places (NRHP) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]). This report summarizes the results of the literature review and field work.

The investigations were conducted in two parts: a history/architecture survey and archaeological investigation. This report covers the results of the history/architecture survey of the properties that may be affected by the proposed development of the Project, the construction of a solar facility. The results of the archaeological investigations were presented in a separate report.

The archival research, report authoring, and the documentation of properties in the field reflected in this report were conducted by Austin White, the Principal Investigator for architectural history investigation for this Project. Mapping and figures were generated by Nikki DeWitt, who assisted with the field survey along with Scott McIntosh and John Sidor. The archival research was conducted in April 2021, and the field survey was conducted on May 5, 10, and 19, and July 12 through 16, 19 and 21, and August 6, 2021.

General Project Description

The Project is a proposed up to 205-megawatt solar facility. At the time of these investigations, the Project Area was in use as agricultural fields, with overhead electric transmission lines extending across the area.

Research Design

The purpose of the history/architecture review for the Project was to identify any historic properties in the area that may be affected by the proposed development of the Project. These effects may be direct or indirect. Direct effects would occur within the boundaries of the Project, while indirect effects can occur for areas outside the direct boundaries and can include visual, audible, and atmospheric effects that are associated with the development of a given project. Consistent with correspondence received from the Ohio State Historic Preservation Office (SHPO) regarding the History Architecture Work Plan on July 6, 2021, Weller utilized a five-mile radius around the Project Area for the literature review (the Study Area) and conducted field survey for a 2-mile radius around the Project Area (Survey Area). This included a field review of listed resources within the 2-mile Area of Potential Effect (APE), as well as a survey of resources 50 years of age or older. Within the more densely settle area of the Village of Arcadia, resources were examined throughout, but this report has focused on those

resources located within potential line-of-sight of the Project

Architectural Field Methods

This survey was conducted following the guidelines established in *Archeology and Preservation: Secretary of the Interior's Standards and Guidelines* (National Park Service 1983), *Guidelines for Local Surveys: A Basis for Preservation Planning. National Register Bulletin No. 24* (National Park Service 1997), and *Guidelines for Conducting History/Architecture Surveys in Ohio* (OHPO 2014). When properties are identified, they are subjected to the guidelines outlined in National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation (National Park Service 1996).

There are four criteria for eligibility to be listed in the NRHP. Only one of these criteria must be met to be considered eligible for listing; however, oftentimes more than one of the criteria is met. The criteria for significance include:

A. Association with historic events or patterns of events;
B. Association with persons important to our past;
C. Exceptional or important architectural characteristics; and/or
D. Data potential.

Architectural properties typically qualify under Criteria A, B, or C. Criterion D is typically reserved for archaeological sites.

In addition to meeting at least one of the established criteria, the appropriate integrity must also be retained by the resource. There must be integrity of location, design, workmanship, setting, materials, feeling, and association. This is often considered a threshold matter in determining potential eligibility.

Prior to commencing fieldwork, a literature review was conducted to determine if any previously recorded architectural properties, NRHP properties, or Ohio Genealogical Society (OGS) cemeteries were present within the 5-mile Study Area or 2-mile Survey Area. Historic maps were also reviewed to aid in guiding the fieldwork and detecting the possible presence of significant resources within the Survey Area. Background research was also conducted in order to establish a historic context of the region. The context was compiled by utilizing materials from the SHPO, archival materials at the respective county courthouses, local libraries, and several online resources. The establishment of the historic context helped to guide the interpretation of the field survey results.

The field survey evaluated the 2-mile Survey Area for the Project. However, within the more densely settled Village of Arcadia, intervening structures blocked line-of-sight towards the Project Area, as field-verified. Therefore, for structures within the Village of Arcadia, the focus was on those located most proximate to the Project Area. The survey otherwise included a systematic assessment to identifying all other resources within 2 miles of the Project Area. Each resource identified within the Survey Area was photographed, annotated on appropriate mapping, and is addressed in this report. The approach was to first identify those properties with NRHP potential. For any properties considered to have eligibility potential, additional evaluation was provided, and an Ohio Historic Inventory (OHI) form was completed. Note that, at the request of the SHPO, Weller also prepared OHI forms reflecting common architecture types within the Survey Area, even when not considered potentially eligible.

Weller focused on the ground plan, the height, and the roof configuration of each structure, noting all visible materials, appendages, extensions, or other alterations. Housing types and structural details within the report and utilized on OHI forms follow the terminology used by geographers Jakle, Bastian, and Meyer (1988), architectural historians McAlester and McAlester (2013), and Gordon (1992). Weller supplemented the field survey data with an examination of available tax records, aerial photographs, and cartographic sources.

Definitions

Within this report, an *architectural resource* is defined as an aboveground building or structure that is 50 years of age or older. A *historic property* is defined as a building, structure, object, or site that is listed in, or considered eligible for listing in, the NRHP. An *effect* is defined as an activity associated with the Project that alters a characteristic of a historic property that qualified it for inclusion in the NRHP.

Historic Context

Hancock County History

Hancock County was originally part of the Northwestern Territory ceded by Virginia to the United States Government and was organized in 1828. Its namesake is John Hancock, signer of the Declaration of Independence and person of political significance during the Revolutionary War. The county is located in northwestern Ohio. The Defiance Moraine is the dominant landform that bisects the county from east to west and through its central part. The southern part of the county is Till Plain while the northern part is in the Lake Plain (Brockman 1998). The Blanchard River and its tributaries drain the southern majority of the county. This drainage runs along the Defiance Moraine and is the source of occasional inundations. The northern part of the county is drained by streams that flow to Lake Erie, including Middle Branch Portage River. Immigrants to the county were primarily arriving to till the soil.

Early inhabitants of the county were generally focused along the drainages, and

particularly the Blanchard River. Initially, settlement was at Fort Findlay, a War of 1812 stockade. Native American groups were occupying the area at this time as well, including those from the Wyandot Tribe and, further down river, the Ottawa. Shawnee were known to the area as well. One of the first inhabitants of the county and the region was Jean Jacques Blanchard who immigrated to the area in 1769. Blanchard was a Frenchman that originated from New Orleans and settled along his namesake river after marrying a Native American woman (Beardsley 1881; Brown 1886; Spaythe 1903). Some of the early activity in the county was during the War of 1812. It was in that year that General Hull's campaign passed through the county leaving a path referred to as "Hull's Trail". Hull ordered the construction of Fort Findlay, located on the Blanchard River. The fort was named for Colonel James Findlay. This would become the site of the first Euro-American occupant of the county by a soldier named Thorp or Tharp who resided in Fort Findlay in the War of 1812 and remained there after its evacuation (Beardsley 1881). The Benjamin Cox family was among Findlay's first Euro-American settlers.

The influx of settlers to the county was happening just after the War of 1812 and into the 1820s. These settlers inhabited the area around Findlay and the river and were primarily focused on agriculture. Log cabins would often have double functions as taverns or for trades such as blacksmith or farrier. Grist and sawmills soon followed to serve the growing agricultural community.

The transportation of goods and travel routes in the county was originally via pirogues that navigated the Blanchard River to the Auglaize River and eventually to the Maumee River. Cross country trade was usually made by travel to Sandusky City to access markets such as New York. The early road systems were located along the various ridges and elevations in the county, which served as natural corridors. The growth of the county was furthered by the construction of various railroads, starting in 1839 with the Bellefontaine & Perrysburg. Numerous other railroads would spring up and continue to be constructed to about 1900. Many of these were local lines but were significant in the economic development and prosperity of the county. The connection to the eastern market economies for the sale and transport of agricultural products is typically what the smaller communities relied upon. Still, the communities of Findlay and Bluffton tended to be the center of attention and activity. Findlay, being centrally located, was an easy choice for the county seat (Beardsley 1881; Brown 1886; Spaythe 1903).

The exploitation of mineral resources in the county happened amidst the Industrial Revolution. It was in the 1880s that oil and gas were discovered, and it has been valuable to the local economy ever since. Agriculture remains a vital source of the local economy to the area. There has been an increase in the development of industrial and business economy throughout the central part of the county and extending to Bluffton due to the accessibility to Interstate-75. This is particularly pronounced around Findlay, Bluffton, and increasingly more to the north. According to the most recent census, the county has over 74,000 inhabitants. There are two primary colleges in the county including Bluffton and Findlay, which contribute to the

demographics.

Washington Township History

Washington Township, named after President George Washington, organized in 1832. Washington Township is located in the northeast corner of Hancock, north of Big Lick Township, east of Cass Township, south of Wood County, and west of Seneca County. The Portage River, the east and middle branch of the Portage River, and several unnamed tributaries flow through the township. Lake Lamberjack, Veterans Memorial Reservoir, Fostoria Reservoir, and Mosier Lake are in the northeast corner of the township. Highways 613, 18, and 12 run through the township. The Norfolk & Western and the Baltimore and Ohio railroads run through the township. The township is mostly hilly woodland and farmland (Beardsley 1881).

John Gersuch of Wayne County, Ohio made the first land purchase in the township in December 1830 and moved to the township in April 1831. Land purchases in 1831 included James Connelly, John Norris, Richard Cole, and Thomas Kelley. The first schoolhouse in the township was built in about 1833 with Isaac Wiseman as the teacher on James Wiseman's farm. By the 1880s, the township had nine schools. The Lake Erie & Western Railroad, that ran northeast to southwest, and the Continental Road (later the New York, Chicago, & St. Louis Rail Way), that ran east and west in the township, crossed at Arcadia. By the 1880s the township had a population of over 2,000. Methodists built the first church in 1832. Other churches in the township included Evangelical Lutheran, Presbyterian, German Reformed, German Baptist, and United Brethren (Beardsley 1881).

John Gorsuch platted Risdon, named for Daniel Risdon, in 1832. The town post office was established in 1837 with Alvin Coles as postmaster. The town merged with Rome in Seneca County to form Fostoria, named for Charles W. Foster, in 1855. Most of Fostoria sits in Seneca County. The town was the home of College of the United Brethren (Beardsley 1881; Brown 1886).

David Peters and Ambrose Peters platted Arcadia in July 1855, where soon the Lake Erie & Western Railroad and the New York, Chicago, & St. Louis Rail Way would cross. The Lake & Western Railroad came to the town in 1859 and then the New York, Chicago, and St. Louis Railroad crossed the town in 1881. The Toledo, Fostoria, & Findlay Electric Line ran from Findlay to Fostoria paralleling the Lake Erie & Western. David Peters opened the first store. In about 1859 Samuel Blackford built a steam powered grist mill in the town. In 1859 Arcadia incorporated and gained a post office with A.W. Fredrick as postmaster. Industry in the town included handle factories, a broom factory, a pump factory, a saw and planing mill, a concrete factory, and more. By the 1880s the town had a population of about 500. Churches in the town included Methodist, Presbyterian, and Lutheran. Societies in the town included an Odd Fellows, Knights of Pythias, Rathburn Sisters, Maccabes, Lions, and Modern Woodsmen lodges (Beardsley 1881; Brown 1886).

Village of Arcadia History

The Village of Arcadia was settled in 1833 as one of eastern Hancock County's last permanently settled communities. Arcadia is located in western Washington Township, approximately eight miles northeast of the county seat of Findley at the junction of Hancock, Wood, and Seneca Counties (Beardsley 1881; U.S. Census 2010). It was planned and settled by Ambrose, David, and Ephraim Peters on the south edge of what is called Wild Cat Thicket, with additions by Charles Jordan and William Wheelan (Beardsley 1881). The current name was likely inspired by Arcadia, Greece (Overman 1958). Before their arrival, the area was occupied by the Wyandot tribe, who remained after Euro-American settlement. Early on, the Wyandots were purportedly friendly and accommodating to the new arrivals. Arcadia was officially incorporated in 1859 and, soon after, the Lake Erie & Western and the New York, Chicago & St. Louis railroads entered the village, spurring a bustling railroad community. Arcadia's Historical Marker also lists dates of importance for the community: Methodist Episcopal Society established during the 1830s; the first log schoolhouse built in 1833; 135 lots laid out in 1855; four physicians in practice by 1863; Lutheran church built in 1872; two hotels, a drug store, a broom factory, and a handle factory in business by the 1880s; a coal-gas plant for heat and light erected in 1889; Reeves Park, located on the east edge of town, established early twentieth century; and an electric plant erected in 1916. Arcadia today remains a small but productive industrial community with three schools, and a variety of manufacturing, dining, and financial establishments (Village of Arcadia 2021).

Literature Review

The literature review for this Project was completed for a 8.04 km (5.0 mi) Study Area around the Project Area to determine the presence of historic properties. In conducting the literature review, the following resources were consulted at SHPO, at the Columbus Metropolitan Library, at the State Library of Ohio, and from various online resources:

1) *An Archeological Atlas of Ohio* (Mills 1914);
2) SHPO United States Geological Survey (USGS) 7.5' series topographic maps;
3) Ohio Archaeological Inventory (OAI) files;
4) OHI files;
5) NRHP files;
6) SHPO consensus Determination of Eligibility (DOE) files;
7) SHPO Cultural Resource Management (CRM)/contract archaeology files;
8) Franklin County atlases, histories, historic USGS 15'series topographic map(s), and current USGS 7.5' series topographic map(s); and
9) Online Genealogical Society (OGS) Resources.

A review of SHPO records identified 40 previously recorded OHI resources, four NRHP properties (including a district), four DOE properties, 15 Ohio Genealogical Society (OGS) cemeteries, 43 OAI sites, and 24 previously conducted CRM surveys

within the Study Area (Figures 2 through 17). No resources or surveys are located within or near the Project Area.

Ohio Historic Inventory File Review

A review of these files found that OHI resources are mostly located within the Village of Fostoria, located just inside Seneca County in the northeastern portion of the 5-mile Study Area (Figures 2-17; Table 1). The remaining resources are located in Hancock and Wood Counties, the latter located within the northern portion of the 5-mile Study Area. These principally lie along a railroad right-of-way in the north, and Route 12 in the south. Two resources are situated in the center of the Village of Bloomdale, Wood County. Of the 40 OHI resources identified, the majority are greater than 2 miles from the Project Area. Each of the four OHI resources located within the 2-mile Survey Area have been determined not to be eligible for listing on the NRHP.

Table 1. Previously Recorded Ohio Historic Inventory Resources Identified in the 2-Mile Survey Area and 5-Mile Study Area.

Reference #	Present Name	Address	Place Name	Architectural Style	Date	Distance
HAN0000610	Enon Valley Presbyterian Church	U S Route 224	Biglick (Township of)	Vernacular	1888	5-Mile
HAN0001719	Fostoria Mausoleum Assn	Fountain Cemetery	Fostoria	Neo-Classical Revival	1916	5-Mile
HAN0007319	Elwood G Kimes House	707 N County Line St	Fostoria	Greek Revival	1836	5-Mile
HAN0042105	Ray German House	304 E Brown Rd	Arcadia	Bungalow	1920	2-Mile
HAN0059905	Carl Martinez Bridal Shop	SR 12	Washington (Township of)	Bungalow	1925	2-Mile
HAN0060005	Chester Wedge Farm	22527 SR 12	Washington (Township of)	Colonial Revival	1920	5-Mile
	BP& C Railroad	TR 262 north of CR 226	Washington (Township)	Railroad	1873-1874	5-Mile
HAN0060705	Delarosa House	22540 CR 226	Washington (Township)	Vernacular	c.1930	5-Mile
HAN0060819	CSX Railroad	Ccrosses W Tiffin St at Independence Ave	Fostoria		1873	5-Mile
HAN0060919	Haaser House	1005 W Tiffin St	Fostoria		1930	5-Mile
HAN0061019	Gas Co Building	btwn 911 W Tiffin & 203 Independence	Fostoria		1930	5-Mile
HAN0061119	Showman House	840 W Tiffin St	Fostoria		1870	5-Mile
HAN0066505	CSX Railroad; SR 18	SR 18	Washington (Township of)	No academic style - Vernacular	c.1873-present	2-Mile
HAN0066705	Norfolk Southern RR, TR 261	TR 261	Fostoria	No academic style - Vernacular	c.1853-present	2-Mile
SEN0060506	Fostoria Historical Society Museum	W North St	Fostoria	Italianate	1875	5-Mile
SEN0064606	Eldon & Leona Good House	957 N Union St	Fostoria	Italianate	1865	5-Mile
SEN0120406	Carl Painter Rental	296 Boston Ave	Fostoria	Vernacular	1870	5-Mile
SEN0120706	Davila House	207 S Town St	Fostoria	Vernacular	1940	5-Mile
SEN0120806		E Tiffin St, W of Town St	Fostoria	Vernacular	1927	5-Mile
SEN0120906	Duplex	215-217 S Town St	Fostoria	Vernacular	1905	5-Mile
SEN0121006	House	219 S Town St	Fostoria	Vernacular	1927	5-Mile

SEN0121106	House	221 S Town St	Fostoria	Vernacular	1905	5-Mile
SEN0121206	Shaw House	515 Bulger Ave	Fostoria	Vernacular	1927	5-Mile
SEN0121306	Norfolk & Western RR	crosses S Town St, N of Bulger Ave	Fostoria		1881	5-Mile
SEN0121406	Pelton's Supermarket, Paint & Hdwre	418 S Town St	Fostoria	Vernacular	1950	5-Mile
SEN0121506	Spires House	424 S Town St	Fostoria	Vernacular	1927	5-Mile
SEN0121606	House	426 S Town St	Fostoria	Vernacular	1927	5-Mile
SEN0121706	House	428 S Town St	Fostoria	Bungalow	1927	5-Mile
SEN0121806	House	430 S Town St	Fostoria	Bungalow	1927	5-Mile
SEN0121906	Welly House	380 S Town St	Fostoria	Bungalow	1919	5-Mile
SEN0122006		N of 438 Columbus Ave	Fostoria	Vernacular	1920	5-Mile
SEN0122106	Koon House	429 S Town St	Fostoria	Vernacular	1919	5-Mile
SEN0122206	Laney House	425 S Town St	Fostoria	Vernacular	1927	5-Mile
SEN0122306	Durst House	423 S Town St	Fostoria	Vernacular	1940	5-Mile
SEN0122706	First Presbyterian Church	201 W Fremont St	Fostoria	Late Gothic Revival	1893	5-Mile
SEN0122906	Lowell Elementary School	129 Elm St	Fostoria	Art Moderne	1939	5-Mile
SEN0123107	Sunny Farms I	12608 W TR 108	Loudon (Township of)		1942-1950	5-Mile
WOO0007818	Trinity United Methodist Church	209 N Garfield	Bloomdale	High Victorian Gothic	1888	5-Mile
WOO0007918	Sheldon House	211 N Main St	Bloomdale	Vernacular	1884	5-Mile
WOO0008118	Grange Hall No 2323	Eagleville Rd & Fast Rd	Bloom (Township of)	Greek Revival	1858	5-Mile

National Register of Historic Places/Determinations of Eligibility File Review

A review of the NRHP/DOE identified six records (Figures 2 through 17) within 5 miles of the Project Area. A review of aerial images indicated that the 977314 and 997798 DOEs were demolished sometime between September 2004 and August 2005, and April 2012 and May 2014, respectively. The remaining four are extant properties determined to be eligible for listing in the NRHP, all within the Village of Fostoria, including the Fostoria Downtown Historic District (FDHD) (Figures 2-17; Table 2). The HAN0007319 and SEN0064606 OHI resources, listed in Table 1, are contemporaneous properties, while SEN0060506 is a contributing resource of the 01001065/ FDHD. None of these resources are located within 2 miles of the Project Area. The demolition of the DOE properties was confirmed. The 977314 DOE property is the former Cadawaller Block, a three-story brick building and a contributing resource of the FDHD (Recchie 2001). The 997798 DOE property is the former Lowell School.

Table 2. Previously Recorded NRHP Properties Identified in the 5-mile Study Area.

Reference #	Present Name	Address	Place Name	Architectural Style	Date
01001065	Fostoria Downtown Historic District	North, South, and Main Streets	Fostoria	Italianate, Commercial, Art	1870-1951

				Deco, Modernistic	
78002085	Fostoria Mausoleum	Fostoria Mausoleum	Fostoria	Neo-Classical Revival	1916
79001942/ SEN0064606	Ambrose Cory Residence/ Eldon & Leona Good House	957 North Union St	Fostoria	Italianate	1874
80003095/ HAN0007319	Marcus Dana Residence/ Elwood G. Kimes House	707 North County Line St	Fostoria	Greek Revival	1836

Ohio Genealogical Society Cemetery Review

A review of these files identified 14 cemeteries (Figures 2 through 17) records within 5 miles of the Project Area. The resources are scattered throughout the Study Area, primarily in or near the Villages of Arcadia and Fostoria. Fountain Cemetery contains 78002085/ Fostoria Mausoleum, an individually listed NRHP property located immediately northwest of downtown Fostoria on the edge of the 5-mile Study Area. The cemeteries are internal to higher density settlements and do not have a visual line-of-sight to the Project Area.

Ohio Archaeological Inventory File Review

A review of the OAI files identified a total of 41 previously recorded archaeological sites (Figures 2 through 17; Table 3) within 5 miles of the Project Area. Most of these are associated with prehistoric period artifact scatters. The HK0150, HK0151, HK0656, SE0300, SE0703, SE0777, SE0778, WO0469 sites are associated with historic period artifact scatters. While mostly have unassigned affiliations, a few are associated with Early, Middle, and Late Archaic, and Middle and Late Woodland. HK0068 is the sole site located within the 2-Mile Study Area. Of the 41 records, only one is located within the 2 miles of the Project Area.

Table 3. Previously Recorded Ohio Archaeological Sites Identified in the 2-Mile Survey Area and 5-Mile Study Area.

Reference #	Name/affiliation	Temporal Affiliation	Site Type	Area (Meters Squared)	Distance
HK0006	Prehistoric	Unassigned	Unknown	n/a	5-Mile
HK0040	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0045	Prehistoric	Late Archaic	Scatter	n/a	5-Mile
HK0046	Prehistoric	Late Archaic	Scatter	n/a	5-Mile
HK0047	Prehistoric	Early Archaic	Scatter	n/a	5-Mile
HK0055	Prehistoric	Unassigned	Scatter	1	5-Mile
HK0068	Prehistoric	Unassigned	Scatter	1	2-Mile
HK0104	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0105	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0129	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0130	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0137	Prehistoric	Unassigned	Scatter	1	5-Mile
HK0139	Prehistoric	Unassigned	Scatter	1	5-Mile
HK0142	Prehistoric	Unassigned	Scatter	1	5-Mile

Reference #	Name/affiliation	Temporal Affiliation	Site Type	Area (Meters Squared)	Distance
HK0143	Prehistoric	Middle Archaic, Late Archaic, Middle Woodland	Scatter	n/a	5-Mile
HK0144	Prehistoric	Late Woodland	Scatter	n/a	5-Mile
HK0145	Prehistoric	Unassigned	Scatter	n/a	5-Mile
HK0146	Prehistoric	Unassigned	Scatter	1	5-Mile
HK0147	Prehistoric	Late Archaic	Scatter	n/a	5-Mile
HK0148	Prehistoric	Early Archaic	Scatter	1	5-Mile
HK0149	Prehistoric	Unassigned	Scatter	1	5-Mile
HK0150	Historic	Unassigned	Ceramics, Metal	n/a	5-Mile
HK0151	Historic	Unassigned	Ceramics, Metal	n/a	5-Mile
HK0167	Prehistoric	Late Archaic	Scatter	n/a	5-Mile
HK0656	Historic	19th and 20th Centuries	Ceramics, Metal	1800	5-Mile
HK0786	Prehistoric	Early Archaic	Isolated find	1	5-Mile
HK0788	Prehistoric	Unassigned	Scatter	625	5-Mile
HK0814	Prehistoric	Early Archaic	Scatter	1	5-Mile
SE0296	Prehistoric	Unassigned	Scatter	1	5-Mile
SE0297	Prehistoric	Unassigned	Scatter	1	5-Mile
SE0298	Prehistoric	Unassigned	Scatter	25	5-Mile
SE0299	Prehistoric	Late Woodland, Late Prehistoric	Scatter	1	5-Mile
SE0300	Historic	19th and 20th Centuries	Ceramics	1500	5-Mile
SE0698	Prehistoric	Unassigned	Isolated find	1	5-Mile
SE0699	Prehistoric	Unassigned	Isolated find	1	5-Mile
SE0700	Prehistoric	Unassigned	Isolated find	1	5-Mile
SE0701	Prehistoric	Unassigned	Isolated find	1	5-Mile
SE0703	Historic	Unassigned	Kitchen, Architectural, Other	240	5-Mile
SE0777	Historic	20th Century	Kitchen, Architectural, Other	3400	5-Mile
SE0778	Historic	20th Century	Kitchen, Architectural	450	5-Mile
WO0469	Historic	20th Century	Kitchen	24	5-Mile

Professional Surveys File Review

A review of these files identified 25 previously conducted CRM surveys (Figures 2-117; Table 2; Baker et al. 2001; Biehl 2006; DeRegnaucourt 2003; Haines 2004; Keener 2004 and 2006; Maymon 1998; Meyer 2008; Mustain and Terpstra 2002; Nye and Keener 2005, 2006, 2007; Payette 2005 and 2007; Pratt 1989; Rutter et al. 2001; Skinner and Cramer 1987; Weir 2005; Weller 2010, 2017a, 2017b, and 2017c; Workman 2007 and 2008; Zink 2013). None of these have any overlap with the Project Area. All but one survey (Pratt 1989) are regarded as Phase II. Three surveys regarding cell towers (Meyer 2008; Workman 2008; Weir 2005) occurred within the City of Fostoria and Wood County. Most of the surveys involving history/architecture were conducted within or immediately outside the City of Fostoria.

Atlas & Cartographic Review

Cartographic/atlas resources were reviewed for the Project Area to verify the locations of any buildings or structures that might be involved in this Project. Review of a late nineteenth century atlas (Figure 18) indicates that there are three structures very near the Project Area (that have been deliberately avoided as part of the development area). One of the buildings, associated with the Heistand parcel, is in the eastern part of the property. Buildings are noted on the J. Hosler, and N. Emerine properties (Hardesty 1875). Review of the USGS *1903 Findlay and 1901 Fostoria, Ohio 15 Minute Series (Topographic)* maps were reviewed (Figure 18). It appears that there are three buildings very near the Project Area from the early part of the twentieth century.

APE Definition and NRHP Determination

The APE is a term that must be applied on an individual project basis. The nature of the specific project or undertaking is considered in determining the APE. This may include areas that are off the property or outside of the actual project's boundaries to account for possible visual impacts. Architectural investigations are typically limited to direct and indirect impacts. Direct impacts occur when a resource is located within a project area and is generally subject to demolition, while indirect impacts typically occur when a resource is within the line-of-sight of the project.

The Project will not directly impact any buildings or structures and no historic resources are located within the Project Area. Therefore, the APE for this Project pertains only to the indirect effects of the Project. In coordination with the SHPO, an APE of 2 miles from the Project Area has been identified for field survey.

The Project will consist of the construction of a solar energy facility enclosed by agricultural-style woven wire fencing. The Project's solar panels will be no taller than 15 feet when at maximum tilt. The only other taller Project components will be the substation and switchyard structures, which will be adjacent to and shorter than the existing overhead transmission line that extends through the Project Area. The Project Area is within a rural setting (that has several existing utility corridors extending through it) immediately north of the Village of Arcadia and is surrounded by active agricultural land with scattered single-family residences, farmsteads, and small wooded areas. The most densely populated area proximate to the Project Area is the Village of Arcadia, located to the south.

This analysis evaluated all resources within 2 miles of the Project Area. Within the densely settled area of the Village of Arcadia, resources are only reported for the outer edges closest to the Project Area, as visual line-of-sight is blocked by surrounding structures farther into the Village. Although, as a practical matter, many of the other identified resources may also not be visually influenced by the Project, the analysis conservatively documented the entire remaining area.

No resources are located within the Project Area. A total of 205 resources (including the reidentification of three previously recorded resources) over the age of 50 years were identified and evaluated for potential NRHP eligibility. Within the portion of the Village of Arcadia with potential visual line-of-sight, a total of 12 additional resources were documented, along with the re-identification of one previously recorded resource. Of the 205 resources evaluated, only two were identified with potential NRHP eligibility, as further discussed below.

Architectural Survey Results for the 2-Mile Study Area Outside of the Village of Arcadia

The field survey found that the Project Area is located in an overwhelmingly rural, agricultural setting immediately north of the Village of Arcadia comprised of vast agricultural fields small, wooded lots, farmsteads, and single dwellings (Figures 19 through 302). Overhead electric transmission lines and an underground natural gas pipeline corridor extend through the Project Area, and an active railroad line extends approximately along the Project Area's southern boundary (between the Project Area and the Village of Arcadia).

A total of 190 field recorded resources (185 residences, three schoolhouses, one foundry, and one bridge) and three re-identified previously recorded OHIs (HAN0059905, residence; HAN0066505, railroad; and HAN0066705, railroad) were identified in the 2-mile Survey Area (Figures 20 through 291-302, Table 4; Appendices A and C). The fourth structure previously OHI-recorded is located more than 2 miles from the Project Area. No buildings or structures are located within the Project Area.

The majority of buildings determined to be greater than 50 years old within the 2-mile Survey Area are early mid-to-early twentieth century vernacular farmhouses, mostly I-House, Gabled Ell, Front Gable, Saddlebag, and Hall and Parlor house types, commonly found throughout the region. Other observed structure types included Saltbox, American Foursquare, Cape Cod, and Post-war Ranch house types; modern residences and commercial/industrial structures are interspersed throughout. More recent house types such as Ranches are primarily concentrated immediately outside of the Village of Arcadia, primarily along/near State Route 12. The footprints and appendages of several houses have been excessively altered in a manner not characteristic to the original style and do not constitute a specific house type. With the exception of S-131/ HAN0072705, none of the field recorded resources exhibit high architectural styles, some only with trace elements and are otherwise no defined style, defined in this report as 'vernacular'.

Five field record resources are located just north of the Hancock County line within Fostoria Township, southern Wood County (Figures 20-21, 23, 110-114). The oldest field recorded resources are S-35/ HAN0072405 and S-57, a c.1850 Three-Bay, hip roof residence with no discernable architectural style due to comprehensive modern replacement fabric and appendages, notably the garage and hyphen on the southern elevation; the estimated construction date, house type, door configuration, fenestration,

and roof shape indicate that the residence was originally Italianate in style (Figures 25, 63, 144, 166). The most recent field recorded resources are S-8 and S-61, a Ranch and side gabled residences constructed in 1971 (Figures 34-35, 74, 117, 170).

A total of 189 of the field recorded resources within the 2-Mile Survey Area are not considered eligible for listing in the NRHP under Criteria A, B, and C due to a lack of associative significance, a loss of character defining features, and extensive alterations including additions out of character with their original style.

One field recorded resource within the 2-mile Survey Area exhibited character defining features and was evaluated for detailed study to determine NRHP-eligibility. The S-131/HAN0072705 resource, located near the southern edge of the 2-mile Survey Area, south of the Village of Arcadia, is a high-style, transitional Italianate/Neoclassical residence displaying character defining features such as tall, narrow, one-over-one windows, wide, bracketed eaves, pedimented and U-shaped lintels, wide, decorative bands, and a belvedere (Figures 102, 107, 240; Appendix C). The resource exhibits numerous character defining features, and retains its integrity of design, setting, and feeling. Therefore, it is in Weller's opinion that the resource significant and thereby recommended as eligible for individual listing in the NRHP under Criterion C. In addition, consideration has been given to representative house types and as requested by the SHPO, and the following five additional OHIs have been recorded and evaluated: S-26/ HAN0072505, American Foursquare; S-35/ HAN0072405, I-House; S-137/ HAN0072205, Ranch; S-149/ HAN0073205, hipped; and S-166/ HAN0072305, Gabled Ell (Figures 25, 33-34, 40, 50, 58, 66, 76, 83, 135, 144, 246, 258, 275; Appendix C). The residence located at 21911 County Road 216, Fostoria, was omitted due its location primarily outside of the 2-Mile study area and its obstruction from the Project Area by extensive vegetative screening and a building to the south and west.

Table 4. 2-Mile Survey Area Resources outside the Village of Arcadia.

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-1	Wood	20, 110	5385 Robbins Road, Bloomdale	c.1900	Vernacular	Cross Gable	Not Eligible
S-2	Wood	20, 111	1238 Turley Road, Fostoria	c.1900	Vernacular	Three-Bay	Not Eligible
S-3	Wood	20, 112	1145 Turley Road, Fostoria	c.1890	Vernacular	Side Gable	Not Eligible
S-4	Wood	21, 113	1222 Pursell Road, Fostoria	c.1870	Vernacular	Cross Gable	Not Eligible
S-5	Wood	23, 114	1083 Baird Road, Fostoria	c.1910	Vernacular	Cross Gable	Not Eligible
S-6	Hancock	28, 115	240 Township Road 261, Fostoria	c.1900	Vernacular	Saltbox	Not Eligible
S-7	Hancock	28, 116	22035 State Route 613, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-8	Hancock	34-35, 117	22155 County Road 226, Fostoria	1971	Vernacular	Side Gable	Not Eligible
S-9	Hancock	34-35, 118	22095 County Road 226, Fostoria	1955	Vernacular	Ranch	Not Eligible
S-10	Hancock	34-35, 119	22069 County Road 226, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-11	Hancock	34-35, 120	21829 County Road 226, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-12	Hancock	34, 121	21744 County Road 226, Fostoria	c.1890	Queen Anne	Free Classic	Not Eligible
S-13	Hancock	28, 122	22049 State Route 613, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-14	Hancock	26, 123	20164 State Route 613, Fostoria	1950	Vernacular	Ranch	Not Eligible
S-15	Hancock	26, 124	20186 State Route 613, Fostoria	c.1900	Vernacular	Saltbox	Not Eligible
S-16	Hancock	22, 26, 125	148 County Road 257, Fostoria	1938	Vernacular	American Foursquare	Not Eligible
S-17	Hancock	26, 126	20369 State Route 613, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-18	Hancock	26, 127	306 County Road 257, Fostoria	1963	Vernacular	Ranch	Not Eligible
S-19	Hancock	26, 32-33, 128	503 County Road 257, Fostoria	c.1900	Vernacular	One-Room Schoolhouse	Not Eligible
S-20	Hancock	26, 33, 129	20660 County Road 226, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-21	Hancock	26, 33, 130	20756 County Road 226, Fostoria	c.1880	Vernacular	Gabled Ell	Not Eligible
S-22	Hancock	27, 131	20711 State Route 613, Fostoria	c.1900	Vernacular	Bungalow	Not Eligible
S-23	Hancock	27, 132	20856 State Route 613, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-24	Hancock	27, 133	20929 State Route 613, Fostoria	1951	Vernacular	Ranch	Not Eligible
S-25	Hancock	27, 134	21064 State Route 613, Fostoria	c.1900	Vernacular	Upright and Wing	Not Eligible
S-26/HAN0072505	Hancock	33-34, 135	21218 County Road 226, Fostoria	c.1900	Vernacular	American Foursquare	Not Eligible
S-27	Hancock	33-34, 136	21370 County Road 226, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-28	Hancock	34, 137	21484 County Road 226, Fostoria	1955	Vernacular	Ranch	Not Eligible
S-29	Hancock	26, 32-33, 138	626 County Road 257, Fostoria	c.1900	Vernacular	Saltbox	Not Eligible
S-30	Hancock	26, 32, 139	20354 Township Road 226, Fostoria	c.1900	Vernacular	Bungalow	Not Eligible
S-31	Hancock	26, 32, 140	20140 Township Road 226, Fostoria	c.1900	Vernacular	Hall and Parlor	Not Eligible
S-32	Hancock	26, 32, 141	20046 Township Road 226, Fostoria	c.1900	Vernacular	Non-Discernable	Not Eligible
S-33	Hancock	25-26, 32, 142	19938 Township Road 226, Fostoria	c.1880	Vernacular	Gabled Ell	Not Eligible
S-34	Hancock	25-26, 143	19812 State Route 613, Bloomdale	c.1900	Vernacular	Four-over-Four	Not Eligible
S-35/HAN0072405	Hancock	25, 144	19604 State Route 613, Bloomdale	c.1850	Federal/Greek Revival Elements	I-House	Not Eligible
S-36	Hancock	25, 31, 145	19359 State Route 613, Bloomdale	1942	Vernacular	Massed Plan, Side Gable	Not Eligible
S-37	Hancock	30, 146	18744 State Route 613, Bloomdale	c.1900	Vernacular	Non-Discernable	Not Eligible
S-38	Hancock	38, 147	1220 Township Road 243, Bloomdale	c.1900	Vernacular	Gabled Ell	Not Eligible
S-39	Hancock	31, 148	764 Township Road 243, Fostoria	1961	Vernacular	Non-Discernable	Not Eligible
S-40	Hancock	39, 149	1034 Township Road 293, Fostoria	1968	Vernacular	Ranch	Not Eligible
S-41	Hancock	68-69 150	21727 State Route 12, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-42	Hancock	73, 151	21356 State Route 12, Fostoria	c.1860	Italianate	Irregular	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-43	Hancock	73, 152	21282 State Route 12, Fostoria	1952	Vernacular	Ranch	Not Eligible
S-44	Hancock	73, 153	21283 State Route 12, Fostoria	1953	Vernacular	Minimal Traditional Cottage	Not Eligible
S-45	Hancock	73, 154	21254 State Route 12, Fostoria	1954	Vernacular	Ranch	Not Eligible
S-46	Hancock	73, 78-79, 155	SW Corner of State Route 12 and County Route 330, Fostoria	1884	Vernacular	One-Room Schoolhouse	Not Eligible
S-47	Hancock	78, 156	20819 State Route 12, Fostoria	1929	Vernacular	Bungalow	Not Eligible
S-48	Hancock	78, 157	20702 State Route 12, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-49	Hancock	67, 158	2325 County Road 257, Fostoria	c.1880	Vernacular	Three-Bay	Not Eligible
S-50	Hancock	78, 159	20521 County Road 109, Fostoria	1964	Vernacular	Ranch	Not Eligible
S-51	Hancock	78, 160	3020 County Road 257, Fostoria	1953	Vernacular	Ranch	Not Eligible
S-52	Hancock	78, 161	20426 County Road 109, Fostoria	1964	Vernacular	Ranch	Not Eligible
S-53	Hancock	78, 162	20346 County Road 109, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-54	Hancock	75, 163	20392 County Road 109, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-55	Hancock	56, 64, 164	Township Road 249 over Portage River	c.1920	Vernacular	Pratt Pony Truss	Not Eligible
S-56	Hancock	64, 165	2398 Township Road 249, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
S-57	Hancock	63, 166	2251 Township Road 247, Arcadia	c.1850	Vernacular	Hipped	Not Eligible
S-58	Hancock	70, 167	16319 County Road 109, Arcadia	1912	Vernacular	American Foursquare	Not Eligible
S-59	Hancock	70, 168	16658 County Road 109, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
S-60	Hancock	71, 74, 169	17011 County Road 109, Arcadia	1970	Vernacular	Ranch	Not Eligible
S-61	Hancock	74, 170	3255 Township Road 247, Arcadia	1971	Vernacular	Ranch	Not Eligible
S-62	Hancock	81, 171	3448 Township Road 247, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-63	Hancock	78, 172	20464 State Route 12, Fostoria	1962	Vernacular	Ranch	Not Eligible
S-64	Hancock	78, 173	20438 State Route 12, Fostoria	1965	Vernacular	Ranch	Not Eligible
S-65	Hancock	78, 174	20414 State Route 12, Fostoria	1958	Vernacular	Ranch	Not Eligible
S-66	Hancock	78, 175	20400 State Route 12, Fostoria	1958	Vernacular	Ranch	Not Eligible
S-67	Hancock	78, 176	20370 State Route 12, Fostoria	1967	Vernacular	Ranch	Not Eligible
S-68	Hancock	78, 85, 177	20336 State Route 12, Fostoria	1948	Vernacular	Ranch	Not Eligible
S-69	Hancock	77-78, 85, 178	20316 State Route 12, Fostoria	1948	Vernacular	Ranch	Not Eligible
S-70	Hancock	78-79, 179	2985 County Road 330, Fostoria	1965	Vernacular	Ranch	Not Eligible
S-71	Hancock	93-94, 180	3741 County Road 330, Fostoria	c.1900	Vernacular	Non-Discernable	Not Eligible
S-72	Hancock	80, 181	22100 Township Road 217, Fostoria	c.1900	Vernacular	Saddlebag	Not Eligible
S-73	Hancock	86-87, 182	3321 Township Road 260, Fostoria	c.1900	Vernacular	Gambrel Ell	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-74	Hancock	86, 183	3113 County Road 330, Fostoria	c.1850	Vernacular	Upright and Wing	Not Eligible
S-75	Hancock	93, 184	3880 Township Road 257, Fostoria	c.1920	Vernacular	I-House	Not Eligible
S-76	Hancock	89, 185	3947 Township Road 243, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-77	Hancock	90, 186	18066 County Road 216, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-78	Hancock	88, 187	16696 County Road 216, Arcadia	c.1900	Italianate Elements	Hipped Ell	Not Eligible
S-79	Hancock	88, 188	16768 County Road 216, Arcadia	1921	Vernacular	Saddlebag	Not Eligible
S-80	Hancock	95, 189	4311 Township Road 243, Arcadia	c.1900	Vernacular	Possible One-Room Schoolhouse or Church	Not Eligible
S-81	Hancock	96-97, 190	18663 State Route 12, Arcadia	1942	Tudor/English	Minimal Traditional Cottage	Not Eligible
S-82	Hancock	24, 191	638 State Route 18, Bloomdale	c.1900	Vernacular	Three-Bay	Not Eligible
S-83	Hancock	24, 192	606 State Route 18, Bloomdale	1970	Vernacular	Ranch	Not Eligible
S-84	Hancock	36, 193	16982 State Route 613, Bloomdale	c.1887	Vernacular	Hipped	Not Eligible
S-85	Hancock	36, 194	16826 State Route 613, Bloomdale	c.1900	Vernacular	Cross Gable	Not Eligible
S-86	Hancock	36, 195	16709 State Route 613, Bloomdale	c.1900	Vernacular	Gabled Ell	Not Eligible
S-87	Hancock	88, 196	16404 County Road 216, Arcadia	c.1900	Vernacular	Hall and Parlor	Not Eligible
S-88	Hancock	54, 197	16319 Township Road 218, Arcadia	c.1900	Vernacular	Three-Bay	Not Eligible
S-89	Hancock	97, 198	18905 State Route 12, Arcadia	1963	Vernacular	Ranch	Not Eligible
S-90	Hancock	91-92, 199	308 East Brown Road, Arcadia	1924	Vernacular	Gambrel Front	Not Eligible
S-91	Hancock	92, 200	19601 County Road 216, Arcadia	c.1870	Italianate Elements	Side Hallway	Not Eligible
S-92	Hancock	98-99, 201	4278 County Road 330, Fostoria	c.1900	Vernacular	Possible Saddlebag	Not Eligible
S-93	Hancock	99, 202	21143 County Road 216, Fostoria	c.1900	Vernacular	Cross Gable	Not Eligible
S-94	Hancock	93, 98, 203	20640 County Road 216, Fostoria	c.1900	Vernacular	Saddlebag	Not Eligible
S-95	Hancock	98, 204	4163 Township Rd 257, Fostoria	c.1900	Vernacular	Three-Bay	Not Eligible
S-96	Hancock	98, 205	4322 Township Rd 257, Fostoria	c.1900	Folk Victorian	Front Gable	Not Eligible
S-97	Hancock	94, 99, 206	21412 County Road 216, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-98	Hancock	94, 99, 207	21760 County Road 216, Fostoria	1904	Vernacular	Side Hip Gable	Not Eligible
S-99	Hancock	99, 208	21774 County Road 216, Fostoria	c.1900	Vernacular	Cross-Hip Front Gable	Not Eligible
S-100	Hancock	108, 209	20146 Township Road 214, Arcadia	c.1900	Vernacular	Front Gable	Not Eligible
S-101	Hancock	108, 210	19861 Township Road 214, Arcadia	1899	Vernacular	Upright and Wing	Not Eligible
S-102	Hancock	108, 211	19706 Township Road 214, Arcadia	c.1959	Vernacular	Gambrel Front	Not Eligible
S-103	Hancock	108, 212	19706 Township Road 214, Arcadia	1899	Folk Victorian	Gabled Ell	Not Eligible
S-104	Hancock	107, 213	19384 Township Road 214, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-105	Hancock	92, 214	20008 County Road 216, Fostoria	c.1900	Vernacular	Saltbox	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-106	Hancock	92, 215	20034 County Road 216, Fostoria	1955	Vernacular	Ranch	Not Eligible
S-107	Hancock	109, 216	4596 County Road 330, Fostoria	c.1900	Vernacular	New England One and a Half	Not Eligible
S-108	Hancock	103, 217	16870 Township Road 215, Arcadia	1951	Vernacular	Ranch	Not Eligible
S-109	Hancock	103, 218	17136 Township Road 143, Arcadia	c.1900	Vernacular	Massed Plan, Side Gable	Not Eligible
S-110	Hancock	103-104, 219	17422 State Route 12, Arcadia	1967	Vernacular	Ranch	Not Eligible
S-111	Hancock	103-104, 220	17458 State Route 12, Arcadia	1958	Vernacular	Ranch	Not Eligible
S-112	Hancock	103-104, 221	17421 State Route 12, Arcadia	c.1930	Vernacular	Three-Bay	Not Eligible
S-113	Hancock	103-104, 222	17350 State Route 12, Arcadia	c.1930	Colonial Revival	Three-Bay	Not Eligible
S-114	Hancock	103-104, 223	17359 State Route 12, Arcadia	c.1900	Vernacular	Center Gable	Not Eligible
S-115	Hancock	100, 103-104, 224	17613 State Route 12, Arcadia	1960	Vernacular	Ranch	Not Eligible
S-116	Hancock	100-101, 225	4762 County Road 248, Arcadia	1969	Vernacular	Ranch	Not Eligible
S-117	Hancock	100-101, 226	4764 County Road 248, Arcadia	1957	Vernacular	Ranch	Not Eligible
S-118	Hancock	100, 227	17803 State Route 12, Arcadia	c 1900	Vernacular	Non-Discernable	Not Eligible
S-119	Hancock	100-101, 228	18003 State Route 12, Arcadia	c.1920	Vernacular	Cross Gable with Hip	Not Eligible
S-120	Hancock	101, 229	18085 State Route 12, Arcadia	1970	Vernacular	Mausoleum	Not Eligible
S-121	Hancock	104-105, 230	5353 County Road 248, Findlay	c.1900	Italianate	Hipped Ell	Not Eligible
S-122	Hancock	89, 231	3944 Township Road 247, Arcadia	c.1900	Vernacular	Gable Front	Not Eligible
S-123	Hancock	108-109, 232	20319 Township Road 214, Arcadia	c.1875	Vernacular	Side Hallway	Not Eligible
S-124	Hancock	109, 233	20827 Township Road 214, Arcadia	c.1900	Vernacular	I-House	Not Eligible
S-125	Hancock	106, 234	18654 Township Road 214, Arcadia	1967	Vernacular	Ranch	Not Eligible
S-126	Hancock	106, 235	18603 Township Road 214, Arcadia	c.1900	Vernacular	I-House	Not Eligible
S-127	Hancock	106, 236	18623 Township Road 214, Arcadia	1950	Vernacular	Cape	Not Eligible
S-128	Hancock	106, 237	18450 Township Road 214, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-129	Hancock	104, 106, 238	17975 Township Road 214, Findlay	c.1875	Vernacular	Side Hallway	Not Eligible
S-130	Hancock	107, 239	5065 Township Road 254, Arcadia	c.1900	Vernacular	Front Gable	Not Eligible
S-131/HAN0 072705	Hancock	102, 107, 240	4813 Township Road 254, Arcadia	1889	Italianate and Transitional Neoclassical	Cross Gable	Eligible
S-132	Hancock	59-60, 67, 241	20699 Township Road 218, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-133	Hancock	60, 68, 242	21517 Township Road 218, Fostoria	c.1900	Vernacular	Gabled Ell (Primary Unit)	Not Eligible
S-134	Hancock	61-62, 69, 243	22432 Township Road 218, Fostoria	1965	Vernacular	Ranch	Not Eligible
S-135	Hancock	61-62, 69, 244	22468 Township Road 218, Fostoria	1959	Vernacular	Ranch	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-136	Hancock	76, 83, 245	3366 Township Road 254, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
S-137/ HAN00722 05	Hancock	76, 83, 246	3260 Township Road 254, Arcadia	1970	Vernacular	Ranch	Not Eligible
S-138	Hancock	76, 247	3093 Township Road 254, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-139	Hancock	71, 74, 248	3010 Township Road 247, Arcadia	c.1900	Vernacular	Massed Plan, Side Gable	Not Eligible
S-140	Hancock	71, 249	2842 Township Road 247, Arcadia	c.1900	Vernacular	American Foursquare	Not Eligible
S-141	Hancock	71-72, 250	17866 County Road 109, Arcadia	c.1900	Vernacular	Gable Front	Not Eligible
S-142	Hancock	81-82, 251	3626 Township Road 243, Arcadia	c.1880	Vernacular	Massed Plan, Side Gable	Not Eligible
S-143	Hancock	72, 75, 252	18388 County Road 109, Arcadia	c.1900	Vernacular	I-House	Not Eligible
S-144	Hancock	64-65, 253	2382 Township Road 243, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-145	Hancock	57, 254	1928 Township Road 243, Fostoria	c.1830	Greek Revival Elements	Four Over Four	Not Eligible
S-146	Hancock	57, 255	1797 Township Road 243, Fostoria	1962	Vernacular	Ranch	Not Eligible
S-147	Hancock	57-58, 256	19294 Township Road 218, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-148	Hancock	58, 257	19510 Township Road 218, Fostoria	c.1915	Vernacular	Cross Gable	Not Eligible
S-149/ HAN00732 05	Hancock	40, 50, 258	1316 County Road 257, Fostoria	c.1880	Vernacular	Hipped	Not Eligible
S-150	Hancock	40, 50, 259	1309 County Road 257, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-151	Hancock	51, 260	21498 Township Road 284, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-152	Hancock	52, 261	1529 Township Road 261, Fostoria	1950	Vernacular	Ranch	Not Eligible
S-153	Hancock	52, 61, 262	1556 Township Road 261, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-154	Hancock	52, 61, 263	1635 Township Road 261, Fostoria	1957	Vernacular	Ranch	Not Eligible
S-155	Hancock	61, 68-69, 264	21770 Township Road 218, Fostoria	1913	Vernacular	Gable Front	Not Eligible
S-156	Hancock	61, 69, 265	21825 Township Road 218, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-157	Hancock	61, 69, 266	21813 Township Road 218, Fostoria	1954	Vernacular	Ranch	Not Eligible
S-158	Hancock	61, 68-69, 267	21797 Township Road 218, Fostoria	1954	Vernacular	Ranch	Not Eligible
S-159	Hancock	61, 68-69, 268	2011 Township Road 261, Fostoria	c.1900	Vernacular	Saddlebag	Not Eligible
S-160	Hancock	61, 68-69, 269	2031 Township Road 261, Fostoria	1959	Vernacular	Ranch	Not Eligible
S-161	Hancock	61, 68-69, 270	2049 Township Road 261, Fostoria	1960	Vernacular	Ranch	Not Eligible
S-162	Hancock	68-69, 271	21727 State Route 12, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-163	Hancock	77-78, 272	20251 County Road 109, Fostoria	1951	Vernacular	Ranch	Not Eligible
S-164	Hancock	77, 273	20018 County Road 109, Fostoria	1968	Vernacular	Ranch	Not Eligible
S-165	Hancock	66, 274	2481 Township Road 256, Fostoria	c.1900	Vernacular	Gable Front	Not Eligible
S-166/ HAN00723 05	Hancock	58, 66, 275	2106 Township Road 256, Fostoria	c.1890	Vernacular	Gabled Ell	Not Eligible

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
S-167	Hancock	59, 276	1783 Township Road 257, Fostoria	c.1890	Vernacular	Gabled Ell	Not Eligible
S-168	Hancock	58-59, 277	20027 Township Road 218, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-169	Hancock	58, 278	19529 Township Road 218, Fostoria	c.1900	Vernacular	Cross Gambrel	Not Eligible
S-170	Hancock	85, 93, 279	3627 Township Road 257, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-171	Hancock	85, 93, 280	3586 Township Road 257, Fostoria	c.1920	Vernacular	Gable Front	Not Eligible
S-172	Hancock	77-78, 84-85, 281	20270 State Route 12, Fostoria	1958	Vernacular	Ranch	Not Eligible
S-173	Hancock	77, 84-85, 282	20227 State Route 12, Fostoria	1956	Vernacular	Ranch	Not Eligible
S-174	Hancock	77, 84-85, 283	20209 State Route 12, Fostoria	c.1900	Vernacular	Gabled Ell	Not Eligible
S-175	Hancock	77, 84, 284	20126 State Route 12, Fostoria	c.1900	Vernacular	Gable Front	Not Eligible
S-176	Hancock	84, 285	19908 State Route 12, Fostoria	c.1900	Vernacular	I-House	Not Eligible
S-177	Hancock	84, 286	19710 State Route 12, Fostoria	1956	Vernacular	Foundry	Not Eligible
S-178	Hancock	76-77, 287	19414 County Road 109, Arcadia	1857	Vernacular	Five over Five	Not Eligible
S-179	Hancock	76, 288	19102 County Road 109, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-180	Hancock	65, 289	2210 Township Road 254, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-181	Hancock	65, 290	2347 Township Road 254, Arcadia	1862	Vernacular	Gabled Ell	Not Eligible
S-182	Hancock	76, 291	18984 County Road 109, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
HAN00599 05	Hancock	62, 292	22503 State Route 12, Arcadia	c.1920	Vernacular	Side Gable	Not Eligible
HAN00665 05	Hancock	26-27, 68-69, 293	State Route 18, Washington Township	c.1873-Present	Vernacular	Railroad	Not Eligible
HAN00667 05	Hancock	68, 294	Township Road 257, Fostoria	c.1853-Present	Vernacular	Railroad	Not Eligible
S-183	Hancock	83, 295	3541 Township Road 254, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-184	Hancock	75, 296	3023 Township Road 243, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
S-185	Hancock	100-101,104, 106, 297	4972 County Road 248, Arcadia	1969	Vernacular	Massed Plan, Side Gable	Not Eligible
S-186	Hancock	54, 298	16562 Township Road 218, Arcadia	c.1900	Vernacular	Three-Bay	Not Eligible
S-187	Hancock	54, 299	16635 Township Road 218, Arcadia	c.1900	Vernacular	Non-Discernable	Not Eligible
S-188	Hancock	54-55, 300	16914 Township Road 218, Arcadia	c.1900	Vernacular	Gabled Ell	Not Eligible
S-189	Hancock	55, 301	1969 Township Road 247, Arcadia	1963	Vernacular	Ranch	Not Eligible
S-190	Hancock	76, 302	18745 County Road 109, Arcadia	c.1920	Vernacular	Massed Plan, Side Gabled	Not Eligible

Architectural Survey Results for the Village of Arcadia

The Village of Arcadia (Arcadia), located immediately south of the Project Area, is a small, condensed, urbanized community largely located at the crossroads of State Route 12 and Main Street (Figures 316 through 317).

The only field recorded resources included within this component are those with potential line-of-sight views of the Project Area, located in the northern potions of the Village of Arcadia, those eligible for listing in the NRHP, and representative house types. For differential identification purposes, all aboveground field recorded resources within the Village of Arcadia were designated "AR" to distinguish them from the field recorded resources within in the 2-Mile Survey Area component outside the Village of Arcadia. The architectural styles, building types, and construction dates within Arcadia largely reflect the resources identified outside of the village within the 2-Mile Survey Area outside the Village of Arcadia including Gabled Ells, Hall and Parlors, Gable Fronts, Bungalows, and Ranches. Construction dates range between the c.1870 and 1960. Numerous modern buildings, primarily commercial structures, are scattered throughout.

A total of 12 field recorded resources (11 residences and one commercial building) were identified within the Village of Arcadia. One previously recorded OHI resource (HAN0042105, residence) located approximately one-half mile south of the Project Area, was re-identified in the southeast corner of the community (Figures 316 through 330, Table 5; Appendices A and C). The previously recorded HAN0042105 resource was deemed ineligible for listing in the NRHP at the time of its recordation; Weller concurs with this assessment per current investigations (Figures 317 and 330; Appendix A).

One field recorded resource exhibited character defining features and was evaluated for detailed study to determine NRHP-eligibility. The AR-10/ HAN0072605 resource, located within the central business area of the Village of Arcadia, approximately 0.42 miles south of the Project Area, is a c.1890 false front building with elements of Romanesque Revival and Neoclassical Revival which currently houses the Arcadia post office (Figures 317 and 327; Appendix C). It is an excellent, intact example of a brick false front building that retains its integrity of design, setting, and feeling. Therefore, it is in Weller's opinion that this resource is significant and thereby recommended as eligible individual listing in the NRHP under Criterion C. In addition, four additional OHIs have been recorded and evaluated as representative house types and/or styles: AR-9/HAN0072905, Hall and Parlor; AR-11/ HAN0072805, Bungalow; and AR-12/ HAN0073105, Stick (Figures 317, 326-327; Appendix C). The most recent field recorded resource is AR-3, a Split-Level and Ranch residences constructed in 1960 (Figures 316 and 320).

A total of 11 of the field recorded resources and the one previously recorded OHI resource within the Village of Arcadia are not considered eligible for listing in the NRHP under Criteria A, B, and C due to a lack of associative significance, a loss of

character defining features, and extensive alterations including additions out of character with their original style. Furthermore, it is in Weller's opinion that the Village of Arcadia does not meet the requirements for consideration as a historic district due to a lack of associative significance, an absence of architectural cohesion resulting from a loss of character defining features, extensive alterations, and numerous, intrusive, modern buildings.

Table 5. 2-mile Survey Area Resources within the Village of Arcadia.

Resource #	County	Figure #	Location	Date	Style	Type	NRHP Status
AR-1	Hancock	316, 318	601 Monroe Street, Arcadia	c.1920	Vernacular	Non-Discernable	Not Eligible
AR-2	Hancock	316, 319	209 Locust Street, Arcadia	c.1930	Vernacular	Gable Front	Not Eligible
AR-3	Hancock	316, 320	207 Monroe Street, Arcadia	1960	Vernacular	Split-Level	Not Eligible
AR-4	Hancock	316, 321	507 Ambrose Street, Arcadia	1940	Vernacular	Non-Discernable	Not Eligible
AR-5	Hancock	316, 322	600 Monroe Street, Arcadia	1958	Vernacular	Ranch	Not Eligible
AR-6	Hancock	316, 323	513 North Main Street, Arcadia	1950	Vernacular	Split-Level	Not Eligible
AR-7	Hancock	316, 324	500 North Main Street, Arcadia	1916	Vernacular	I-House	Not Eligible
AR-8	Hancock	317, 325	501 North Main Street, Arcadia	c.1870	Vernacular	Gable Front	Not Eligible
AR-9/HAN0072905	Hancock	317, 326	402 South Street, Arcadia	1928	Vernacular	Hall and Parlor	Not Eligible
AR-10/HAN0072605	Hancock	317, 327	108 North Main Street, Arcadia	1925	Vernacular	Commercial	Eligible
AR-11/HAN0072805	Hancock	317, 328	204 North Main Street, Arcadia	1914	Vernacular	Bungalow	Not Eligible
AR-12/HAN0073105	Hancock	317, 329	205 North Main Street, Arcadia	1907	Stick	Gambrel Front	Not Eligible
HAN0042105	Hancock	317, 330	304 East Brown Road, Arcadia	c.1920	Vernacular	Bungalow	Not Eligible

Evaluations of the Two Eligible Structures and Six Representative House Types Recorded for the Ohio Historic Inventory

AR-9/ HAN0072905

Location: Universal Transverse Mercator (UTM), Zone 17N, 289347 Easting 4554234 Northing, 402 East South Street, Arcadia, Ohio. Located approximately 0.25 miles south of the Project Area within the Village of Arcadia.

Quadrangle: Arcadia, Ohio

Construction Date: 1928

Description: The AR-9/ HAN0072905 resource is a single-story, three-by-one bay, frame, Hall and Parlor residence (Figures 317 and 326; Appendix C). The dwelling is protected by a side-gabled roof sheathed in standing seam metal. No chimney was observed. The exterior wall planes are clad in aluminum siding. The fenestration consists of one-over-one double hung modern replacement windows. The primary entrance is a wooden door with nine fixed panes enclosed by a full width porch formed by the extending front roof, supported by turned spindles and rails. The foundation is constructed with unknown materials. Additions include an open porch on the east elevation, and a single frame attached to the rear elevation.

The building is located on a 0.2758-acre manicured lawn parcel on the north side of East South Street in the Village of Arcadia. It is surrounded by manicured lawns and several mature deciduous trees. The ancillary structures include a shed and single detached pole garage, both modern.

History: The Hancock County Auditor's Office lists the dwelling's construction date 1914, which matches the stylistic elements, type, form, and materials. No structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map, which supports the construction date and suggests a post-First World War expansion of the village.

NRHP Evaluation: The AR-9/ HAN0072905 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is void of character defining features. Therefore, the resource is recommended as ineligible for inclusion in the NRHP under Criterion C.

AR-10/ HAN0072605

Location: Universal Transverse Mercator (UTM), Zone 17N, 288968 Easting 4553945 Northing, 108 North Main Street, Arcadia, Ohio. Located approximately 0.42 miles south of the Project Area within the Village of Arcadia.

Quadrangle: Arcadia, Ohio

Construction Date: c.1890

Description: The AR-10/ HAN0072605 resource is a single-story, three-by-two bay, brick, false front building with Romanesque and Neoclassical elements (Figures 317 and 327; Appendix C). The commercial building, resting on a sandstone ashlar foundation, is protected by a flat roof comprised front façade extension beyond the end gable, forming a "false front," which is adorned decorative corbels, molding, and a rectilinear sandstone blocked with "BANK" carved in high relief. The external wall planes are faced in running bond. The primary elevation has prominent storefront windows topped by sandstone lintels. The streetside windows are single, fixed panes. Transom windows extend over the top of the storefront bays, as well as the large, deeply recessed, primary door in the third bay. The lateral elevation windows feature

segmented arches with one-over-one sashes; vertical boards infill the first bay window. A sandstone water table runs below the first two storefront window bays.

The building is located on a 0.115-acre rectangular lot on the west side of North Main Street, slightly north of the intersection with State Route 12, in the heart of the Village of Arcadia. It is situated slightly between two buildings, with the north example also a false front. Surrounding buildings invoke a feeling of a rural, commercial center.

History: The Hancock County Auditor's Office lists the building's construction date 1925. Based on the building type, foundation materials, and decorative Romanesque and Neoclassical elements, it is more likely that the building was constructed c.1890. Built originally as a bank, research could not determine the institution that constructed the building. Per auditor records, the Arcadia Post Office relocated to the building in 1997. A structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map.

NRHP Evaluation: An exhaustive search to determine the bank which constructed AR-10/ HAN0072605 did not yield any pertinent information, and was therefore not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is a fine example of an intact, brick false front building in a small railroad village. Furthermore, it retains its integrity of setting and feeling within a small, dense, railroad town. Therefore, the resource is recommended eligible for inclusion in the NRHP under Criterion C.

AR-11/ HAN0072805

Location: Universal Transverse Mercator (UTM), Zone 17N, 288964 Easting 4554072 Northing, 204 North Main Street, Arcadia, Ohio. Located approximately 0.38 miles south of the Project Area within the Village of Arcadia.

Quadrangle: Arcadia, Ohio

Construction Date: 1914

Description: The AR-11/ HAN0072805 resource is a one-and-one-half story, three-by-three bay, frame, dormer front Bungalow (Figures 317 and 328; Appendix C). The dwelling is protected by an asphalt shingle hip roof with like dormers. No chimney was observed. The exterior wall planes are clad in vinyl siding. The fenestration consists of one-over-one double hung modern replacement windows. The east elevation windows are flanked by tall, narrow, three-over-one side lights. The centered, primary entrance consists of a multipaned door sheltered by an open porch supported by square piers with panels just below the capitals. Rails infill the piers. The foundation is constructed with concrete blocks. Additions include an enclosed porch on the southwest corner, and a single frame attached to the rear elevation.

The building is located on a 0.2-acre manicured lawn parcel on the west side of North Main Street in the Village of Arcadia. It is surrounded by several mature deciduous trees. The sole ancillary structure is a c.1930 single detached garage.

History: The Hancock County Auditor's Office lists the dwelling's construction date 1914, which matches the type, form, and materials. A structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map; however, based on auditor records, it is presumed that the dwelling replaced the above structure.

NRHP Evaluation: The AR-11/ HAN0072805 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is typical of others in the area and throughout Ohio and is not the work of a master. None of the original character defining Craftsman features remain; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

AR-12/HAN0073105

Location: Universal Transverse Mercator (UTM), Zone 17N, 289347 Easting 4554234 Northing, 206 North Main Street, Arcadia, Ohio. Located approximately 0.34 miles south of the Project Area within the Village of Arcadia.

Quadrangle: Arcadia, Ohio

Construction Date: 1907

Description: The AR-12/HAN0073105 resource is a two-and-a-half story, four-by-three bay, frame, Stick residence (Figures 317 and 329; Appendix C). The dwelling is protected by an intersecting gambrel roof sheathed in slate. No chimney was observed. Cornice returns are present on the top portion, which connect a carved knob at the roof peak to a decorative elliptical brace. The lower portion slightly flares at the house plate. The gambrel faces are clad in fishscale shingles, while the clapboards cover the wall planes. Fenestration is a mixture consisting of paired modern replacement double hung windows on the gambrel, set within a simply adorned mullion, and two two-over-two and one four-over-four windows, all double hung, lighting the slightly projecting bay, respectively. Turned rails and a short flight of steps leads to the primary side hall entrance, a four fixed pane door with scrolled muntins. It is set deep within a porch formed by an overhanging portion of the roof, with a spandrel running along the eave. The foundation is comprised of rock-faced concrete blocks. A modern, single-story frame addition extends from the southwest corner.

The dwelling is located on a 0.2-acre manicured lawn parcel at the northwest corner of North Main and College Streets in the Village of Arcadia. It is surrounded by several mature deciduous trees. A vinyl fence and an English barn in the western half of the parcel encloses a greenhouse, and two small sheds.

History: Hancock County Auditor's Office lists the dwelling's construction date 1907, which matches the stylistic elements, type, form, and materials. No structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map, which supports the construction date and suggests that the dwelling is a latent, isolated example of Stick as the style was common between c.1870-1890.

NRHP Evaluation: The AR-12/HAN0073105 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. Although the resource retains many of its character defining Stick features, multiple modern replacement windows have disrupted its integrity design and workmanship. Therefore, the resource is recommended as ineligible for inclusion in the NRHP under Criterion C.

S-26/ HAN0072505

Location: Universal Transverse Mercator (UTM), Zone 17N, 292319 Easting 4559045 Northing, 21218 County Road 226, Fostoria, Ohio. Located over 1 mile to the northeast of the Project Area.

Quadrangle: Fostoria, Ohio

Construction Date: c.1900

Description: The S-26/ HAN0072505 resource is a two-and-one-half story, two-by-two bay, frame, American Foursquare (Figures 33 and 34, 135; Appendix C). The dwelling is covered by a low pyramidal hipped roof covered in asphalt shingles with three hipped dormers, lit by paired horizontal sliding windows. There is no chimney observed. The exterior wall planes are clad in aluminum siding. The fenestration consists of double hung one-over-one modern replacement sash windows with a northeast corner bay window. The primary entrance is sheltered by a full width, open frame hipped roof porch supported by three posts located on the south elevation. The dwelling rests on rock-faced concrete block foundation. Additions include a one-story frame with an attached enclosed frame porch on the rear elevation.

The dwelling is located on a 7.17-acre parcel in a remote, agricultural setting on the north side of County Road 226, west of the City of Fostoria. The ancillary structures include a three-gable barn, and a small shed.

History: Based on the popularity of the American Foursquare during the first two decades of the 20th century, and the hipped roof with dormers, footprint, and window configuration, we agree with the c. 1900 construction date per the Hancock County Auditor's Office.

NRHP Evaluation: The S-26/ HAN0072505 resource was not found to be associated with significant events, patterns of events, or individuals important to our

history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is typical of others in the area and throughout Ohio and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

S-35/ HAN0072405

Location: Universal Transverse Mercator (UTM), Zone 17N, 289838 Easting 4559425 Northing, 19604 State Route 613, Bloomdale, Ohio. Located over 1 mile to the north of the Project Area.

Quadrangle: Bloomdale, Ohio

Construction Date: c.1850

Description: The S-35/ HAN0072405 resource is a two-story, four-by-two bay, rectilinear, brick, Four Bay I-House (Figures 25 and 144 ; Appendix C). The dwelling is protected by a gabled roof covered in asphalt shingles. An exterior, gable end chimney is present on the south elevation, piercing the eaves. The exterior wall planes are faced in American bond. The fenestration consists of one-over-one modern replacement sash windows, capped by flat and segmental arches. The third bay on the ground story has been brick infilled. The primary entrance is a recessed paneled wood door opens to the east elevation. Remnants of a porch are evidenced by a gabled outline above the primary entrance and flanking bays and holes in the façade indicating bracing. The dwelling rests on an unknown foundation. Additions include a shed room frame and enclosed porch on the rear elevation, and an enclosed porch separating the dwelling from a two-bay gabled garage.

The dwelling is located on a 64.03-acre parcel in a remote, agricultural setting on the north side of SR 613, southeast of the Village of Bloomdale. Norfolk Southern railroad tracks bisect the parcel. The sole ancillary structure is a small gambrel roof shed.

History: The Hancock County Auditor's Office lists a 1900 construction date; however, based on the dwelling's architectural features, notably the common bonding and flat and segmental arches, which are commonly associated with the Federal, Greek Revival, and Italianate styles, all of which predate the auditor's placement date by approximately 50 years.

NRHP Evaluation: The S-35/ HAN0072405 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is typical of others in the area and throughout Ohio and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

S-131/ HAN0072705

Location: Universal Transverse Mercator (UTM), Zone 17N, 288679 Easting 4552314 Northing, 4813 Township Road 254, Arcadia, Ohio. Located approximately 1.3 miles south of the Project Area, south of the Village of Arcadia.

Quadrangle: Arcadia, Ohio

Construction Date: 1889

Description: The S-131/ HAN0072705 resource is a two-story, irregular bay, frame, transitional Italianate and Neoclassical house (Figures 102, 107, 240; Appendix C). The dwelling is protected by a cross-gable roof covered in asphalt shingles with overhanging eaves and bargeboards. A square cupola rises from the roof intersection. Both the roof and cupola are embellished by large, intricate, sculpted brackets dominating the cornice. A banded, paneled frieze runs below the cornice. An interior gable end chimney pierces the east elevation ridge. The cupola is lit by four double hung, one-over-one sashes with U-shaped crowns, topped by a segmental pediments, decorative brackets, and plain lug sills. The exterior wall planes are clad in painted clapboard, heavily molded pilasters, and intricate scrollwork notably the window surrounds and corner boards. The fenestration consists of tall, narrow, double hung one-over-one modern replacement sash windows embellished by triangular pediments and plain lug sills, with a polygonal bay window on the facade that is covered by an overhang with asphalt shingles. The primary entrance is a wooden door lit by glass panels and a single pane encased within molding. The entrance is located on the south elevation, protected by a wrap-around open frame porch supported by square posts and ringed by a balustrade. The dwelling rests on presumably replacement concrete block foundation. Additions include an open frame porch west elevation west, a one-story frame attachment on the south elevation, a roof extension on the northwest corner of the one-story frame attachment, and a two-story frame attached to the rear elevation.

The dwelling is located on a 1.08-acre parcel in a remote, agricultural setting on the east side of Township Road 254, south of the Village of Arcadia. There are three ancillary structures including two detached frame garages and a small frame shed.

History: Hancock County Auditor's Office lists date of construction as 1889. Based on the wide, overhanging eaves, bracketed cornice, tall, narrow windows, heavily molded woodwork, cross floorplan, and pedimented windows, this resource exhibits character defining features of late Italianate with heavy, transitional Neoclassical elements; the latter stylistic details were prominent at the time of the resource's construction, and we therefore concur with the auditor's record. According to the late nineteenth century county atlas, the parcel on which the resource is located is owned by H. Hartman, who presumably retained possession of the land, and constructed the above resource (Hardesty 1875).

NRHP Evaluation: The S-131/ HAN0072705 resource was not found to be associated with significant events, patterns of events, or individuals important to our

history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is an excellent example of an intact, high-style, transitional Italianate and Neoclassical residence; therefore, the resource is eligible for inclusion in the NRHP under Criterion C.

S-137/ HAN0072205

Location: Universal Transverse Mercator (UTM), Zone 17N, 288720 Easting 4555029 Northing, 2842 Township Road 247, Arcadia, Ohio. Located more than 0.8 mile west of the Project Area

Quadrangle: Arcadia, OH

Construction Date: 1970

Description: The S-137/ HAN0072205 resource is a single-story, three-by-four bay, brick, Ranch house (Figures 76, 83, 246; Appendix C). The rectilinear dwelling is protected by dual cross hip roof covered in asphalt shingles. No chimneys were observed; however, two metal pipe vents rise from the integrated two car garage. The fenestration is a mix of single and paired one-over-one modern sash windows and a multi pane bay window. The primary entrance is a paneled door flanked by single a sidelight and protected by a veritable hood formed by an extended eave.

The dwelling is situated on a square 1-acre parcel consisting of a manicured lawn on the west side of TR 254, immediately northwest of the Village of Arcadia. Ornamental vegetation is comprised of boxwood and numerous mature deciduous trees. The sole ancillary structure is a small modern gambrel roof shed.

History: The Hancock County Auditor's Office lists a 1970 construction date, consistent with the resource's style, form, massing, and materials.

NRHP Evaluation: The S-137/ HAN0072205 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is typical of others in the area and throughout Ohio and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

S-149/ HAN0073205

Location: Universal Transverse Mercator (UTM), Zone 17N, 291147 Easting 4558052 Northing, 1316 County Road 257, Fostoria, Ohio. Located approximately 0.17 miles north of the Project Area

Quadrangle: Fostoria, OH

Construction Date: c.1880

Description: The S-149/ HAN0073205 resource is a two-story, four-by-four bay, brick, hipped house with Italianate elements (Figures 40, 50, 258; Appendix C). The square dwelling is protected by a hip roof covered in standing seam metal, and rests on a rock-faced ashlar foundation with a cut stone water table. A short, off-center brick chimney rises from the flat portion of the roof. The external wall plans are faced in stretcher bond. The fenestration consists of tall, narrow one-over-one modern sash windows crowned by bracketed pediments. The primary entrance is comprised of paired paneled doors topped by recessed transom windows and header segmental arches.

The dwelling is situated on a square 4.1-acre parcel consisting of a manicured lawn on the west side of CR 216, roughly equidistant from the Village of Arcadia and the City of Fostoria. Several mature trees partial encircle the dwelling. The ancillary structures include a small barn and shed; an artificial pond is located immediately behind the structures.

History: Based on the hipped roof with wide, overhanging eaves, tall, narrow windows, bracketed pediments, and a square floorplan, this resource exhibits Italianate elements. These stylistic details were prominent at the time of the resource's construction, and we therefore concur with the auditor's 1880 record. According to the late nineteenth century county atlas, the parcel on which the resource is located is owned by I.T. Hales, who presumably retained possession of the land, and constructed the above resource (Hardesty 1875).

NRHP Evaluation: The S-149/ HAN0073205 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. Although the resource retains its square floor plan and Italianate lintels, the resource features modern replacement windows and doors, specifically on the second story and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

S-166/ HAN0072305

Location: Universal Transverse Mercator (UTM), Zone 17N, 290319 Easting 4556831 Northing, 2106 Township Road 256, Fostoria, Ohio. Located approximately 0.6 mile to the southeast of the Project Area.

Quadrangle: Fostoria, OH

Construction Date: c.1875

Description: The S-166/ HAN0072305 resource is a two-story, four-by-two bay, frame, Gabled Ell house (Figures 58, 66, 275; Appendix C). The T-plan dwelling is rests on a replacement poured concrete foundation protected by intersecting gables

roofs covered in asphalt shingles. An internal brick chimney pierces the ridge on the gabled end. The fenestration is comprised of six-over-six replacement windows. The primary entrance is located in the second bay of the lateral wing, protected by two-bay wide, hipped roof porch supported by simple wooden posts and railings. A gabled, two-bay garage is attached to the gabled end. Further additions include a gabled, single-story frame unit and a pent roof porch at the intersection of primary unit.

The dwelling is situated on 5.37-acre manicured parcel within a remote agricultural setting on the west side of TR 256, approximately 2.10 miles northwest of the Village of Arcadia. A variety of ornamental vegetation is found along the driveway and walkway with mature deciduous trees scattered throughout the parcel. A sizeable retention pond is located immediately north of the resource. The ancillary structures consist of a c.1890 barn, two small sheds, and a gazebo.

History: The Hancock County Auditor's Office lists a c.1890 construction date, consistent with the resource's style, form, massing, and materials. However, a farmstead is indicated in the vicinity of the resource on a parcel owned by T.B. Hosler, suggesting that the resource is older than what is listed in the county auditor records (Hardesty 1875).

NRHP Evaluation: The S-166/ HAN0072305 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. The building is typical of others in the area and throughout Ohio and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

Assessment of Effects

Two historic properties were identified within the Project's 2-mile Survey Area with the potential to be eligible for the NRHP. These include AR-10/ HAN0072605, located at 108 North Main Street, Arcadia, and S-131/HAN0072705, located at 4813 Township Road 254, Arcadia, Ohio (the completed OHI forms are provided in Appendix C). These resources are located approximately 0.42 miles south of the Project Area, within the Village of Arcadia, and approximately 1.3 miles south of the Project Area, south of the Village of Arcadia, respectively. Weller applied the DOE process to these properties. No other properties – either currently listed in the NRHP or recorded within the Survey Area – are recommended by the Principal Investigator of this survey as eligible for listing on the NRHP.

In order to determine whether the Project would affect these historic properties, Weller applied the Criteria of Adverse Effect (36 CFR Part 800.5). The potential effects were analyzed utilizing a combination of field verification and aerial mapping of the location of the subject properties in relation to the Project Area. Current conditions in the field were used to determine potential visibility of the Project Area, the level of

existing infrastructure present, and other intrusions as well as the nature of the property's significance (NRHP Criterion C).

Two properties identified in the field required an assessment of effects. Tables 6 through 9 present the assessment of effects from the Project on the potentially NRHP-eligible properties, showing a tabular summary of potential effects with respect to the relevant criteria/criterion, followed by a tabular summary of "adverse effect criteria" for which the evaluation considered potential effect.

Table 6. AR-10/ HAN0072605, 108 North Main Street, Arcadia, OH
Evaluation of Criteria of Effect, NRHP-eligible, Criterion C.

Criteria of Effect	***Evaluation of Potential Project Effect***
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The property at 108 North Main Street is eligible for the NRHP under Criterion C. The Project will not cause a change in the qualifying characteristics of the property. The property is located approximately 0.42 miles south of the Project Area within the Village of Arcadia, surrounded by intervening structures within the Village of Arcadia. Due to the distance, intervening structures, and low profile of the proposed Project, the property's significant architectural features and cultural character will remain unaffected.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The Project does not have the potential to change the integrity of the resource's setting due to its distance from the Project Area, surrounding intervening structures within the Village of Arcadia, and low profile of the Project.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The Project will not introduce changes in land use patterns or demographics that may affect the property at 108 North Main Street.
Determination: The Project will have no EFFECT on the property at 108 North Main Street.	

Table 7. AR-10/ HAN0072605, 108 North Main Street, Arcadia, OH
Application of Adverse Criteria of Effect.

Criteria of Adverse Effect	**Determination of Adverse Effect**
Physical destruction of or damage to all or part of the property?	No Effect The property at 108 North Main Street is located approximately 0.42 miles south of the Project Area within Village of Arcadia. No part of the Project will cause destruction or damage to any part of the property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of	No Effect Construction of the Project will not result in any

Criteria of Adverse Effect	Determination of Adverse Effect
handicapped access?	alterations of the property at 108 North Main Street. The Project will not inhibit or impede any current function of the property.
Removal of the property from its historic location?	No Effect Construction of the Project will not cause the removal of the property at 108 North Main Street from its historic location.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect Construction of the Project will not alter the character of the property's use or any physical features within its setting. The Project Area is approximately 0.42 miles to the north.
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features	No Adverse Effect This property is eligible under Criterion C as a fine example of an intact, brick false front building in a small railroad village. The property will not be affected by the Project, a solar facility that is proposed (at its closest point) approximately 0.42 miles to the north. No harmful visual, atmospheric, or audible elements will be introduced due to distance, vegetation, and by surrounding intervening structures within the Village of Arcadia.
Neglect of the property, which results in its demolition or deterioration?	No Effect Construction of the Project will not result in neglect leading to demolition or deterioration of the property at 108 North Main Street.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect This is not relevant, as the property at 108 North Main Street is not federally controlled.
Determination: The Project will have NO ADVERSE EFFECT on the property at 108 North Main Street. The Project will not introduce any negative impacts that will diminish the historical and architectural significance of the residence that qualifies it for NRHP listing.	

Table 8. S-131/ HAN0072705, 4813 Township Road 254, Arcadia, OH
Evaluation of Criteria of Effect, NRHP-eligible, Criterion C.

Criteria of Effect	***Evaluation of Potential Project Effect***
An undertaking shall be considered to have an effect on a National Register property or National Register-eligible property whenever any condition of the undertaking:	
(A) Causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural character that qualifies the property under the National Register Criteria.	(A) The property at 4813 Township Road 254 is eligible for the NRHP under Criterion C. The Project will not cause a change in the qualifying characteristics of the property. The property is located approximately 1.3 miles south of the Project Area, and south of the intervening structures associated with the Village of

	Arcadia. Due to the distance, intervening structures, and low profile of the Project, the property's significant architectural features and cultural character will remain unaffected.
(B) Changes the integrity of location, design, setting, materials, workmanship, feeling, or association of the property that contribute to its significance in accordance with the National Register criteria.	(B) The Project does not have the potential to change the integrity of the resource's setting due to its distance from the Project Area, intervening structures associated with the Village of Arcadia, and low profile of the Project.
(C) Changes (direct or indirect) in patterns of land use, population density, or growth rate that may affect properties of historical, architectural, archaeological, or cultural significance.	(C) The Project will not introduce changes in land use patterns or demographics that may affect the property at 4813 Township Road 254.
Determination: The Project will have no EFFECT on the property at 4813 Township Road 254.	

Table 9. S-131/ HAN0072705, 4813 Township Road 254, Arcadia, OH.

Criteria of Adverse Effect	Determination of Adverse Effect
Physical destruction of or damage to all or part of the property?	No Effect The property at 4813 Township Road 254 is located approximately 1.3 miles south of the Project Area and south of the Village of Arcadia. No part of the Project will cause destruction or damage to any part of the property.
Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access?	No Effect Construction of the Project will not result in any alterations of the property at 4813 Township Road 254. The Project will not inhibit or impede any current function of the property.
Removal of the property from its historic location?	No Effect Construction of the Project will not cause the removal of the property at 4813 Township Road 254 from its historic location.
Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance?	No Effect Construction of the Project will not alter the character of the property's use or any physical features within its setting. The Project Area is approximately 1.3 miles to the north.
Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features	No Adverse Effect This property is eligible under Criterion C as an example of an intact, high-style, transitional Italianate and Neoclassical residence. The property will not be affected by the Project, a solar facility that is proposed (at its closest point) approximately 1.3 miles away. No

Criteria of Adverse Effect	Determination of Adverse Effect
	harmful visual, atmospheric, or audible elements will be introduced due to distance, vegetation, and other buildings, notably those associated with the Village of Arcadia, located between the property and the Project.
Neglect of the property, which results in its demolition or deterioration?	No Effect Construction of the Project will not result in neglect leading to demolition or deterioration of the property at 4813 Township Road 254.
Transfer, lease, or sale of property out of federal ownership or control?	No Effect This is not relevant, as the property at 4813 Township Road 254 is not federally controlled.
Determination: The Project will have NO ADVERSE EFFECT on the property at 4813 Township Road 254. The Project will not introduce any negative impacts that will diminish the historical and architectural significance of the residence that qualifies it for NRHP listing.	

Conclusions and Recommendations

In May, July, and August of 2021, Weller conducted History/Architecture Investigations for the 404.7 ha (1,000 ac) Project in Washington Township, Hancock County, Ohio.

No listed NRHP properties are located within 2 miles of the Project Area. The field survey was conducted for an APE defined as a 2-mile radius from the Project Area, with portions of the Village of Arcadia evaluated but not documented due to structure density and obstructed line-of-sight; this was limited to the northern edge, nearly adjacent to the southern boundaries of the Project. A total of 202 field recorded and four re-identified previously recorded OHIs were identified in the 2-mile Survey Area, which includes Washington and Cass Townships, Hancock County, and Fostoria Township, Wood County, and the Village of Arcadia.

The Assessment of Effects determined that the Project would not constitute an adverse effect on the two resources determined as potentially eligible for listing on the NRHP. The field recorded AR-10/ HAN0072605 and S-131/HAN0072705 are located approximately 0.42 miles and 1.3 mile south of the Project Area, respectively, and in the case of the latter resource, south of the Village of Arcadia, separated from the Project Area by distance, vegetation, and by intervening structures. It is in Weller's opinion that both resources are considered eligible for individual listing in the NRHP under Criterion C.

The remaining 200 field recorded and four re-identified previously recorded OHIs within the 2-Mile Survey Area are ineligible for listing in the NRHP under Criteria A, B, and C due to a lack of associative significance, a loss of character defining features, and extensive alterations, including additions inconsistent with original structure style. Therefore, Weller recommends a finding of "no adverse effect to historic properties"

for this Project.

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Figures

Figure 1. Political map of Ohio showing the approximate location of the project.

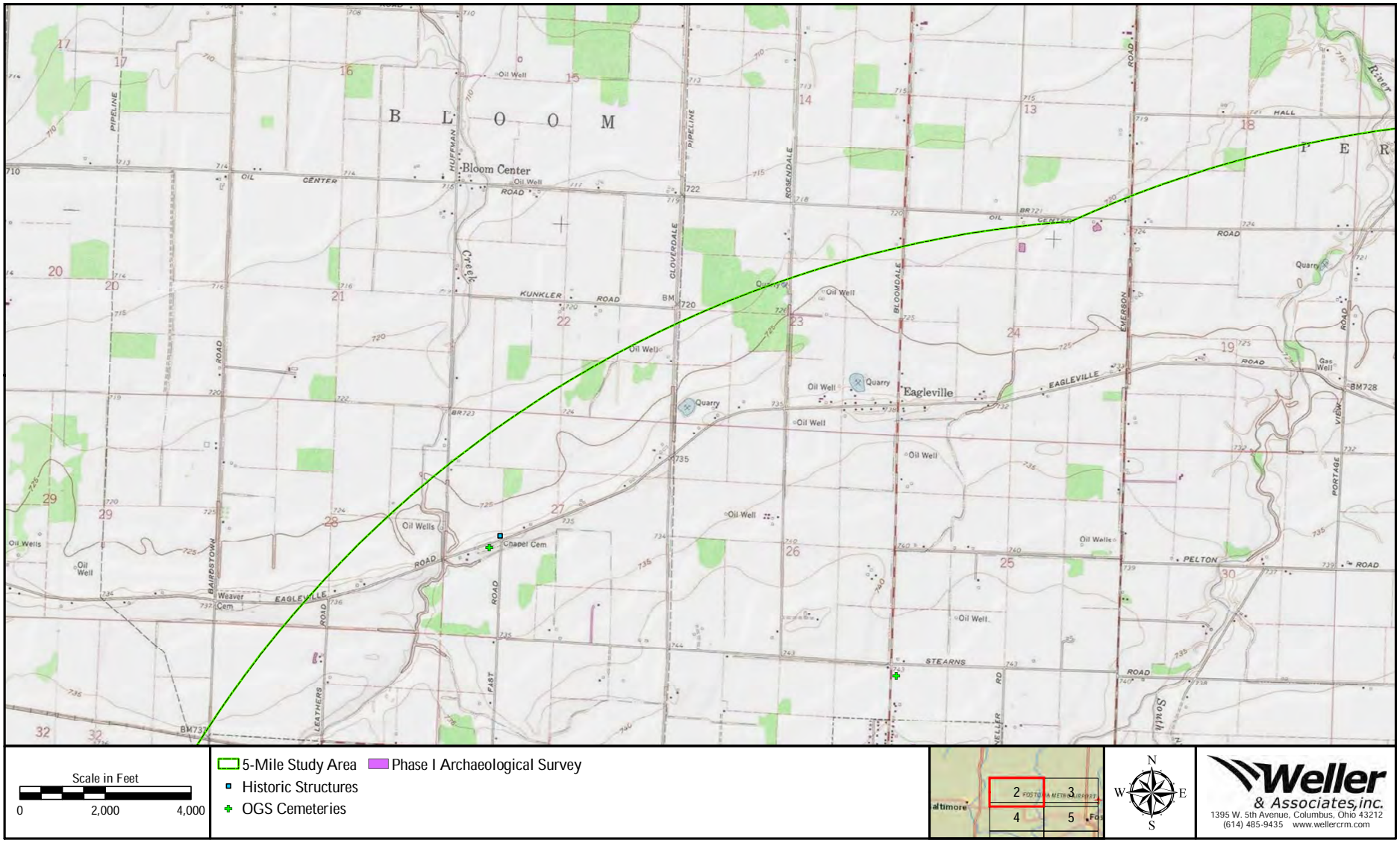

Figure 2. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

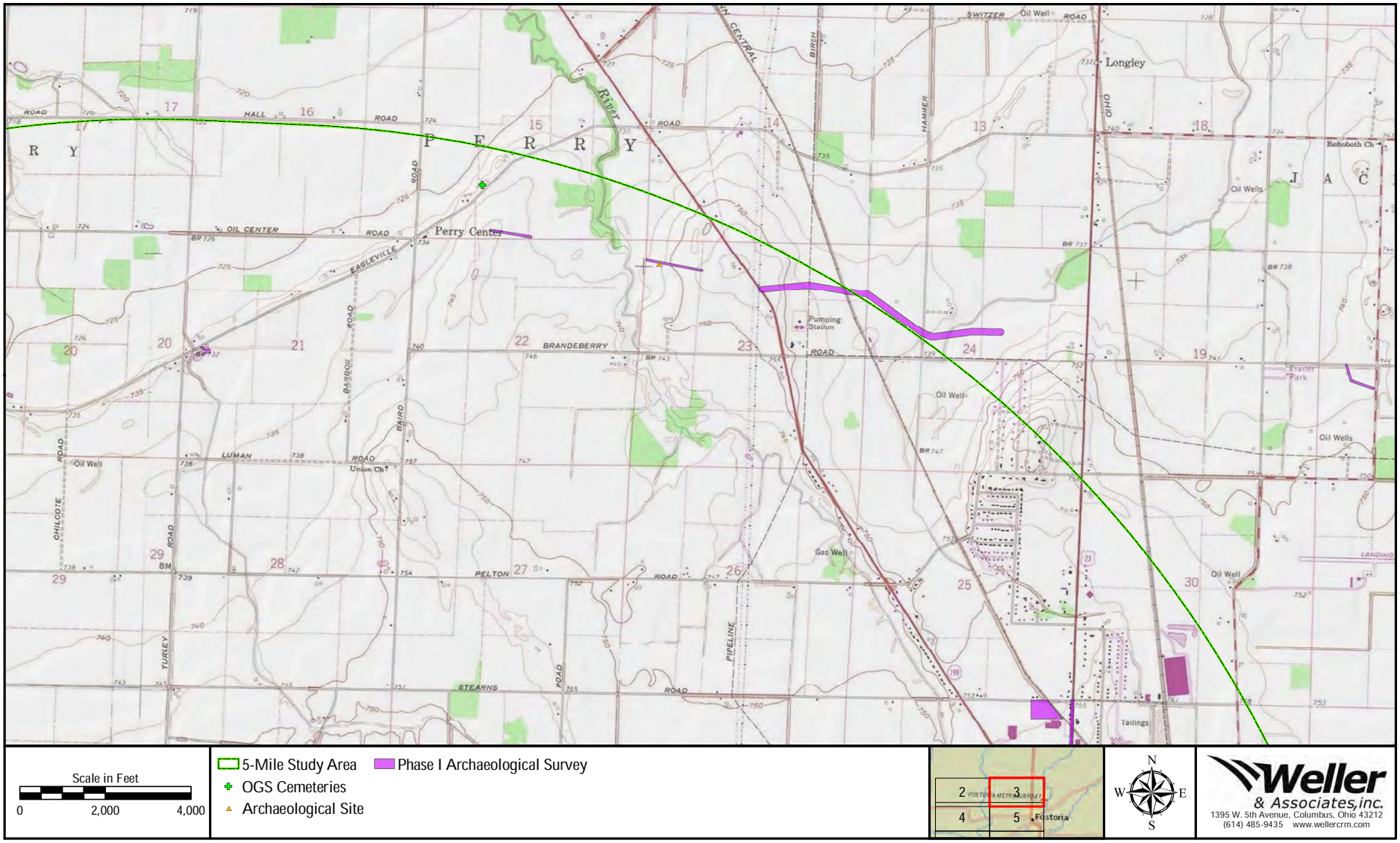

Figure 3. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

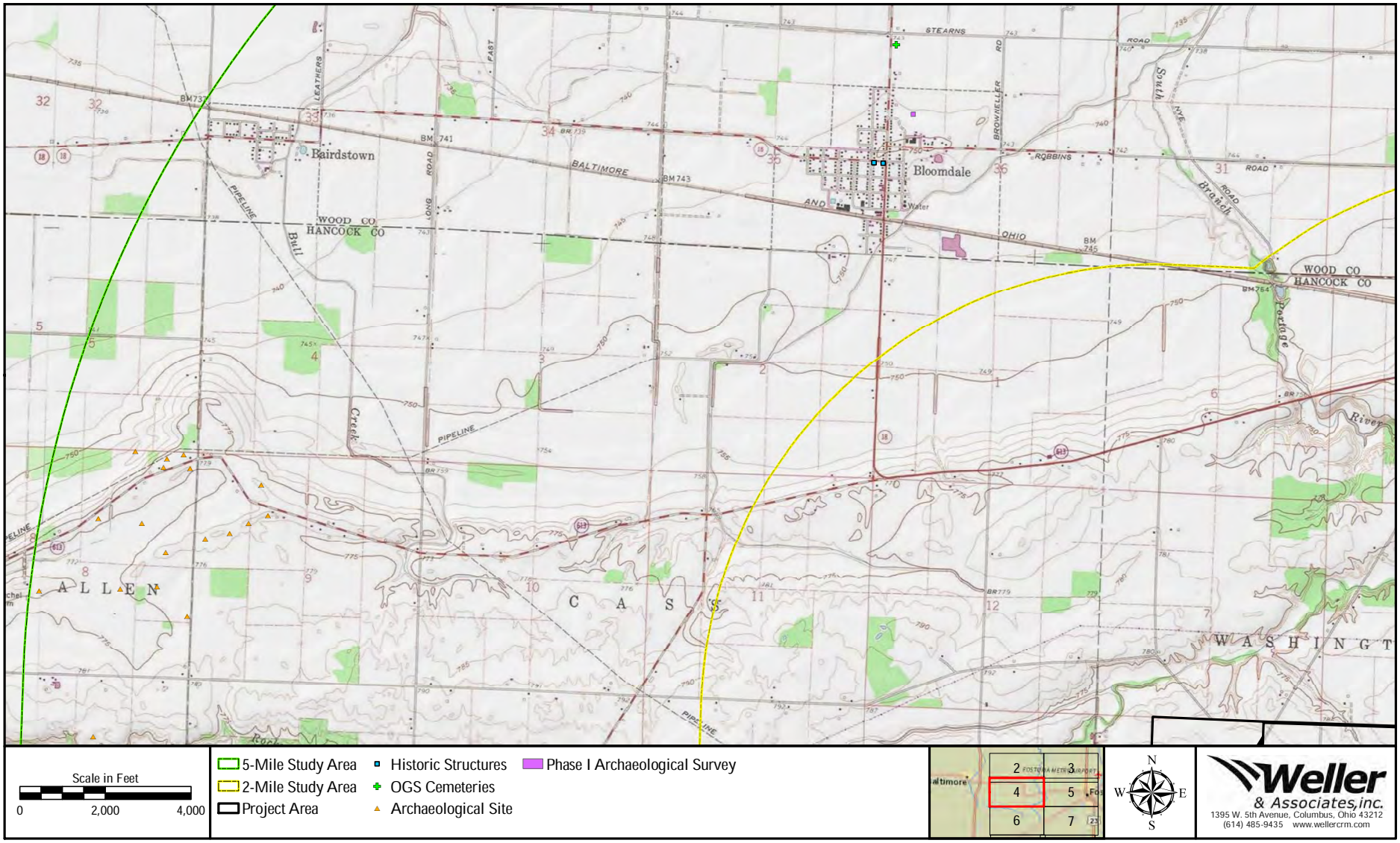

Figure 4. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

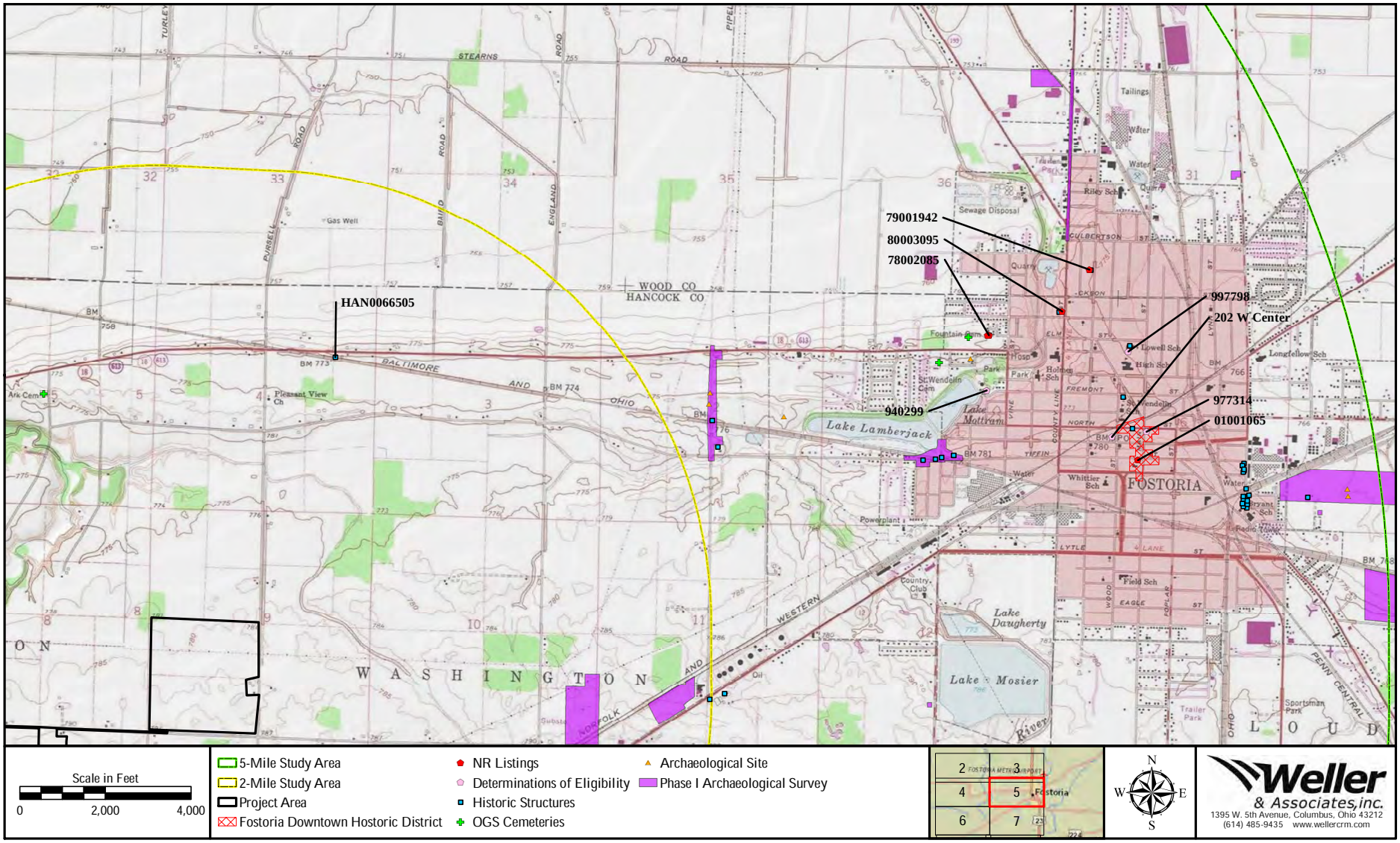

Figure 5. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

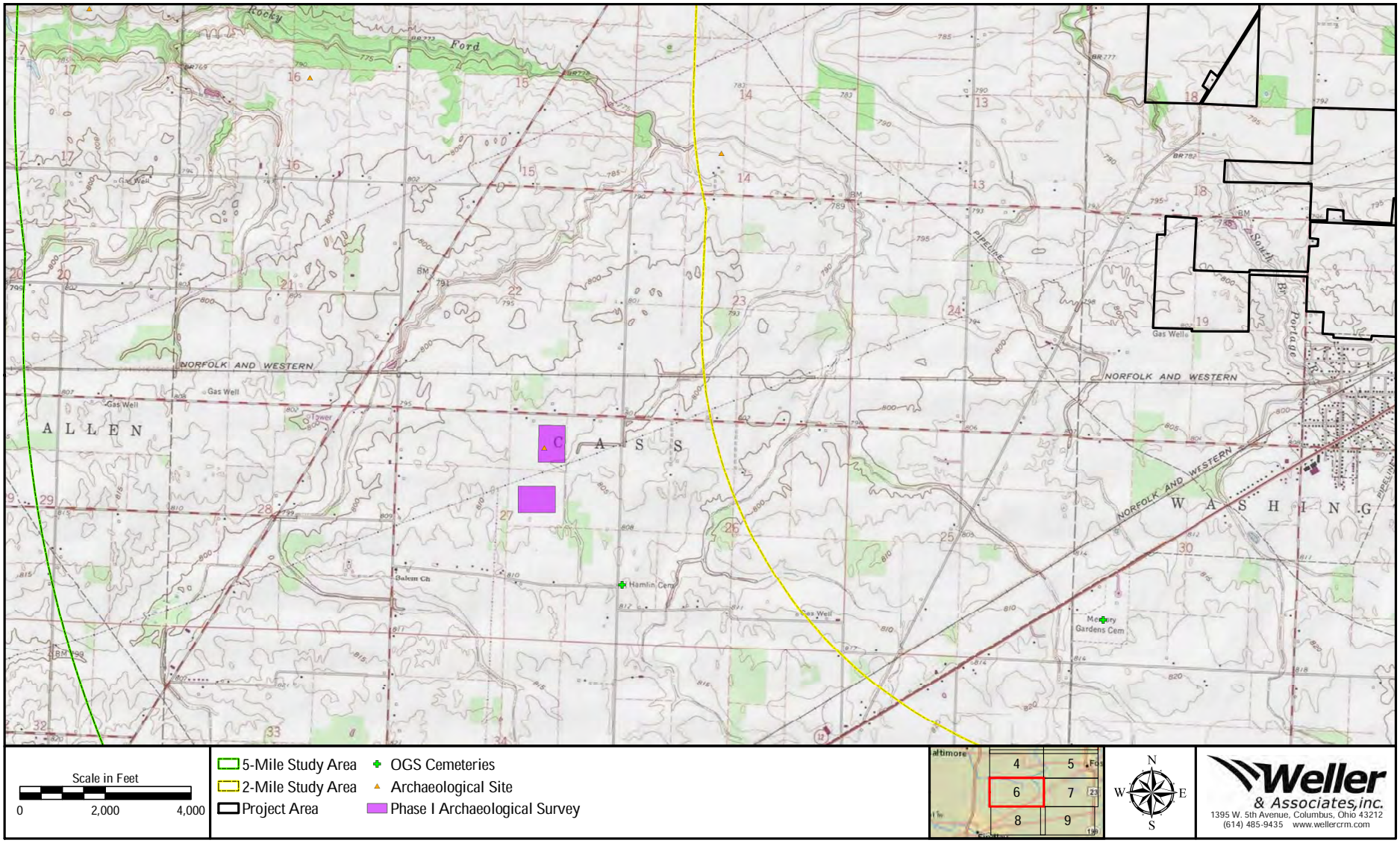

Figure 6. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

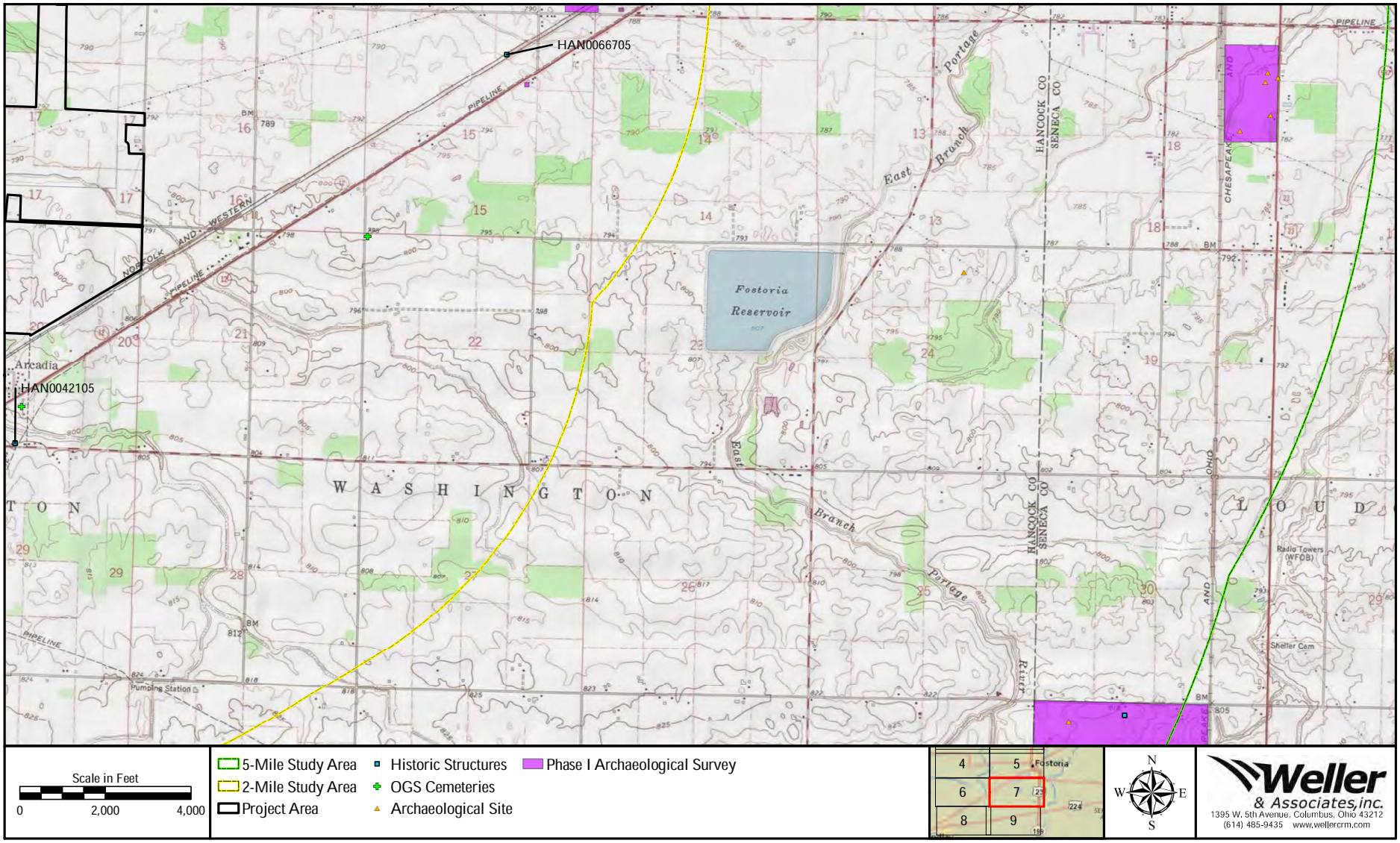

Figure 7. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

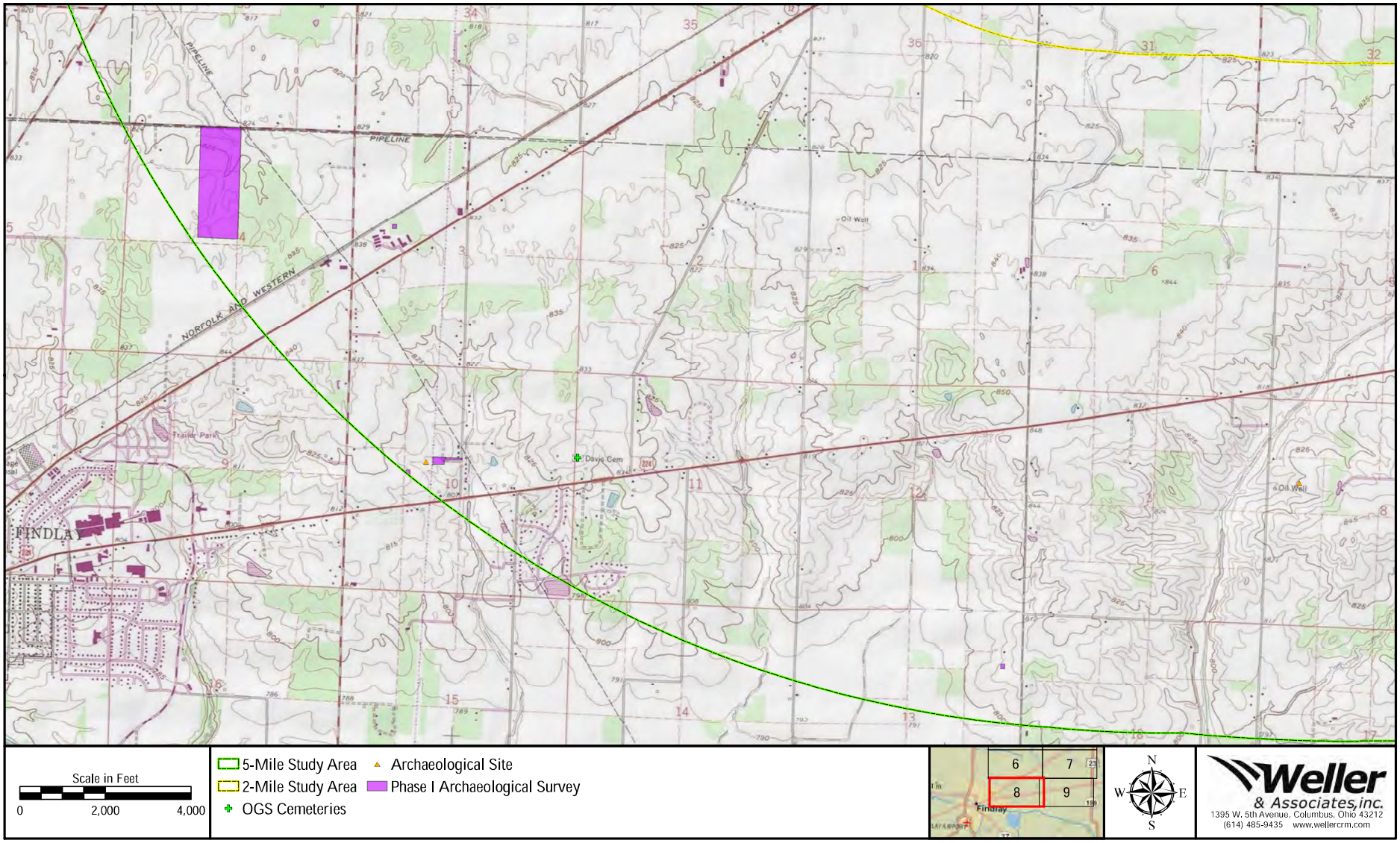

Figure 8. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

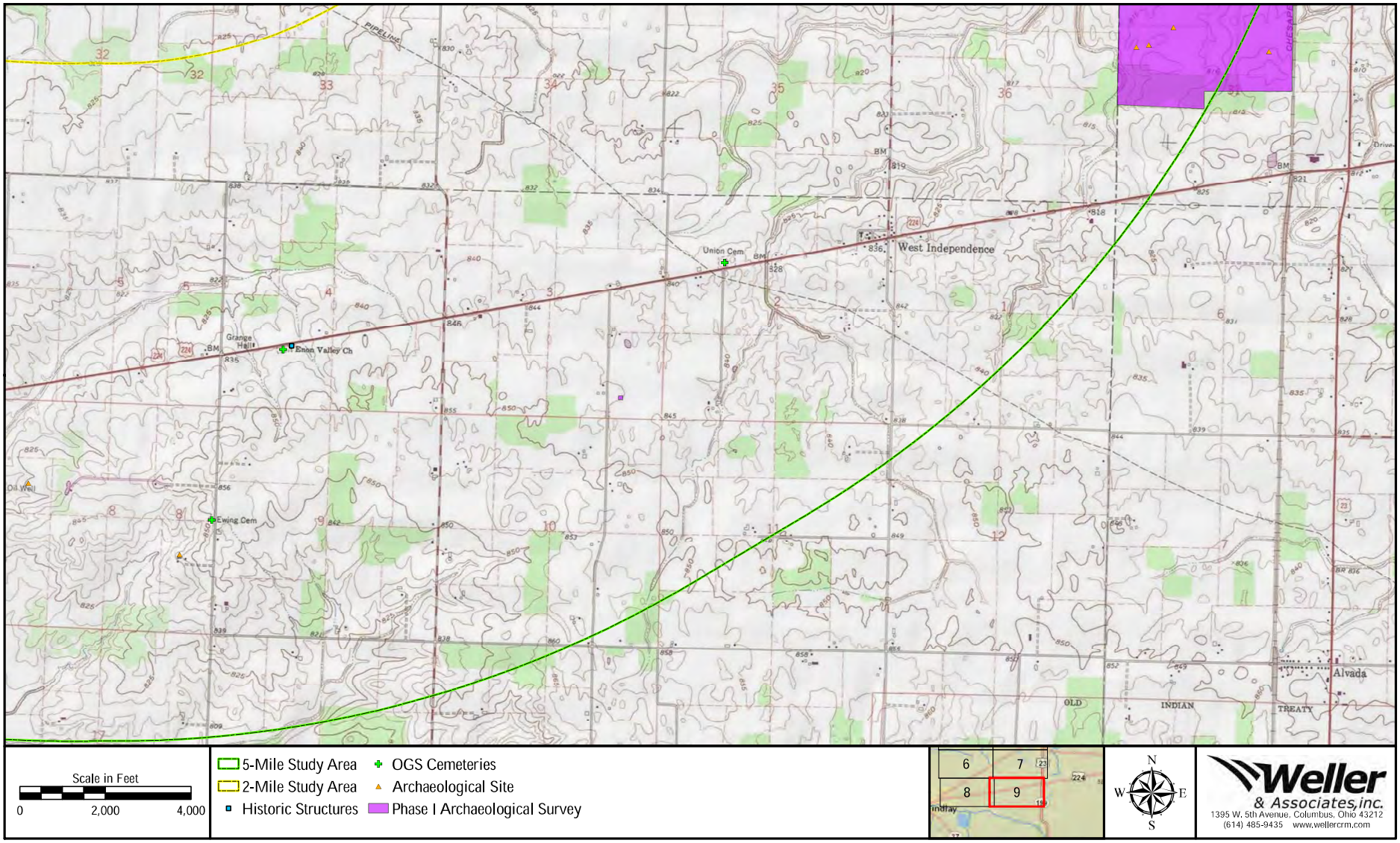

Figure 9. Portions of the USGS *1973 Bloomdale, Fostoria, Arcadia, and Alvada, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

Figure 10. Aerial map indicating the location of the project area and recorded resources within the study area.

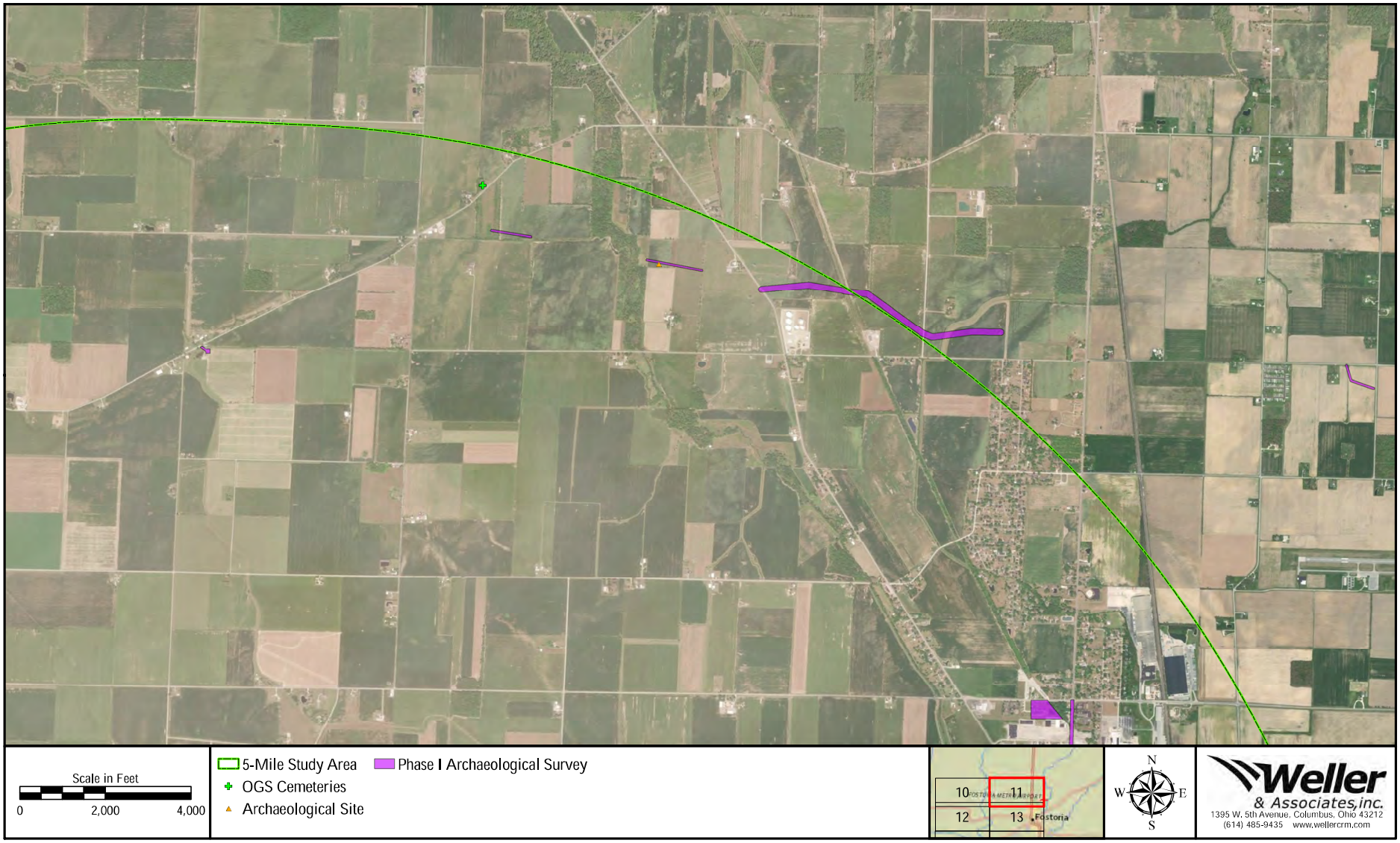

Figure 11. Aerial map indicating the location of the project area and recorded resources within the study area.

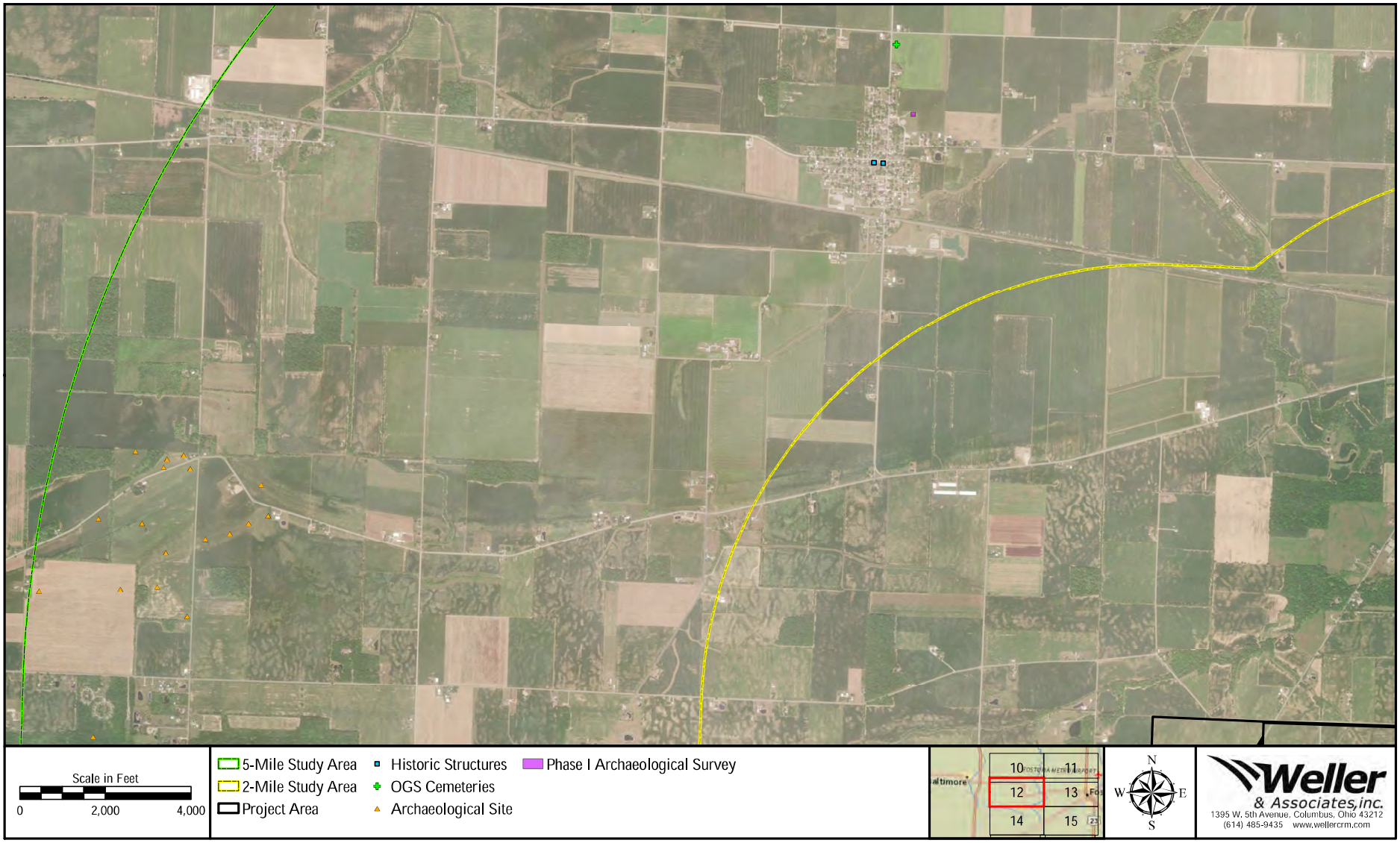

Figure 12. Aerial map indicating the location of the project area and recorded resources within the study area.

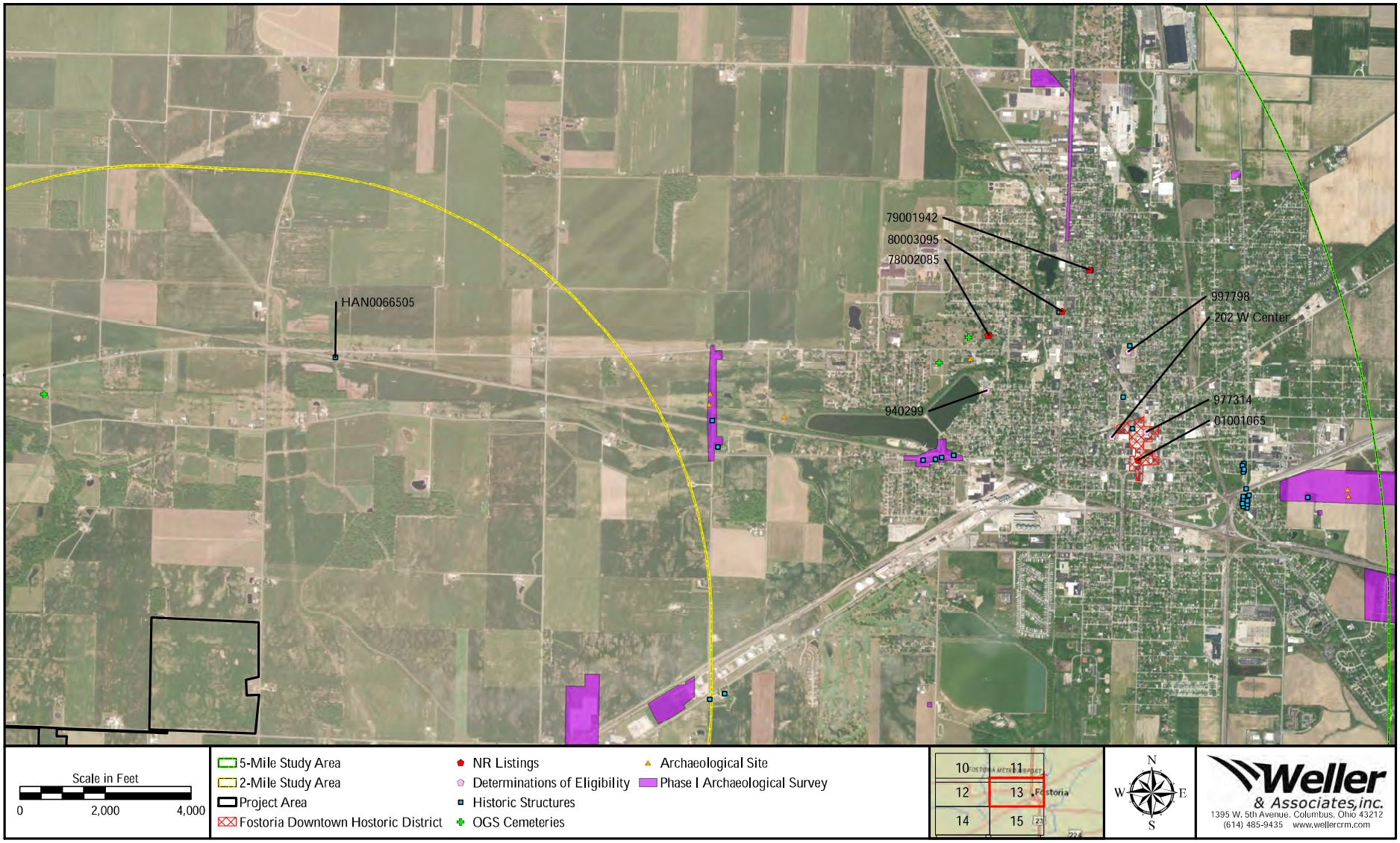

Figure 13. Aerial map indicating the location of the project area and recorded resources within the study area.

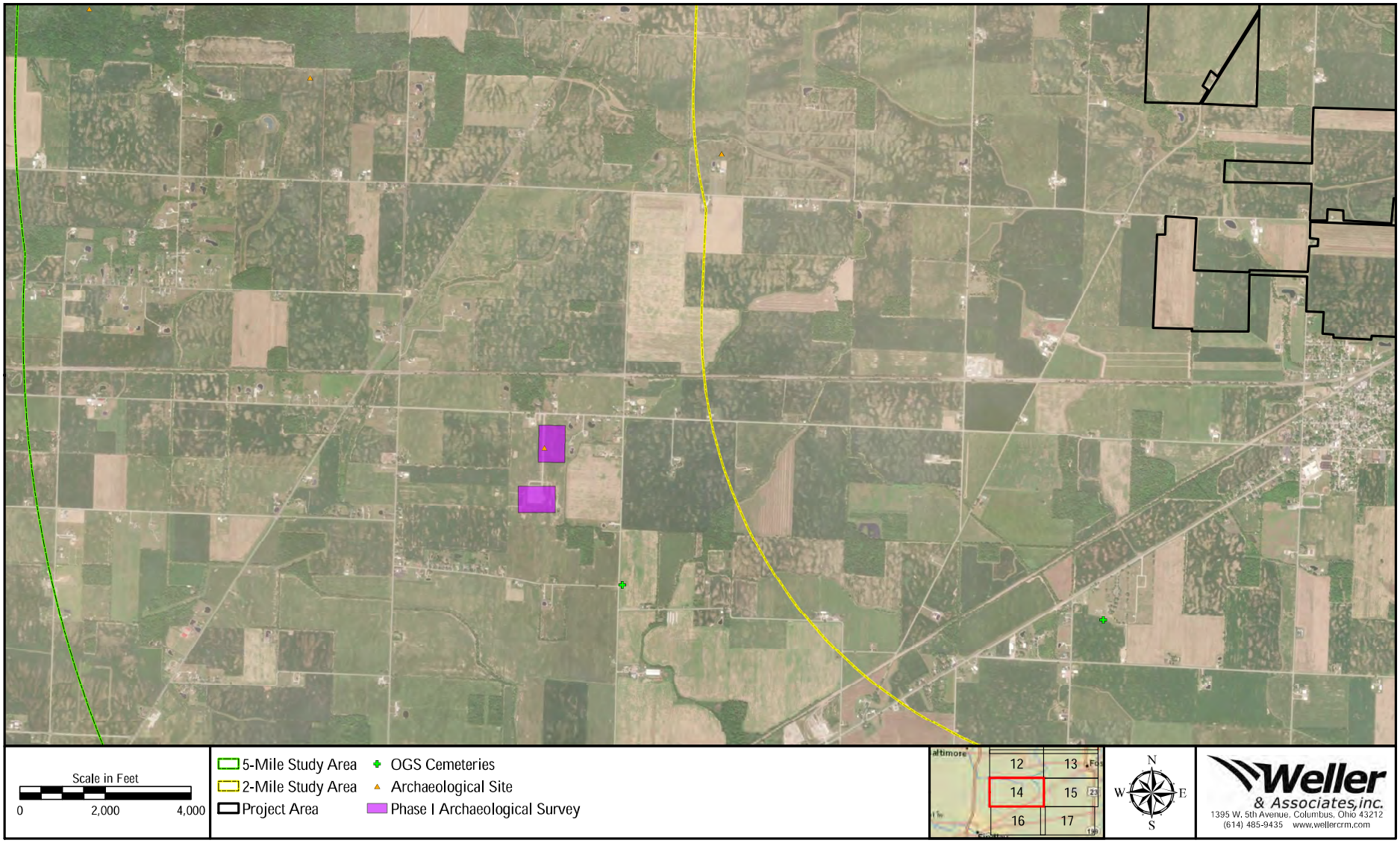

Figure 14. Aerial map indicating the location of the project area and recorded resources within the study area.

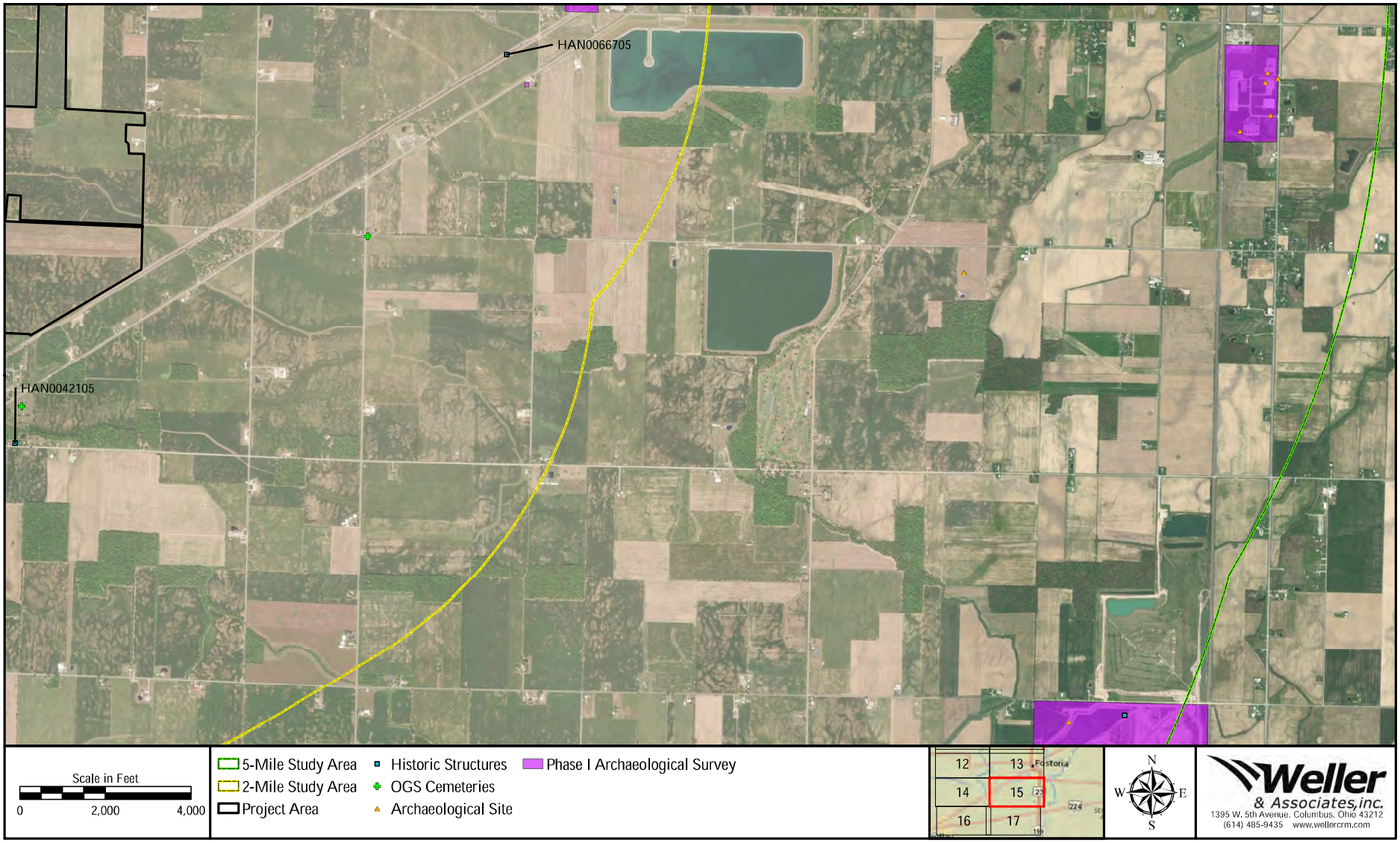

Figure 15. Aerial map indicating the location of the project area and recorded resources within the study area.

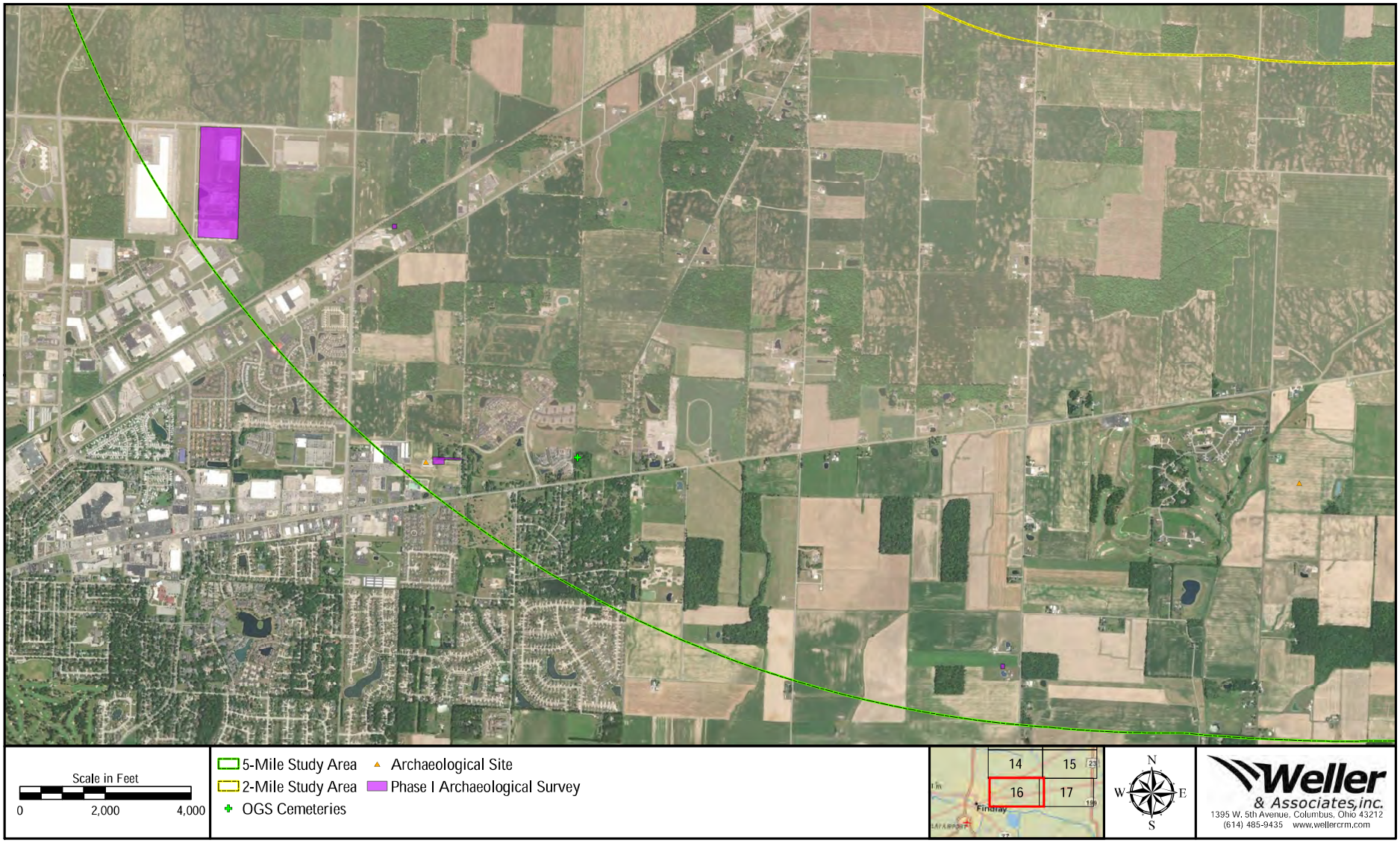

Figure 16. Aerial map indicating the location of the project area and recorded resources within the study area.

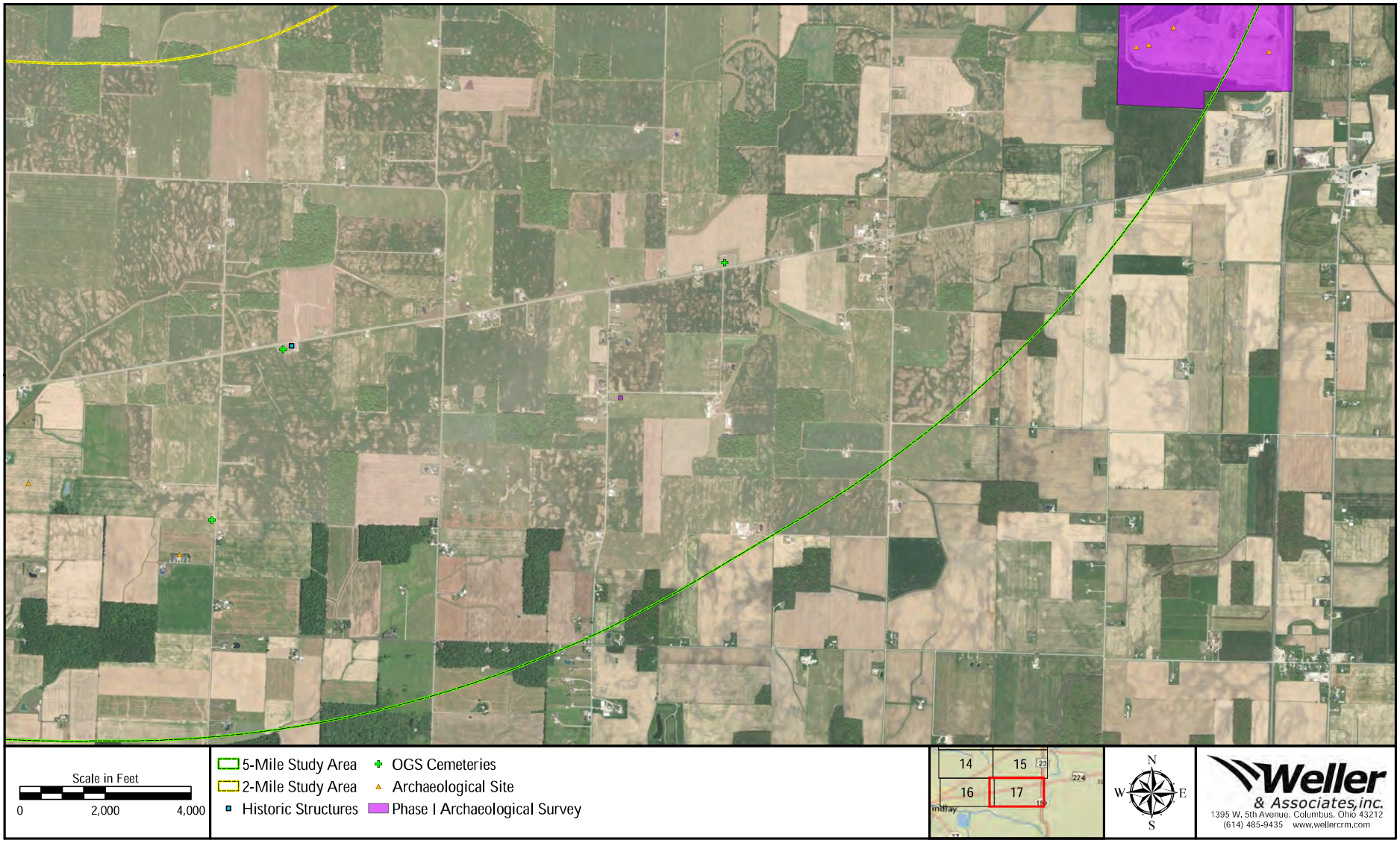

Figure 17. Aerial map indicating the location of the project area and recorded resources within the study area.

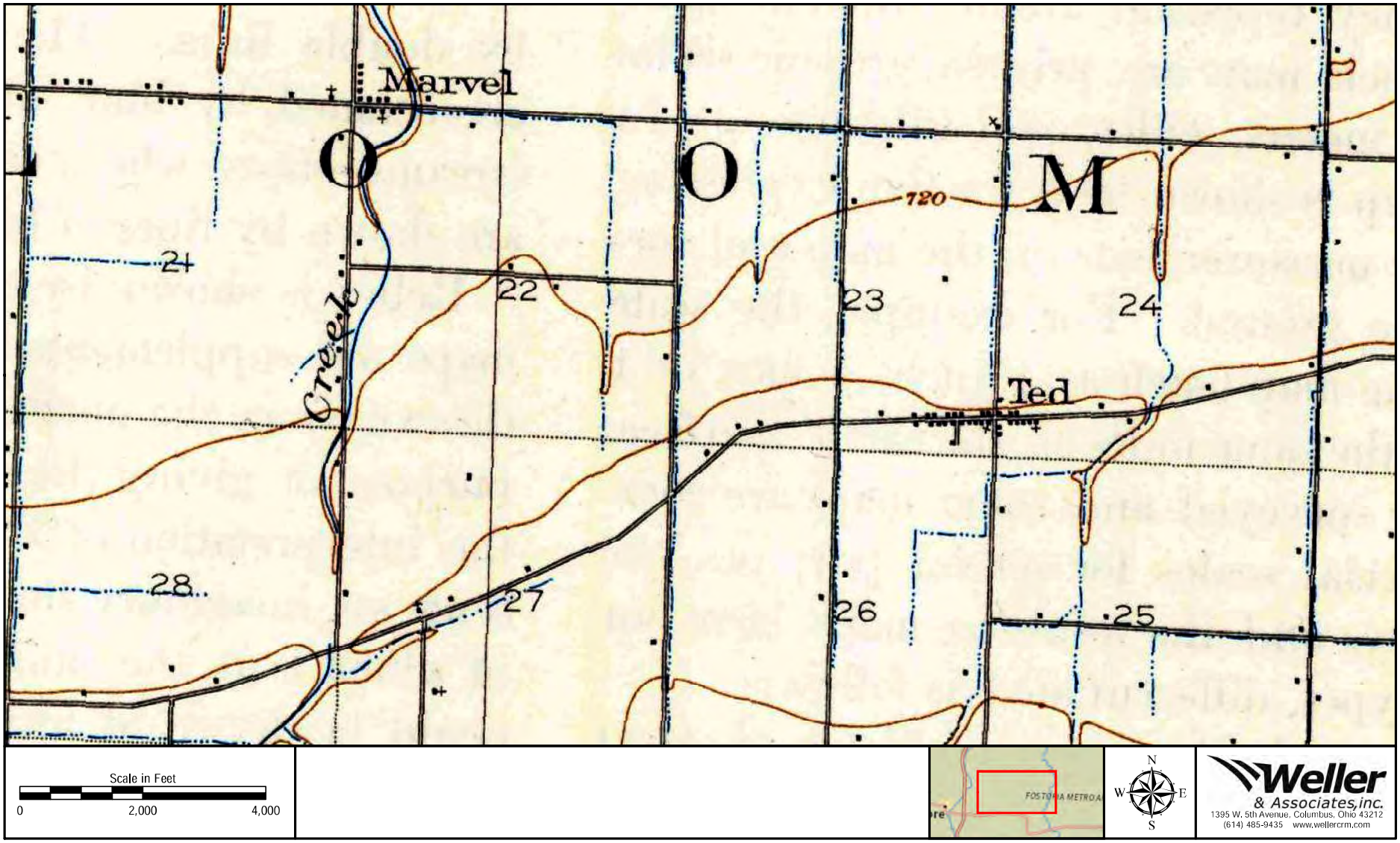

Figure 18. Portion of the USGS *1903 Findlay, and 1901 Fostoria, Ohio 15 Minute Series (Topographic)* map indicating the approximate location of the project.

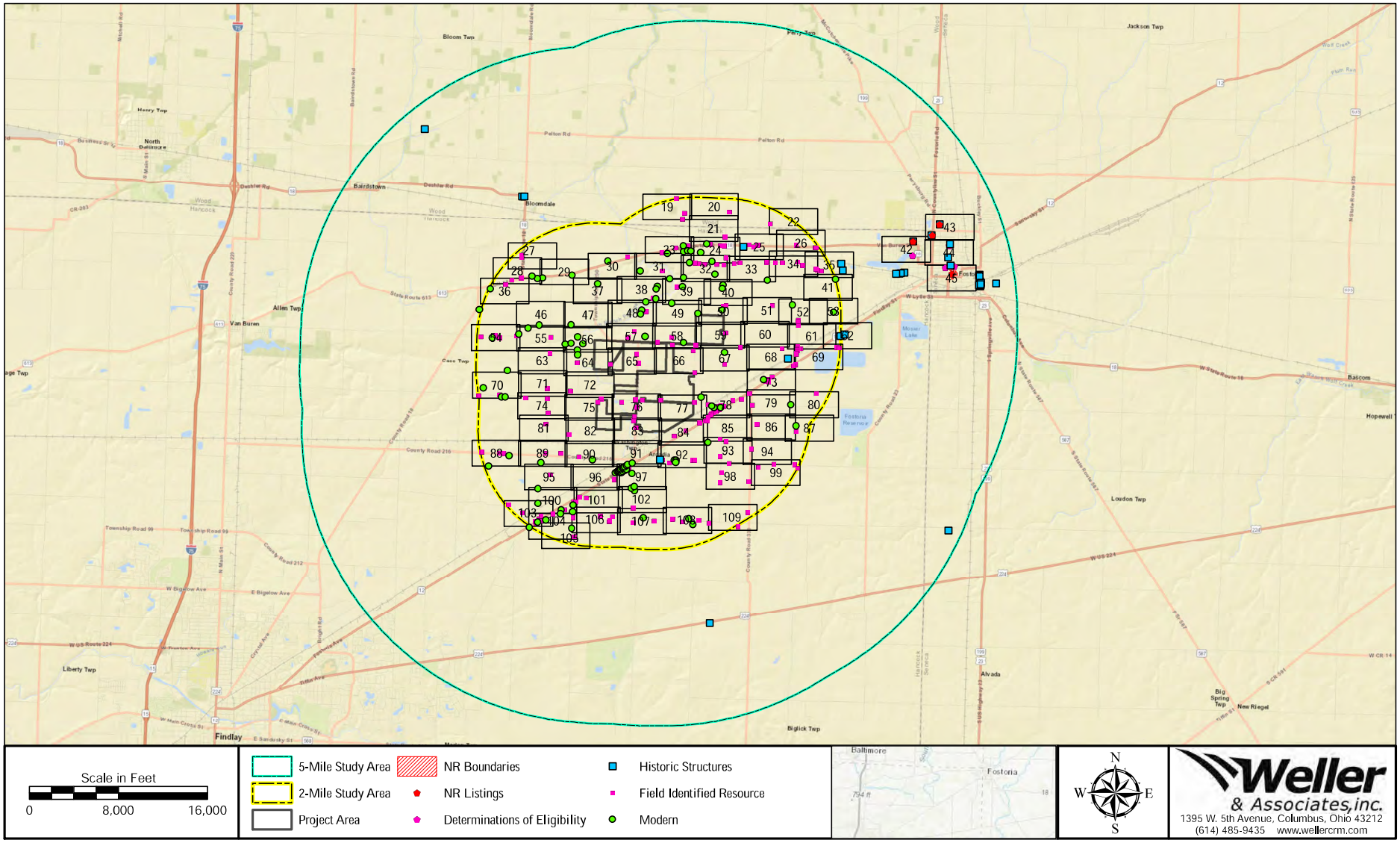

Figure 19. Overview of the Proposed Project 2- and 5-Mile Study Areas, previously recorded resources, field recorded resources, and modern buildings.

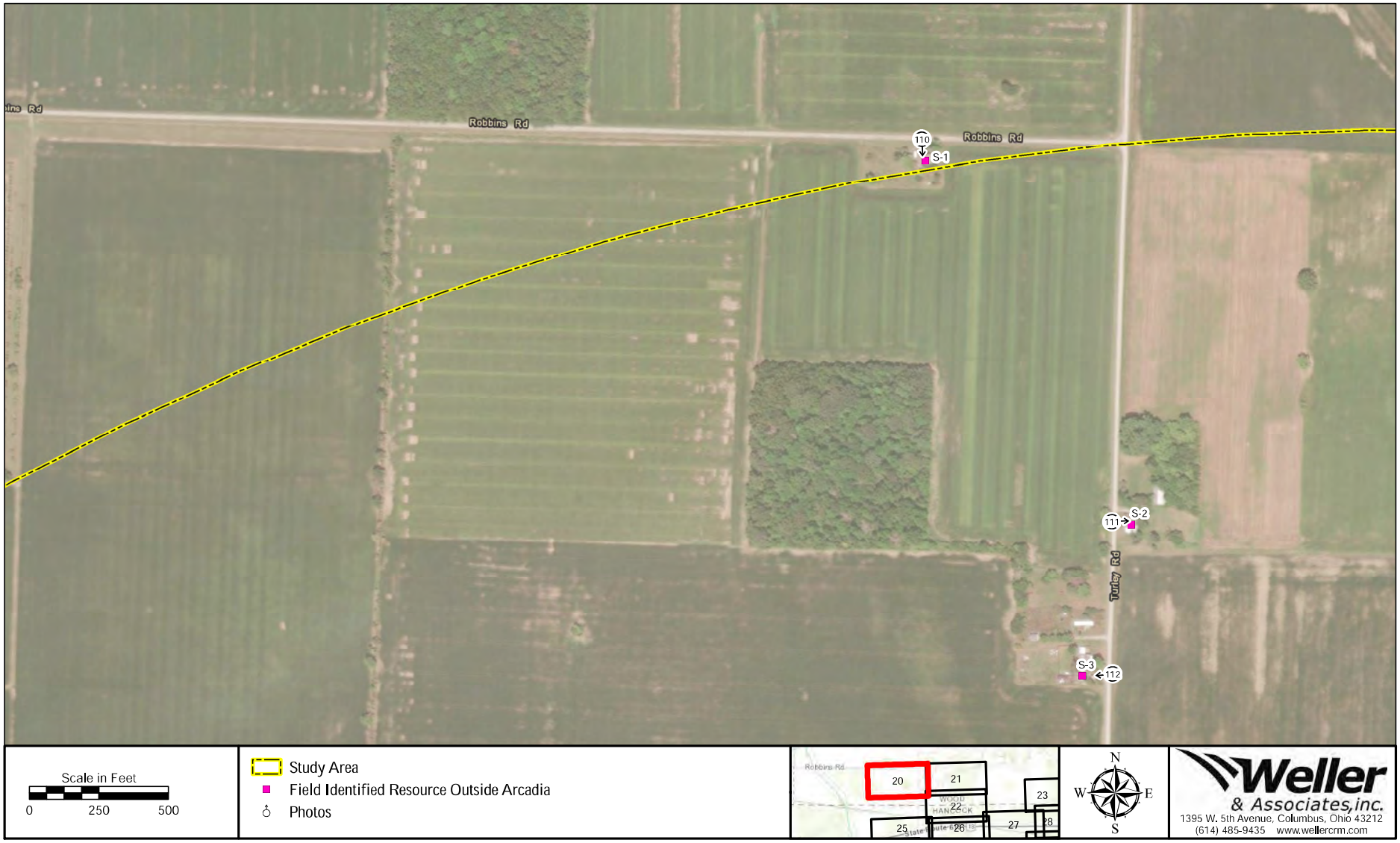

Figure 20. Fieldwork results and photo orientation map.

Figure 21. Fieldwork results and photo orientation map.

Figure 22. Fieldwork results and photo orientation map.

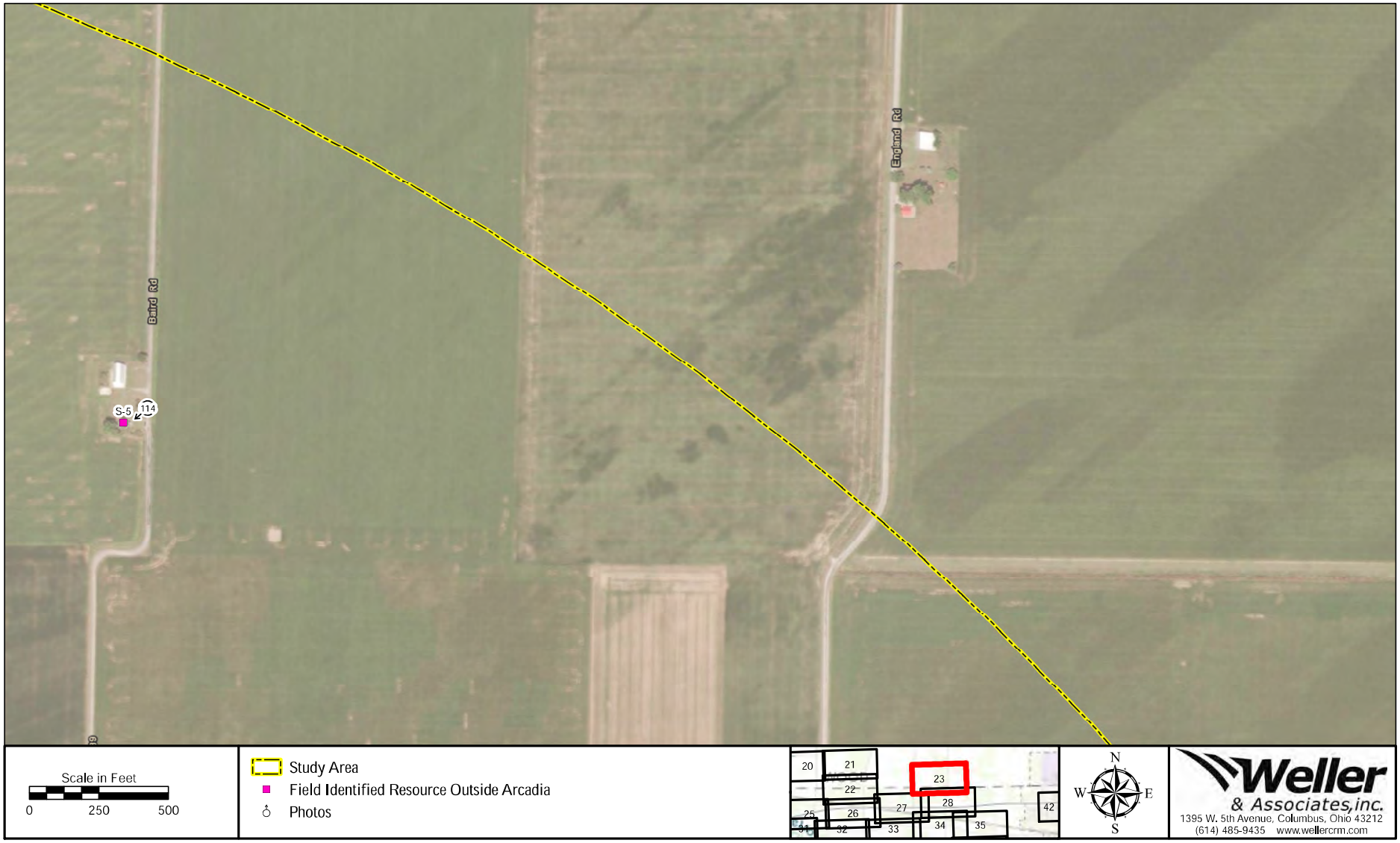

Figure 23. Fieldwork results and photo orientation map.

Figure 24. Fieldwork results and photo orientation map.

Figure 25. Fieldwork results and photo orientation map.

Figure 26. Fieldwork results and photo orientation map.

Figure 27. Fieldwork results and photo orientation map.

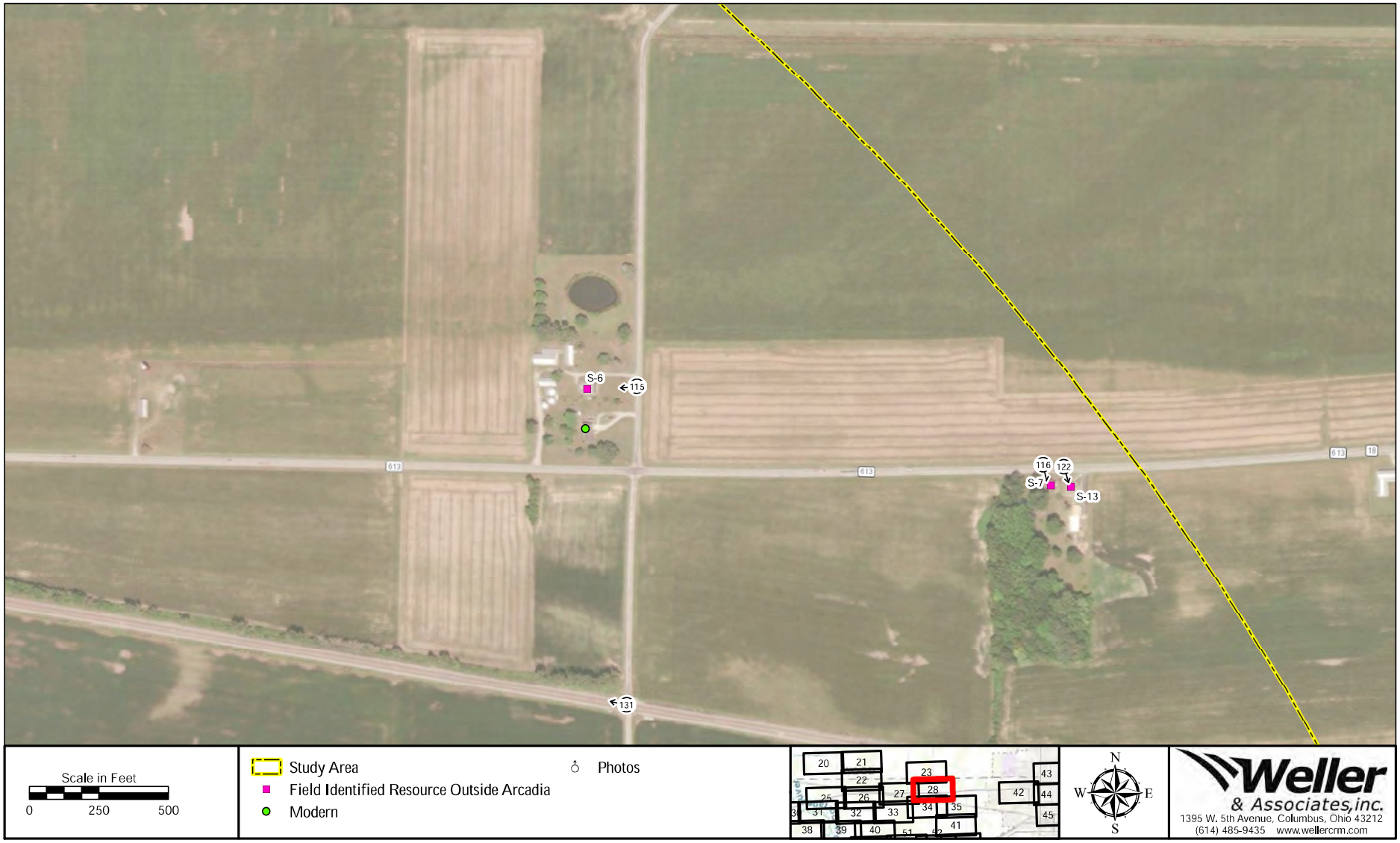

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Figure 29. Fieldwork results and photo orientation map.

Figure 30. Fieldwork results and photo orientation map.

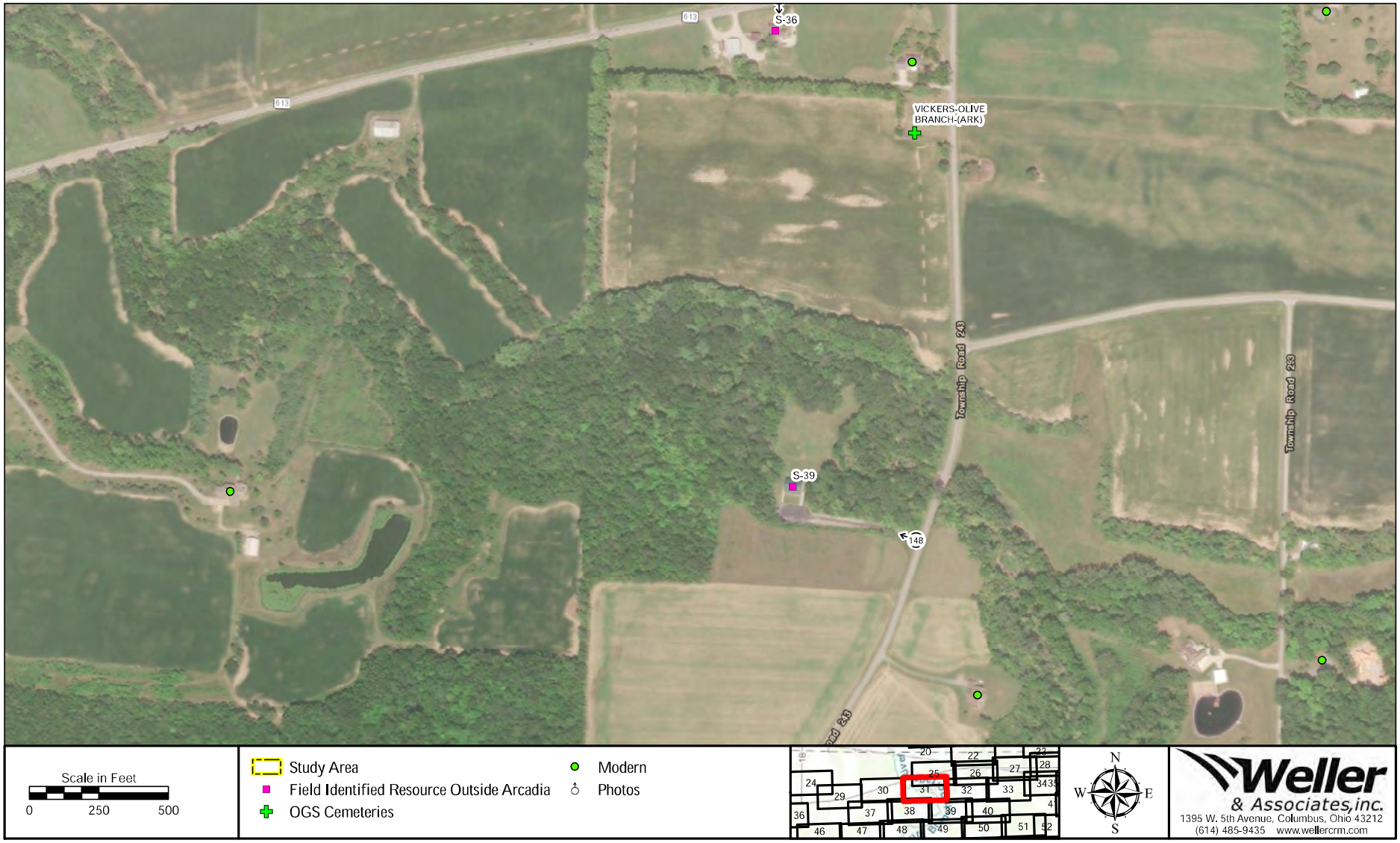

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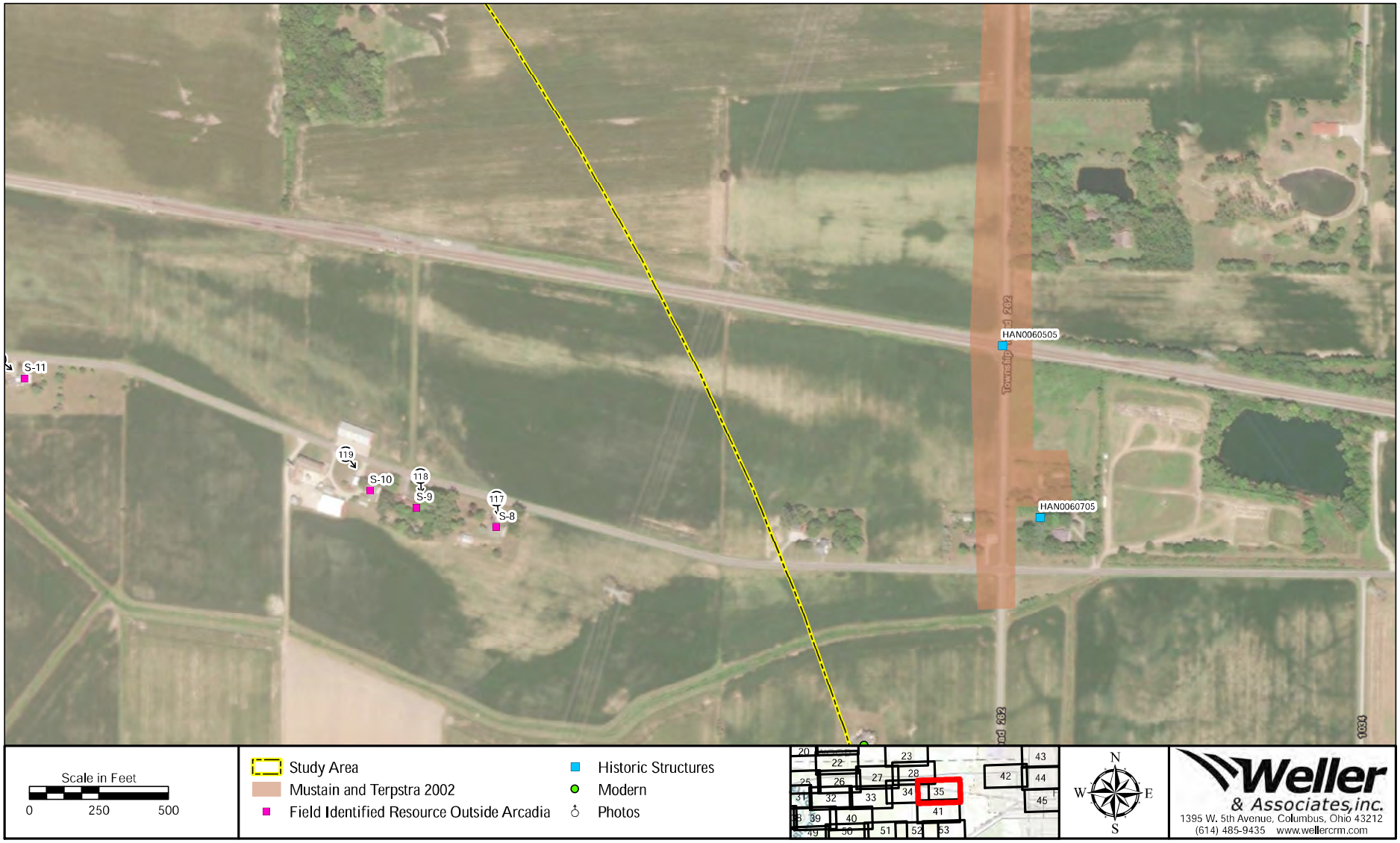
Figure 32. Fieldwork results and photo orientation map.

Figure 33. Fieldwork results and photo orientation map.

Figure 34. Fieldwork results and photo orientation map.



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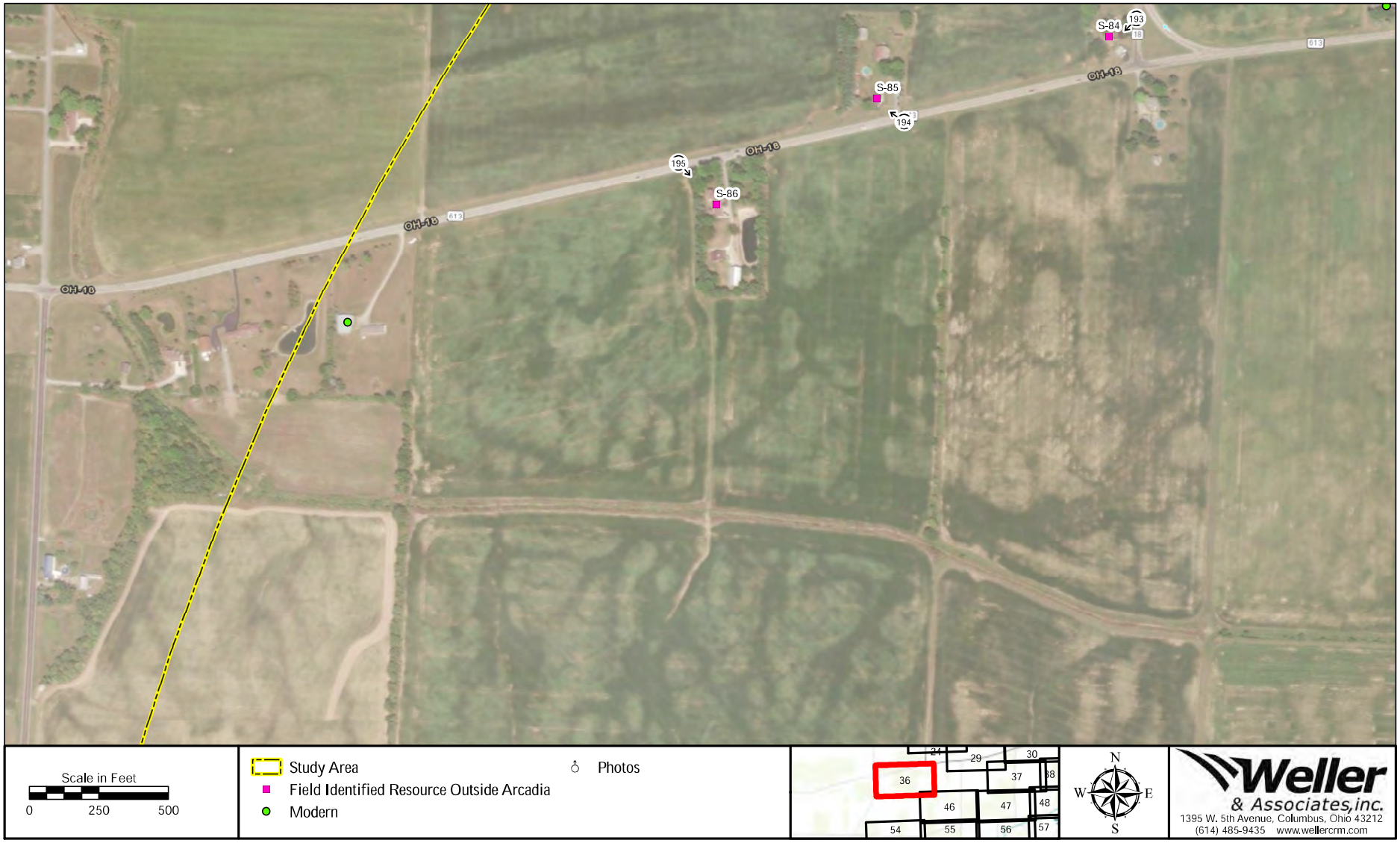

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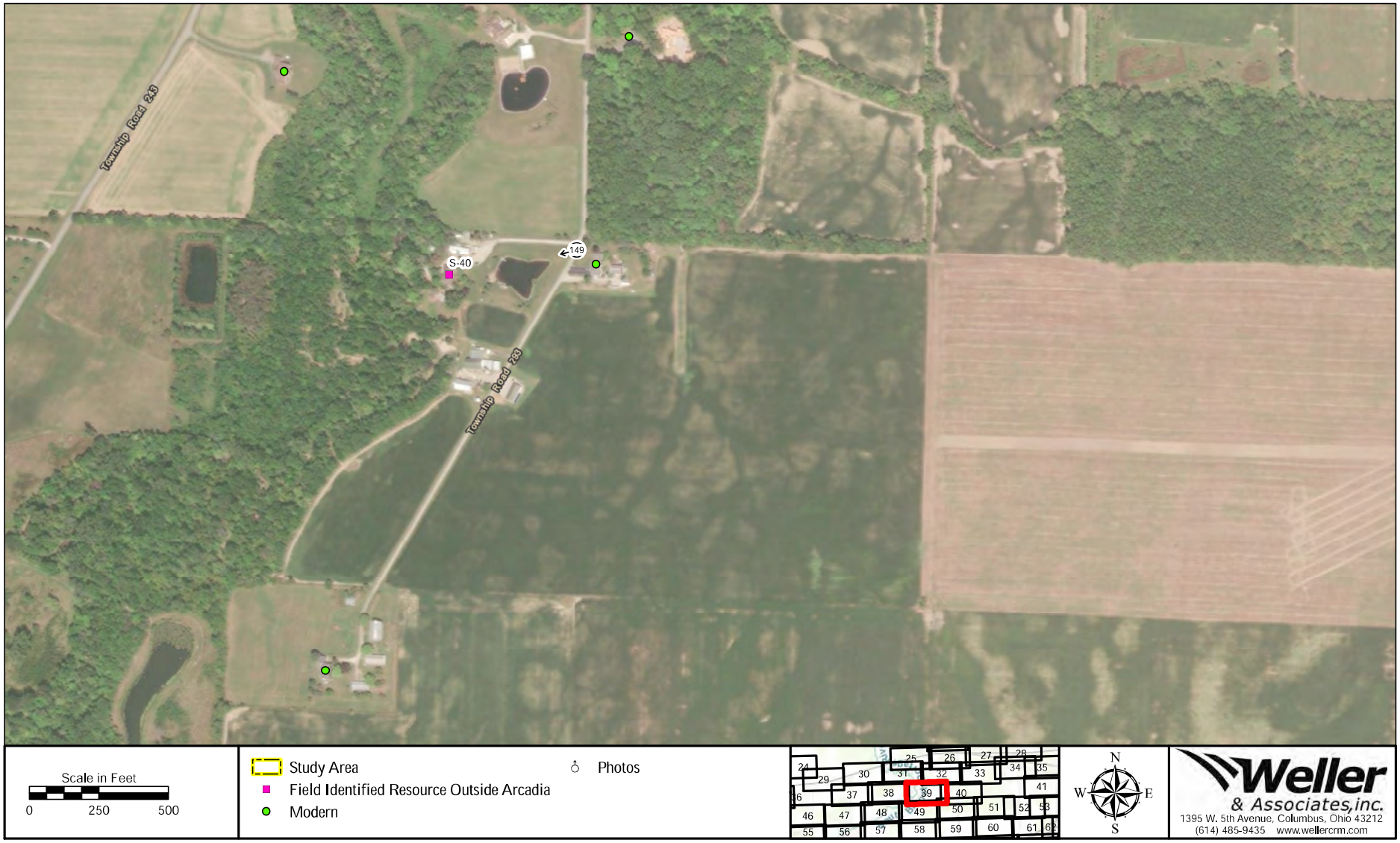
Figure 37. Fieldwork results and photo orientation map.

Figure 38. Fieldwork results and photo orientation map.



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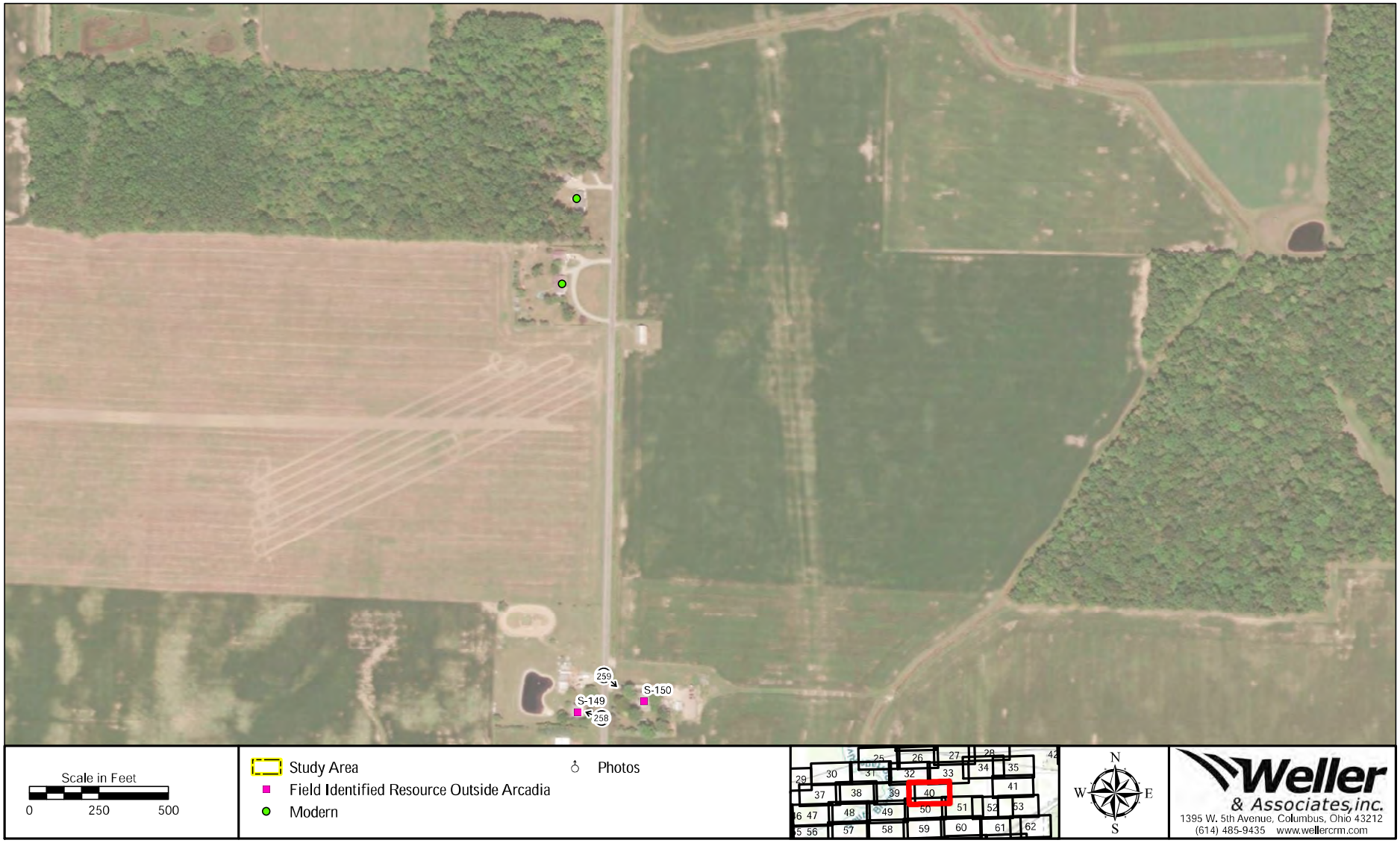

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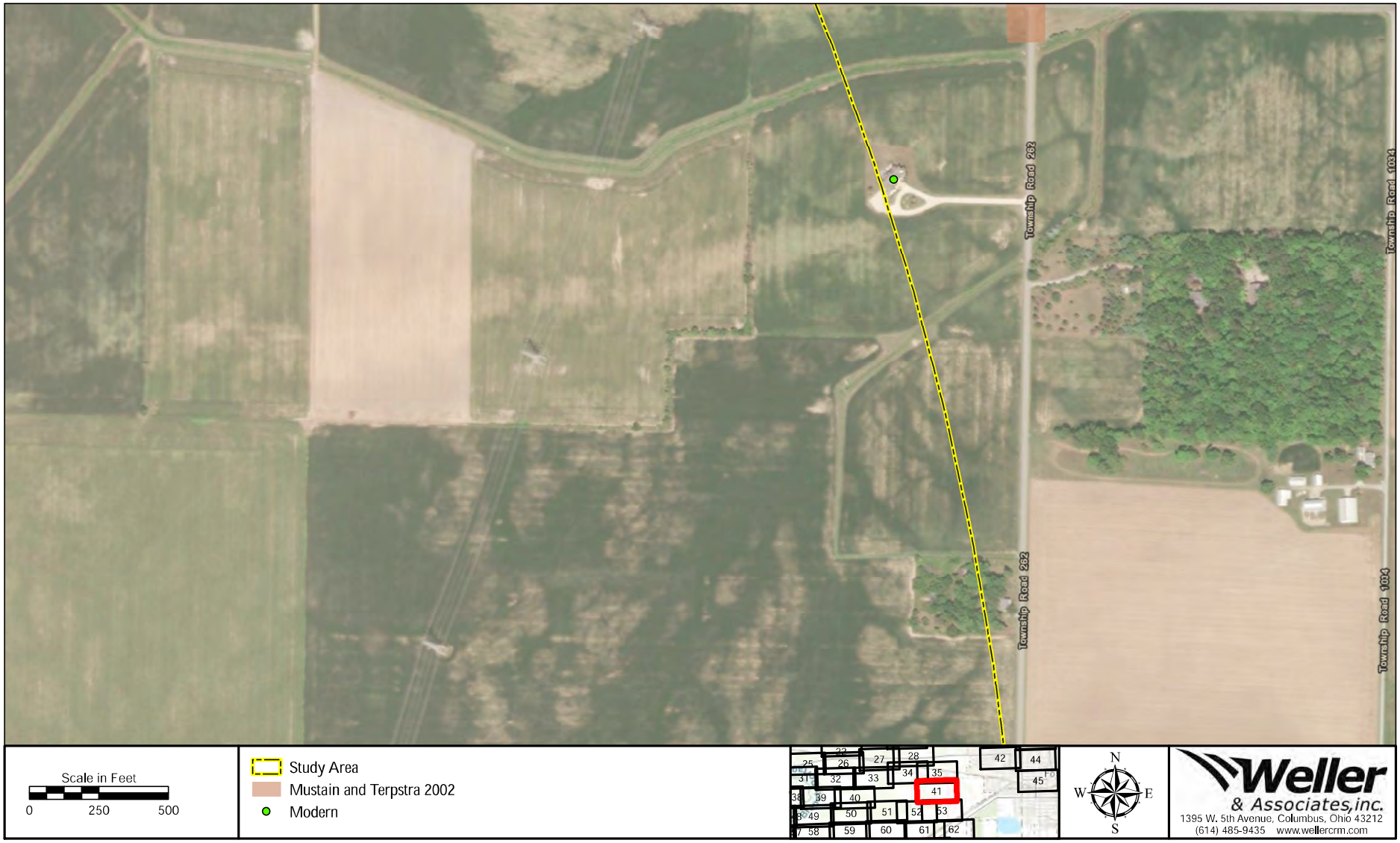

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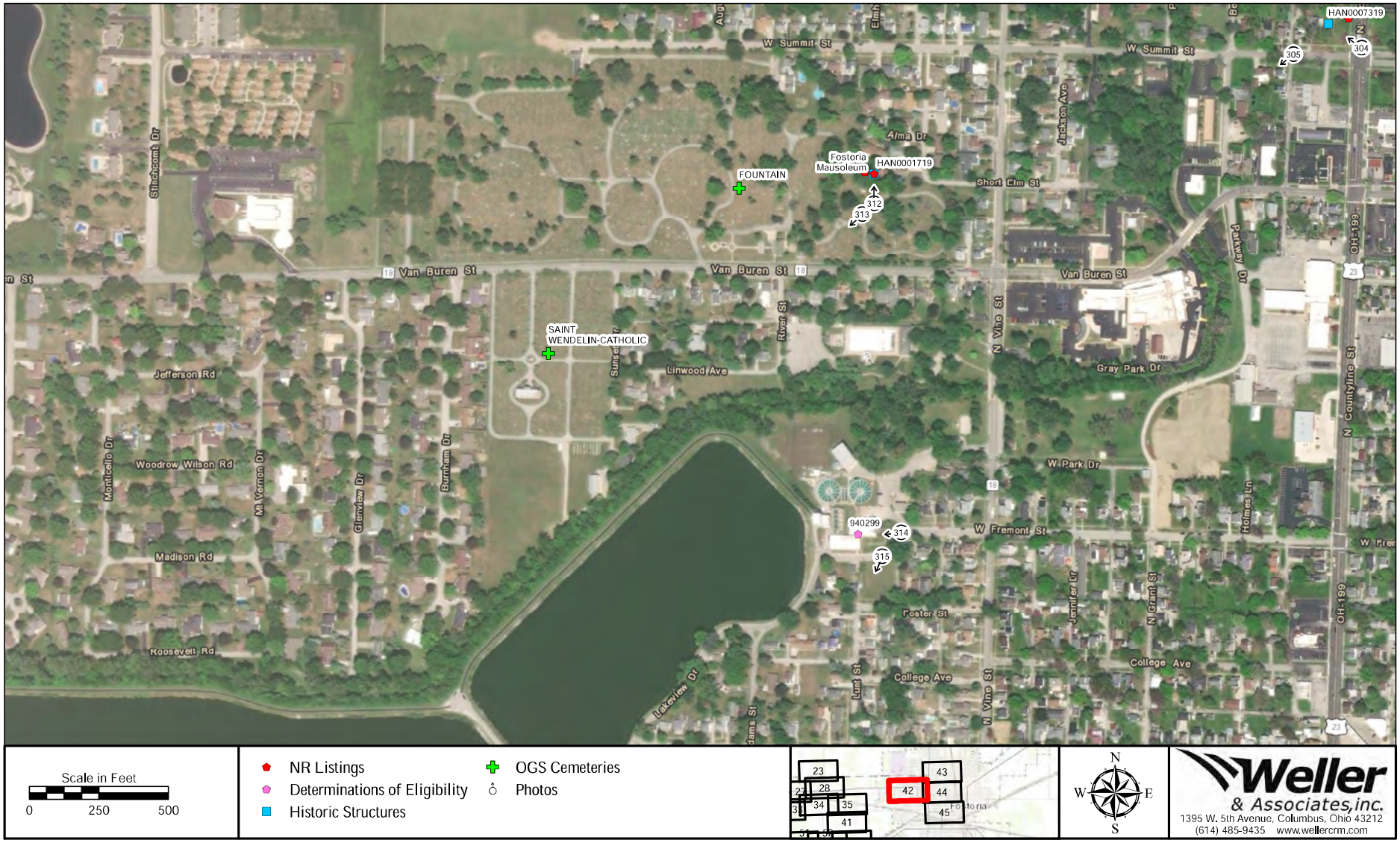

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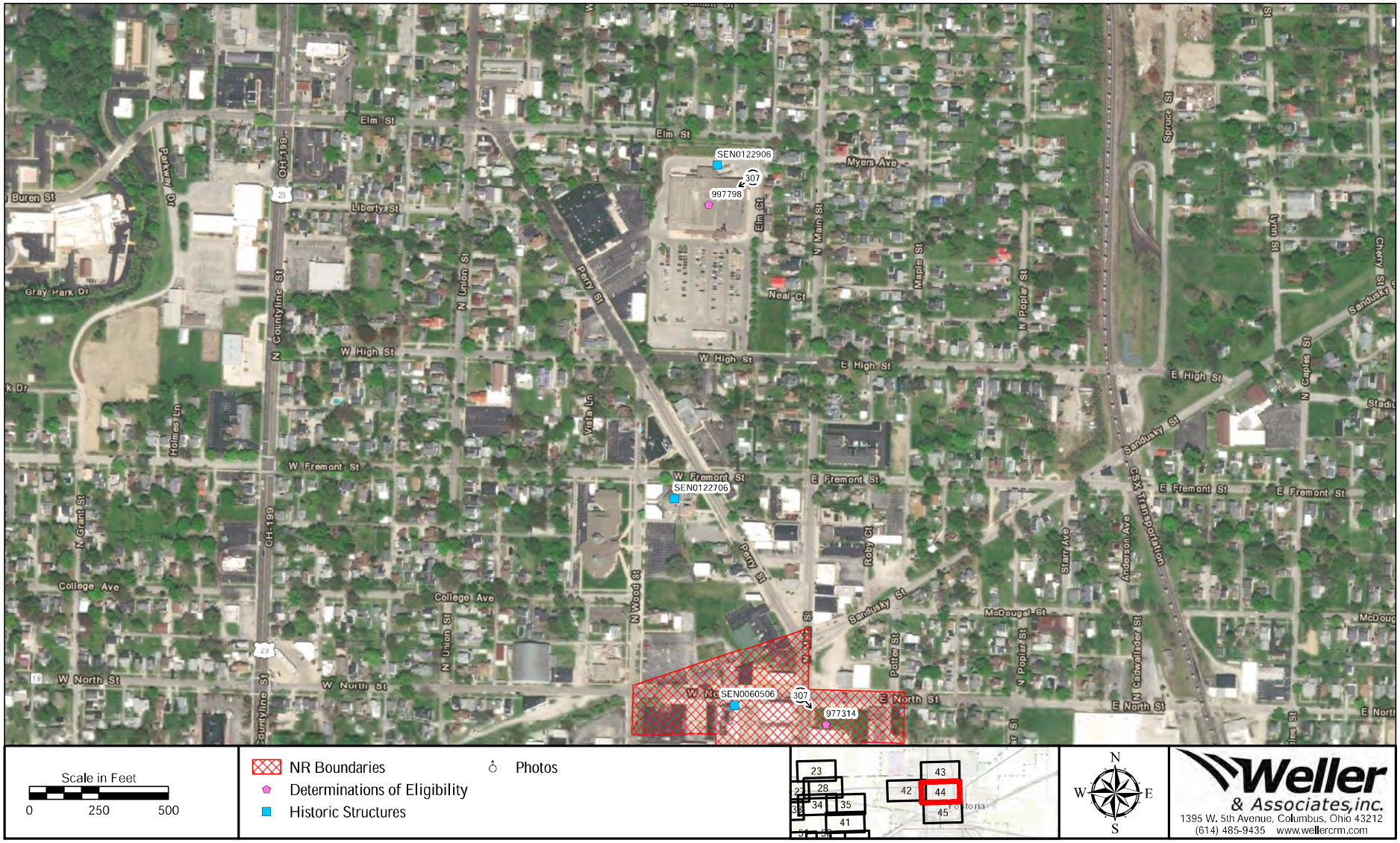
Figure 43. Fieldwork results and photo orientation map.



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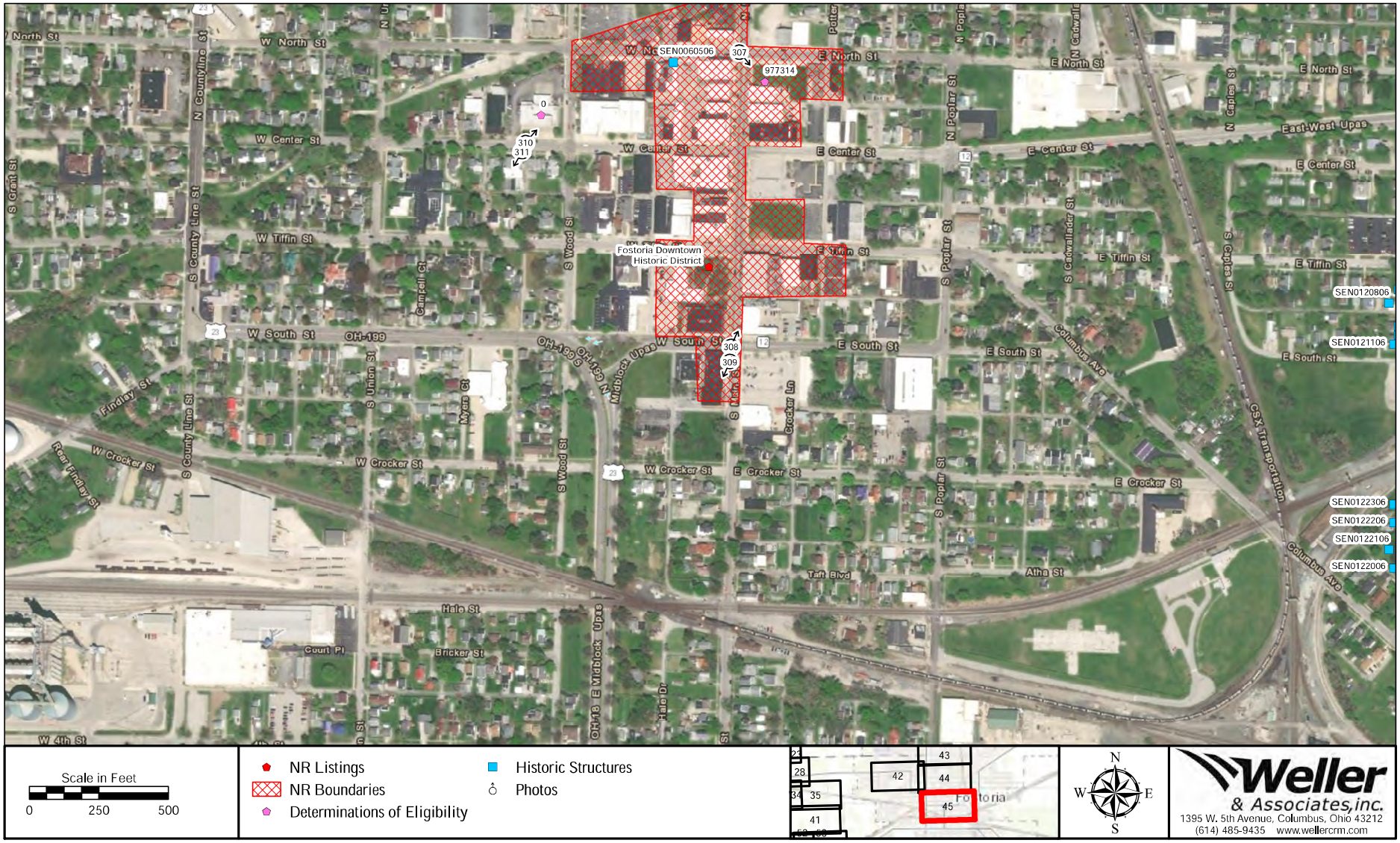

Figure 45. Fieldwork results and photo orientation map.

Figure 46. Fieldwork results and photo orientation map.

Figure 47. Fieldwork results and photo orientation map.

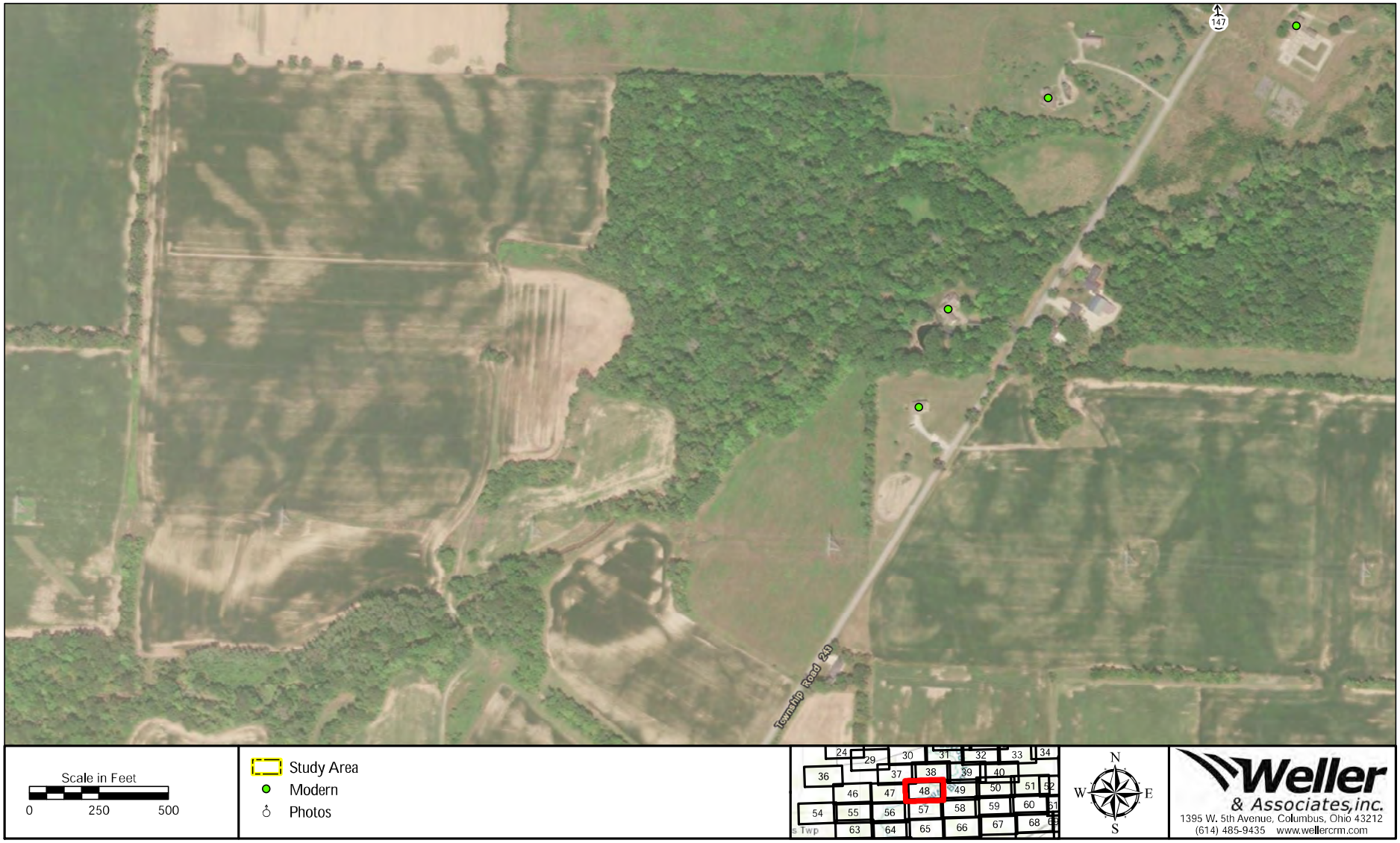

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Figure 49. Fieldwork results and photo orientation map.

Figure 50. Fieldwork results and photo orientation map.

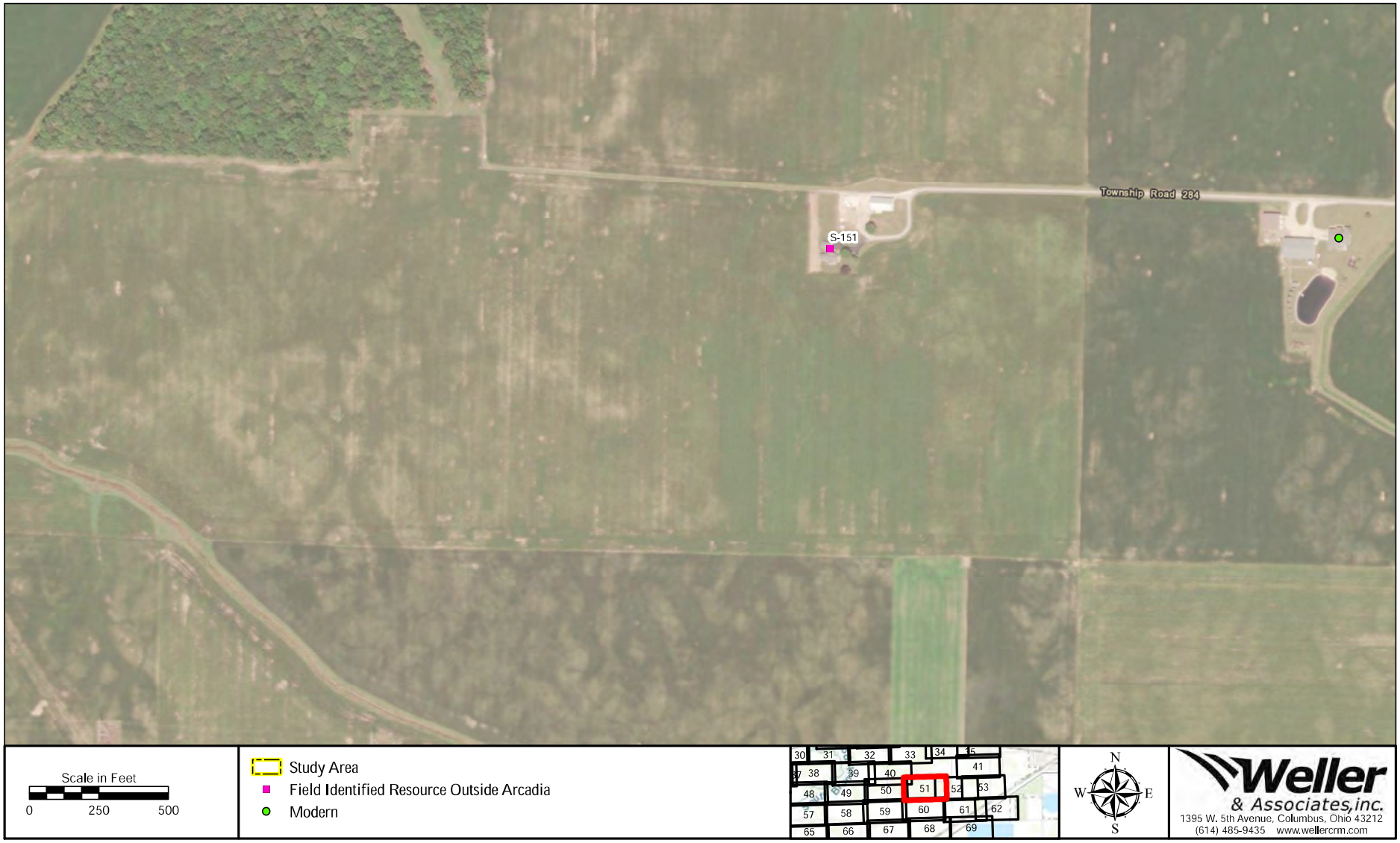

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Figure 52. Fieldwork results and photo orientation map.

Figure 53. Fieldwork results and photo orientation map.

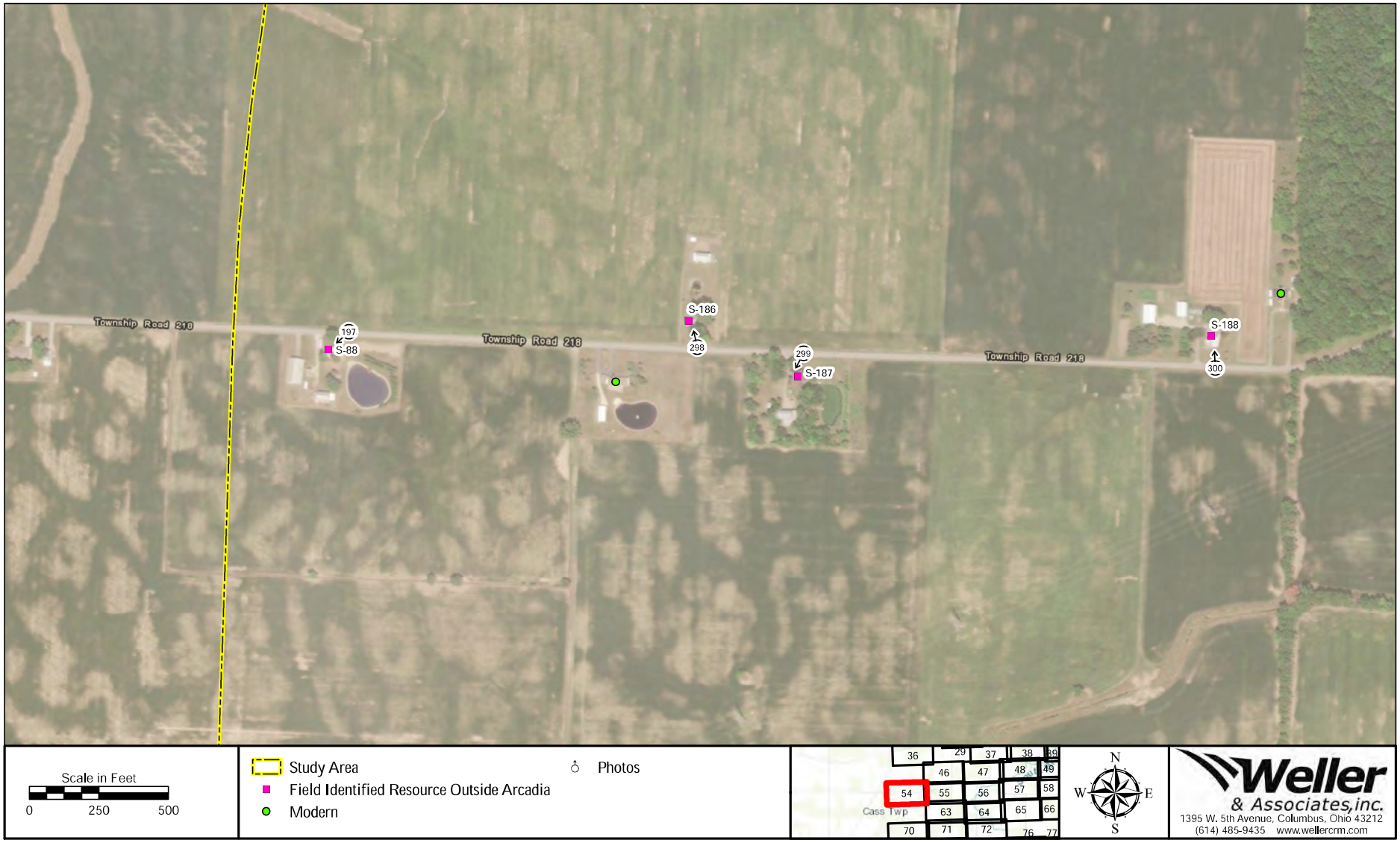

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Figure 55. Fieldwork results and photo orientation map.

Figure 56. Fieldwork results and photo orientation map.

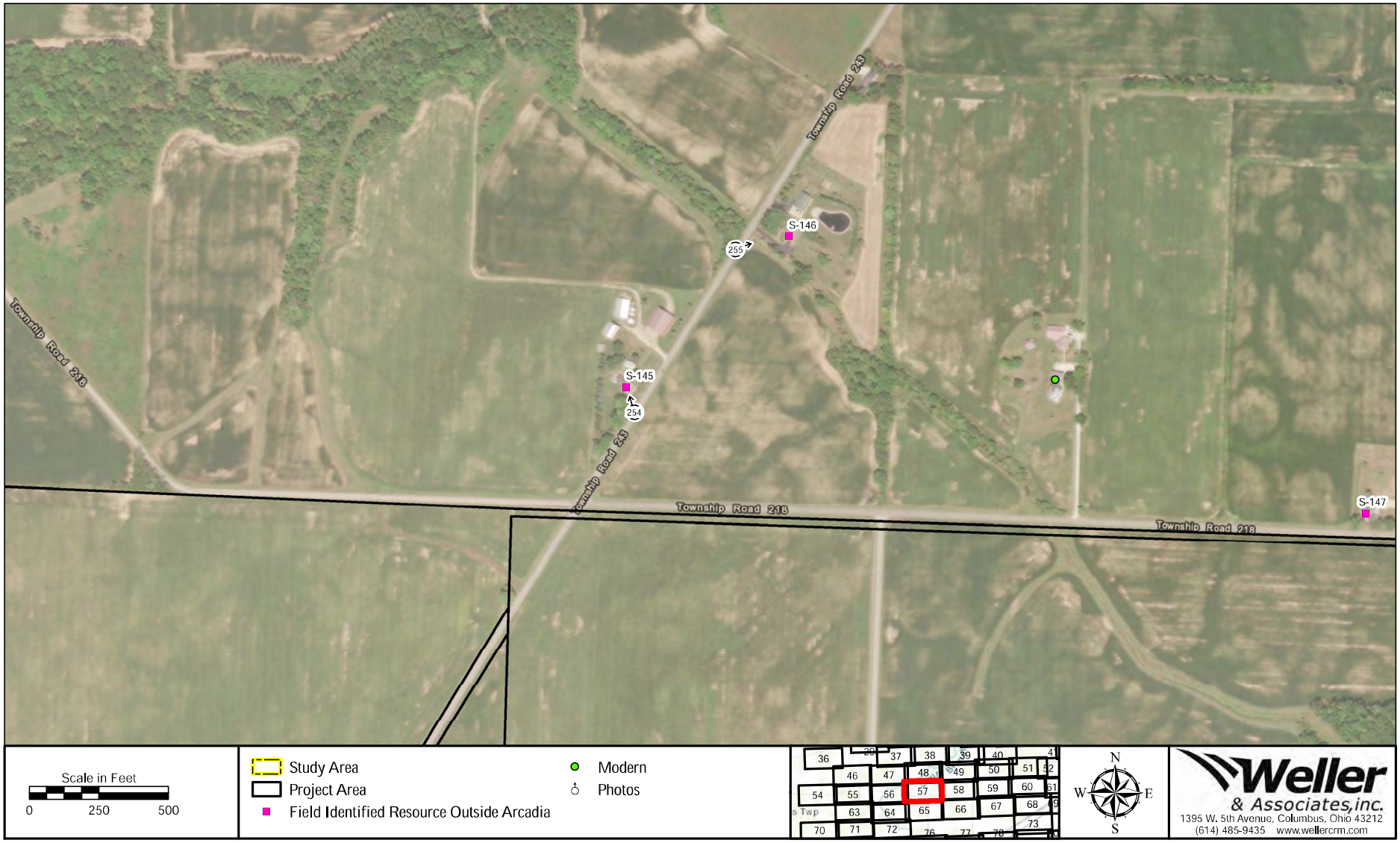


Figure 57. Fieldwork results and photo orientation map.

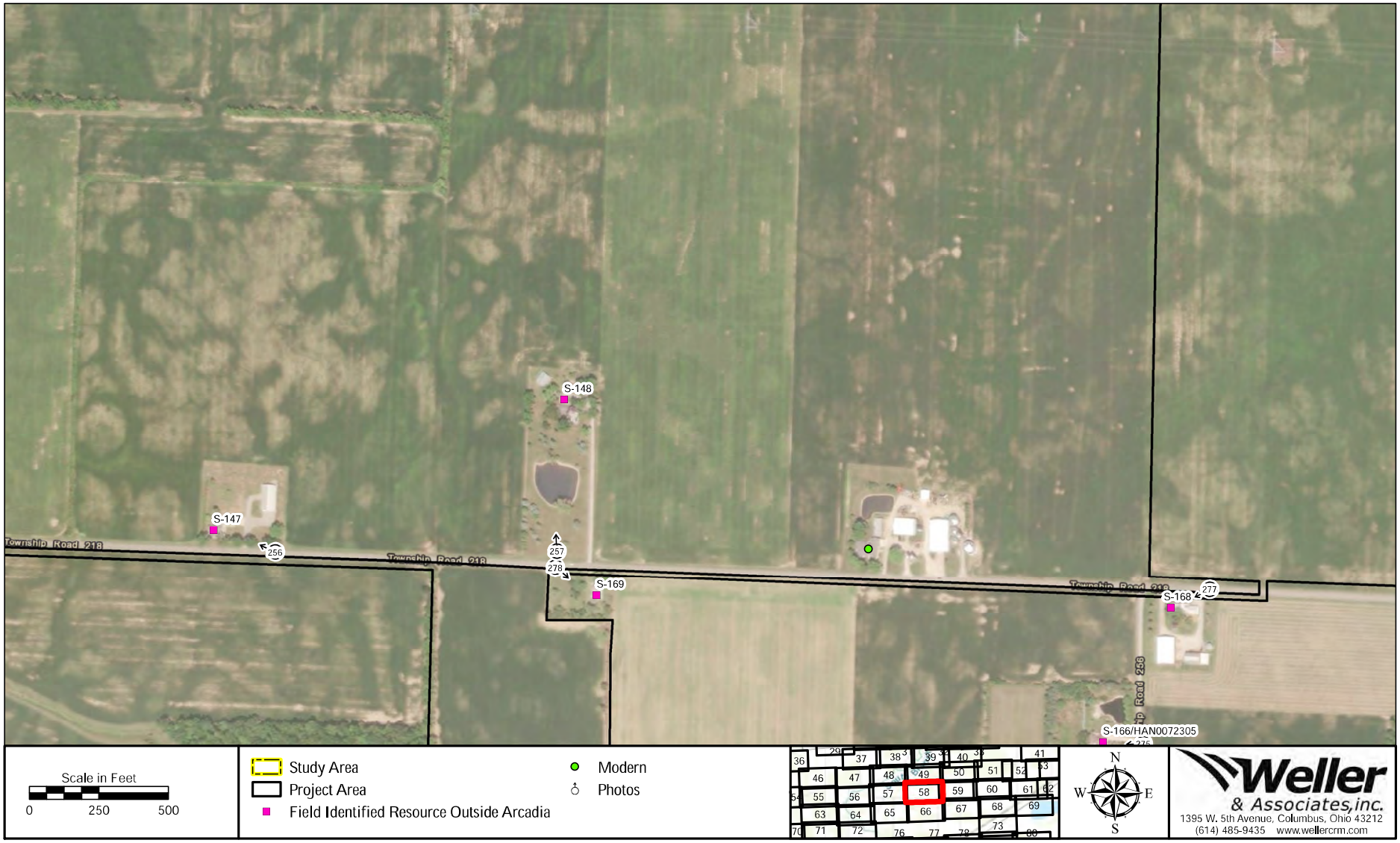


Figure 58. Fieldwork results and photo orientation map.

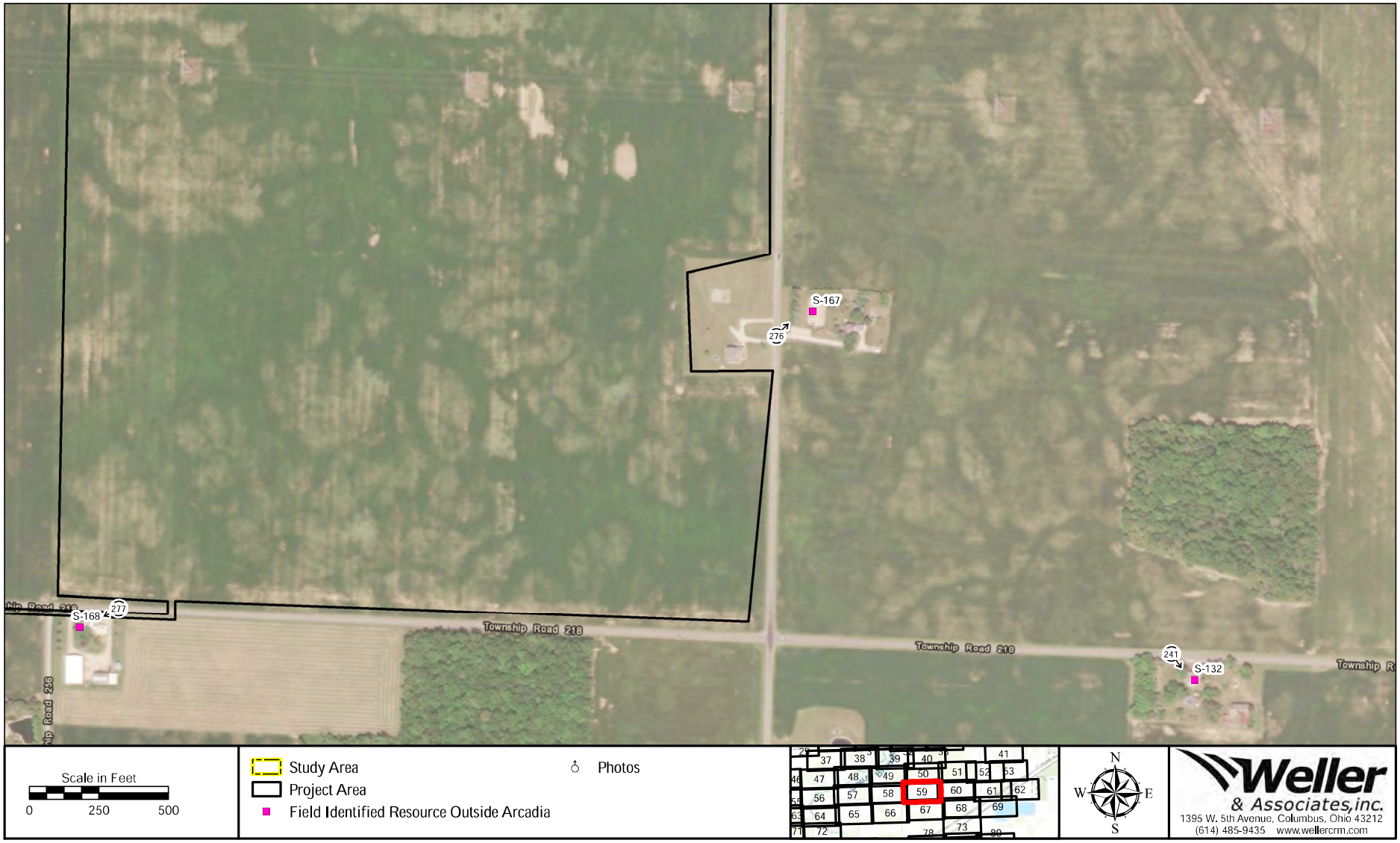


Figure 59. Fieldwork results and photo orientation map.

Figure 60. Fieldwork results and photo orientation map.

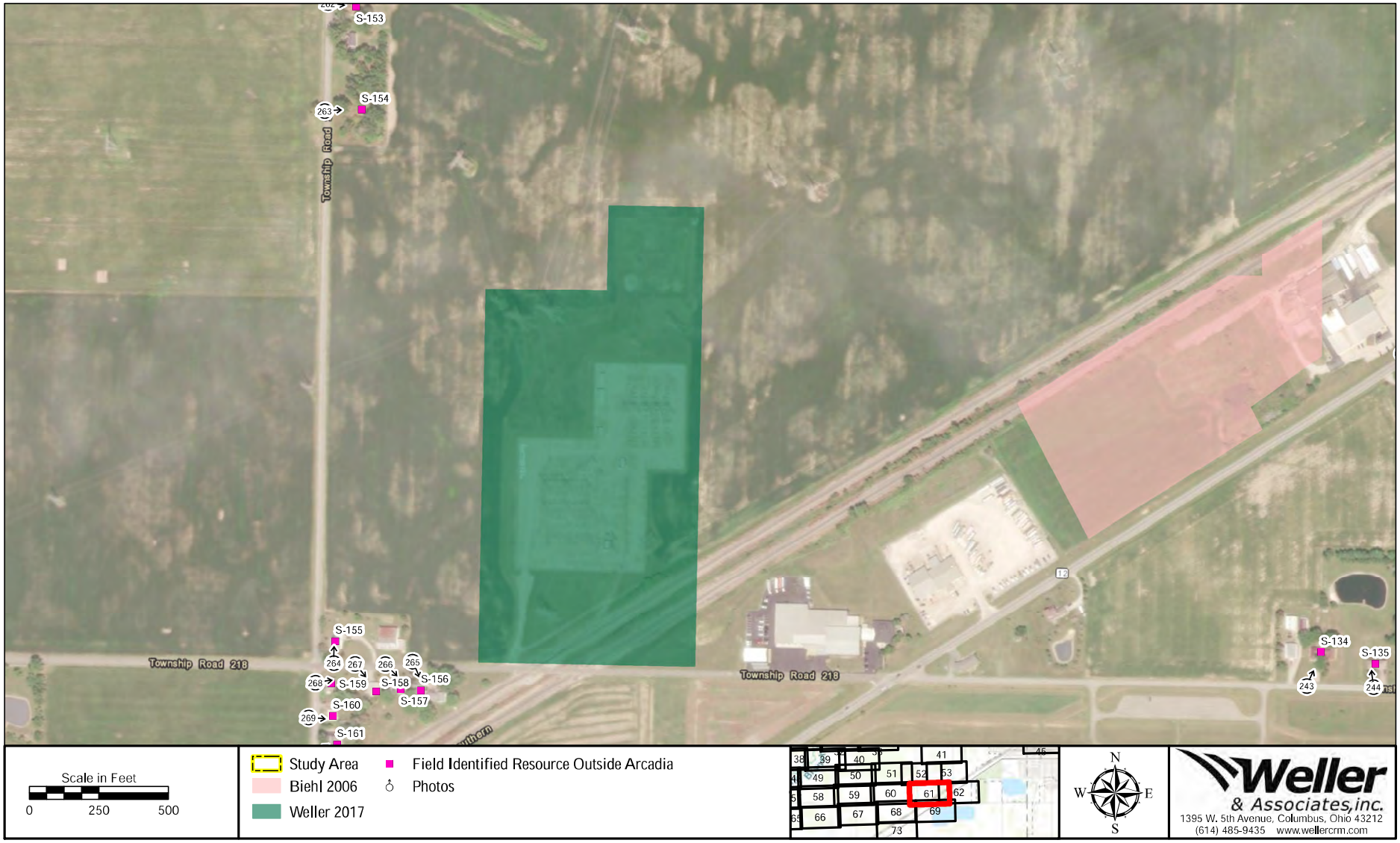


Figure 61. Fieldwork results and photo orientation map.

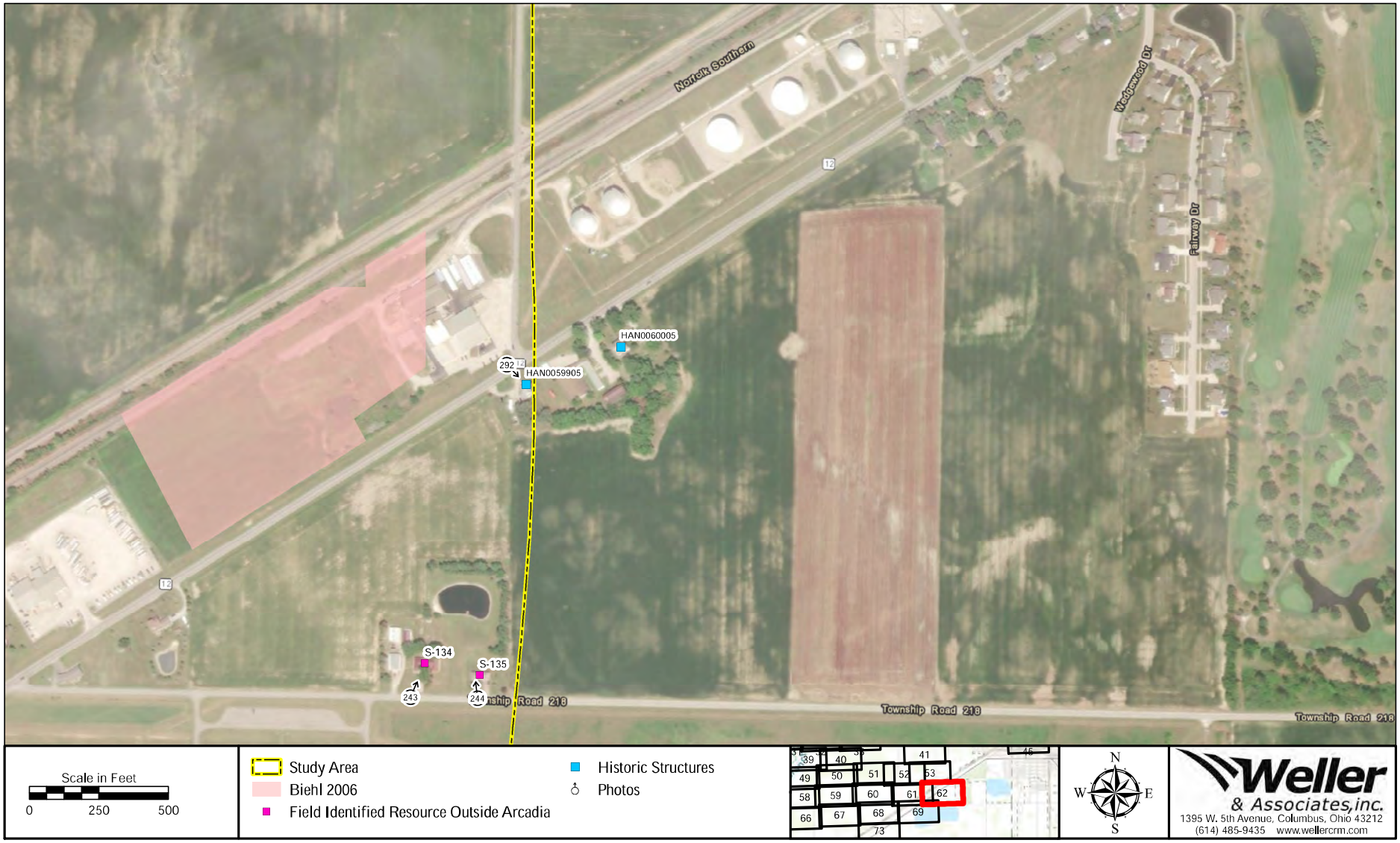


Figure 62. Fieldwork results and photo orientation map.

Figure 63. Fieldwork results and photo orientation map.

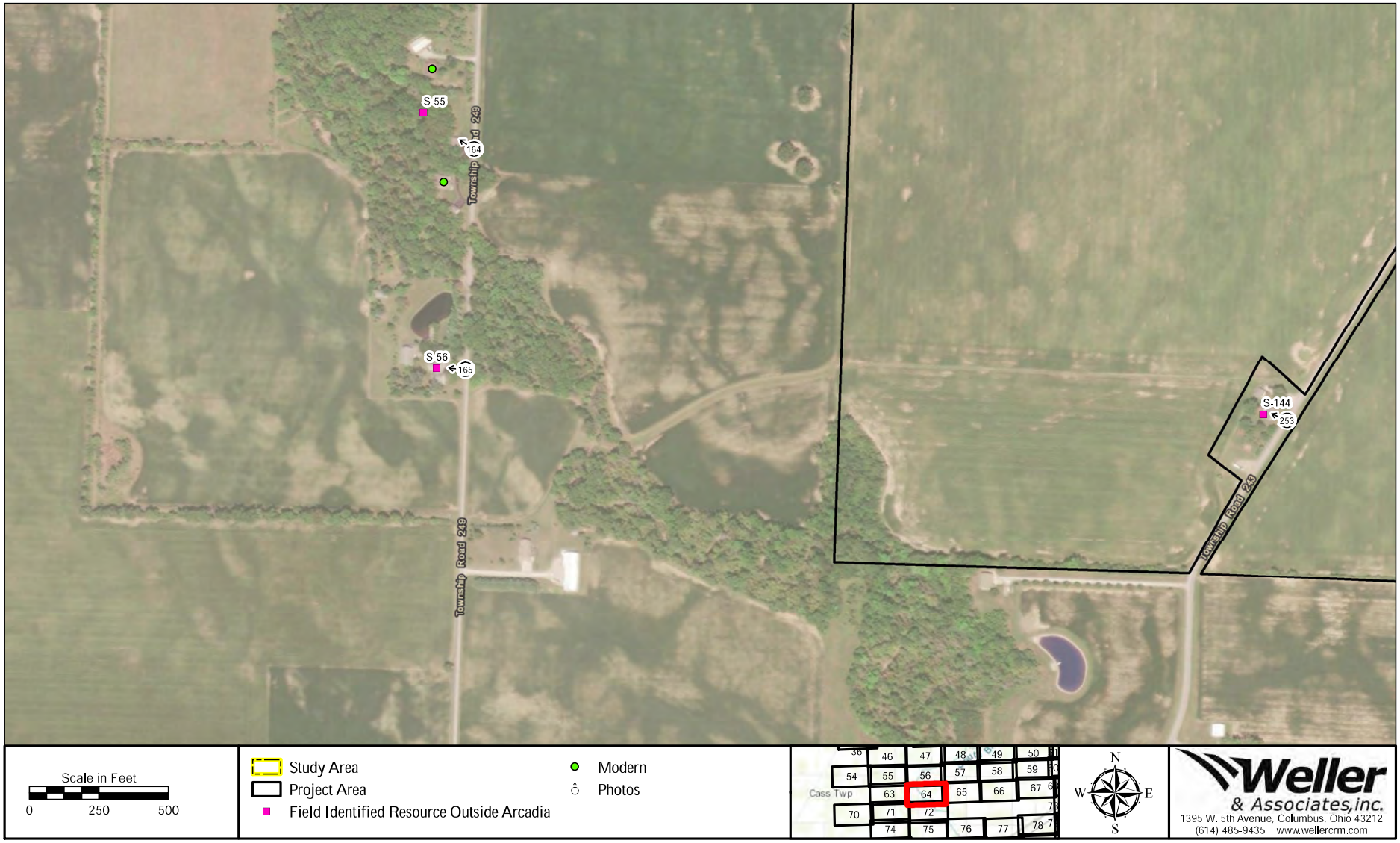


Figure 64. Fieldwork results and photo orientation map.

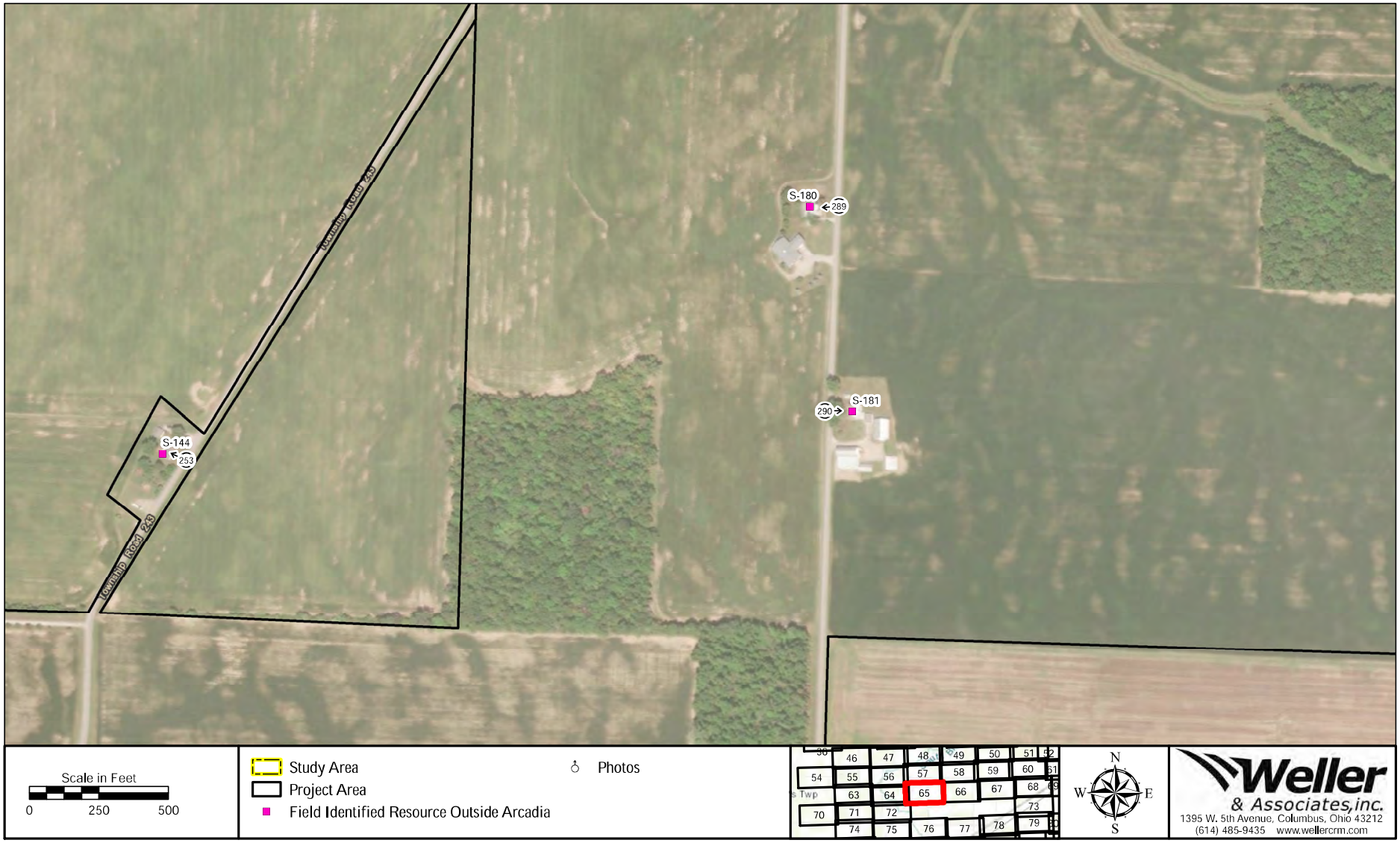


Figure 65. Fieldwork results and photo orientation map.

Figure 66. Fieldwork results and photo orientation map.

Figure 67. Fieldwork results and photo orientation map.

Figure 68. Fieldwork results and photo orientation map.

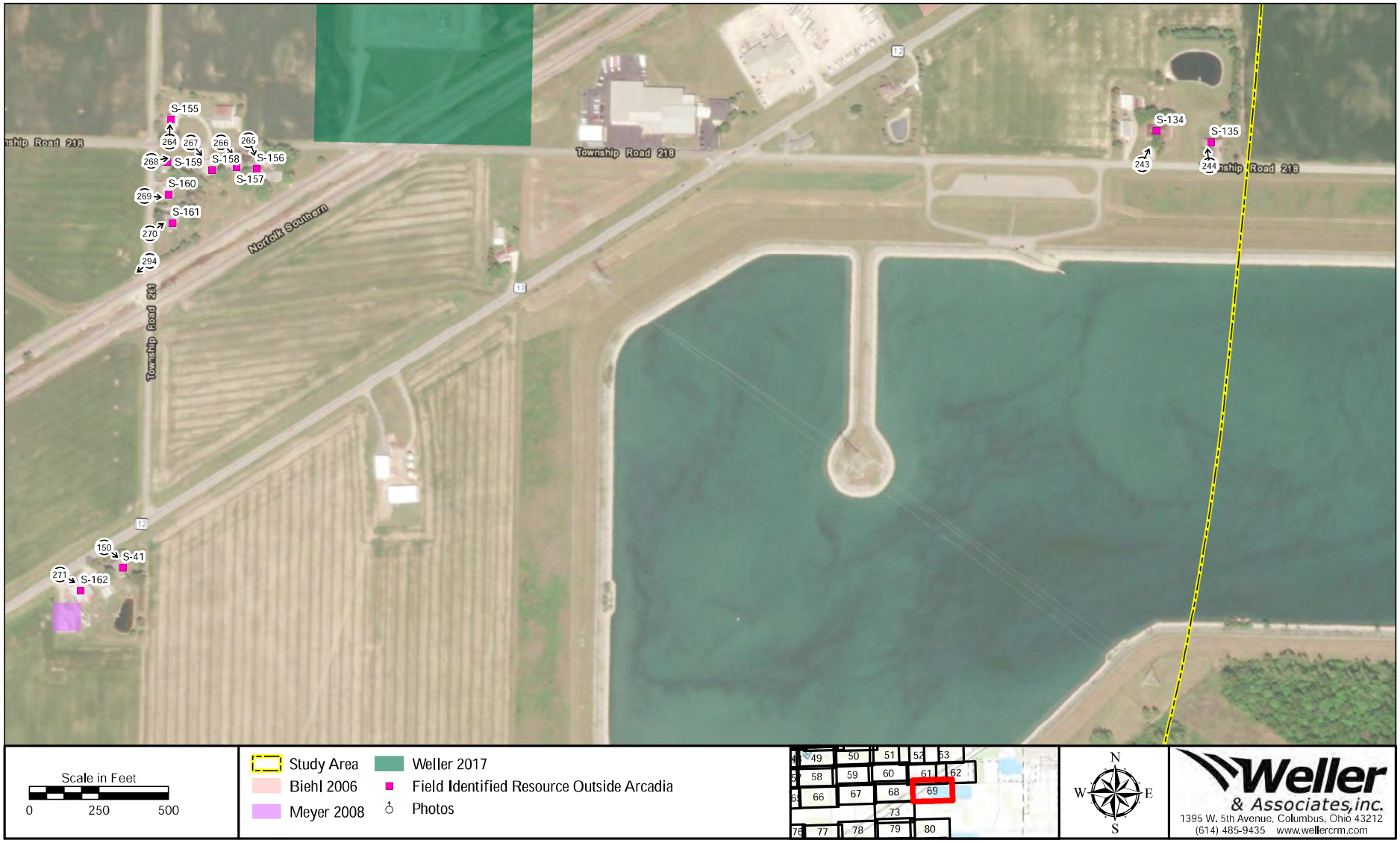


Figure 69. Fieldwork results and photo orientation map.

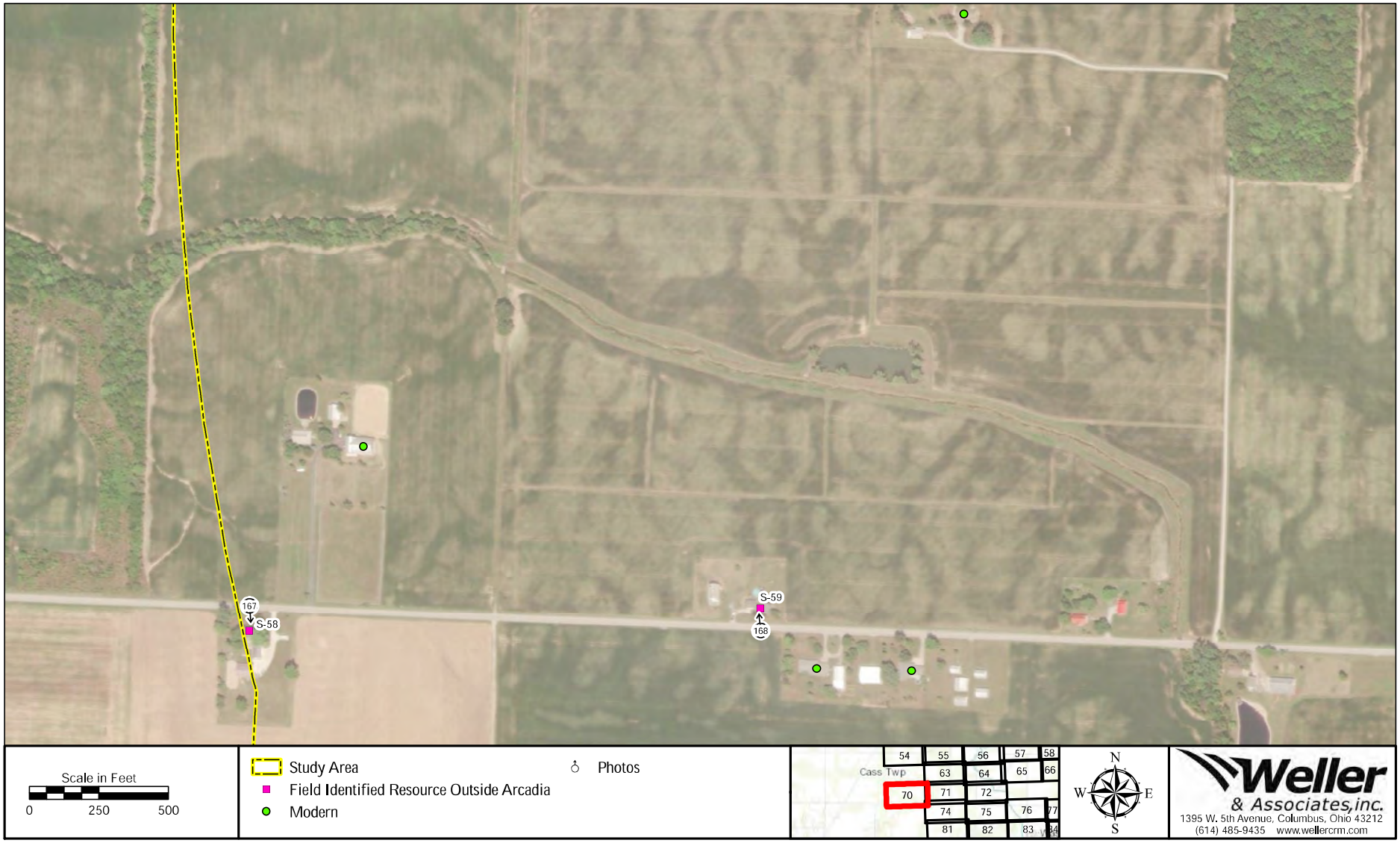


Figure 70. Fieldwork results and photo orientation map.

Figure 71. Fieldwork results and photo orientation map.

Figure 72. Fieldwork results and photo orientation map.

Figure 73. Fieldwork results and photo orientation map.

Figure 74. Fieldwork results and photo orientation map.

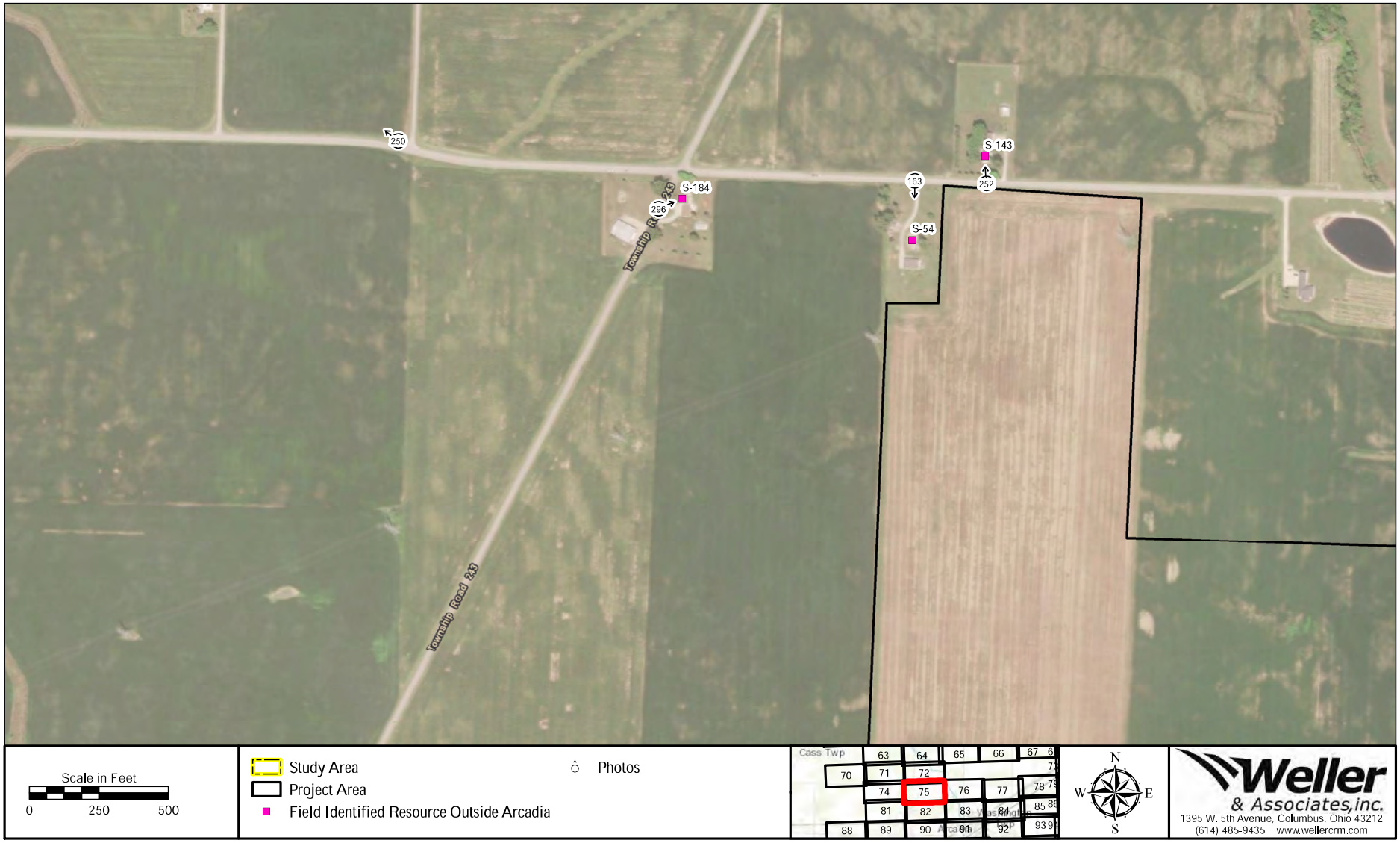


Figure 75. Fieldwork results and photo orientation map.

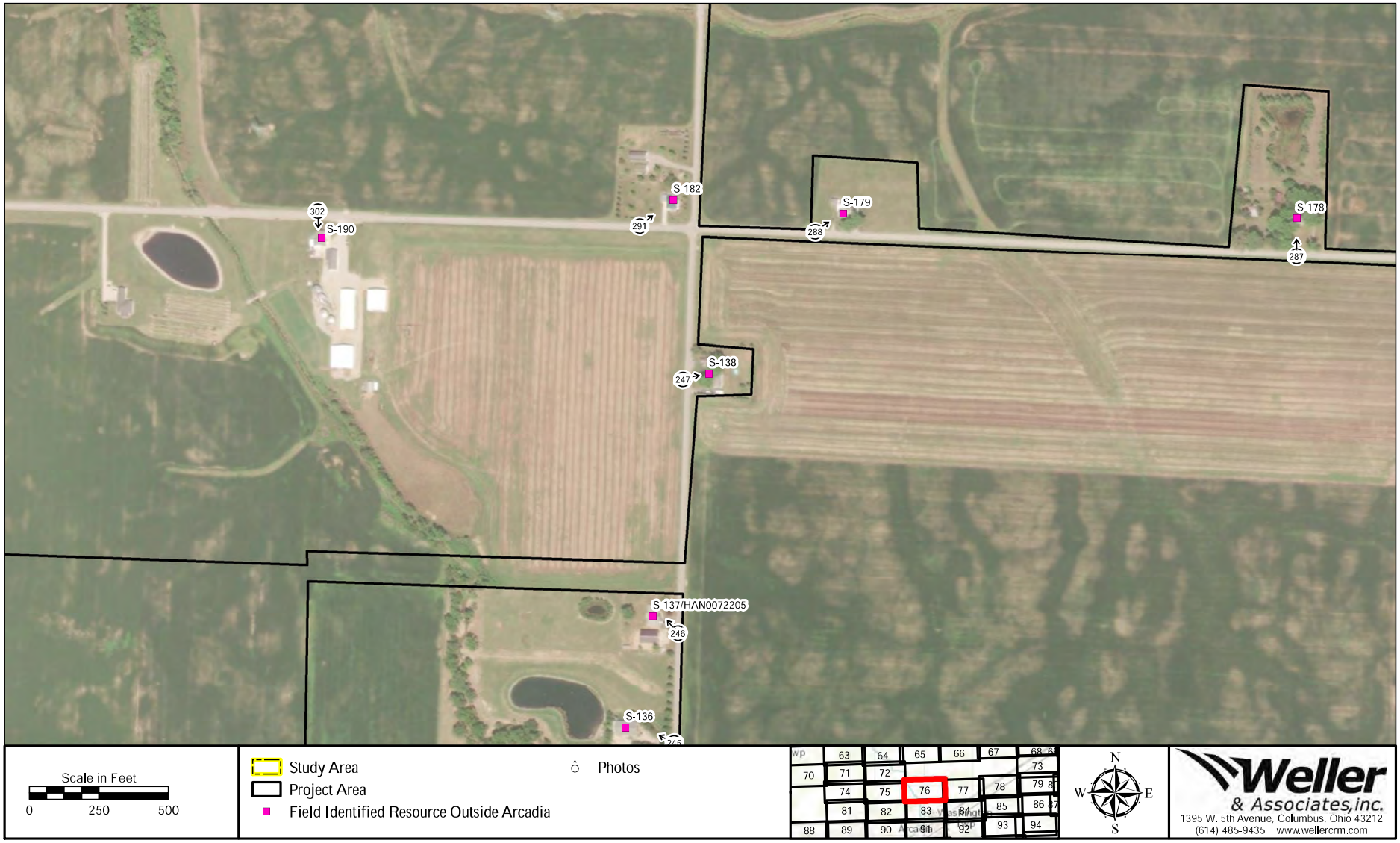


Figure 76. Fieldwork results and photo orientation map.

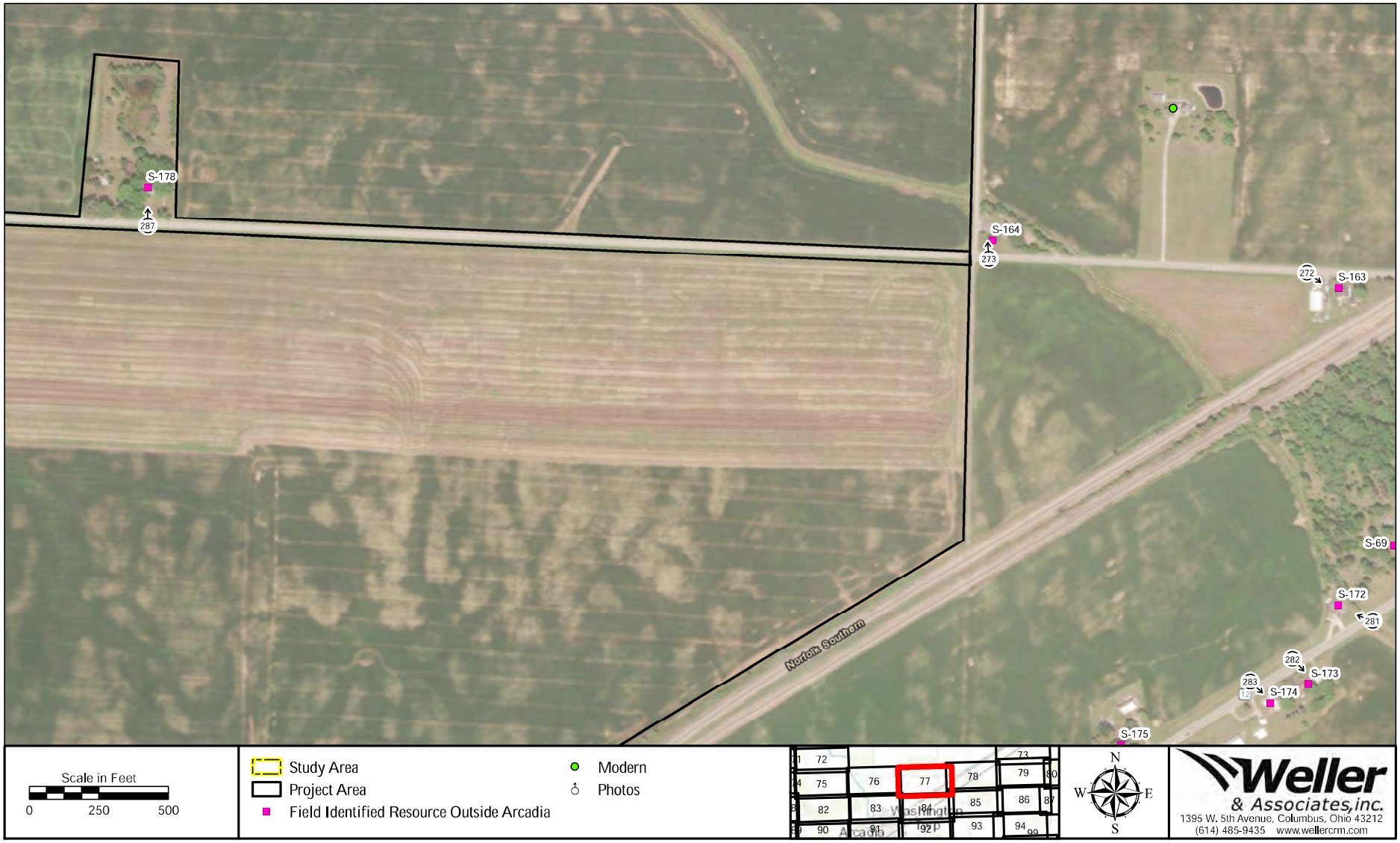


Figure 77. Fieldwork results and photo orientation map.

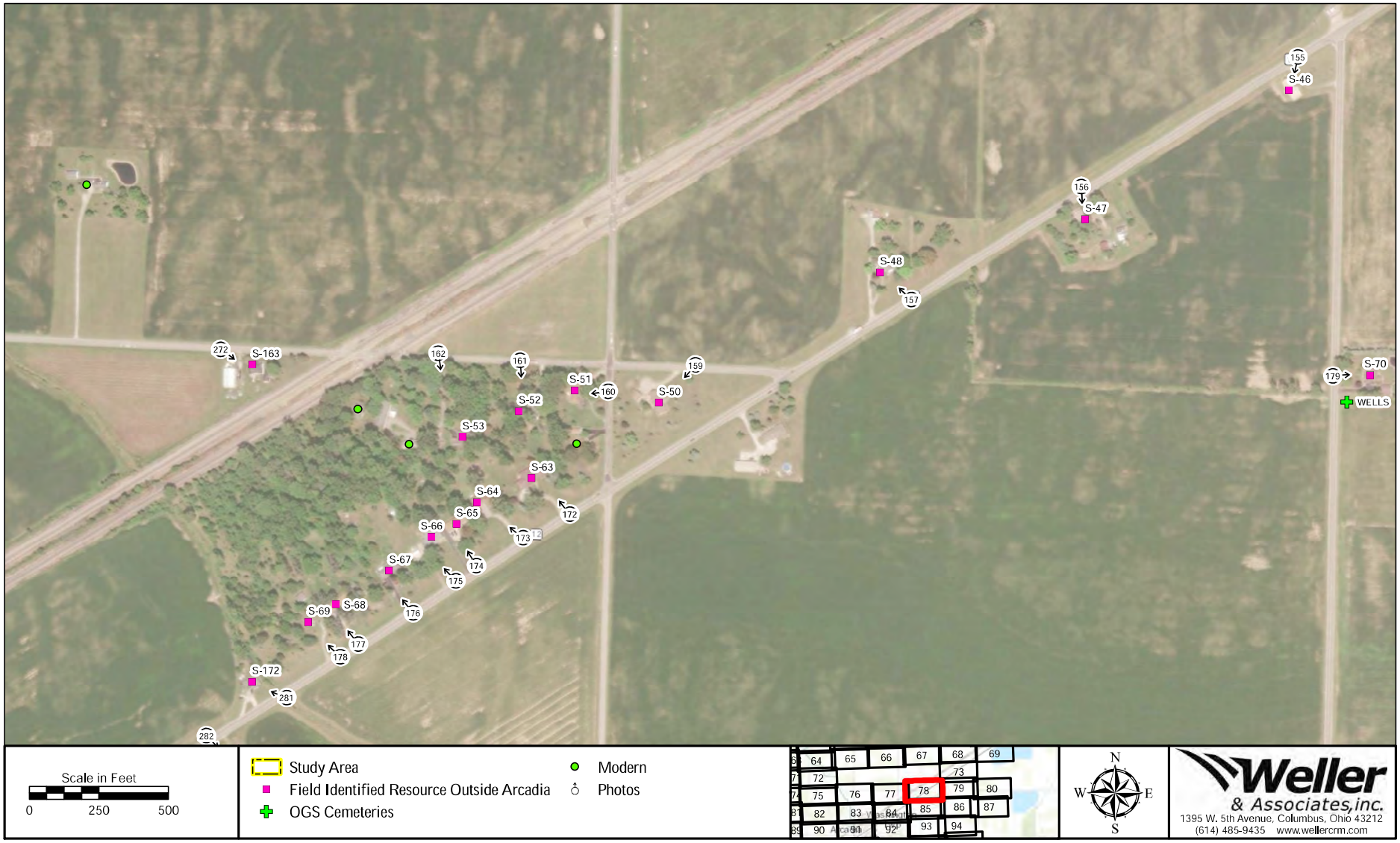


Figure 78. Fieldwork results and photo orientation map.

Figure 79. Fieldwork results and photo orientation map.

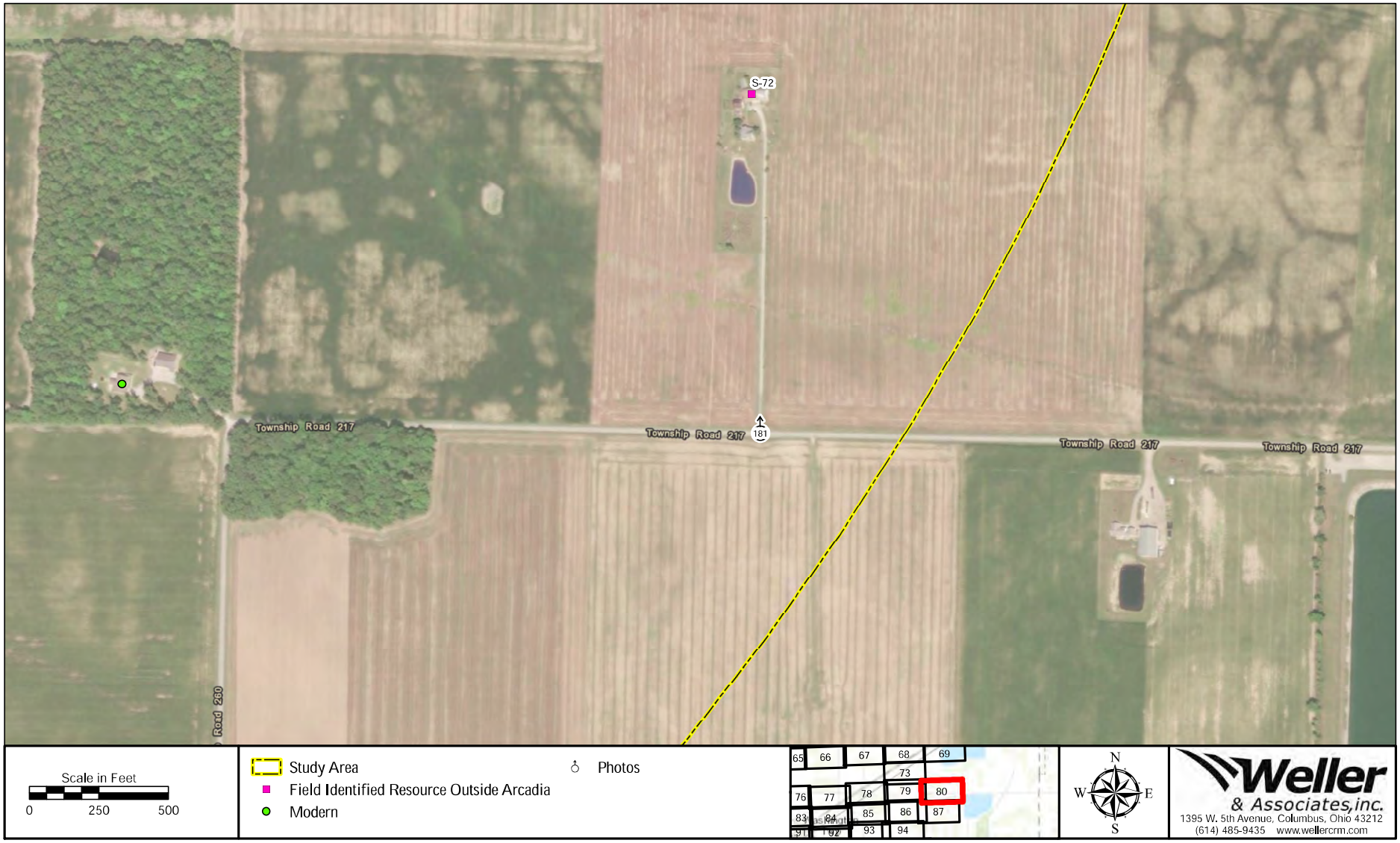


Figure 80. Fieldwork results and photo orientation map.

Figure 81. Fieldwork results and photo orientation map.

Figure 82. Fieldwork results and photo orientation map.

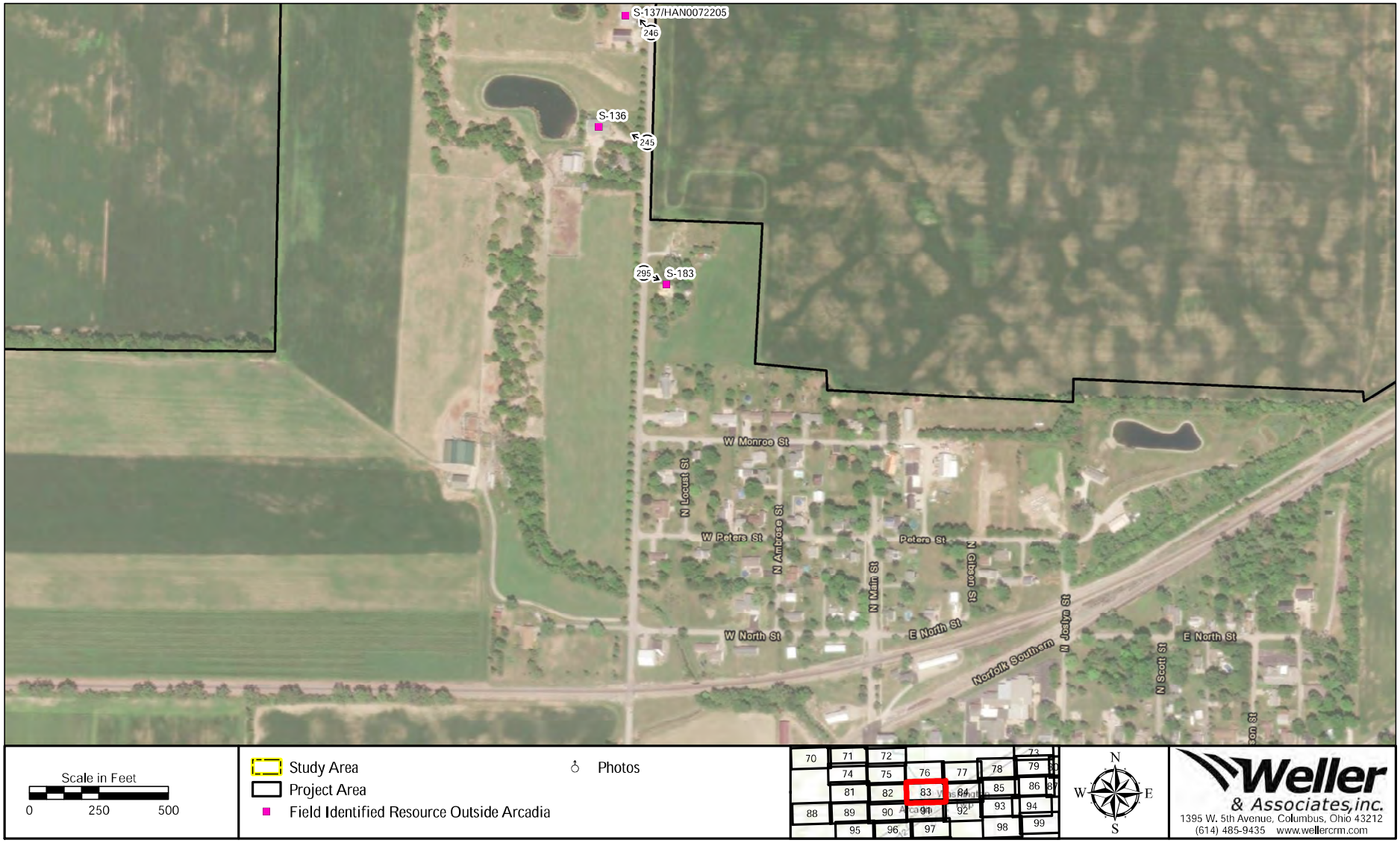


Figure 83. Fieldwork results and photo orientation map.

Figure 84. Fieldwork results and photo orientation map.

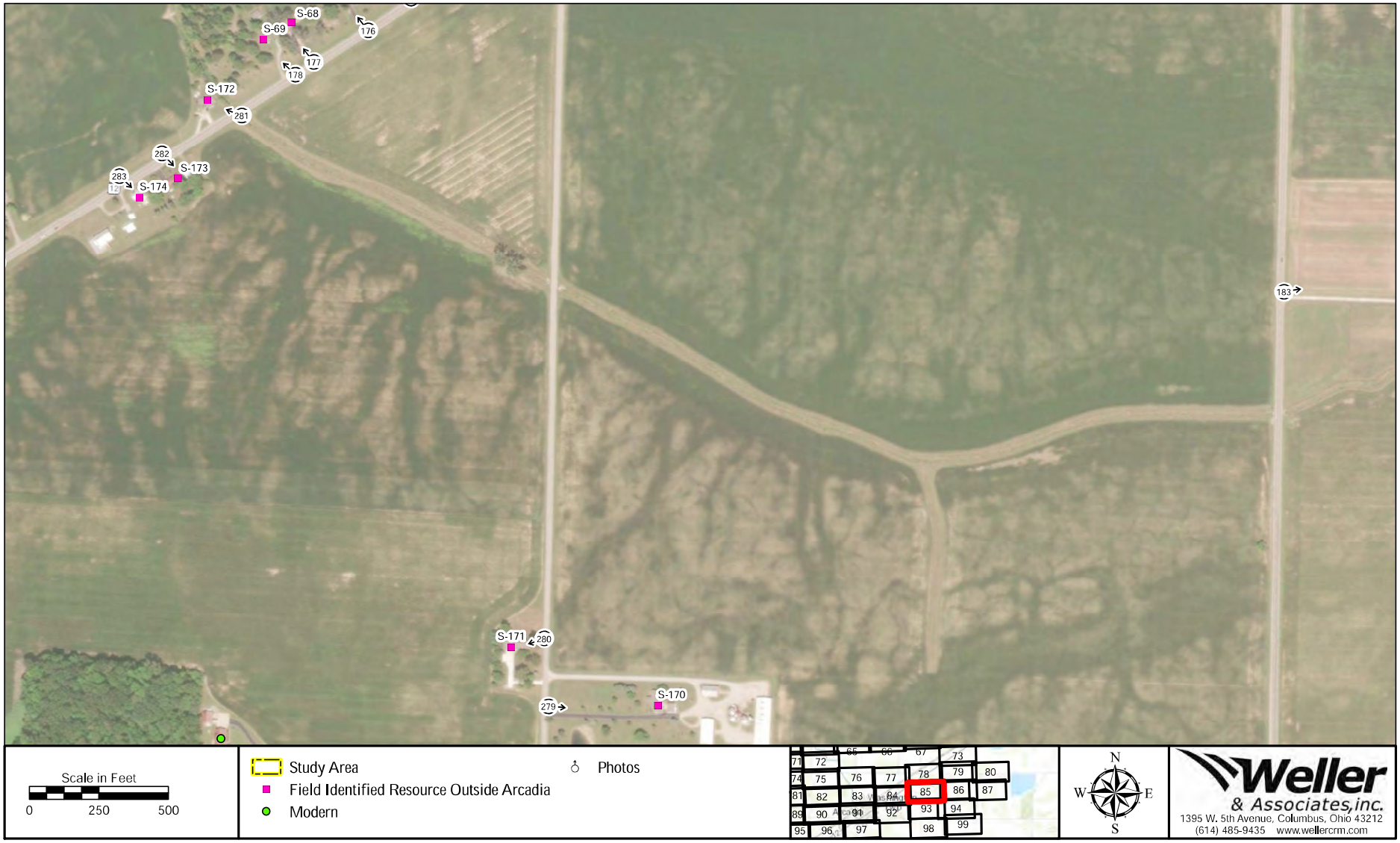


Figure 85. Fieldwork results and photo orientation map.

Figure 86. Fieldwork results and photo orientation map.

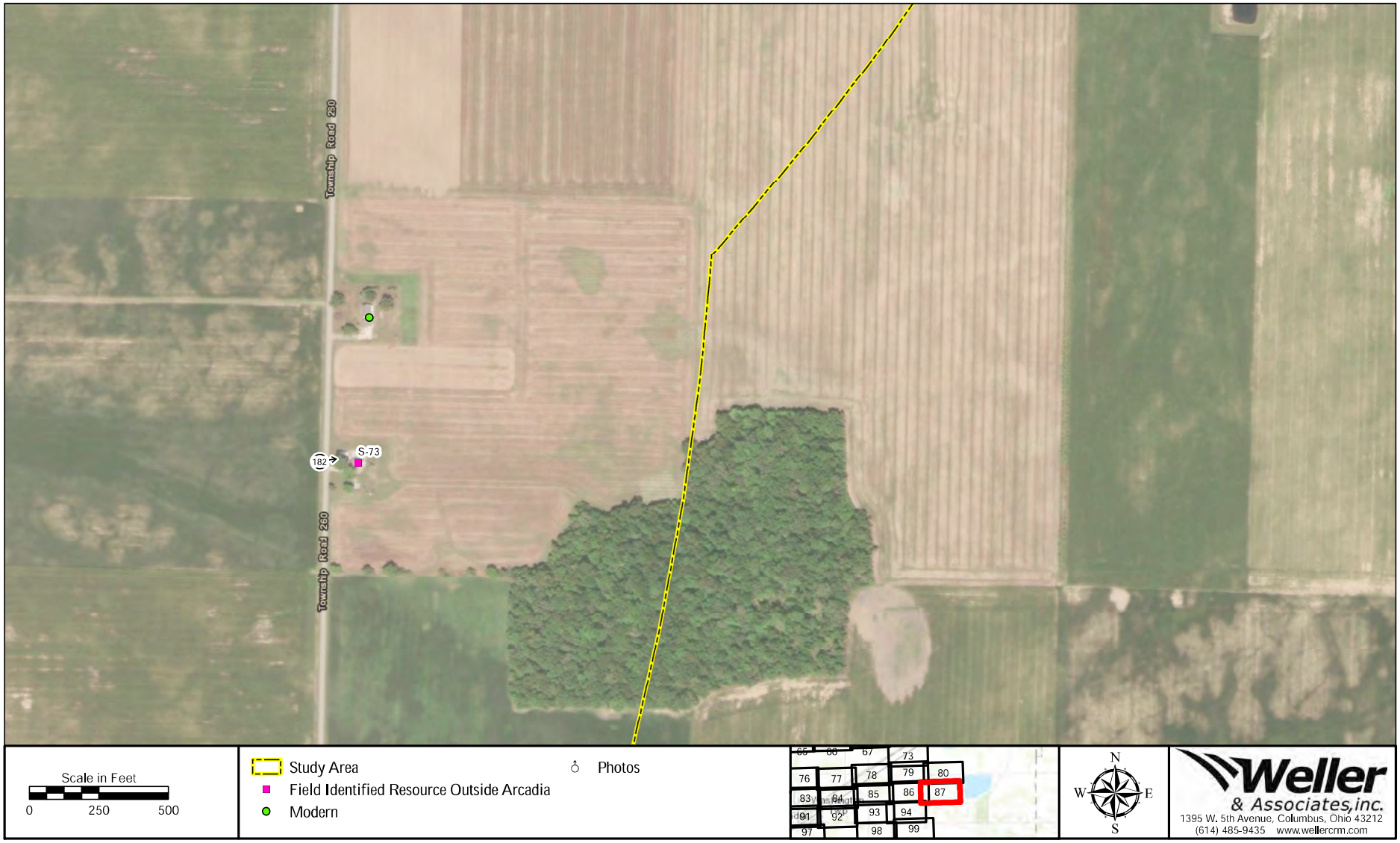


Figure 87. Fieldwork results and photo orientation map.

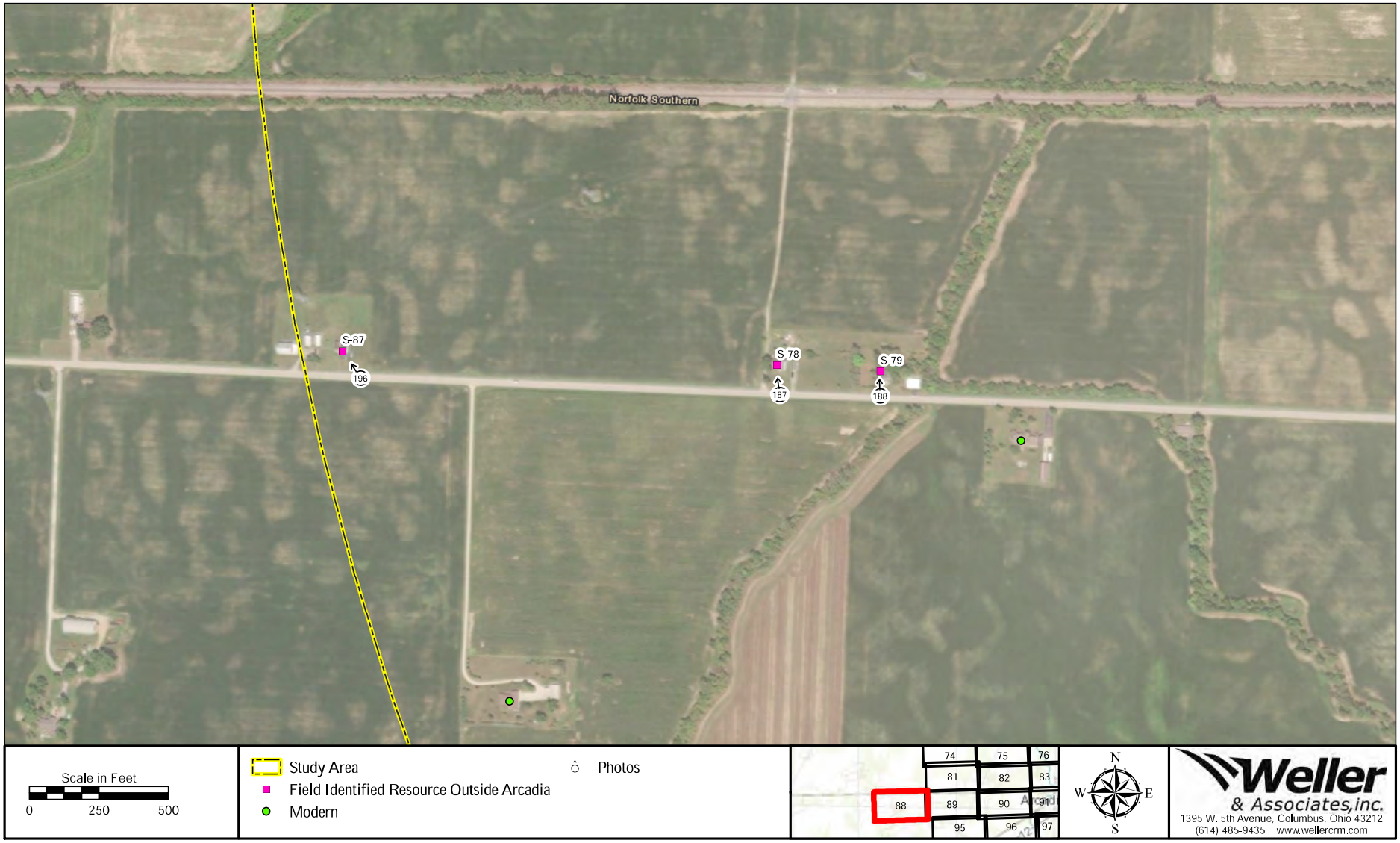


Figure 88. Fieldwork results and photo orientation map.

Figure 89. Fieldwork results and photo orientation map.

Figure 90. Fieldwork results and photo orientation map.

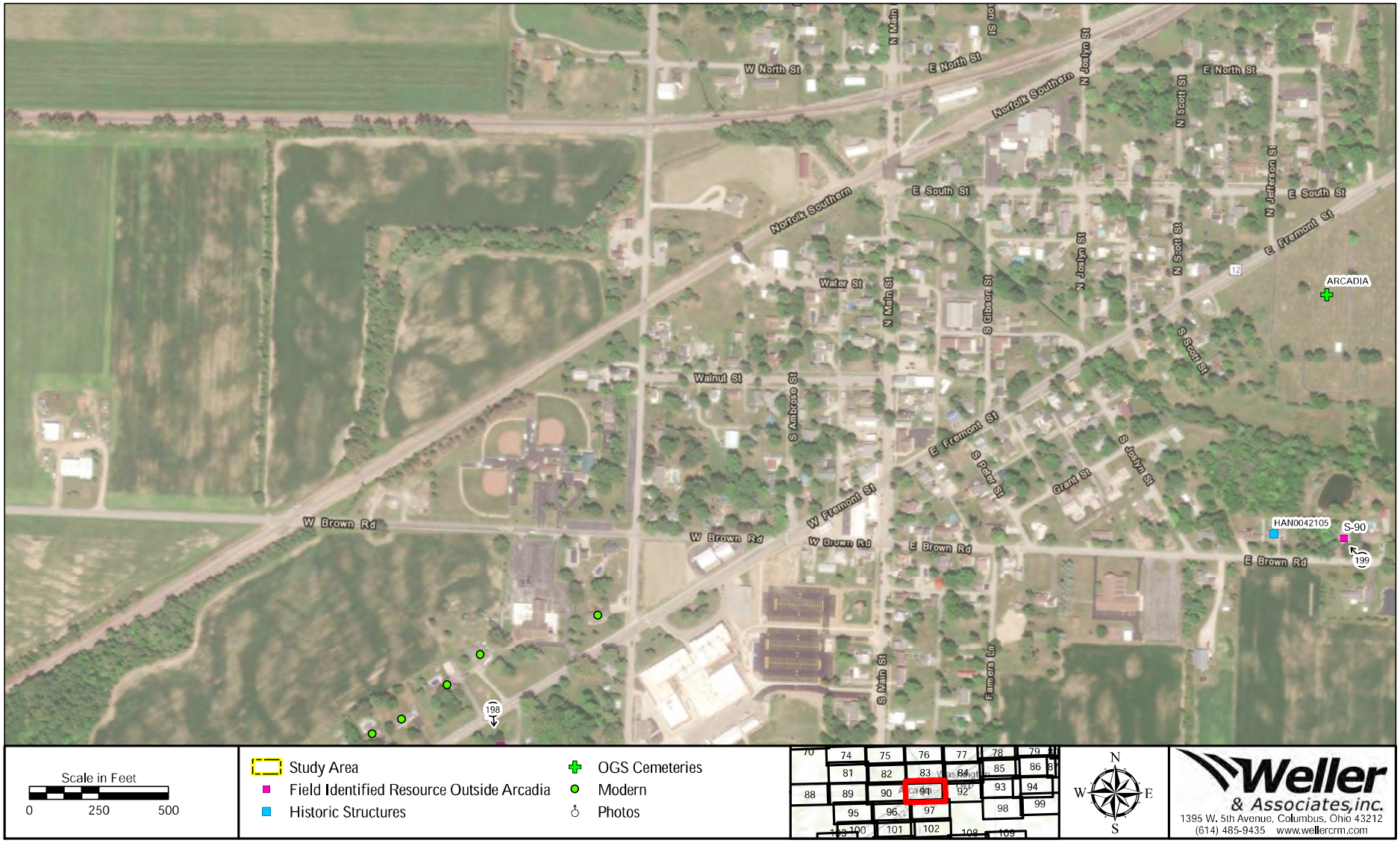


Figure 91. Fieldwork results and photo orientation map.

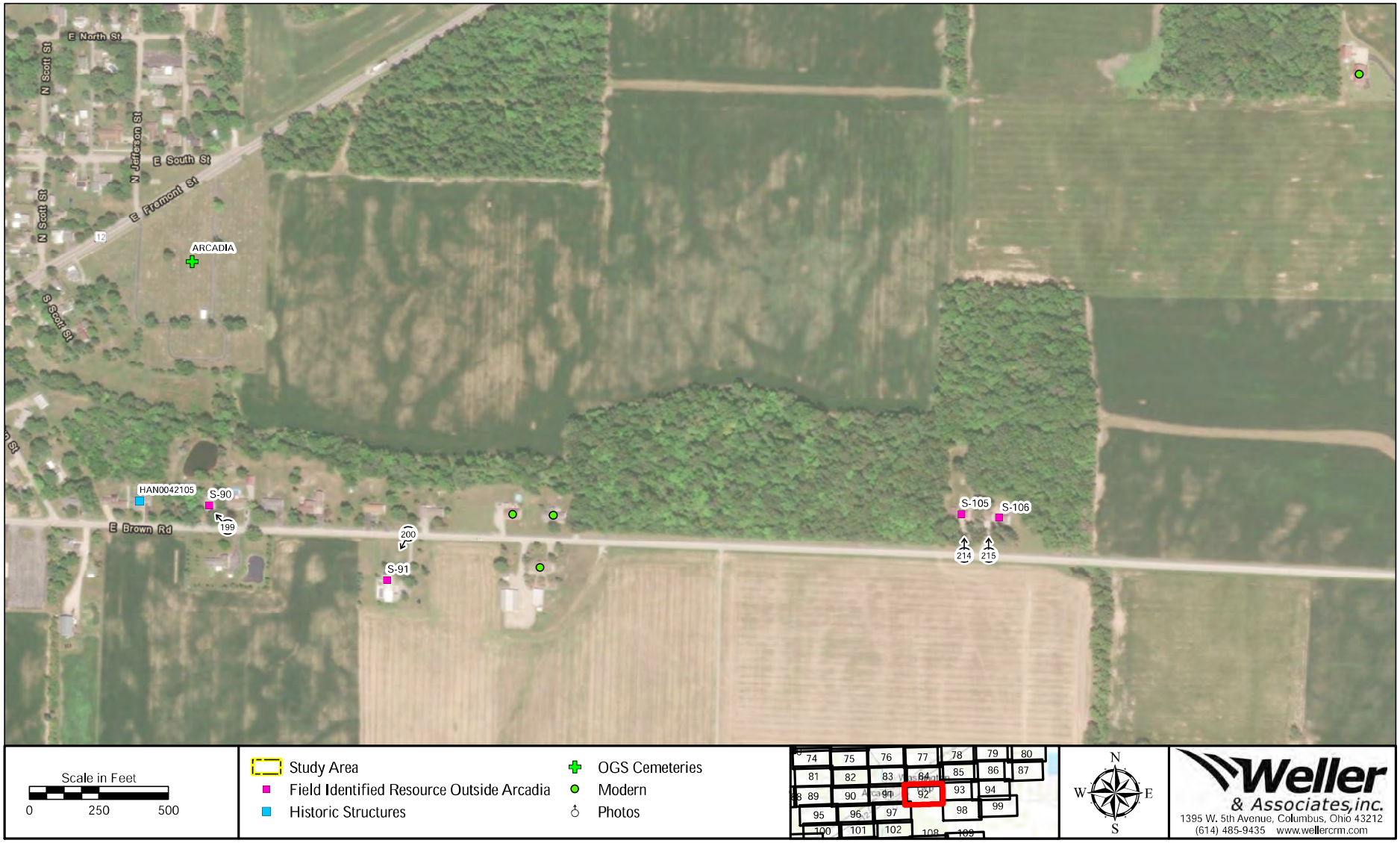


Figure 92. Fieldwork results and photo orientation map.

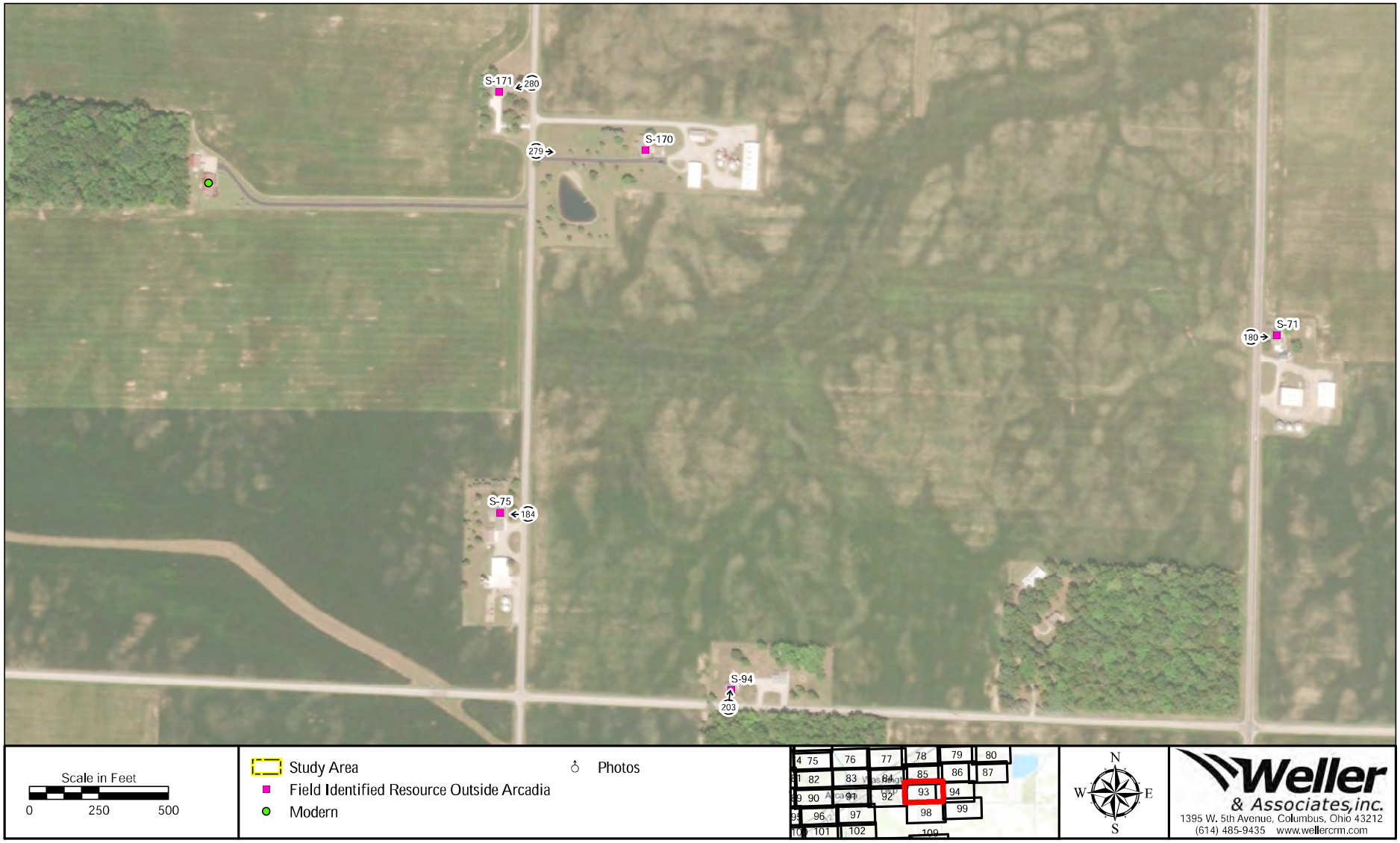


Figure 93. Fieldwork results and photo orientation map.

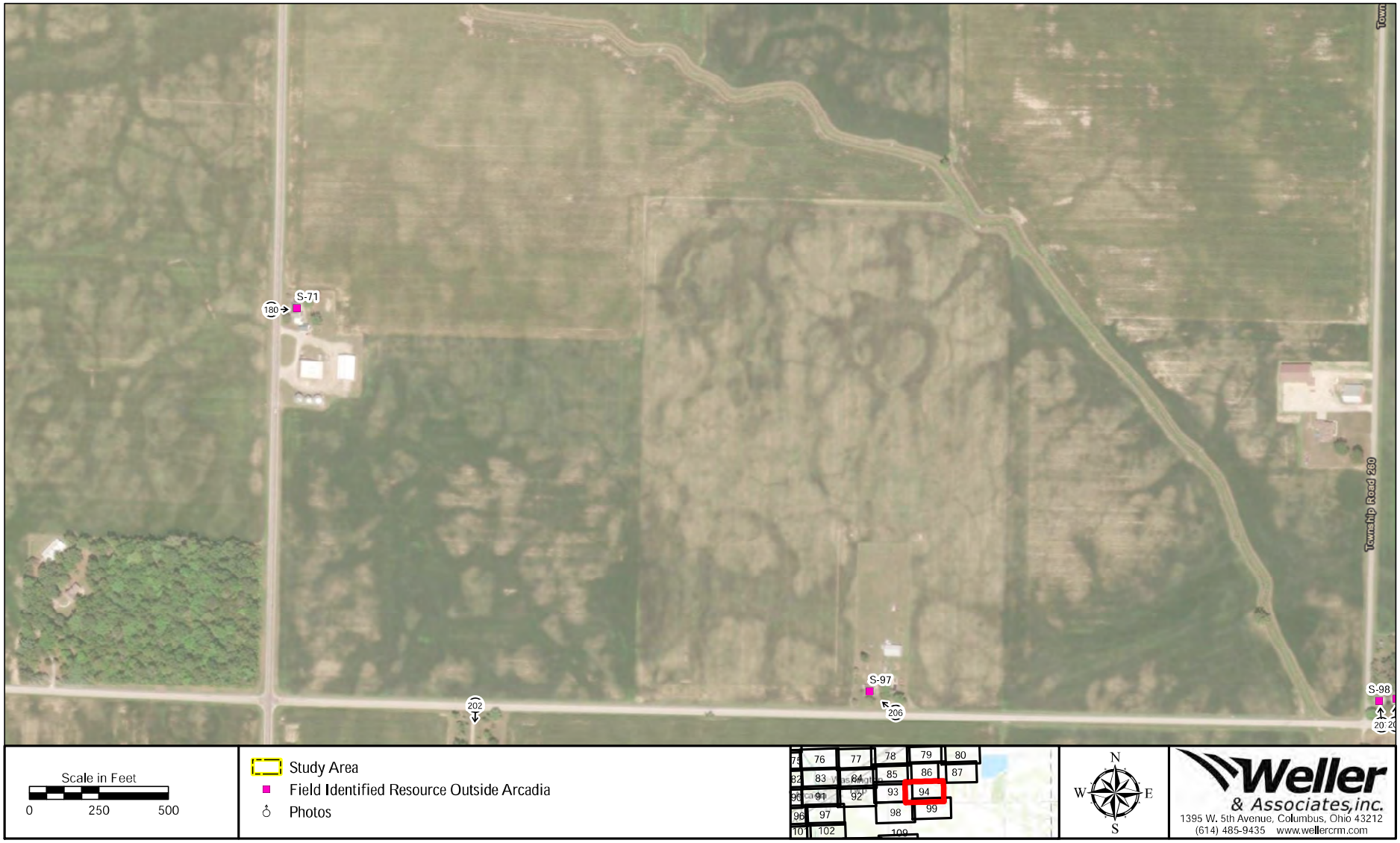


Figure 94. Fieldwork results and photo orientation map.

Figure 95. Fieldwork results and photo orientation map.

Figure 96. Fieldwork results and photo orientation map.

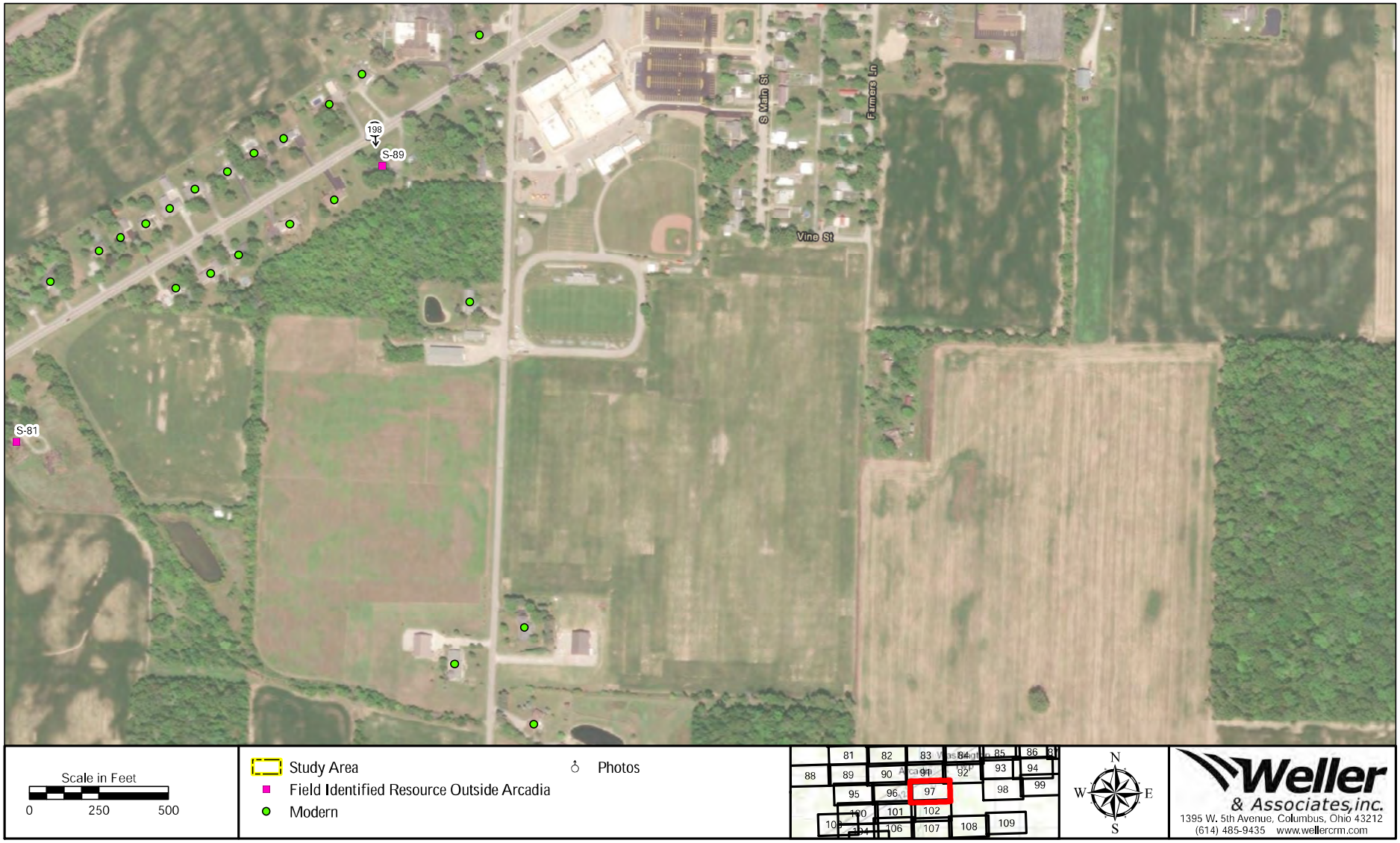


Figure 97. Fieldwork results and photo orientation map.

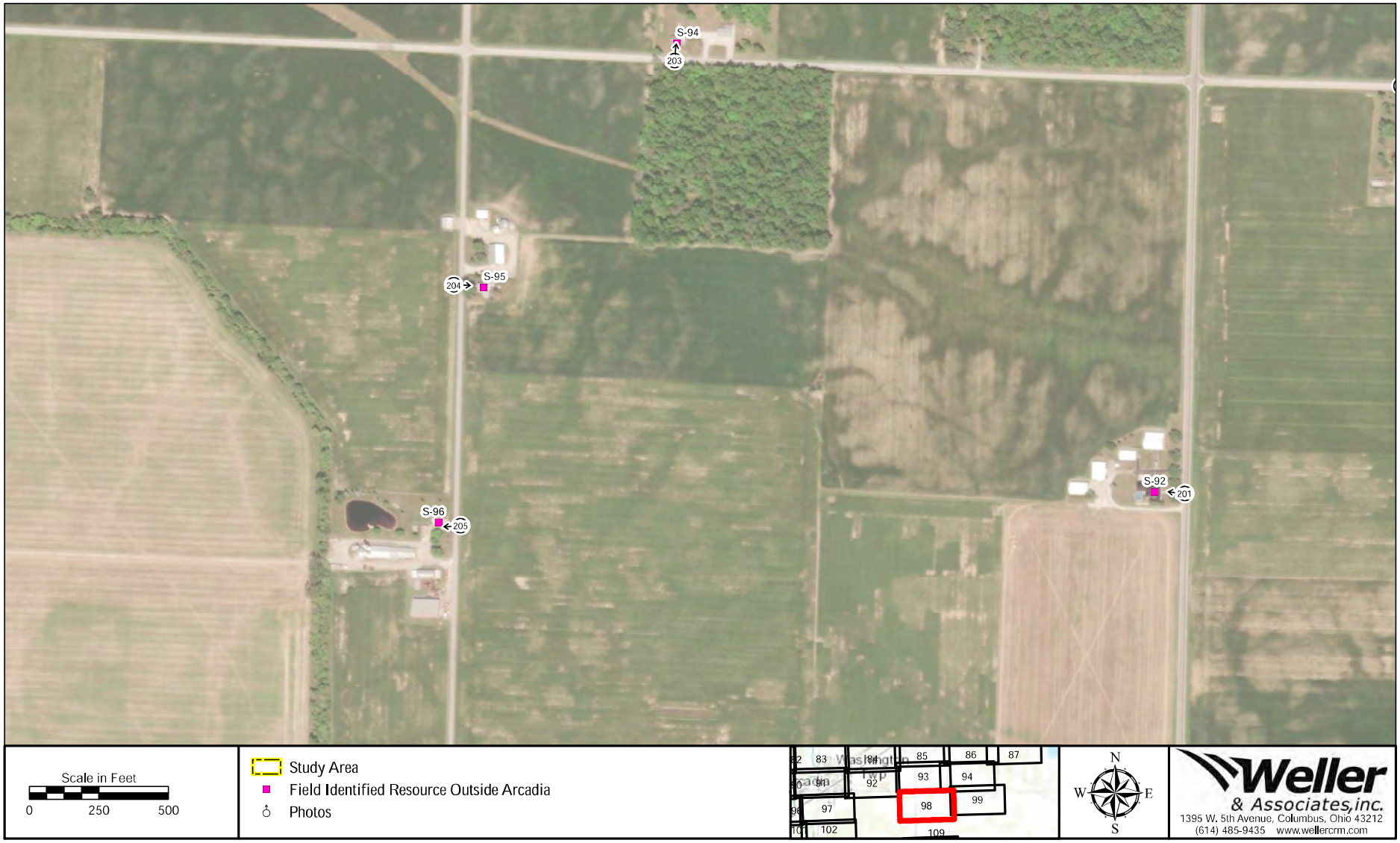


Figure 98. Fieldwork results and photo orientation map.

Figure 99. Fieldwork results and photo orientation map.

Figure 100. Fieldwork results and photo orientation map.

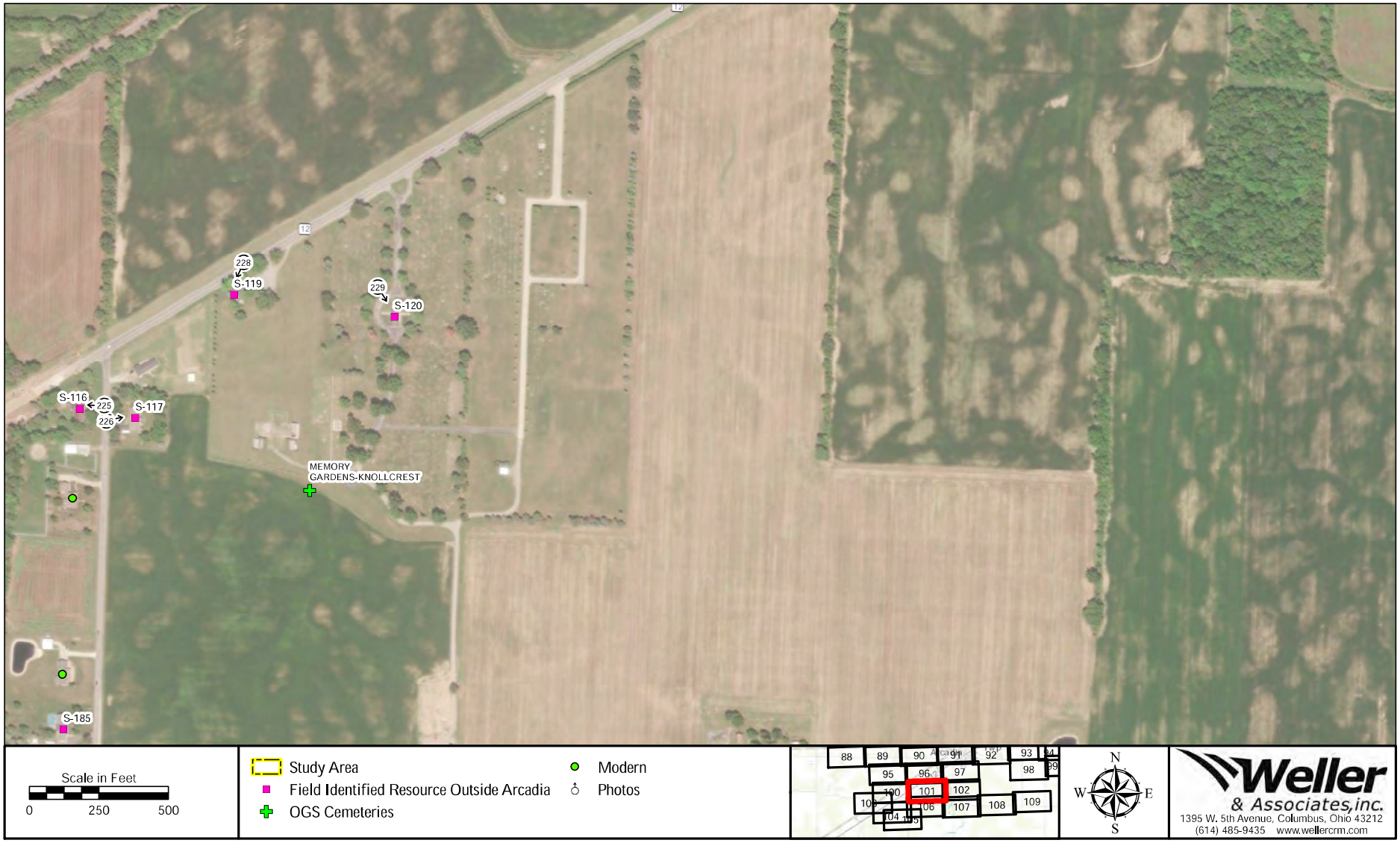


Figure 101. Fieldwork results and photo orientation map.

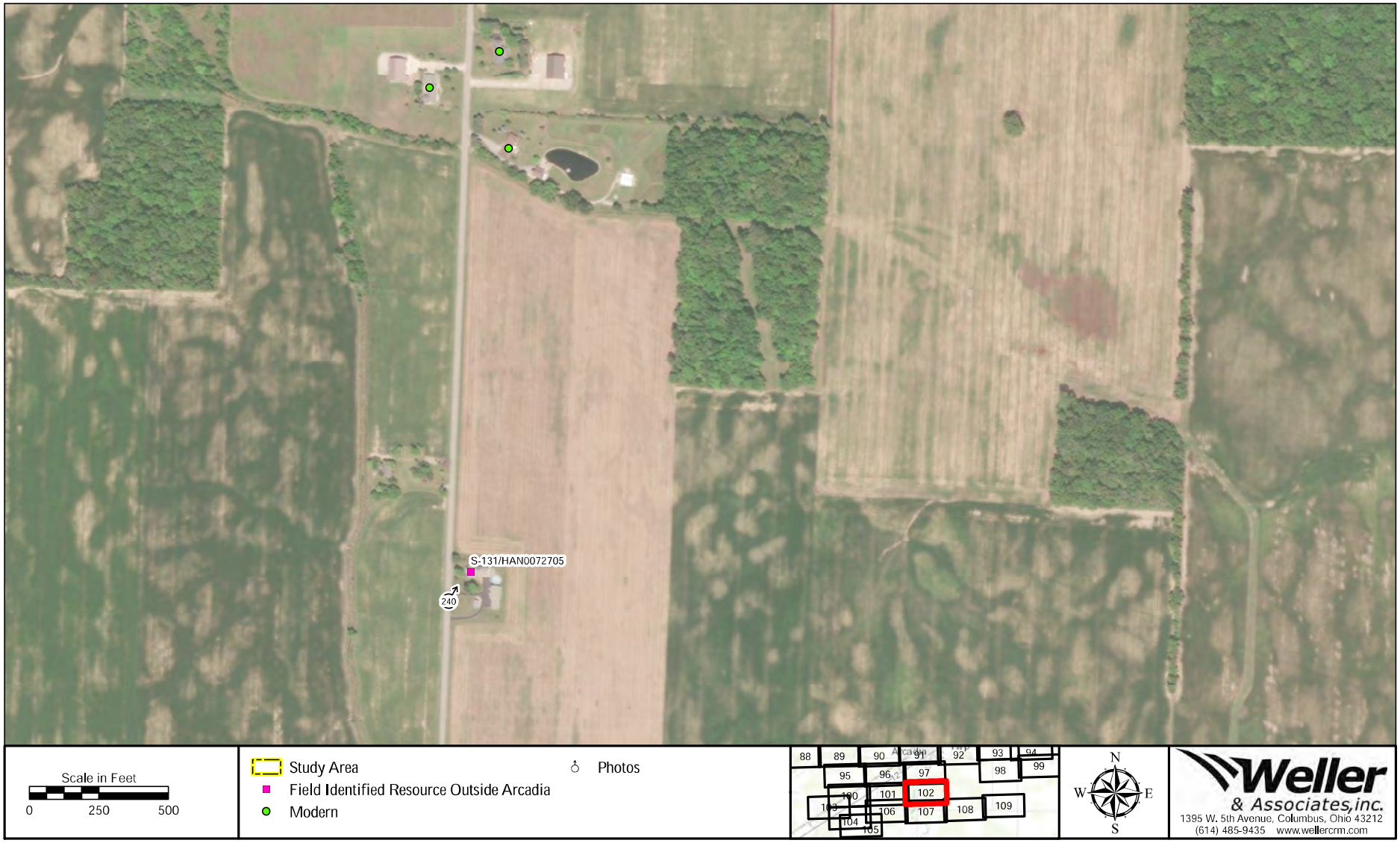


Figure 102. Fieldwork results and photo orientation map.

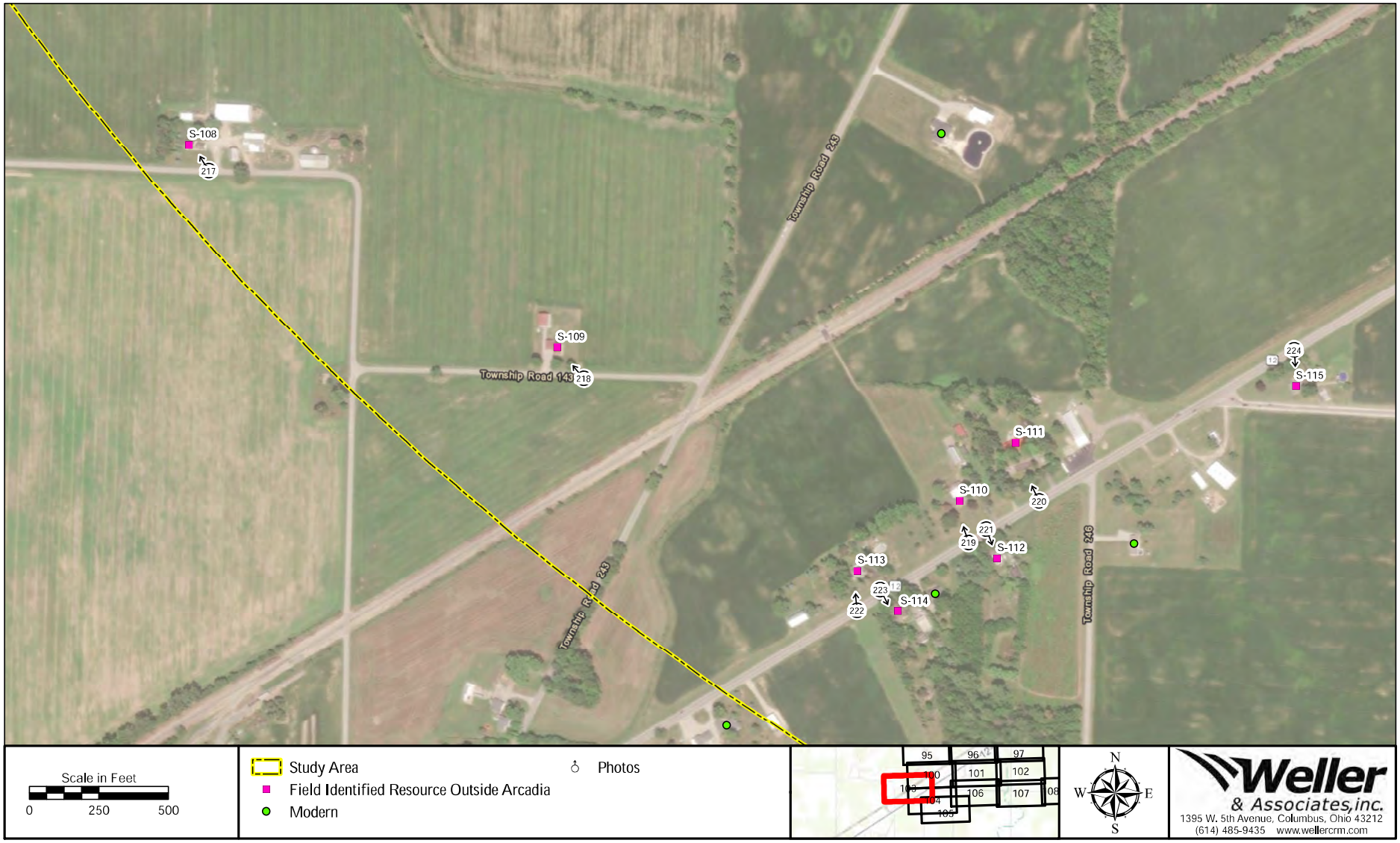


Figure 103. Fieldwork results and photo orientation map.

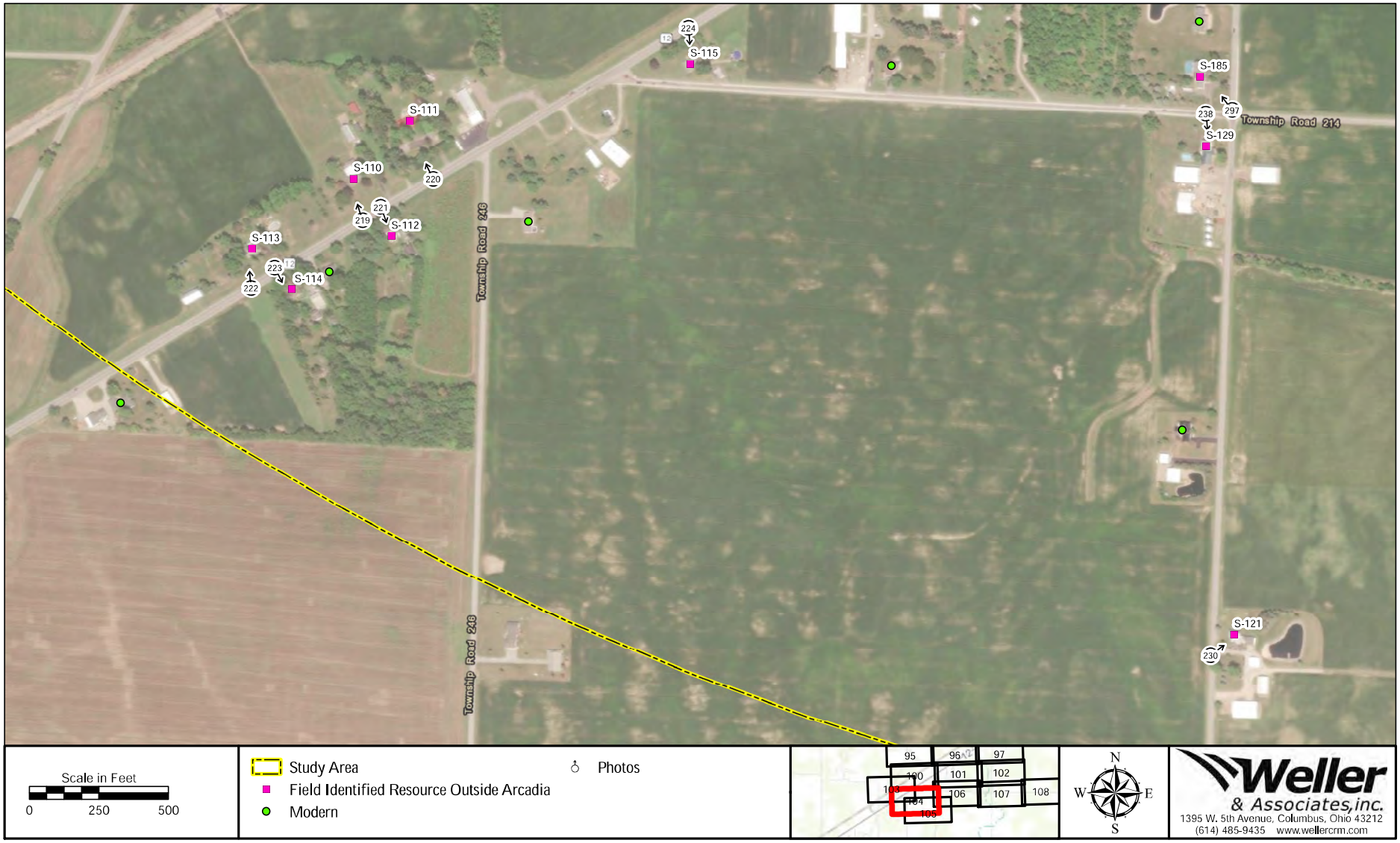


Figure 104. Fieldwork results and photo orientation map.

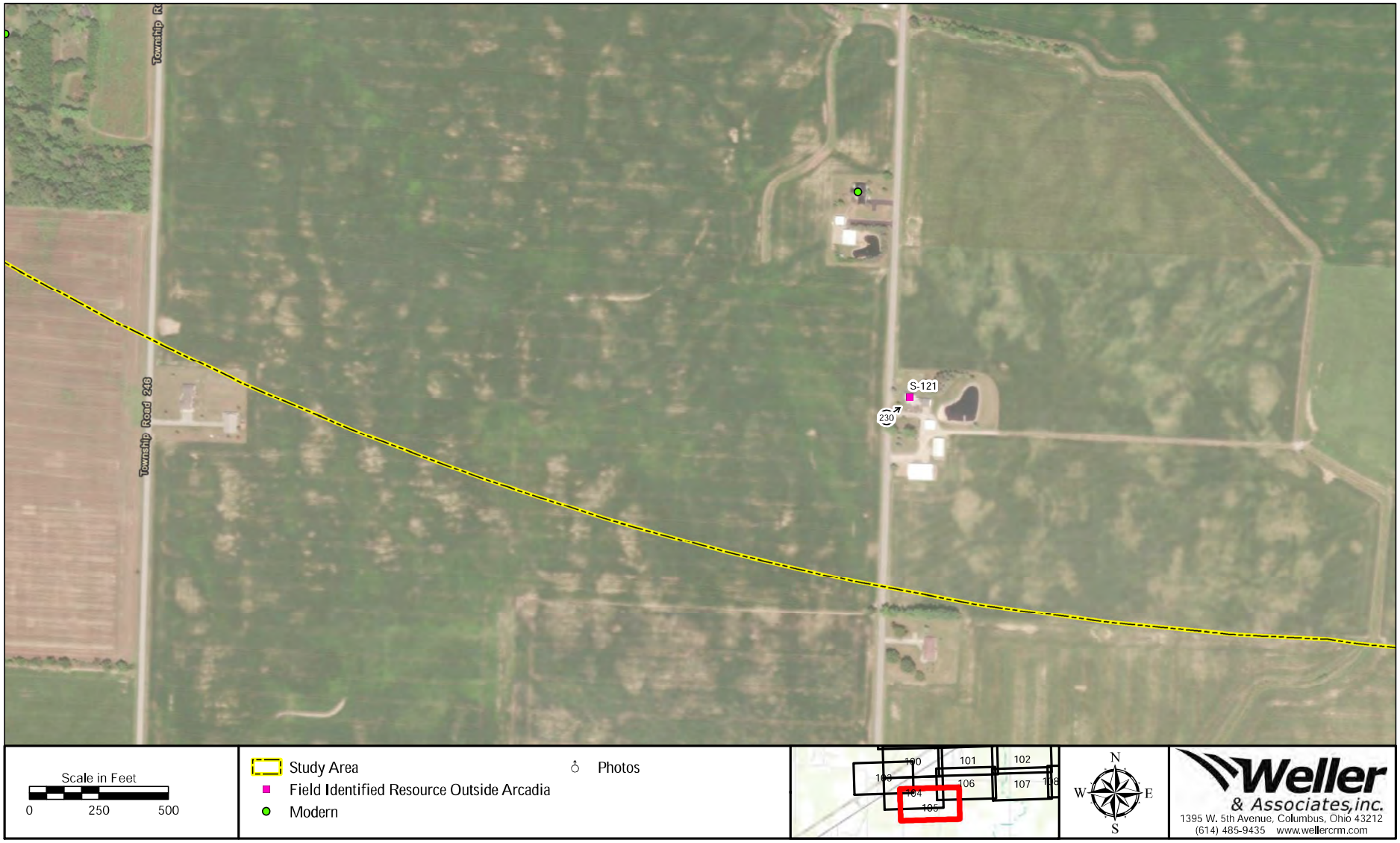


Figure 105. Fieldwork results and photo orientation map.

Figure 106. Fieldwork results and photo orientation map.

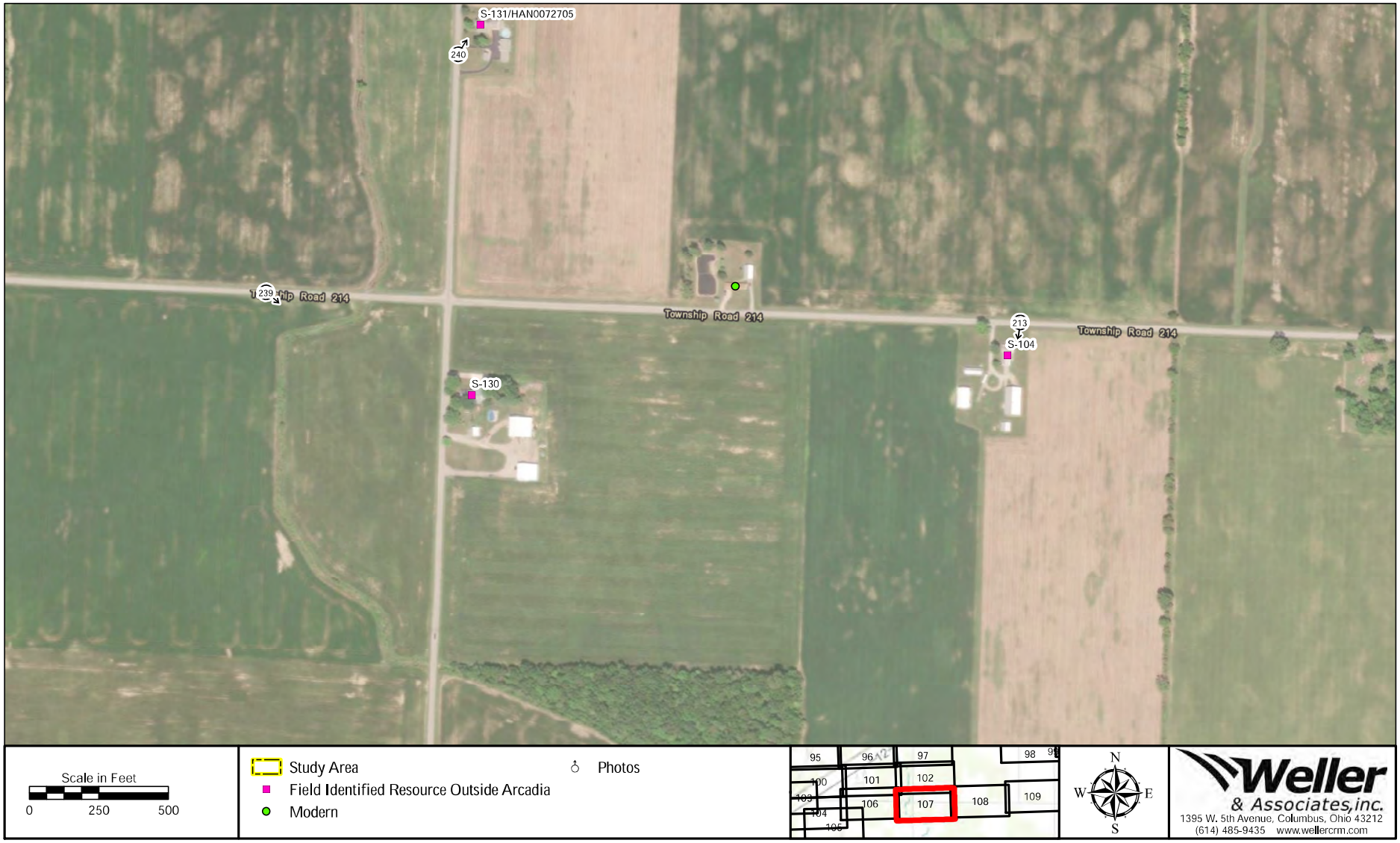


Figure 107. Fieldwork results and photo orientation map.

Figure 108. Fieldwork results and photo orientation map.

Figure 109. Fieldwork results and photo orientation map.

Figure 110. Southeast view of S-1 from Robbins Road, Perry Township, Wood County.

Figure 111. East view of S-2 from Turley Road, Perry Township, Wood County.

Figure 112. West view of S-3 from Turley Road, Perry Township, Wood County.

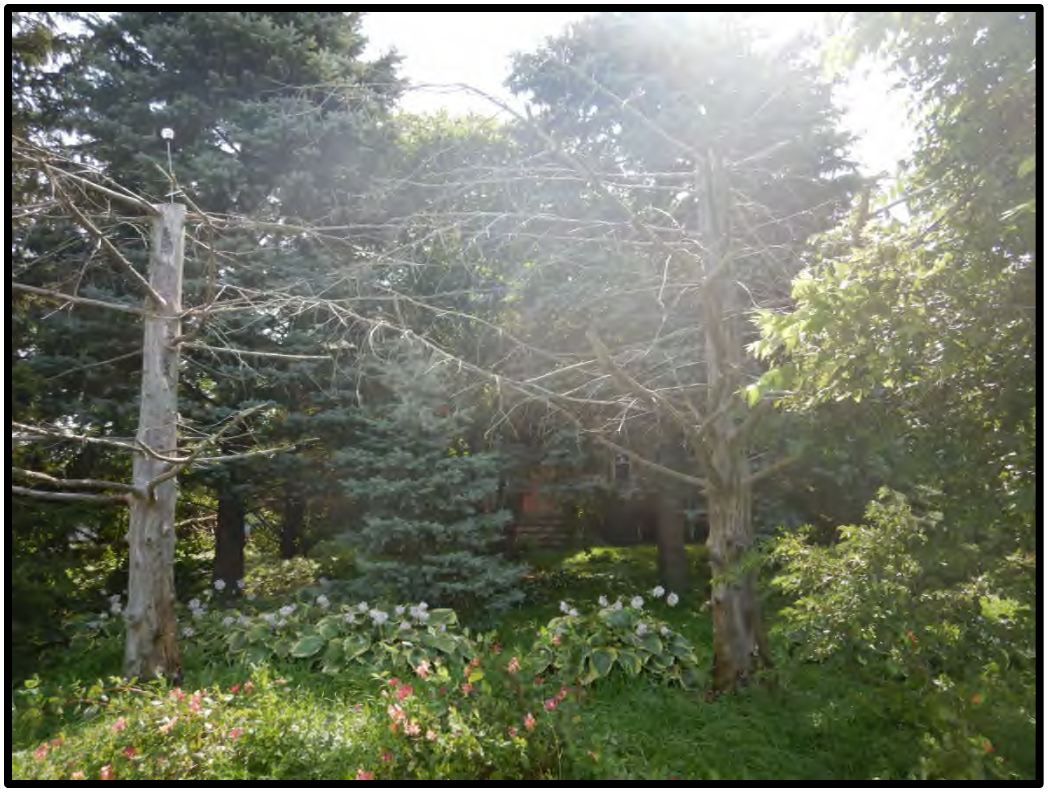


Figure 113. Southeast view of S-4 from Pursell Road, Perry Township, Wood County.

Figure 114. Southwest view of S-5 from Baird Road, Perry Township, Wood County.

Figure 115. West view of S-6 from Township Road 261, Washington Township, Hancock County.

Figure 116. South view of S-7 from State Route 613, Washington Township, Hancock County.

Figure 117. Southeast view of S-8 from County Road 226, Washington Township, Hancock County.

Figure 118. Southeast view of S-9 from County Road 226, Washington Township, Hancock County.

Figure 119. Southeast view of S-10 from County Road 226, Washington Township, Hancock County.

Figure 120. Southeast view of S-11 from County Road 226, Washington Township, Hancock County.

Figure 121. Northwest view of S-12 from County Road 226, Washington Township, Hancock County.

Figure 122. Southeast view of S-13 from State Route 613, Washington Township, Hancock County.

Figure 123. Northwest view of S-14 from State Route 613, Washington Township, Hancock County.

Figure 124. Northwest view of S-15 from State Route 613, Washington Township, Hancock County.

Figure 125. West view of S-16 from County Road 257, Washington Township, Hancock County.

Figure 126. South view of S-17 from State Route 613, Washington Township, Hancock County.

Figure 127. Southwest view of S-18 from the intersection of County Road 257 and State Route 613, Washington Township, Hancock County.

Figure 128. Northeast view of S-19 from County Road 257, Washington Township, Hancock County.

Figure 129. Northwest view of S-20 from County Road 226, Washington Township, Hancock County.

Figure 130. Northwest view of S-21 from County Road 226, Washington Township, Hancock County.

Figure 131. Southeast view of S-22 from State Route 613, Washington Township, Hancock County.

Figure 132. Northeast view of S-23 from State Route 613, Washington Township, Hancock County.

Figure 133. Southeast view of S-24 from State Route 613, Washington Township, Hancock County.

Figure 134. North view of S-25 from State Route 613, Washington Township, Hancock County.

Figure 135. Northwest view of S-26/ HAN0072505 from County Road 226, Washington Township, Hancock County.

Figure 136. North view of S-27 from County Road 226, Washington Township, Hancock County.

Figure 137. Northwest view of S-28 from County Road 226, Washington Township, Hancock County.

Figure 138. Northwest view of S-29 from the intersection of County Roads 257 and 226, Washington Township, Hancock County.

Figure 139. Northwest view of S-30 from Township Road 226, Washington Township, Hancock County.

Figure 140. Northwest view of S-31 from Township Road 226, Washington Township, Hancock County.

Figure 141. Northwest view of S-32 from Township Road 226, Washington Township, Hancock County.

Figure 142. Northwest view of S-33 from Township Road 226, Washington Township, Hancock County.

Figure 143. Northeast view of S-34 from State Route 613, Washington Township, Hancock County.

Figure 144. Northeast view of S-35/ HAN0072405 from State Route 613, Washington Township, Hancock County.

Figure 145. South view of S-36 from State Route 613, Washington Township, Hancock County.

Figure 146. North view of S-37 from State Route 613, Washington Township, Hancock County.

Figure 147. North view of S-38 from Township Road 243, Washington Township, Hancock County.

Figure 148. West view of the gated entrance leading to S-39, which is obscured by trees and well within private property, from Township Road 243, Washington Township, Hancock County.

Figure 149. Southwest view of S-40 from Township Road 243, Washington Township, Hancock County.

Figure 150. Southeast view of S-41 from State Route 12, Washington Township, Hancock County.

Figure 151. Northwest view of S-42 from State Route 12, Washington Township, Hancock County.

Figure 152. Northwest view of S-43 from State Route 12, Washington Township, Hancock County.

Figure 153. Southeast view of S-44 from State Route 12, Washington Township, Hancock County.

Figure 154. Northwest view of S-45 from State Route 12, Washington Township, Hancock County.

Figure 155. Southwest view of S-46 from State Route 12, Washington Township, Hancock County.

Figure 156. South view of S-47 from State Route 12, Washington Township, Hancock County.

Figure 157. North view of S-48 from State Route 12, Washington Township, Hancock County.

Figure 158. Northeast view of S-49 from County Road 257, Washington Township, Hancock County.

Figure 159. Southwest view of S-50 from County Road 109, Washington Township, Hancock County.

Figure 160. West view of S-51 from County Road 257, Washington Township, Hancock County.

Figure 161. South view of S-52 from County Road 109, Washington Township, Hancock County.

Figure 162. South view of S-53 from County Road 109, Washington Township, Hancock County.

Figure 163. South view of S-54 from County Road 109, Washington Township, Hancock County.

Figure 164. Northwest view of S-55 from Township Road 249, Cass Township, Hancock County.

Figure 165. West view of S-56 from Township Road 249, Cass Township, Hancock County.

Figure 166. East view of S-57 from Township Road 247, Cass Township, Hancock County.

Figure 167. South view of S-58 from County Road 109, Cass Township, Hancock County.

Figure 168. North view of S-59 from County Road 109, Cass Township, Hancock County.

Figure 169. South view of S-60 from County Road 109, Cass Township, Hancock County.

Figure 170. East view of S-61 from Township Road 247, Cass Township, Hancock County.

Figure 171. West view of S-62 from Township Road 247, Cass Township, Hancock County.

Figure 172. Northwest view of S-63 from State Route 12, Washington Township, Hancock County.

Figure 173. Northwest view of S-64 from State Route 12, Washington Township, Hancock County.

Figure 174. Northwest view of S-65 from State Route 12, Washington Township, Hancock County.

Figure 175. Northwest view of S-66 from State Route 12, Washington Township, Hancock County.

Figure 176. Northwest view of S-67 from State Route 12, Washington Township, Hancock County.

Figure 177. Northwest view of S-68 from State Route 12, Washington Township, Hancock County.

Figure 178. Northwest view of S-69 from State Route 12, Washington Township, Hancock County.

Figure 179. East view of S-70 from County Road 330, Washington Township, Hancock County.

Figure 180. East view of S-71 from County Road 330, Washington Township, Hancock County.

Figure 181. North view of S-72 from Township Road 217, Washington Township, Hancock County.

Figure 182. East view of S-73 from Township Road 260, Washington Township, Hancock County.

Figure 183. East view of S-74 from County Road 330, Washington Township, Hancock County.

Figure 184. West view of S-75 from Township Road 330, Washington Township, Hancock County.

Figure 185. South view of S-76 from Township Road 243, Cass Township, Hancock County.

Figure 186. North view of S-77 from County Road 216, Washington Township, Hancock County.

Figure 187. North view of S-78 from County Road 216, Cass Township, Hancock County.

Figure 188. North view of S-79 from County Road 216, Cass Township, Hancock County.

Figure 189. Southeast view of S-80 from County Road 216, Cass Township, Hancock County.

Figure 190. Southeast view of S-81 from State Route 12, Cass Township, Hancock County.

Figure 191. West view of S-82 from State Route 18, Washington Township, Hancock County.

Figure 192. West view of S-83 from State Route 18, Cass Township, Hancock County.

Figure 193. Southwest view of S-84 from State Route 18, Cass Township, Hancock County.

Figure 194. Northwest view of S-85 from State Route 613, Cass Township, Hancock County.

Figure 195. Southeast view of S-86 from State Route 613, Cass Township, Hancock County.

Figure 196. Northwest view of S-87 from County Road 216, Cass Township, Hancock County.

Figure 197. Southwest view of S-88 from Township Road 216, Cass Township, Hancock County.

Figure 198. South view of S-89 from State Route 12, Washington Township, Hancock County.

Figure 199. Northwest view of S-90 from East Brown Road, Washington Township, Hancock County.

Figure 200. Southwest view of S-91 from East Brown Road, Washington Township, Hancock County.

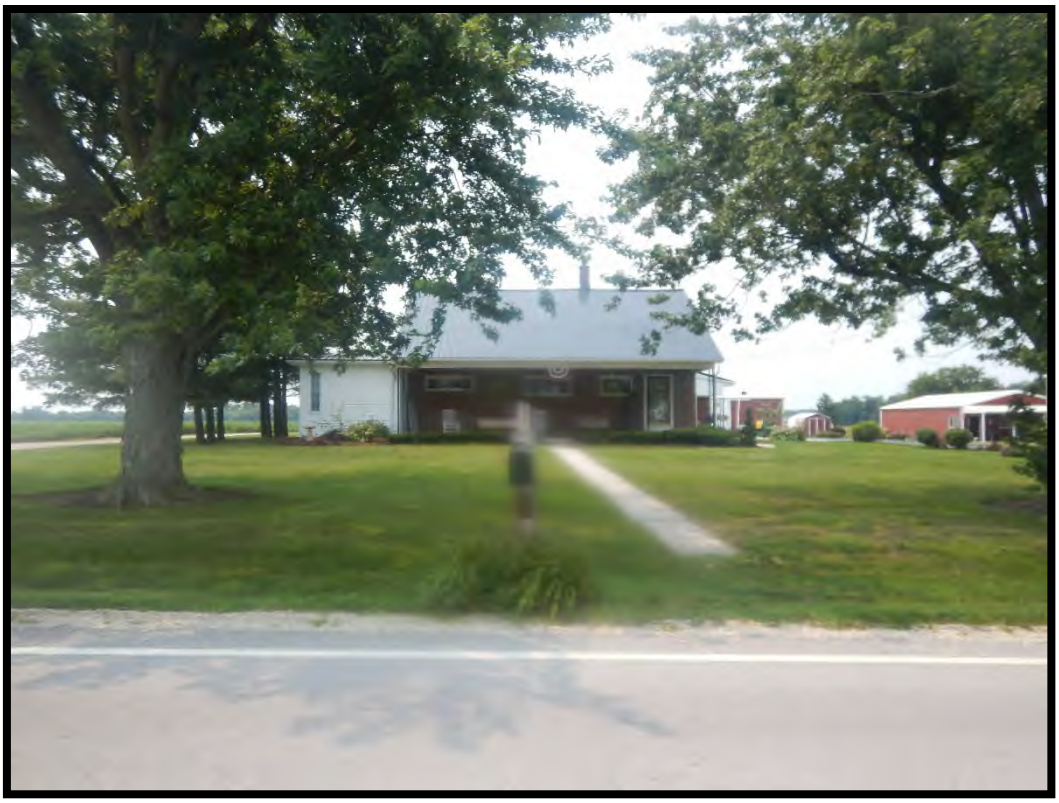


Figure 201. West view of S-92 from County Road 330, Washington Township, Hancock County.

Figure 202. South view of S-93 from County Road 216, Washington Township, Hancock County.

Figure 203. North view of S-94 from County Road 216, Washington Township, Hancock County.

Figure 204. East view of S-95 from Township Road 257, Washington Township, Hancock County.

Figure 205. West view of S-96 from Township Road 257, Washington Township, Hancock County.

Figure 206. Northwest view of S-97 from County Road 216, Washington Township, Hancock County.

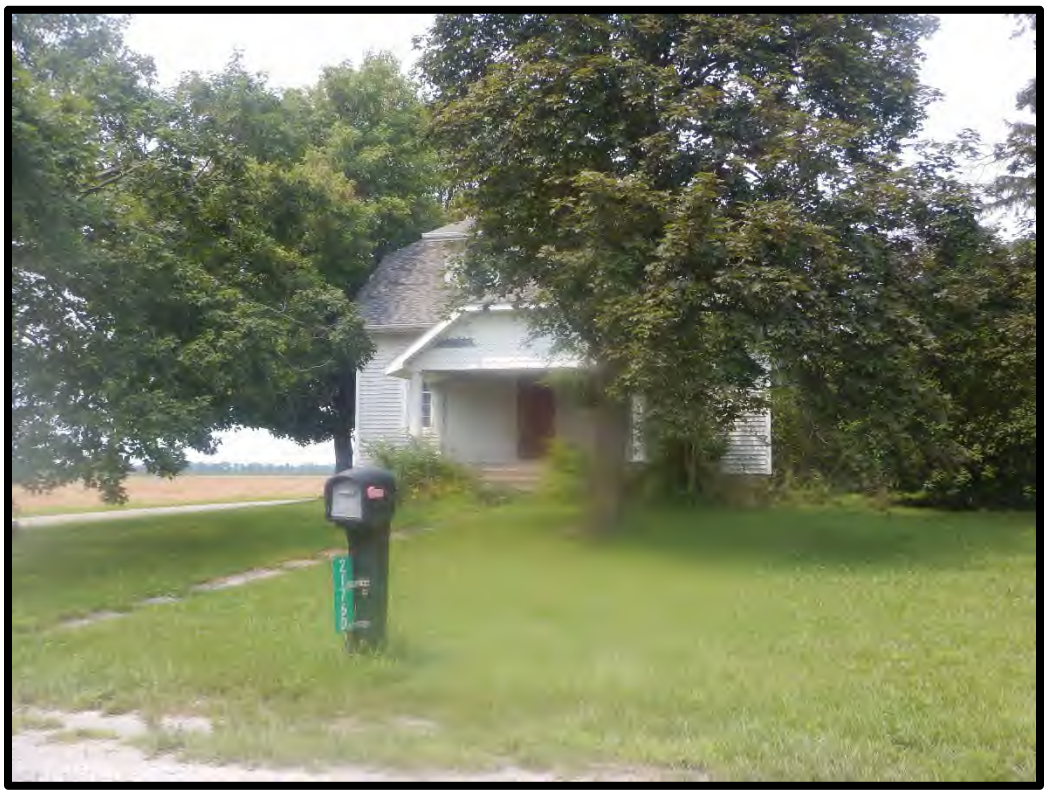


Figure 207. North view of S-98 from County Road 216, Washington Township, Hancock County.

Figure 208. North view of S-99 from County Road 216, Washington Township, Hancock County.

Figure 209. North view of S-100 from Township Road 214, Washington Township, Hancock County.

Figure 210. South view of S-101 from Township Road 214, Washington Township, Hancock County.

Figure 211. North view of S-102 from Township Road 214, Washington Township, Hancock County.

Figure 212. North view of S-103 from Township Road 214, Washington Township, Hancock County.

Figure 213. South view of S-104 from Township Road 214, Washington Township, Hancock County.

Figure 214. North view of S-105 from County Road 216, Washington Township, Hancock County.

Figure 215. North view of S-106 from County Road 216, Washington Township, Hancock County.

Figure 216. West view of S-107 from County Road 330, Washington Township, Hancock County.

Figure 217. Northwest view of S-108 from Township Road 215, Cass Township, Hancock County.

Figure 218. Northwest view of S-109 from Township Road 143, Cass Township, Hancock County.

Figure 219. Northwest view of S-110 from State Route 12, Cass Township, Hancock County.

Figure 220. North view of S-111 from State Route 12, Cass Township, Hancock County.

Figure 221. Southeast view of S-112 from State Route 12, Cass Township, Hancock County.

Figure 222. North view of S-113 from State Route 12, Cass Township, Hancock County.

Figure 223. South view of S-114 from State Route 12, Cass Township, Hancock County.

Figure 224. South view of S-115 from State Route 12, Cass Township, Hancock County.

Figure 225. West view of S-116 from County Road 248, Cass Township, Hancock County.

Figure 226. East view of S-117 from County Road 248, Cass Township, Hancock County.

Figure 227. South view of S-118 from State Route 12, Cass Township, Hancock County.

Figure 228. South view of S-119 from State Route 12, Arcadia, Township, Hancock County.

Figure 229. Southeast view of S-120 from within Memory Gardens Cemetery on State Route 12, Cass Township, Hancock County.

Figure 230. East view of S-121 from County Road 248, Cass Township, Hancock County.

Figure 231. West view of S-122 from Township Road 247, Washington Township, Hancock County.

Figure 232. South view of S-123 from Township Road 214, Washington Township, Hancock County.

Figure 233. South view of S-124 from Township Road 214, Washington Township, Hancock County.

Figure 234. North view of S-125 from Township Road 214, Washington Township, Hancock County.

Figure 235. Southwest view of S-126 from Township Road 214, Cass Township, Hancock County.

Figure 236. Southwest view of S-127 from Township Road 214, Cass Township, Hancock County.

Figure 237. North view of S-128 from Township Road 214, Cass Township, Hancock County.

Figure 238. South view of S-129 from Township Road 214, Cass Township, Hancock County.

Figure 239. Southeast view of S-130 from Township Road 214, Washington Township, Hancock County.

Figure 240. Northeast view of S-131/HAN0072705 from Township Road 254, Washington Township, Hancock County.

Figure 241. Southeast view of S-132 from Township Road 254, Washington Township, Hancock County.

Figure 242. Southeast view of S-133 from Township Road 218, Washington Township, Hancock County.

Figure 243. Northeast view of S-134 from Township Road 218, Washington Township, Hancock County.

Figure 244. North view of S-135 from Township Road 218, Washington Township, Hancock County.

Figure 245. Northwest view of S-136 from Township Road 254, Cass Township, Hancock County.

Figure 246. Northwest view of S-137/ HAN0072205 from Township Road 254, Washington Township, Hancock County.

Figure 247. Northeast view of S-138 from Township Road 254, Washington Township, Hancock County.

Figure 248. Southwest view of S-139 from the intersection of County Road 109 and Township Road 247, Cass Township, Hancock County.

Figure 249. West view of S-140 from Township Road 247, Cass Township, Hancock County.

Figure 250. Northwest view of S-141 from Township Road 254, Washington Township, Hancock County.

Figure 251. Northwest view of S-142 from Township Road 247, Cass Township, Hancock County.

Figure 252. North view of S-143 from County Road 109, Cass Township, Hancock County.

Figure 253. Northwest view of S-144 from Township Road 243, Cass Township, Hancock County.

Figure 254. Northwest view of S-145 from Township Road 243, Cass Township, Hancock County.

Figure 255. Northeast view of S-146 from Township Road 243, Cass Township, Hancock County.

Figure 256. Northwest view of S-147 from Township Road 218, Cass Township, Hancock County.

Figure 257. North view of S-148 from Township Road 218, Cass Township, Hancock County.

Figure 258. West view of S-149/HAN0073205 from County Road 257, Cass Township, Hancock County.

Figure 259. Southeast view of S-150 from County Road 257, Washington Township, Hancock County.

Figure 260. West view of S-151 from intersection of Township Roads 284 Township Road 261, Washington Township, Hancock County.

Figure 261. Southeast view of S-152 from Township Road 261, Washington Township, Hancock County.

Figure 262. East view of S-153 from Township Road 261, Washington Township, Hancock County.

Figure 263. East view of S-154 from Township Road 261, Washington Township, Hancock County.

Figure 264. North view of S-155 from Township Road 218, Washington Township, Hancock County.

Figure 265. Southeast view of S-156 from Township Road 218, Washington Township, Fostoria, Hancock County.

Figure 266. Southeast view of S-157 from Township Road 218, Washington Township, Hancock County.

Figure 267. Southeast view of S-158 from Township Road 218, Washington Township, Hancock County.

Figure 268. East view of S-159 from Township Road 261, Washington Township, Hancock County.

Figure 269. East view of S-160 from Township Road 261, Washington Township, Hancock County.

Figure 270. Northeast view of S-161 from Township Road 261, Washington Township, Hancock County.

Figure 271. Southeast view of S-162 from State Route 12, Washington Township, Hancock County.

Figure 272. Southeast view of S-163 from County Road 109, Washington Township, Hancock County.

Figure 273. North view of S-164 from County Road 109, Washington Township, Hancock County.

Figure 274. East view of S-165 from Township Road 256, Washington Township, Hancock County.

Figure 275. West view of S-166/ HAN0072305 from Township Road 256, Washington Township, Hancock County.

Figure 276. Northeast view of S-167 from County Road 257, Washington Township, Hancock County.

Figure 277. Southwest view of S-168 from Township Road 218, Washington Township, Hancock County.

Figure 278. Southeast view of S-169 from Township Road 218, Washington Township, Hancock County.

Figure 279. East view of S-170 from Township Road 257, Washington Township, Hancock County.

Figure 280. Southwest view of S-171 from Township Road 257, Washington Township, Hancock County.

Figure 281. Northwest view of S-172 from State Route 12, Washington Township, Hancock County.

Figure 282. Southeast view of S-173 from State Route 12, Washington Township, Hancock County.

Figure 283. Southeast view of S-174 from State Route 12, Washington Township, Hancock County.

Figure 284. North view of S-175 from State Route 12, Washington Township, Hancock County.

Figure 285. North view of S-176 from State Route 12, Washington Township, Hancock County.

Figure 286. Northwest view of S-177 from State Route 12, Washington Township, Hancock County.

Figure 287. North view of S-178 from County Road 109, Washington Township, Hancock County.

Figure 288. Northeast view of S-179 from County Road 109, Washington Township, Hancock County.

Figure 289. West view of S-180 from Township Road 254, Washington Township, Hancock County.

Figure 290. East view of S-181 from Township Road 254, Washington Township, Hancock County.

Figure 291. Northeast view of S-182 from County Road 109, Washington Township, Hancock County.

Figure 292. South view of HAN0059905 from State Route 12, Washington Township, Hancock County.

Figure 293. Northwest view of HAN0066505, Washington Township, Hancock County.

Figure 294. Southwest view of HAN0066705, Washington Township, Hancock County.

Figure 295. Southeast view of S-183 from Township Road 254, Washington Township, Hancock County.

Figure 296. Northeast view of S-184 from Township Road 243, Washington Township, Hancock County.

Figure 297. Northwest view of S-185 from the intersection of County Road 214 and Township Road 248, Cass Township, Hancock County.

Figure 298. Northwest view of S-186 from Township Road 218, Cass Township, Hancock County.

Figure 299. Southwest view of S-187 from Township Road 218, Cass Township, Hancock County.

Figure 300. North view of S-188 from Township Road 218, Cass Township, Hancock County.

Figure 301. East view of S-189 from Township Road 247, Cass Township, Hancock County.

Figure 302. South view of S-190 from County Road 209, Washington Township, Hancock County.

Figure 303. View of 79001942/ "Tanglewood" and Project Area obscured by vegetations and distance, facing southwest from North Union Street, Fostoria.

Figure 304. Northwest view of 80003095/ Marcus, Dana, House from the intersection of North Countyline and Summit Streets, Fostoria.

Figure 305. View towards the Project Area obscured by vegetation and distance from the alley behind 80003095/ Marcus, Dana, House, Fostoria.

Figure 306. Southwest view of site of the demolished 997798 DOE, Fostoria.

Figure 307. Southeast view of site of the demolished 977314 DOE, Fostoria.

Figure 308. Northeast view of 01001065/ Downtown Fostoria Historic District from the intersection of South Main Street and State Route 12, Fostoria.

Figure 309. Southwest view towards the Project Area obscured by vegetation, buildings, and distance from 01001065/ Downtown Fostoria Historic District, Fostoria.

Figure 310. Northeast view of the 202 W Center DOE from West Center Street, Fostoria.

Figure 311. Southwest view towards the Project Area obscured by vegetation, buildings, and distance from the 202 W Center DOE, Fostoria.

Figure 312. Northwest view of 78002085/ Fostoria Mausoleum, Fostoria.

Figure 313. Southwest view towards the Project Area obscured by vegetation, buildings, and distance from 78002085/ Fostoria Mausoleum, Fostoria.

Figure 314. West view of the 940299 DOE from the intersection of West Fremont Street and Lakeview Drive, Fostoria.

Figure 315. Southwest view towards the Project Area obscured by vegetation, buildings, and distance from the 940299 DOE, Fostoria.

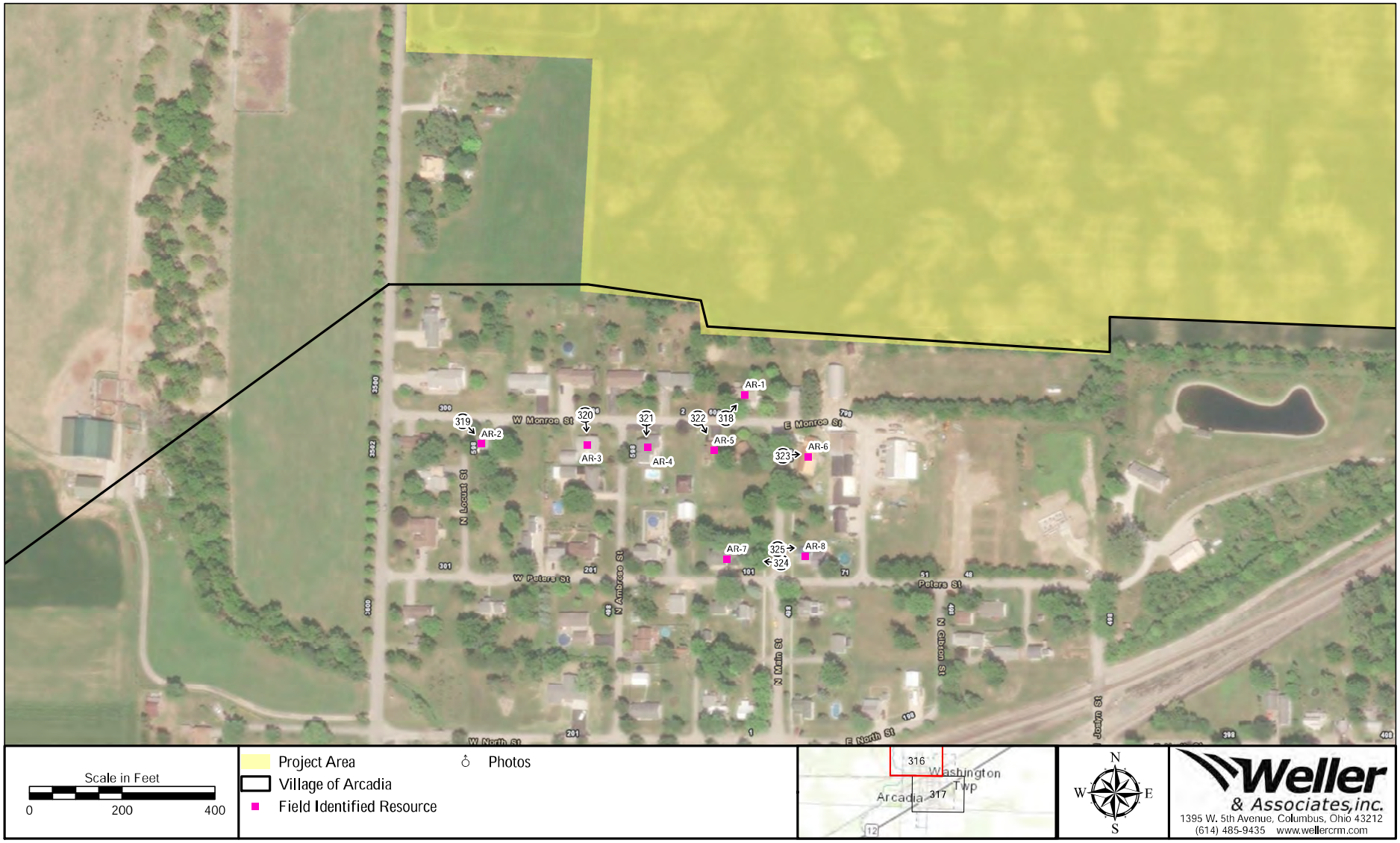


Figure 316. Fieldwork results and photo orientation map for the Village of Arcadia.

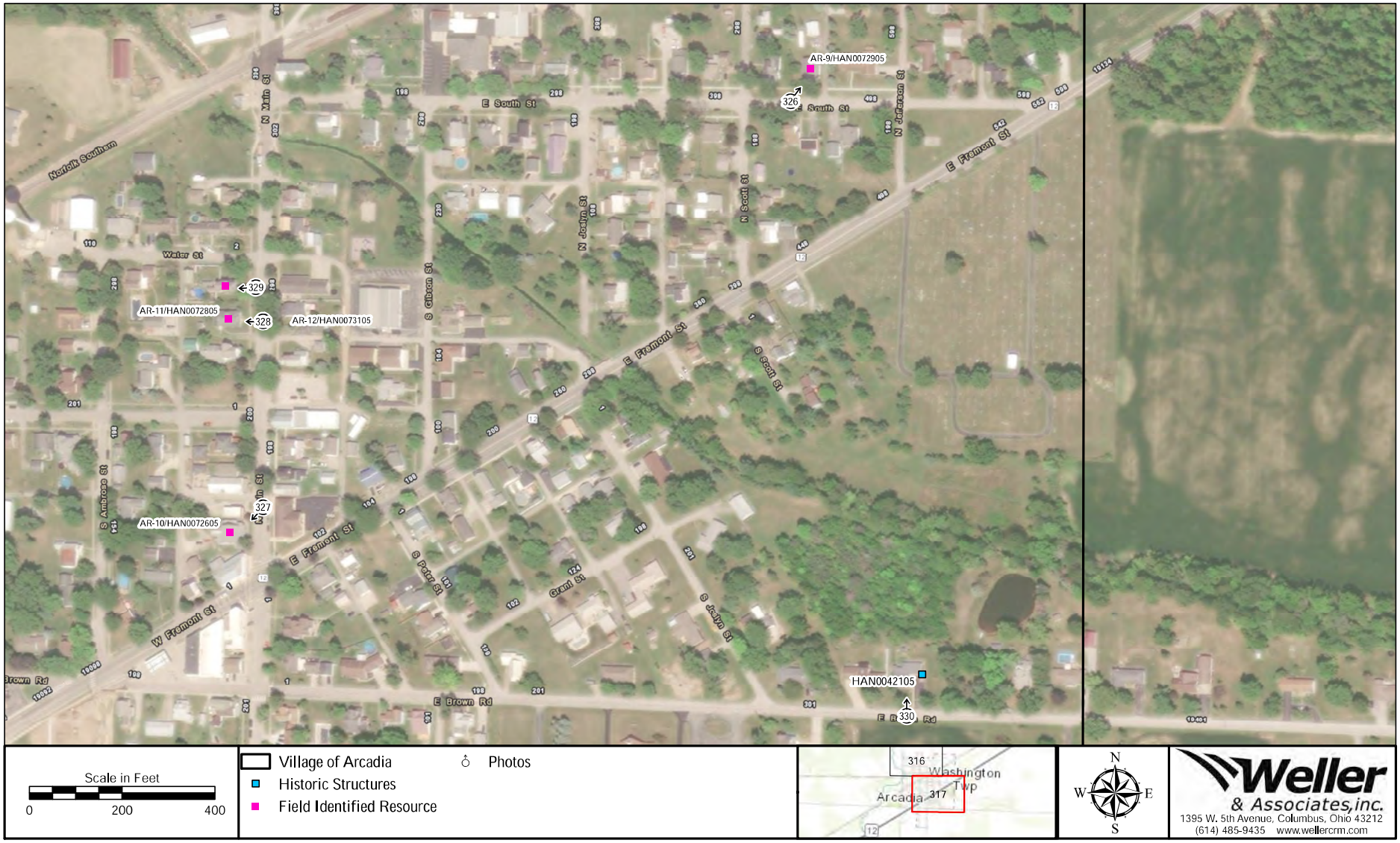


Figure 317. Fieldwork results and photo orientation map for the Village of Arcadia.

Figure 318. Northeast view of AR-1 from Monroe Street, Washington Township, Hancock County.

Figure 319. Southeast view of AR-2 from Locust Street, Washington Township, Hancock County.

Figure 320. South view of AR-3 from Monroe Street, Washington Township, Hancock County.

Figure 321. South view of AR-4 from Monroe Street, Washington Township, Hancock County.

Figure 322. Southeast view of AR-5 from Monroe Street, Washington Township, Hancock County.

Figure 323. East view of AR-6 from North Main Street, Washington Township, Hancock County.

Figure 324. West view of AR-7 from North Main Street, Washington Township, Hancock County.

Figure 325. East view of AR-8 from North Main Street, Washington Township, Hancock County.

Figure 326. North view of AR-9/HAN0072905 from South Street, Washington Township, Hancock County.

Figure 327. Southwest view of AR-10/HAN0072605 from North Main Street, Washington Township, Hancock County.

Figure 328. West view of AR-11/HAN0072805 from North Main Street, Washington Township, Hancock County.

Figure 329. West view of AR-12/HAN0073105 from North Main Street, Washington Township, Hancock County.

Figure 330. North view of HAN0042105 from East Brown Road, Washington Township, Hancock County.

Appendix A:

Previously Recorded HAN0042105, HAN0059905,
HAN0066505, and HAN0066705

CODED

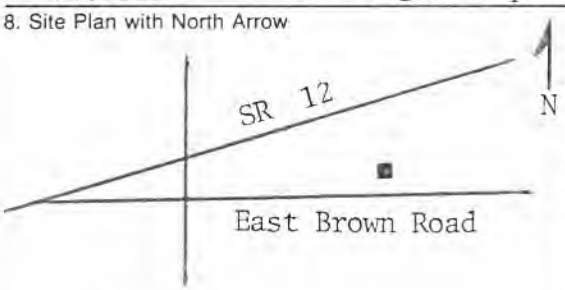
OHIO HISTORIC INVENTORY

Ohio Historic Preservation Office
1985 Velma Avenue
Columbus, Ohio 43211
614/297-2470

OHIO HISTORICAL SOCIETY
SINCE 1885

1. No. HAN-421-5
2. County Hancock
3. Location of Negatives
Roll No. Picture No.(s)
4. Present Name(s) Ray German House ☐ Coded
5. Historic or Other Name(s)

6. Specific Address or Location: 304 East Brown Rd.
6a. Lot, Section or VMD Number
7. City or Village: Arcadia — If Rural, Township & Vicinity: Washington Twp.
8. Site Plan with North Arrow



9. U.T.M. Reference
Quadrangle Name
Zone 17 Easting 289267 Northing 4553614
10. Site ☐ Structure ☐ Building ☒ Object ☐
11. On National Register? Yes ☐ No ☒
12. N.R. SCG Potential? Yes ☐ No ☒
13. Part of Estab. Hist. Dist.? Yes ☐ No ☒
14. District Potential? Yes ☐ No ☒
15. Name of Established District (N.R. or Local)

16. Thematic Association(s)
17. Date(s) or Period: ca. 1920-1930
17b. Alteration Date(s)
18. Style or Design: Bungalow (altered) ☐ High Style ☐ Elements
18a. Style of Addition or Element(s)
19. Architect or Engineer
19a. Design Sources: Aladdin Homes Catalogue
20. Contractor or Builder: Floyd Miller & Paul Schubert
21. Building Type or Plan: Bungalow
22. Original Use, if apparent: Residential
23. Present Use: Residential
24. Ownership: Public ☐ Private ☐
25. Owner's Name & Address, if known
Ray German
304 East Brown Road
Arcadia, Ohio
26. Property Acreage
27. Other Surveys in Which Included

28. No. of Stories
29. Basement? Yes ☐ No ☐
30. Foundation Material: brick facing
31. Wall Construction: balloon frame
32. Roof Type & Material: gable: shingle
33. No. of Bays: Front 3 Side 2
34. Exterior Wall Material(s): aluminum
35. Plan Shape: rectangle
36. Changes (Explain in #42): Addition ☐ Altered ☒ Moved ☒
37. Window Type(s): ☐ 6 over 6 ☐ 2 over 2 ☐ 4 over 4 ☐ Other
38. Building Dimensions
39. Endangered? Yes ☐ No ☒ By What?
40. Chimney Placement: 1-center
41. Distance from and Frontage on Road

42. Further Description of Important Interior and Exterior Features (Continue on reverse if necessary)

Small Aladdin house that has been extensively altered. Interior rooms have been changed, garage added to the east.

43. History and Significance (Continue on reverse if necessary)

House appears to be an Aladdin catalogue home known as "The Rustic." Originally it was located in the country on TR 209. Sometime in the 1940s it was moved into the small village of Arcadia. House was built and occupied by Floyd Miller and Paul Schubert, brothers-in-law.

44. Description of Environment and Outbuildings (See #52)

45. Sources of Information

Ray A. Lewis, photo and information

PHOTO

PHOTO

46. Prepared by: Steve Gordon
47. Organization: OHPO
48. Date Recorded in Field: June 1989
49. Revised by
50a. Date Revised
50b. Reviewed by
JUN 28 1989

1. No. HAN-421-5
2. County Hancock
4.5. Present or Historic Name RAY GERMAN HOUSE
6. Specific Address or Location 304 East Brown Rd.

51. Condition of Property

- ☐ Excellent
- ☐ Good/Fair
- ☐ Deteriorated
- ☐ Ruin
- ☐ Destroyed/Burned

Date_____

52. Historic Outbuildings and Dependencies

Barn Type(s)

_____

_____

Corn Crib or Shed ☐ Smoke Ho

Summer Kitchen ☐ Spring Ho

Silo ☐ Ice Ho

Designed landscape featu

53. Affiliated OAI Site Number(s)_____ c

Archaeological Feature: Observe

Well _____

Privy _____

Cistern _____

Foundation _____

Structural Rubble _____

Formal Trash Dump _____

Other _____ _____

54. Farmstead Plan

42. (Cont'd)

43. (Cont'd)

OHIO HISTORIC INVENTORY

Ohio Historic Preservation Office
1985 Velma Avenue
Columbus, Ohio 43211
614/297-2470

OHIO HISTORICAL Society SINCE 1885

1. No. HAN-599-~~19~~ 5

2. County: Hancock

3. Location of Negatives: ODOT-OES

Roll No.: 1 Picture No.(s): 26

4. Present Name(s): Carl Martinez Bridal Shop ☐ Coded

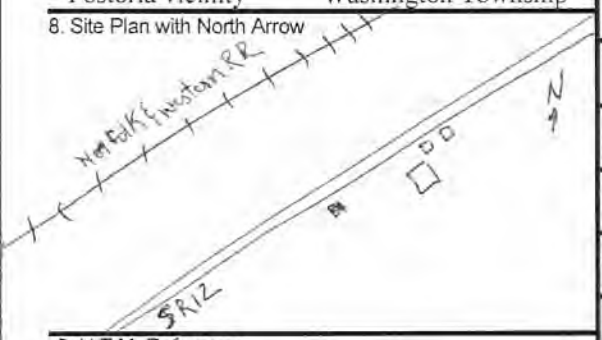
5. Historic or Other Name(s):

6. Specific Address or Location: SR 12

6a. Lot, Section or VMD Number:

7. City or Village: Fostoria vicinity If Rural, Township & Vicinity: Washington Township

8. Site Plan with North Arrow



9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone	Easting	Northing
17	294354	4570002

10. Site ☐ Structure ☐ Building ☒ Object ☐

11. On National Register? Yes ☐ No ☒

12. N.R. Potential? Yes ☐ No ☐

13. Part of Estab. Hist. Dist.? Yes ☐ No ☒

14. District Potential? Yes ☐ No ☐

15. Name of Established District (N.R. or Local):

16. Thematic Association(s):

17. Date(s) or Period: c.1925

17b. Alteration Date(s): 1970+

18. Style or Design: Craftsman Bungalow ☐ High Style ☒ Elements

18a. Style of Addition or Element(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Dormer Front Bungalow

22. Original Use, if apparent: Residence

23. Present Use: Residence/Commercial

24. Ownership: Public ☐ Private ☒

25. Owner's Name & Address, if known: Ramiro and Carolina Martinez, Fostoria, Ohio

26. Property Acreage:

27. Other Surveys in Which Included:

28. No. of Stories: 1.5

29. Basement? Yes ☒ No ☐

30. Foundation Material: Concrete Block

31. Wall Construction: Wood Frame balloon

32. Roof Type & Material: Asphalt Shingle.

33. No. of Bays: Front 2 Side 2

34. Exterior Wall Material(s): Brick Veneer facade; sides aluminum

35. Plan Shape: irregular

36. Changes (Explain in #42): Addition ☒ Altered ☒ Moved ☐

37. Window Type(s): ☐ 6 over 6 ☐ 2 over 2 ☐ 4 over 4 ☒ Other

38. Building Dimensions:

39. Endangered? Yes ☐ No ☐ By What?

40. Chimney Placement: End

41. Distance from and Frontage on Road: 20'

42. Further Description of Important Interior and Exterior Features (Continue on reverse if necessary)

This house is a Craftsman Bungalow with a dormer in the front. There is an addition to the side of the house. Tthe windows have all been replaced with modern casement 1/1. The front porch has been altered and has modern metal porch railing and posts.

PHOTO

43. History and Significance (Continue on reverse if necessary)

Private residence also used as a bridal shop.
1875 Atlas shows no buildings on this site, property consisted of 800 acres owned by B. Finck.

PHOTO

44. Description of Environment and Outbuildings (See #52)

Is in a rural area and there are fields around the house. Across the street is an active railroad. There is a free standing two car garage built next to the house.

45. Sources of Information

History / Architecture survey, HAN-TR262-0.13, PID 23079.
"Illustrated Historical Atlas of Hancock County, Ohio," Chicago, H. H. Hardesty, 1875

46. Prepared by: M. A. Reeves, E. Anderson

47. Organization: ODOT-OES

48. Date Recorded in Field: 5/17/01

49. Revised by

50a. Date Revised

50b. Reviewed by

SCG ENTERED SEP 25 2001

1 No. HAN599-~~19~~ 5
2 County Hancock
4,5 Present or Historic Name Carl MArtinez Bridal
6 Specific Address or Location SR12

51. Condition of Property

- ☐ Excellent
- ☐ Good/Fair
- ☐ Deteriorated
- ☐ Ruin
- ☐ Destroyed/Burned

Date:_____

52. Historic Outbuildings and Dependencies

Barn Type(s)

_____

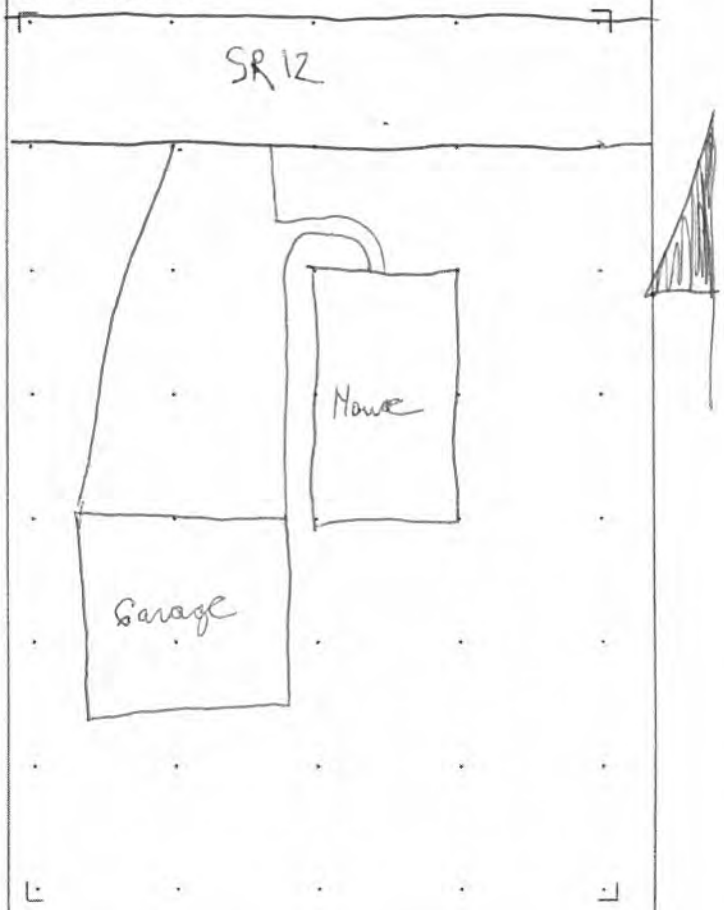
_____

Corn Crib or Shed ☐ Smoke House ☐ Privy ☐
Summer Kitchen ☐ Spring House ☐ Garage ☐
Silo ☐ Ice House ☐
Designed landscape features ☐

53. Affiliated OAI Site Number(s)_____ one_____ multiple

Archaeological Feature:	Observed	Expected on Basis of Archival Research
Well		
Privy		
Cistern		
Foundation		
Structural Rubble		
Formal Trash Dump		
Other _____		

54. Farmstead Plan



42. (Cont'd)

43. (Cont'd)

Ohio Historic Preservation Office
800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Section 106/RPR Review: **Reviewed** RPR Number: **1056973**

1. No. HAN0066505 **NEW**
2. County: **Hancock**
4. Present Name(s): **CSX Railroad; SR 18**
5. Historic or Other Name(s): **Baltimore & Ohio RR**

6. Specific Address or Location:
no address, SR 18

6a. Lot, Section or VMD Number:

7. City or Village:
Washington (Township of)

9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone: 17 Easting: 291686 Northing: 4559443

10. Classification: Structure

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:
Baltimore & Ohio

17. Date(s) or Period:
ca. 1873-present

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular

18a. Style of Addition or Elements(s):
Transitional

19. Architect or Engineer:

19a. Design Sources: Baltimore and Ohio Railroad (B&O)

20. Contractor or Builder:

21. Building Type or Plan: Other Commercial

22. Original Use, if apparent:
Rail Related

23. Present Use:
Rail Related

24. Ownership: Private

25. Owner's Name & Address, if known:
CSX Transportation
500 Water St
Jacksonville, FL 32202

26. Property Acreage: 0.1

27. Other Surveys:

28. No. of Stories: Unknown

29. Basement? No

30. Foundation Material: Unknown

31. Wall Construction:
Unknown

32. Roof Type:
Unknown
Roof Material:
Unknown

33. No. of Bays: 0 Side Bays: 0

34. Exterior Wall Material(s):
Unknown

35. Plan Shape: Unknown

36. Changes associated with 17/17b Dates:
17. Period of significant activity

17b.

37. Window Type(s):
Unknown
Unknown

38. Building Dimensions:

39. Endangered? NO
By What?

40. Chimney Placement: Unknown

41. Distance from & Frontage on Road:
25 ft.

51. Condition of Property: Good/Fair

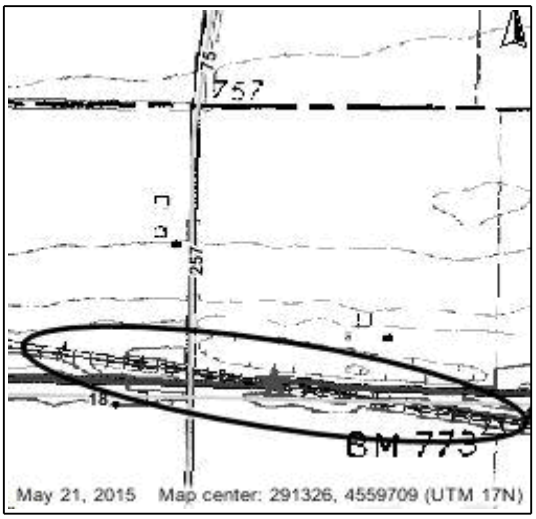
52. Historic Outbuildings & Dependencies
Structure Type(s):

Date(s):

Associated Activity:

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):



8. Site Plan (location map) with North Arrow

46. Prepared By: **Jessica Burr**
47. Organization: **TRC Environmental Corp**
48. Date Recorded: **10/01/2014**
49. PIR Reviewer: **CS/SCG**
50. PIR Review Date: **12/24/2020**

2. County: **Hancock**
4. Present or Historic Name(s): **CSX Railroad; SR 18**
6. Specific Address or Location: **no address, SR 18**

1. No. HAN0066505 | **4. Present Name(s): CSX Railroad; SR 18**

2. County Hancock | **5. Historic or Other Name(s): Baltimore & Ohio RR**

Door Selection: Unknown
Door Position: Unknown
Orientation: Unknown
Symmetry: Unknown

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
Millis, Heather	Burr, Jessica	2014	Historic Architectural Survey for the Proposed Rover Pipeline Project, Noble, Monroe, Belmont, Harrison, Jefferson, Carrol, Tuscarawas, Stark, Wayne, Ashland, Richland, Crawford, Seneca, Hancock, Wood, Henry, Defiance and Fulton Counties, Ohio.

42. Further Description of Important Interior and Exterior Features

Architectural resource HAN0066505 consists of an active railroad owned and operated by CSX Transportation that was initially built as part of the Baltimore and Ohio Railroad.

43. History and Significance

In 1873, the Baltimore and Ohio Railroad (B&O) reached Fostoria City as it built west toward Chicago, Illinois (fostoriairontriangle.com, 2015). In 1973, the B&O, the Chesapeake and Ohio Railway (C&O), and the Western Maryland Railway were made subsidiaries of the Chessie System, although they continued to operate as separate railroads (Drury, 1994). In 1987, the B&O merged with the C&O. Four months later, the C&O merged with CSX Transportation. To date, architectural resource HAN0066505 is owned and operated by CSX Transportation (Hancock County Auditors, 2014).

44. Description of Environment and Outbuildings (See #52)

Located approximately 2.27 miles west of Fostoria City, architectural resource HAN0066505 crosses through agricultural fields. No outbuildings are associated with the property.

45. Sources of Information

Field Observation, October 2014. Hancock County Assessors Website.Drury, George H.1994 *The Historical Guide to North American Railroads: Histories, Figures, and Features of more than 160 Railroads Abandoned or Merged since 1930.* Waukesha, Wisconsin: Kalmbach Publishing.Fostoria Rail Preservation Society 2015 *Fostoria, A City Built on Rails*. Fostoria, OH: Fostoria Rail Preservation Society. Located online at: http://www.fostoriairontriangle.com/history.htm. Accessed January 2015.

Ohio Historic Preservation Office
800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Section 106/RPR Review: **Reviewed** RPR Number: **1056973**

1. No. HAN0066705 **NEW**
4. Present Name(s): **Norfolk Southern RR, TR 261**
2. County: **Hancock**
5. Historic or Other Name(s): **Fremont & Indiana RR**

6. Specific Address or Location:
no address, TR 261

6a. Lot, Section or VMD Number:

7. City or Village:
Fostoria

9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone: 17 Easting: 292905 Northing: 4556386

10. Classification: Structure

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:
New York Central

17. Date(s) or Period:
ca. 1853-present

17b. Alteration Date(s):

18. Style Class and Design:
None
No academic style - Vernacular

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources: Fremont and Indiana Railroad

20. Contractor or Builder:

21. Building Type or Plan: Other Commercial

22. Original Use, if apparent:
Rail Related

23. Present Use:
Rail Related

24. Ownership: Private

25. Owner's Name & Address, if known:
NORFOLK SOUTHERN
3 Commercial Place
Norfolk, VA 23510

26. Property Acreage: 0.1

27. Other Surveys:

28. No. of Stories: Unknown

29. Basement? No

30. Foundation Material: Unknown

31. Wall Construction:
Unknown
Unknown

32. Roof Type:
Unknown
Roof Material:
Unknown

33. No. of Bays: 0 Side Bays: 0

34. Exterior Wall Material(s):
Unknown

35. Plan Shape: Unknown

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
Unknown

38. Building Dimensions:

39. Endangered? NO
By What?

40. Chimney Placement: Unknown

41. Distance from & Frontage on Road:

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):

Date(s):

Associated Activity:

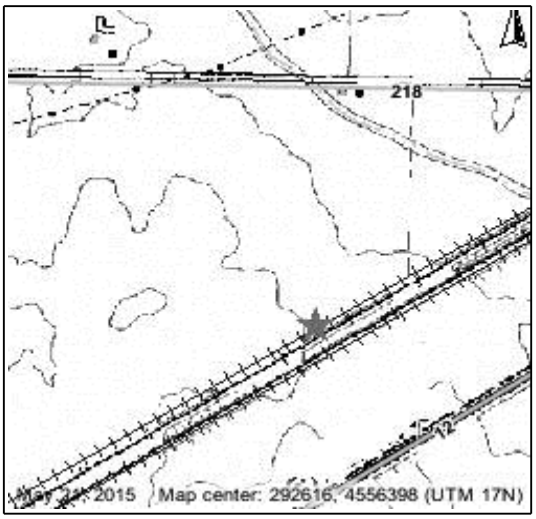
53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **Norfolk Southern RR, TR 261**

6. Specific Address or Location: **no address, TR 261**



8. Site Plan (location map) with North Arrow

46. Prepared By: **Jessica Burr**
47. Organization: **TRC Environmental Corp**
48. Date Recorded: **10/01/2014**
49. PIR Reviewer: **CS/SCG**
50. PIR Review Date: **12/24/2020**

1. No. HAN0066705	**4. Present Name(s): Norfolk Southern RR, TR 261**
2. County Hancock	**5. Historic or Other Name(s): Fremont & Indiana RR**

Door Selection: Unknown
Door Position: Unknown
Orientation: Unknown
Symmetry: Unknown

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
Millis, Heather	Burr, Jessica	2014	Historic Architectural Survey for the Proposed Rover Pipeline Project, Noble, Monroe, Belmont, Harrison, Jefferson, Carrol, Tuscarawas, Stark, Wayne, Ashland, Richland, Crawford, Seneca, Hancock, Wood, Henry, Defiance and Fulton Counties, Ohio.

42. Further Description of Important Interior and Exterior Features

Architectural resource HAN0066705 consists of an active railroad owned and operated by Norfolk Southern, that was initially built as part of the Fremont & Indiana Railroad.

43. History and Significance

In 1853, the Fremont & Indiana Railroad incorporated to build a line from Fremont, Ohio to the western Ohio state border (fostoriairontriangle.com, 2015). In 1859, the track reached Fostoria, followed by Findlay in 1862, but went bankrupt that same year. In 1862, the company reorganized as the Fremont, Lima & Union Railroad Company (FLU). In 1865, the FLU Railroad merged with the Lake Erie & Pacific to form the Lake Erie & Louisville Railroad Company (Lewise, 2000). In 1871, the Ohio portions of the railroad were reorganized as the Fremont, Lima & Union Railway Company. In 1872, the company merged back with the Lake Erie & Louisville Railway Company. In 1879, the railroad foreclosed and was sold to the Lake Erie & Western Railway (LEW). In 1900, the LEW Railway came under control of the New York Central Railroad. In 1922, the New York Central Railroad sold the (LEW) to the Nickel Plate Road (Rehor, 1994). In 1964, the Nickel Plate Road and several other carriers merged into the Norfolk & Western Railway. In 1982, the Norfolk & Western merged with the Southern Railway to form Norfolk Southern. To date, architectural resource HAN0066705 is owned and operated by Norfolk Southern (Hancock County Auditors, 2014).

44. Description of Environment and Outbuildings (See #52)

Located approximately 1.6 miles southwest of Fostoria City, resource HAN0066705 crosses through agricultural fields.No outbuildings are associated with the property.

45. Sources of Information

Field Observation, October 2014, Hancock County Auditors Website.Fostoria Rail Preservation Society 2015 *Fostoria, A City Built on Rails*. Fostoria, OH: Fostoria Rail Preservation Society. Located online at: http://www.fostoriairontriangle.com/history.htm. Accessed January 2015. Rehor, John A.1994 *The Nickel Plate story.* Waukesha, WI: Kalmbach Publishing Company.

Appendix B:

Nomination Forms of Listed NRHP Properties within the 5-mile Study Area

NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

REFNUM 01001065

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name **Fostoria Downtown Historic District**
_____other names/site number

2. Location

street & number **roughly bounded by North Street, South Street and the alleys east and west of Main Street** city or town **Fostoria** ☐ vicinity

state **Ohio** code **OH** county **Seneca 147** zip code **44830**

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of1986, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register Criteria. I recommend that this property be considered significant ☐ nationally ☐ statewide ☒ locally. (☐ See continuation sheet for additional comments.)

Barbara Power Dept. Head Planning, Inventory & Registration August 2, 2001
Signature of certifying official Date

Ohio Historic Preservation Office -- OH SHPO
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:
- ☐ entered in the National Register
  - ☐ See continuation sheet.
- ☐ determined eligible for the National Register
  - ☐ See continuation sheet.
- ☐ determined not eligible for the National Register
- ☐ removed from the National Register
- ☐ other (explain): _____

Signature of Keeper Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

- ☒ private
- ☒ public-local
- ☐ public-State
- ☐ public-Federal

Category of Property
(Check only one box)

- ☐ building(s)
- ☒ district
- ☐ site
- ☐ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
52	4	buildings
		sites
		structures
		objects
52	4	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

None

6. Function or Use

Historic Functions
(Enter categories from instructions)

Commerce: professional, financial, retail
Government: city hall
Social: meeting hall
Recreation & Culture: opera house
Domestic: hotel
Transportation: depot

Current Functions
(Enter categories from instructions)

Commerce: professional, financial, retail
Government: city hall
Social: meeting hall
Recreation & Culture: museum

7. Description

Architectural Classification
(Enter categories from instructions)

Late Victorian: Italianate
Late 19th and early 20th century American: Commercial style
Modern Movement: Art Deco, Modernistic

Materials
(Enter categories from instructions)

Foundation	stone
roof	built up
walls	brick, rock-faced concrete block
other	stone, terra cotta, architectural class, cast iron

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

see continuation sheets

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

☒ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

☐ **B** Property is associated with the lives of persons significant in our past.

☒ **C** Property embodies the distinctive characteristics of a type, period,or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

☐ **D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations
(Mark "X" in all the boxes that apply.)

Property is:

☐ **A** owned by a religious institution or used for religious purposes.

☐ **B** removed from its original location.

☐ **C** a birthplace or a grave.

☐ **D** a cemetery.

☐ **E** a reconstructed building, object,or structure.

☐ **F** a commemorative property.

☐ **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Architecture

Commerce

Period of Significance
1870-1951

Significant Dates
N/A

Significant Person
(Complete if Criterion B is marked above)
N/A

Cultural Affiliation
N/A

Architect/Builder
None identified

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

☐ preliminary determination of individual listing (36 CFR 67) has been requested.
☐ previously listed in the National Register
☐ previously determined eligible by the National Register
☐ designated a National Historic Landmark
☐ recorded by Historic American Buildings Survey #

☐ recorded by Historic American Engineering Record #

Primary location of additional data

☒ State Historic Preservation Office
☐ Other State agency
☐ Federal agency
☐ Local government
☐ University
☐ Other

Name of repository:

10. Geographical Data

Acreage of Property approximately 14 acres

UTM References
(Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	17	297240	4558960	3	17	297540	4558660
2	17	297540	4558940	4	17	297570	4558540
5	17	297300	4558620	☐ See continuation sheet.			

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Nancy Recchie/Consultant
organization Benjamin D. Rickey & Co.
date 12/2000

street & number 593 South Fifth Street elephone 614-221-0358

city or town Columbus state OH zip code 43206

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps
A **USGS map** (7.5 or 15 minute series) indicating the property's location.
A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs
Representative **black and white** photographs of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name Multiple Property Owners

street & number _____ telephone _____

city or town _____ state _____ zip code _____

The Fostoria Downtown Historic District contains the most concentrated collection of late 19th and early 20th century commercial buildings in Fostoria. It is centered on Main Street, a north-south street, and is slightly over three blocks long and linear in nature with the district extending less than a block in either direction to the east and west. The district is roughly bounded by South Street on the south, North Street on the north and the north-south alleys immediately east and west of Main Street. The downtown is surrounded by residential areas on all four sides, with the most intact historic residential area located east of downtown along Tiffin Street.

Fostoria is unusual, as the city is located in three counties – Hancock, Seneca and Wood. The historic district is located entirely within Seneca County. Fostoria was laid out in a grid pattern, with the only major interruption of the grid being the five railroad lines that were built in the 19th century. There are still three active railroad lines today, and the rhythm of the town is still very much determined by railroad freight and passenger traffic, as many of the crossings are still at grade. The east branch of the Portage River runs north-south along the western edge of the city.

The Fostoria Downtown Historic District contains 56 buildings, with all but the City Hall and former Fire Station (now a museum), the Masonic Temple, and the former Norfolk & Western Railroad Station, designed and built for commercial uses. The majority of the buildings date from the late 19th and early 20th centuries and range from one to three stories in height. Brick is the predominant building material, with stone, terra cotta, architectural glass and pressed metal ornamentation. With the exception of City Hall, which was built in the 1950s and set back from the street in a park like setting, all of the buildings are located close to the street and form a continuous wall of building facades along the sidewalk.

Main Street between North and Center Streets (photos # 1-14)

Main Street, between North and Center Street, is the northernmost block along Main Street included in the district, and is one of the most significant architecturally. This block contains eleven buildings, all dating from the late 19th and early 20th centuries, with six on the west side of the street and five on the east side. There is one vacant lot midblock on the east side of the street and all of the buildings are considered contributing to the character of the historic district.

There is only one building on Main Street, north of Center that is included in the district. It is a two story Italianate structure located at 203 North Main Street (building #1). It features a projecting bay window on the second story and a modest bracketed cornice. The storefront has been altered. It has been included because the buildings behind it, along North Street, are included in the district.

On the west side of the street, between North Street and the first alley south, there are two large three- story brick structures with commercial storefronts on the first floor. The building at 121-123 North Main Street (#2), measures seven by four bays. The seven bay façade features rectangular double-hung windows on the upper floors, with continuous stone transoms and sills; a transom window above the third floor windows; and a bracketed cornice. The north (side elevation) of this building has two historic two-over-two windows on the third floor with three other windows on the façade altered at a later date. The bracketed cornice from the front extends around the side of the building. Both of the storefronts have been altered from their original design. The Italianate building at 113-119 North Main Street (#3) dates from c. 1880 and measures thirteen by four bays with four storefronts. The upper story windows are round-arched with decorative hoodmolds. The window sash is intact, although it has been covered from the outside with metal siding. A bracketed cornice extends along the façade of the building. The side elevation features simple segmental-arched openings, without ornamentation. The storefronts have all been altered, although there are portions of stone storefront piers visible between several of the storefronts.

The two story buildings at 109 and 111 North Main Street may have been a single building at one time, as they share the same storefront detailing and a line of decorative brickwork in the parapet. The storefronts have been infilled but the cast iron piers and decorative cornice are still visible. It appears that the building at 111 North Main (#4) has been modified with a single projecting bay window on the second story where it is apparent there were two windows originally. It has a very simple parapet wall. The buff-colored brick building at 109 North Main (#5) features tall vertical four-over-four double hung windows with decorative hoods, and a parapet with decorative brickwork surface. Next door, the building at 107 North Main Street (#6) is the three story brick Italianate Quinn Block, built in 1884. It features a single storefront, which has been altered, and tall, vertical upper floor windows with decorative hoodmolds and a highly ornamented cornice with the name of the building and the date. The upper floor window sash are intact but have been covered from the outside with siding material.

The Andes Opera Block (#7), built in 1878, is a large three story brick building located on the northwest corner of Main and Center Streets. It measures ten by ten bays and has a very ornamental façade. The second floor windows have carved stone lintels and the third floor windows are grouped within pointed arch recesses with corbelled brickwork beneath the window sills. The deep bracketed cornice is broken by a pedimented parapet with finials, decorative brickwork and the name of the building included in the design. The side elevation also features the same recesses, window treatment, decorative brickwork and cornice as the Main Street elevation. Although one storefront is of contemporary design, two storefronts date from the early 20th century. The stone piers between the storefront elements and the prism glass transoms in all three storefronts are still visible. A separate entrance, with a pedimented gable leads

directly to the former opera house space on the third floor. The opera house was designed to seat 800 –1200 people with folding chairs and had a 24' x 64' stage with full sets of scenery.

The Botto Block, a buff-colored brick three story building is located on the southeast corner of Main and North Streets (#8). It was built c. 1906 with two primary elevations featuring one-over-one windows; transom windows above the third floor windows; a classically-inspired cornice with a swag design, dentils and modillion blocks, and rusticated storefront piers. A three story addition is located at the rear, facing North Street, which is slightly lower than the original building but duplicates the brick façade and cornice details. There are two round-arched side door openings that lead to upper floors. Next door, at 116 North Main Street (#9), is another three story brick building, known as the Cadwallader Block. It is constructed in red brick with stone accents. The upper floor windows are double-hung with transom windows above both the second and third floor windows giving them a tall vertical appearance. The windows are grouped by twos with stone pilasters separating them. Three semi-circular windows are located, within decorative stone arches, above the third floor windows. A decorative bracketed cornice completes the composition. The storefront has been infilled but the original rusticated storefront piers and the storefront cornice are still visible. A vacant lot, where a building was demolished is located directly south of the Cadwallader Block and north of the midblock east-west alley.

South of the alley is a row of three early twentieth century brick buildings that are more restrained in design than the other buildings in the block. The two story brick building at 114 North Main Street (#10) has simple segmental-arched openings, and a restrained corbelled brickwork cornice. Next door, the building at 106-110 North Main Street (#11), is a two story buff-colored brick structure with a recessed storefront; stone trim separating the bays and forming the lintels of the second story windows, and patterned diagonal brickwork in the parapet. A simple, single story buff-colored brick building is located on the northeast corner of Main and Center Streets (#12). It originally housed an S.S. Kresge department store but now has an altered storefront, although it retains the brick banding and corbelled brick parapet typical of the early 20th century period when it was built.

Main Street between Center and Tiffin Streets (photos # 15-26)

This block contains eleven buildings – eight on the west side of the street and three on the east side. A fairly new bank building with a parking lot is located on the northeast half of the block and is not included in the district. The building located at 101 South Main Street (#13), is considered non-contributing because its façade has been completely altered, although the windows on the side are still visible. It appears to be an early 20th century brick building and it is possible that the original façade still exists behind the new panels on the façade. Next door at 103-105 South Main Street (#14), is one of the most distinctive buildings in the downtown.

Constructed of black brick with white brick geometric ornamentation with multi-pane industrial windows, the building is a simple but dramatic composition reflecting the Art Deco era of the 1930s. The storefronts have been altered. The building at 109-111 South Main (#15) is a two-story brick Italianate structure with two storefronts and two-over-one windows on the second floor. The decorative hoodmolds and bracketed cornice are typical of the Italianate style so popular in the late 19th century. The two-story Weller Building, built c. 1900 by Henry Weller of Tiffin, Ohio, is located at 113 South Main Street (#16). It is located along an alley and measures three by seventeen bays. The façade is constructed entirely of glazed terra cotta with a storefront cornice, pilasters with Corinthian capitals separating the upper story bays and on the corners, and the name of the building incorporated into the design. A cornice with a decorative parapet above terminates the composition. The side elevation, facing the alley, features simple segmental-arched openings. The window sash are intact but have been covered from the outside with artificial siding. The storefront has been altered.

Across the alley, at 115 South Main Street (#17), is another historic building, probably dating from the early 20th century, that has had its façade modernized with c. 1940s enameled metal panels. The two story building located at 117 South Main Street (#18) has a fine curved architectural glass storefront dating from c. 1930s. Designed in dark green and black, it features a recessed entry and two curved glass display windows. The upper portion of the façade, which dates from the early 20th century, features a large single three-part window and a highly decorative cornice. The building located at 123 South Main Street (#19) has an altered storefront but retains some of the elements of its original design including recessed arches defining the six bay façade and corbelled brickwork at the cornice line.

The Ohio Bank Building (formerly the Union National Bank Building) (#20) is located on the northeast corner of Main and Tiffin Streets. Built in 1929, it is a three-story building constructed of buff-colored brick with stone accents. The Main Street elevation features three bays and the entrance into the banking lobby, which was nearly two-stories in height. Three round-arched openings are separated by brick pilasters, which continue to separate the window bays on the second and third floor levels. Dark metal spandrels separate the upper and lower portions of the first story windows and also the second and third floor windows. Carved stone medallions and smooth stone banding form the cornice line of the building. The side elevation repeats the design details of the façade.

Across Main Street is a row of three brick buildings, located south of the mid-block alley between Center and Tiffin Streets. The first building, at 116-118 South Main Street (#21), is a two-story brick structure with an intact decorative parapet. It appears that the building had segmental arched second story windows with decorative hoodmolds because they have survived although the windows have been altered. The storefront is also a later modification. The three

story brick building next door, at 120-122 South Main Street (#22), was originally part of the Empire Block that extended to the corner. This section of the building has two storefronts with architectural glass and terrazzo flooring in the recessed entrances. The upper floors feature both rectangular and round-arched windows with decorative lintels and hoodmolds and a bracketed cornice. A projecting bay window was added to the second floor of 122 South Main Street. The upper floor sash are intact but they have been covered on the exterior with artificial siding. The remainder of the Empire Block is located at 124-126 South Main Street (#23). It probably still has its ornate Italianate façade intact under the later aluminum siding façade added to the building. The side elevation reveals a storefront with cornice and rusticated pier, upper story windows with decorative lintels and a bracketed cornice. Although the Main Street façade has been completely covered, this building is still considered contributing to the district because of the elaborate cast iron lintels and bracketed cornice still apparent on the very visible Tiffin Street elevation of the building.

Main Street between Tiffin and South Streets (photos # 27-32)

The Fostoria City Hall (#24) is set back from the street in a park like setting on the southwest corner of Main and Tiffin Streets. The two-story building, which dates from 1959, was designed by architect C.H. Shively & Associates. It is good example of public architecture from the period with its horizontal form, flat roof, metal entrance canopy, large expanses of metal windows and lack of extraneous ornamentation.[1] Immediately south of City Hall, the building 223 South Main Street (#25) is located along the sidewalk following the pattern that is consistent throughout downtown. Known as the Security Building, it is a large three-story early 20th century brick structure that dominates this corner. It has a central entrance, accentuated with a rusticated and decorated stone surround, which leads to the upper floors. The central entrance is flanked by storefronts that have been infilled but the brick piers with stone base and capitals are still visible. The upper floor window openings are grouped in twos and separated by brick pilasters with terra cotta bases and ionic capitals. A terra cotta cornice with brackets and dentils completes the composition. The South Street elevation repeats all of the upper level detailing of the Main Street façade. The window sash are intact, although they have been covered from the outside with artificial siding.

The Foster Block, located at 204-208 south Main Street (#26), was constructed in 1882. It is a large three story brick Italianate structure that measures nineteen by ten bays. The Main Street façade is divided into three distinct parts with the center portion featuring third floor round-arched windows with stained glass in the upper part of the window; brick and stone pilasters separating the bays; and a pedimented cornice with the name and date of the building in it. The central section is flanked by sections that feature rectangular windows, with carved stone lintels, on the second floor and segmental-arched windows, with plain stone hoodmolds, on the third

floor. All the upper floor bays are separated by brick pilasters. The side elevation also features windows with decorative stone hoodmolds and a somewhat more restrained cornice detail. An original storefront is located in the easternmost three bays of the Tiffin Street elevation. The storefronts facing Main Street have been modernized.

Across the alley, at 216 South Main Street (#27), is a narrow single story brick structure with a modern storefront that is considered noncontributing to the district. Next door, at 218-224 South Main Street (#28), is the shell of a two-story orange brick building dating from the early 20th century. It recently suffered from a partial collapse of the rear wall, but the façade and approximately 30 feet of the building depth has been retained. The façade features upper story windows placed within brick recesses, an intact metal storefront cornice and bracketed building cornice. The storefronts have been modernized. This building was built by German and Cadwallader in 1910. The two-story building located at 226 South Main Street (#29) has a rock-faced concrete façade with a storefront cornice, projecting bays on both the front and side elevations, and a bracketed metal cornice across the front. The side elevation is constructed of red brick with simple lintels and sills. There is only one building on South Street included in the nomination and it is located behind the building at 226 South Main Street at 108 South Street (#56). It features a brick façade with simple upper story windows, a restrained cornice and altered storefront.

Main Street south of South Street (photos # 33-35)

Only the west side of the block south of South Street is included in this nomination since the east side of the street was demolished and is now a parking lot. The Main Street Block, located at 301-311 South Main Street (#30), is one of the most intact late 19th century buildings remaining in downtown Fostoria. It has eight storefronts – alternating between recessed and flush with the façade – with most of the original storefront elements intact. These include entrances with transoms, paneled bulkheads and both brick and stone storefront piers. The upper floor windows feature brick hoodmolds. Corbelled brickwork and a cornice with a central pediment containing "Main Street Block" complete the façade. Next door, at 315 South Main Street (#31), is an orange-colored brick building dating from the early 20th century. The façade is divided into three storefronts with apartments located above. Each of the apartments feature a cantilevered balcony with iron railing in the center bay, flanked by one-over-one windows. A small segmental-arched window is located in the center of each of the apartment bays above the balcony entrance. Brick pilasters separate each of the three apartment sections. The cornice line consists of corbelled brickwork with a band stone above.

North Street (photos # 36-46)

The district extends along both side of North Street west of Main Street and the south side of North Street east of Main. There are three buildings on the north side of West North Street beginning with the Wilma Building, constructed in 1927, and located at 110 West North Street (#32). It is a single story brick structure. There are two original storefronts with brick bulkheads and a third storefront that has been altered. Basket weave brickwork in a panel above the storefronts, a row of bricks set on end, and a slightly stepped parapet complete the design. A two story orange-colored building is located next door, at 118 West North Street (#33). It too, dates from the early 20th century and is restrained in design. The two storefronts have been altered, but the original brick storefront piers with stone base and capitals, the continuous stone lintels and sills and the corbelled brickwork are all original. The former Norfolk & Western Railroad Station, at 128 West North Street (#34), is located at an angle to the street to reflect the former location of railroad tracks through the north part of downtown. The single story frame structure has a gabled roofline, exterior wood siding finished to look like blocks of stone; heavy brackets supporting the overhanging eaves, and decorative bargeboards in the gable ends. A projecting ticket booth is located on the north (track) side of the building. A single story wing, with the same siding as the station and a flat roofline, is located at the east end of the building.

Across the street, at 109 West North Street (#35) is a modest two story building with large plate glass windows, three entrances, double hung windows and a narrow cornice. The building located at 123 West North Street (#36) is the former Fire Station/City Hall, constructed in 1875 in the Italianate style. It features a round-arched entrance, tall vertical windows with decorative hoodmolds and a deep and bracketed cornice, all of which are characteristics of the style. The fire station doors have been enlarged to accommodate larger wheeled vehicles, an extra garage bay was added to the east side of the building, and the mansard tower was removed. The building is now used as a museum operated by the local historical society. It is set back slightly from the street with a paved parking area in front.

To the west are two more early 20th century buildings. The one next to the museum, at 127 West North Street (#37) is a single story structure that has been altered and is considered non-contributing. Next to it, at 129-131 West North Street (#38), is a restrained two-story, early 20th century brick structure. It features a five bay façade and recessed storefronts with a separate entrance to the upper floors in the easternmost bay. The building at 133 West North Street (#39) is a single story brick structure with a four bay façade; decorative pointed-arch brickwork; multi-paned windows, some with colored opaque glass sash; and a tile-covered parapet across the front.

The Ghaster Block, built in 1896, is located at 111-117 East North Street (#40). It features three storefronts, with some original and early 20th century materials intact, and three projecting bay windows with original window sash on the second floor, and a prism glass transom on the westernmost storefront. The bracketed cornice and central pediment with the name and date of the building complete the façade. Next door, at 121 East North Street (#41), is a single story mid-20th century building. It has an Art Deco appearance with its metal window sash, horizontal stone banding, recessed entrance with stylized stone architrave and stainless steel canopy, and flat roofline. The last building in this row that is included in the nomination is a single story structure at 123 East North Street (#42). Built for an auto-related business, it has a long horizontal appearance, little ornamentation, a garage door entrance facing the street and a large plate glass display window.

West Center Street west of Main Street (photos # 47-51)

There are buildings on both sides of West Center Street that are included in the district. The building at 112 West Center (#43) was constructed as an addition to the Andes Block in 1888. It is a two story brick structure with two storefronts which have been modified, an intact storefront cornice across the front of the building, upper story windows with decorative lintels and a modest cornice. The building at 118 West Center Street (#44) is a two-story brick building with an unusual cornice detail that may indicate that a portion of the building was demolished, as there is a vacant lot next door. The windows have been altered but the original decorative lintels survive.

Across the street, at 111 West Center Street (#45), is a turn-of-the-century building constructed in brick and rock-faced concrete block. It features a central entrance with transom and sidelights flanked by two large round arched windows. A central round-arched window flanked by rectangular windows are on the second floor. The concrete block is used to form pilasters separating the bays, and a decorative pattern at the cornice line. The building was originally constructed for office use and continues in that use today. A very small nondescript structure, that appears to have been an infill in an alley, is located at 113 West Center Street (#46). It contains a narrow storefront. The two story orange-colored brick building at 115-119 West Center Street (#47) has three storefronts with prism glass transoms, and three projecting bay windows above. There is a separate entrance for the upper floors and a small rectangular window between two of the bays, which indicates the location of the staircase. The bays are separated by brick pilasters and there is a modest effort at corbelled brickwork along the cornice line of the building.

East Tiffin Street east of Main Street (photos # 52-59)

There are eight buildings along East Tiffin Street included in the district and all are considered contributing buildings. The brick two-story Italianate structure, located at 108 East Tiffin (#48), retains its decorative cast iron storefront, window hoodmolds and decorative brickwork in the parapet. Next door, at 110-112 East Tiffin Street (#49) is a seven bay Italianate structure with cast iron storefront columns, made in Fostoria, in the westernmost storefront. Other features include a storefront cornice, decorative hoodmolds over the second floor windows and a pressed metal bracketed cornice. The Doeshire Hotel is located at 118 East Tiffin Street (#50). It is a three story buff-colored brick building with a central entrance with entrance canopy; double-hung six-over-six windows on the upper floors, and stone ornamentation at the termination of the pilasters separating the upper floor window bays. The building has a slightly stepped parapet with stone coping. A small single bay brick structure is located next door at 120 East Tiffin Street (#51).

A brick early 20th century building is located at 105-109 East Tiffin Street (#52). A storefront with prism glass transoms and recessed entry is located on the first floor, along with an entrance leading up the second floor level. The upper story windows are placed within recesses with corbelled brickwork. Two bands of stone coping complete the parapet design. The Masonic Temple is located next door at 113 East Tiffin Street (#53). It is a handsome early 20th century building dating from 1913. It is constructed of dark brown wire-cut brick on a raised foundation, with a central entrance, multi-paned windows used throughout, and round-arched windows on the third floor level. A projecting stone balcony is located in the center of the second story and diamond-patterned contrasting brickwork embellishes the façade above the third story windows. A wide projecting cornice extends across the front with a slight return on the alley side of the building. The William Mercenthaler Building, dating from 1890, is located next door to the Masonic Temple, at 123-125 East Tiffin Street (#54). The building features an elaborate storefront cornice that is intact (although covered on one of the storefronts), and a bracketed cornice. The windows on the easternmost six bays have been altered from the original design with decorative hoodmolds. Across the alley is a single-story rusticated concrete block building with a brick façade at 133 East Tiffin Street (#55). Built in the early 20th century, it has two entrances, four large plate glass display window, and a stepped parapet with stone coping on the façade.

Summary

The buildings that comprise the Fostoria Downtown Historic District reflect the character of an Ohio community that prospered in the late 19th and early 20th centuries. The straightforward grid plan of the community, coupled with the streetscapes along the sidewalk, reflect a traditional

building pattern in the Midwest during this period. The Fostoria Downtown Historic District contains 56 buildings with 52 considered contributing to the character of the historic district. Most non-contributing buildings are historic (over 50 years old) but have been so modified that their character is not discernable. In all cases, the later façade alterations could be removed to reveal the historic character once again. In spite of the fact that some of the downtown buildings have had storefront alterations, which is typical of historic downtown commercial districts nearly everywhere, and some of the original window sash have been covered on the exterior with artificial siding, the vast majority of the buildings in the district contribute to the scale, design, texture and visual diversity typical of small Midwestern downtowns and clearly convey the late 19th and early 20th century history of Fostoria.

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1. Due to its 1959 construction date, the Fostoria City Hall is considered non-contributing. However, it is recommended that the building be re-evaluated as it approaches fifty years and additional research can be provided to address its architectural significance as an individual nomination to the National Register, or when additional research justifies expanding the period of significance for the historic district.

Building List

#	Address	Contributing	Non-contributing
1.	203 North Main Street	X	
2.	121-123 North Main Street	X	
3.	113-119 North Main Street	X	
4.	111 North Main Street	X	
5.	109 North Main Street	X	
6.	107 North Main Street	X	
7.	101 North Main Street	X	
8.	122 North Main Street	X	
9.	116 North Main Street	X	
10.	114 North Main Street	X	
11.	106-110 North Main Street	X	
12.	100 North Main Street	X	
13.	101 South Main Street		X
14.	103-105 South Main Street	X	
15.	109-111 South Main Street	X	
16.	113 South Main Street	X	
17.	115 South Main Street	X	
18.	117 South Main Street	X	
19.	123 South Main Street	X	
20.	125 South Main Street	X	
21.	116-118 South Main Street	X	
22.	120-122 South Main Street	X	
23.	124-126 South Main Street	X	
24.	City Hall		X
25.	223 South Main Street	X	
26.	204-208 South Main Street	X	
27.	216 South Main Street		X
28.	218-224 South Main Street	X	
29.	226 South Main Street	X	
30.	301-311 South Main Street	X	
31.	315 South Main Street	X	
32.	110 West North Street	X	
33.	118 West North Street	X	
34.	128 West North Street	X	
35.	109 West North Street	X	

Building List

#	Address	Contributing	Non-contributing
36.	123 West North Street	X	
37.	127 West North Street		X
38.	129-131 West North Street	X	
39.	133 West North Street	X	
40.	115 East North Street	X	
41.	121 East North Street	X	
42.	123 East North Street	X	
43.	112 West Center Street	X	
44.	118 West Center Street	X	
45.	111 West Center Street	X	
46.	113 West Center Street	X	
47.	115-119 West Center Street	X	
48.	108 East Tiffin Street	X	
49.	112 East Tiffin Street	X	
50.	118 East Tiffin Street	X	
51.	120 East Tiffin Street	X	
52.	105-109 East Tiffin Street	X	
53.	Masonic Temple	X	
54.	123-125 East Tiffin Street	X	
55.	133 East Tiffin Street	X	
56.	108 East South Street	X	

Statement of Significance

The Fostoria Downtown Historic District is eligible for listing in the National Register under Criteria A and C because it represents the commercial, social and civic development of a small (under 15,000 population) Ohio city; and because the buildings represent the architectural tastes and aspirations of the community during its peak years of commercial vitality – 1870-1950. The district is centered on Main Street, which has always been the major commercial street in Fostoria. The streetscapes within the district consist of one to three story brick structures with building facades along the sidewalk. The City Hall, set back from the street in a public park, creates a green space in the center of the compact downtown.

Historical Context

Fostoria, which is located at the junction of Seneca, Hancock and Wood Counties, was originally two separate towns – Rome (Seneca) and Risdon (Hancock). Both of these villages were platted in 1832 with a total of sixty lots -- thirty in each of the two counties. After existing separately for approximately 20 years, Risdon requested to be annexed to Rome in 1853. In July, the following year, the two towns merged and the name was changed to Fostoria in honor of one of its prominent citizens –Charles Foster. Foster was born in the village of Rome, Ohio and had a successful business career in Fostoria before entering politics. He became a partner in his father's business at the age of 19 and went on to establish a bank, hardware store and a grain and produce business. He entered politics in the 1870s and served as a member of Congress from 1870-76; as Governor of Ohio from 1879-1883; and as Secretary of the Treasury in President Benjamin Harrison's cabinet from 1891-93. Foster died in 1904.

Prior to the merger there was some modest business development in the two villages such as a grist mill at the head of Wolf Creek that was constructed in 1834. But it was really after the merger in the early 1850s that a sustained period of growth and development occurred. The merger of the two towns came at the time Ohio was about to see substantial investment in railroad transportation infrastructure that would shape the future of many communities in the late 19th and early 20th centuries. The fortunes of Fostoria were greatly influenced by the introduction of the railroad. As the newly-merged town began to grow with the construction of the railroads, Fostoria built a new city hall/fire station in 1875 on West North Street. It was a fine Second Empire structure with a central tower and mansard roof. The building, although altered, is still standing and now functions as a museum operated by the local historical society.

Even today Fostoria is bound up in a steel web of railroads that makes it one of the cities in Ohio with the highest levels of rail traffic. Though it was likely unforeseen when the city's first rail line was built in the late 1850s, Fostoria's location on the flat plains of northwestern Ohio would make it the crossing point of five railroads of varying importance.

That first line, completed in 1859, followed the pattern of most of Ohio's pre-Civil War railroads in that it connected a port city -- Sandusky in this case -- with the state's interior. The line was known at first as the Fremont & Indiana, reflecting the local aspirations of its promoters, but as the line linked up and consolidated with other local routes, it became the Lake Erie & Western. True to its name, the road's far termini were Indianapolis, Indiana and Peoria, Illinois. By early in the 20th century the LE&W had become part of the great New York Central System and, some time after that, part of the Nickel Plate Road. It passed through Fostoria from northeast to southwest across the northern end of the downtown business core, with its depot located just west of Main Street. The former Lake Erie & Western Railroad passenger depot on West North Street is included in the historic district.

The Baltimore & Ohio was the next line constructed through the city, in 1873. The B&O's original goal had been to build from Baltimore to the Ohio River, which it reached at Wheeling in the early 1850s. In the period following the Civil War, however, the B&O looked farther west, as did many other railroad companies, and saw its future in places such as Chicago and St. Louis.

By the mid-1870s the Baltimore/Washington-Chicago route was in place, and Fostoria had the benefit of a location on a major east-west trunk railroad. Passing south of the central business core by a few blocks, the B&O's depot was on the east side of Main Street and was conveniently located for both passengers and freight shippers.

Fostoria's rail network increased yet again in 1877, when the Columbus & Toledo, later the Columbus, Hocking Valley & Toledo, was completed between the state capital and Toledo. Created by consolidation of the C&T and the Hocking Valley, a coal-hauling line running southeast from Columbus, the CHV&T had a heavy lake-bound coal traffic through Fostoria, especially after its acquisition by coal-hauling giant Chesapeake & Ohio in 1911. The CHV&T/C&O ran north-south along Fostoria's east side, several blocks east of Main Street.

Referred to in an Ohio newspaper as the "great double-track nickel-plated railroad," the New York, Chicago & St. Louis was incorporated in 1881 to build a route between Chicago and Buffalo that would compete with the mighty New York Central, which ran father north along the Lake Erie shore. The Nickel Plate Road, as it would forever be called (it went by the initials NKP), was completed in 1882 and became the fourth of Fostoria's railroads. It crossed from the

south to the north side of the B&O just west of Main Street on the city's south side, then angled northeast to cross the C&O. The New York Central met the NKP's competition by the usual means, purchasing control of the line in 1883. The smaller road struggled along as a ward of the NYC until 1916, when NYC sold the NKP to the Van Sweringen brothers of Cleveland. They merged the line with the Lake Erie & Western and the Toledo, St. Louis & Western to form a new NKP that quickly became known for its fast freight service and high reliability. The NKP disappeared into the Norfolk & Western system in 1964.

The final rail line to pass through Fostoria began in 1869 with the incorporation of the Atlantic & Lake Erie Railroad. As its name implied, the line aspired to link east coast and Great Lakes shipping routes, but in reality it ended up as a two-state line that primarily hauled coal. Completed in stages between Toledo and Columbus (and passing through Fostoria about 1880 or somewhat later), the A&LE eventually became the Ohio Central. It first linked Columbus with the Ohio River at Middleport in 1882. The line immediately expanded southeast into West Virginia and finished its link to Toledo and was renamed the Toledo & Ohio Central in 1885. The New York Central acquired control of the T&OC in 1910, leased it in 1922, and merged it in 1952. Fostoria was on the eastern of two routes between Toledo and the Ohio coalfields southeast of Columbus. The western route passed through Findlay, Kenton, and Marysville on the way to Columbus, while the line through Fostoria served cities such as Bucyrus and Mount Gilead. This line was always the secondary T&OC route, serving fewer cities and carrying less traffic. It passed from north to south through Fostoria, coming in from the northwest to parallel the C&O line. At the large junction on the city's southeast side (all railroads in Fostoria have always crossed at grade), the T&OC crossed the C&O and then the B&O and headed southeast toward the coalfields.

Fostoria's complex rail network, then, took shape by the 1880s, a mix of primary trunk lines (B&O, C&O, and NKP) and secondary routes (LE&W and T&OC). All street crossings were at grade, which meant considerable conflict between street and rail traffic, a problem which persists today. This was partially relieved by construction of grade separations on the city's south side on U.S. Route 23's route through the city.

Today, as a result of late 20th century abandonments and mergers, only three active rail lines (owned by two rail systems) remain, but they are among the busiest in Ohio. The Lake Erie & Western and Toledo & Ohio Central lines were torn up some twenty years ago, but the old B&O and C&O lines today remain major routes of CSX Corporation, while the old NKP is a primary route of the Norfolk Southern Corporation. Much of the infrastructure that served Fostoria's railroads has disappeared, but passenger depots of the B&O, C&O, and LE&W (this building is included in this nomination) still stand, as does a control tower at the major

B&O/C&O crossing on the city's southeast side. The LE&W and T&OC rights-of-way can be traced through the city but are gradually disappearing beneath new development.

Fostoria was served also by electric interurban railroads. While several different companies provided interurban service, there were two primary routes, which crossed at Fostoria. From Toledo, the Toledo, Fostoria & Findlay came in from the northwest and connected with the Tiffin, Fostoria & Eastern to Tiffin. From the northeast, the Fostoria & Fremont was part of a collection of routes between Sandusky and Lima. To the southwest, this route traveled on another line of the TF&F to Findlay, and on the Western Ohio west of Findlay. All these routes were built during the heyday of the interurban in the first decade of the 20th century and were entirely abandoned by 1932 as the shift to local travel by private auto put them out of business.

Access to railroad transportation that linked Fostoria to major cities on the east coast and throughout the Midwest, made it an ideal location for industrial development. According to a history of Seneca County, *"Within thirty years of the merger, Fostoria had a number of manufacturing firms, a couple of brass foundries, a paper trimming factory, roller and planning mills, a tile works, a corn reaper and mower firm, and an agricultural implements work, to name a few."* (Seneca County, Ohio, p.18).

If the railroads made Fostoria an ideal location for establishing an industry; another event took place in 1886 that began a period of greater change and prosperity in Fostoria – the discovery of natural gas from oil wells in the area. Fostoria held a special election to raise money to drill gas wells and to lay pipes from the wells to city. Then the city offered to provide free gas to all new industries moving to Fostoria. Immediately after the gas boom, Fostoria's population grew from 4,000 to 8,000 in less than a year as new and existing industries thrived.

The Fostoria Glass Company, which was one of the city's most widely-recognized industries, took the city up on its offer of free gas and free land and began operations in 1888. The company manufactured glassware for household use. Unfortunately, the supply of natural gas didn't last long and the company was forced to find another location for production. They settled in Moundsville, West Virginia, but retained the Fostoria name and the company continues to manufacture glassware today. Although Fostoria established itself as a glass-making town, it was very short-lived. Among the glass companies that were established in Fostoria and later ceased operations or moved were the Mambourg Glass Co. (1887-1894); the Crocker Glass Co. (closed 1894); the Calcine Glass Co. (1890-1894); the Butler Art Glass Company (1888, burned 1889); the Fostoria Novelty Glass Co. (1895, burned 1895); the Seneca Glass Co., (1892, relocated to Morgantown W.Va. 1896); Fostoria Lamp and Shade Co. (1890, burned 1895); the Nickle Plate Glass Co. (1888, burned 1895); and the Fostoria Incandescent Lamp Co. (1897) and the Fostoria Specialty Glass Co. (1899) that were both absorbed by General Electric by 1920.

In spite of the failure of so many glass-making firms, other industries found success in Fostoria. Among the industries established during the late 19th and early 20th centuries were the Cunningham Manufacturing Co. (spokes and bent work) in 1869; the Corn Reaper & Mower Agricultural Implement Works (1876); the Fostoria Foundry and Machine Works in 1880; the Mergenthaler & Koss Planing Mill in 1881; the Eureka Planing Mill and Lumber Co. (doors, sashes and blinds) in 1887; the Koss, Parker and German Lumber Co. (doors, sashes and blinds) in 1894; Franke Brothers Mill (1898); Ohio and Western Lime Co.; Cadwallader Milling Co.; the C.C. Anderson Manufacturing Co. (1904); Fostoria Cigar Co.; Fostoria Steel Roofing Co.; and the Seneca Coal Co.

As Fostoria was not a county seat, it always competed with the county seats of Findlay (Hancock Co.), Tiffin (Seneca Co.) and Bowling Green (Wood Co.) for commercial businesses. The county seats were a natural draw, from the surrounding rural areas, for people who wanted to combine conducting business with the county with their other shopping or selling needs. Nevertheless, Fostoria developed a thriving commercial community to serve the city's rapidly growing resident population. The physical environment of the downtown area reflects the growth and prosperity that occurred in the period from the 1880s to the 1930s. The Foster Block was built in 1882 to replace the earlier Foster Building that was located on the same site at the southeast corner of Main and Tiffin Streets. Other new business blocks were constructed during this period, including the Quinn Block built by John Quinn Sr. to house his bakery on the first floor and his family above at 107 North Main Street, in 1884; the Main Street Block, at the southwest corner of Main and South Streets, c. 1880; the Mercenthaler Building, at 123-125 East Tiffin Street, in 1890; the Ghaster Block, at 111-117 East North Street, in 1896; the Cadwallader Block, 116 North Main Street, in 1905; and the Botto Block on the southeast corner of Main and North Streets in 1906, as well as other unnamed commercial buildings throughout the downtown. Perhaps the most impressive business block of the period was the Andes Opera Block, built in 1878 and located at the northwest corner of Main and Center Streets. It housed retail businesses on the first floor, offices on the second floor and an elegant opera house on the third floor. The opera house became a center of social and cultural life for the community, as it continued to function well into the 20th century. The 1888 *History of Seneca Co., Ohio*, stated that *"The Andes Opera House Block and the Foster Bank Block are buildings of which any city might feel proud. . . ."* (p.607)

Banks played an important role in the growth and development of Fostoria and the bank buildings were located in the heart of downtown. Charles Foster originally developed the Foster Bank as a department within his mercantile business. It later became an independent bank, although it was always housed in the Foster Block (southeast corner of Main and Tiffin Streets). Although it thrived for most of the second half of the 19th century, it failed in 1993. The Mechanics Savings Bank was organized in 1890 and after several reorganizations was renamed

the Union National Bank in 1907. The bank moved to its new headquarters at the northwest corner of Main and Tiffin Streets just months before the stock market crash of 1929 and the bank was closed permanently in 1933. The First National Bank, which was organized in 1892, was originally located at 110 North Main Street, before moving in 1892 to a building on the northeast corner of Main and Center Streets (replaced by the Kresge Building); and then finally moving to the former Union National Bank Building in 1934.

Growth continued in the first three decades of the 20th century as evidenced by the construction of the Security Building at 223 South Main Street; the Art Deco commercial building at 103-105 South Main Street; another Art Deco building constructed in 1939 by Ohio Bell Telephone (now Ameritech) at 121East North Street, the Sherwood Hotel (1932) at 118 East Tiffin Street; along with a number of more modest early 20th century commercial buildings like the Wilma Building (1927) at 110 West North Street.

Although there continued to be a number of locally-owned businesses that operated in downtown Fostoria during the first half of the 20th century, this was the period where chain stores made their appearance. Downtown Fostoria had a Kresge 5&10 (106-108 North Main Street), a J.C. Penney store (208 South Main Street), a Montgomery Ward store (219-221 South Main Street) and a Woolworths 5&10 (122 North Main Street).

The Masonic Temple, which retains a high degree of integrity, was also built during the early 20th century reflecting the social/fraternal health of the community during the period. It is a substantial free-standing building that remains in use today. A number of other fraternal lodges and union organizations met regularly in the downtown area, although they didn't have their own buildings as the Masons did. Most of the unions met in the recently demolished Fruth Hardware Building at 218 South Main Street (just south of the district boundaries); and the Knights of Pythias met in a building they shared with the First National Bank at 100 North Main Street (replaced by the Kresge store).

The buildings in downtown Fostoria reflect the cultural heritage of the community with excellent examples of late 19th and early 20th century architecture including the Main Street Block (c. 1880s), Andes Opera Block (1878), the Foster Block (1882), the Security Building (c. 1905), the Masonic Temple (1905), and the Union National Bank (1929). All of the buildings in the Fostoria Downtown Historic District are constructed of masonry and reflect a great deal of variety and a high degree of craftsmanship. There are examples of buildings constructed and faced with red, orange, buff, brown and black brick; glazed terra cotta; and rock-faced concrete block. Ornamentation includes stone, terra cotta, cast iron (including some storefront columns manufactured in Fostoria), and architectural glass and pressed sheet metal.

The second half of the 20th century was one of change for downtown Fostoria, as it was for many Ohio cities. Businesses began to move out of the downtown to locations on the outskirts of the community and upper floors of buildings largely fell into disuse. There have also been demolitions that have removed important buildings along Main and the intersecting streets, both inside and outside the district boundaries. Today, there is an increasing interest in the rediscovery of downtown Fostoria and the preservation of the remaining historic buildings. A local historic district has been established with the purpose to encourage the preservation of the downtown's historic resources.

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Seneca County, Ohio History and Families. Seneca County Genealogical Society, 1998.

Union National Bank brochure, no date.

Assorted files, photographs and postcards from the collection of the Kaubisch Memorial Library, Fostoria, Ohio.

Verbal Boundary Description

Beginning at the northeast corner of the intersection of North Main Street at North Street, go east along the south curbline to the intersection of the eastern property line of the 201 East North Street; proceed south along the property line to the intersection with the first east-west alley south of North Street; go west along the alley to the intersection of the rear property lines of the buildings facing Main Street; to the intersection with East Center Street; go west along the north curb line of East Center Street to the intersection with Main Street; go south along the east curb line of Main Street to the intersection with the east-west alley south of Center Street; go east along the alley to the intersection of the northeast property line of 120 East Tiffin Street; go south along the property line to the intersection with East Tiffin Street; go east along the south curb line of East Tiffin Street to the intersection of the east property line of the building at 133 East Tiffin Street; go south along the property line to the intersection of the east-west alley south of East Tiffin Street; go west along the alley to the intersection with the east property line of the building at 216 South Main Street; go south along the east property line to the intersection with the north curb line of South Street; go west along south street to the intersection with South Main Street; Street; go south along the west curb line of South Main Street to the intersection with the southern property line of the building at 315 South Main Street; go west along the property line to the intersection with the western property line of 315 South Main Street; follow the western property lines of the buildings facing Main Street between 315 South Main Street and the east-west alley south of West Center Street; go west along the alley to the intersection of the western property line of 115-119 West Center Street; go north along the western property lines of 115-119 West Center Street and 118 West Center Street to the east-west alley south of West North Street; go west along the alley to the intersection of the western property line of 129 West North Street; go north along the western property lines of 129 West North Street and the former railroad passenger depot to the former railroad right-of-way at the rear of the railroad passenger depot; go east along the railroad right of way behind the buildings facing West North Street to the intersection with North Main Street; go south along North Main Street to the point of beginning.

Boundary Justification

The Fostoria Downtown Historic District contains the most cohesive collection of historic commercial buildings in the city. The boundaries reflect the inclusion of the maximum number of historic buildings that create a sense of a historic district. While there are other historic buildings located along Main Street, they are separated from the boundaries of the district by empty lots, where historic buildings once stood, or by large areas of new construction. For the most part, residential development begins to the east and west within a block of Main Street.

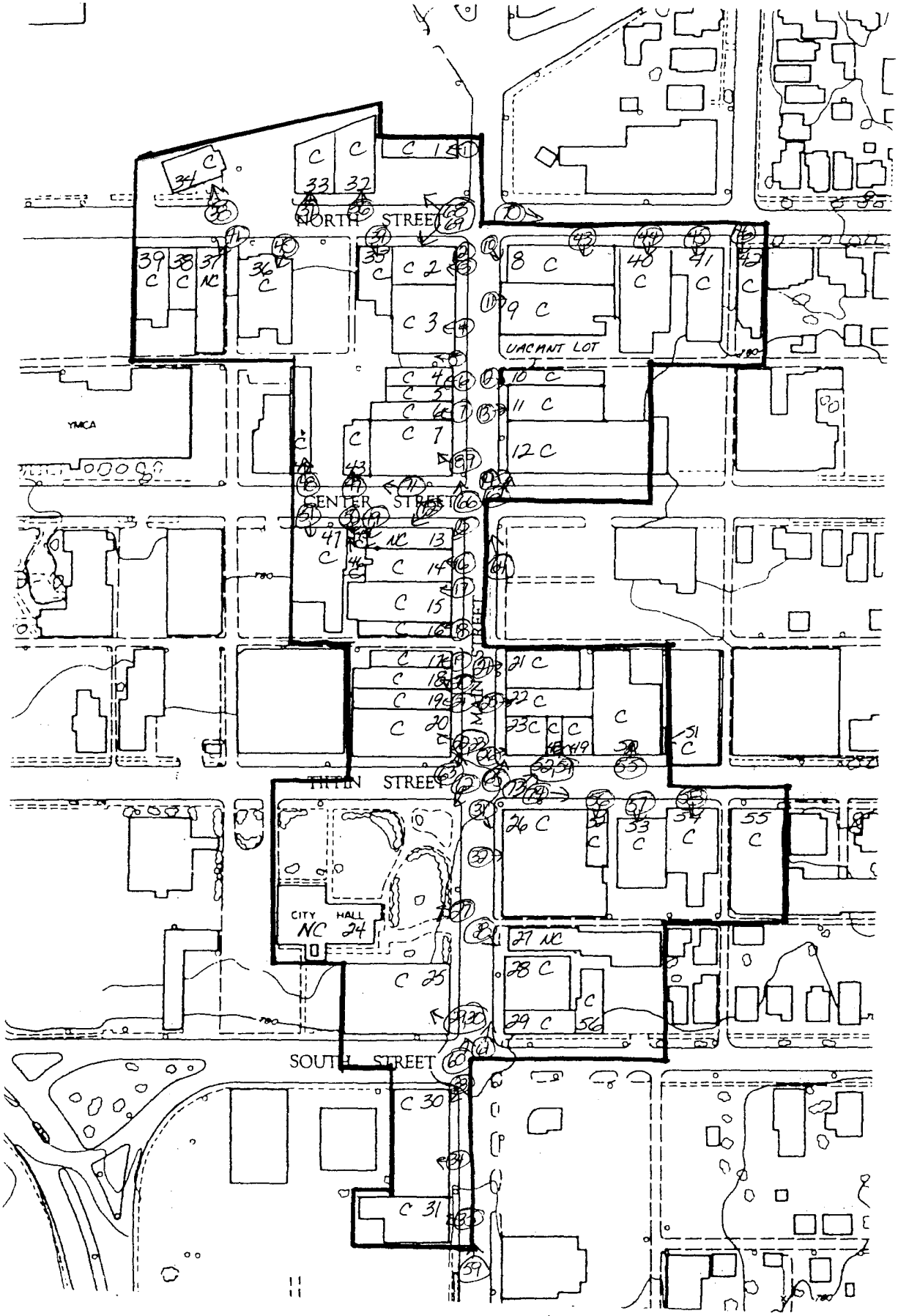
Photo List

The following information applies to all of the photographs:

Photographer: Jeffrey Darbee
Benjamin D. Rickey & Co.
593 South Fifth Street
Columbus, Ohio 43206

Date Taken: October, 2000

1. View of 203 North Main Street
2. View of 121-123 North Main Street
3. View of 121-123 North Main Street
4. View of 113-119 North Main Street
5. View of alley elevation of 113-119 North Main Street
6. View of 109 and 111 North Main Street
7. View of 107 North Main Street (Quinn Block)
8. View of Main Street elevation of 101 North Main Street (Andes Opera Block)
9. View of Main Street (east) and Center Street (south) elevations of 101 North Main Street
10. View of Main Street (west) and North Street (north) elevations of 122 North Main Street
11. View of 116 North Main Street
12. View of 114 North Main Street
13. View of 106-110 North Main Street
14. View of 100 North Main Street
15. View Main Street (east) and Center Street (north) elevations of 101 South Main Street
16. View of 103-105 South Main Street
17. View of 109-111 South Main Street
18. View of 113 South Main Street
19. View of 115 South Main Street
20. View of 117 South Main Street
21. View of 123 South Main Street
22. View of 125 South Main Street
23. View of Tiffin Street (south) elevation of 125 South Main Street
24. View of 116 South Main Street
25. View of 120 South Main Street
26. View of Main Street (west) and Tiffin Street (south) elevation of 124 South Main Street
27. View of Main Street (east) elevation of City Hall
28. View of west side of South Main Street, looking from City Hall



Fostoria Downtown Historic District
Seneca County, Ohio

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1,2,3 BUILDING NUMBERS
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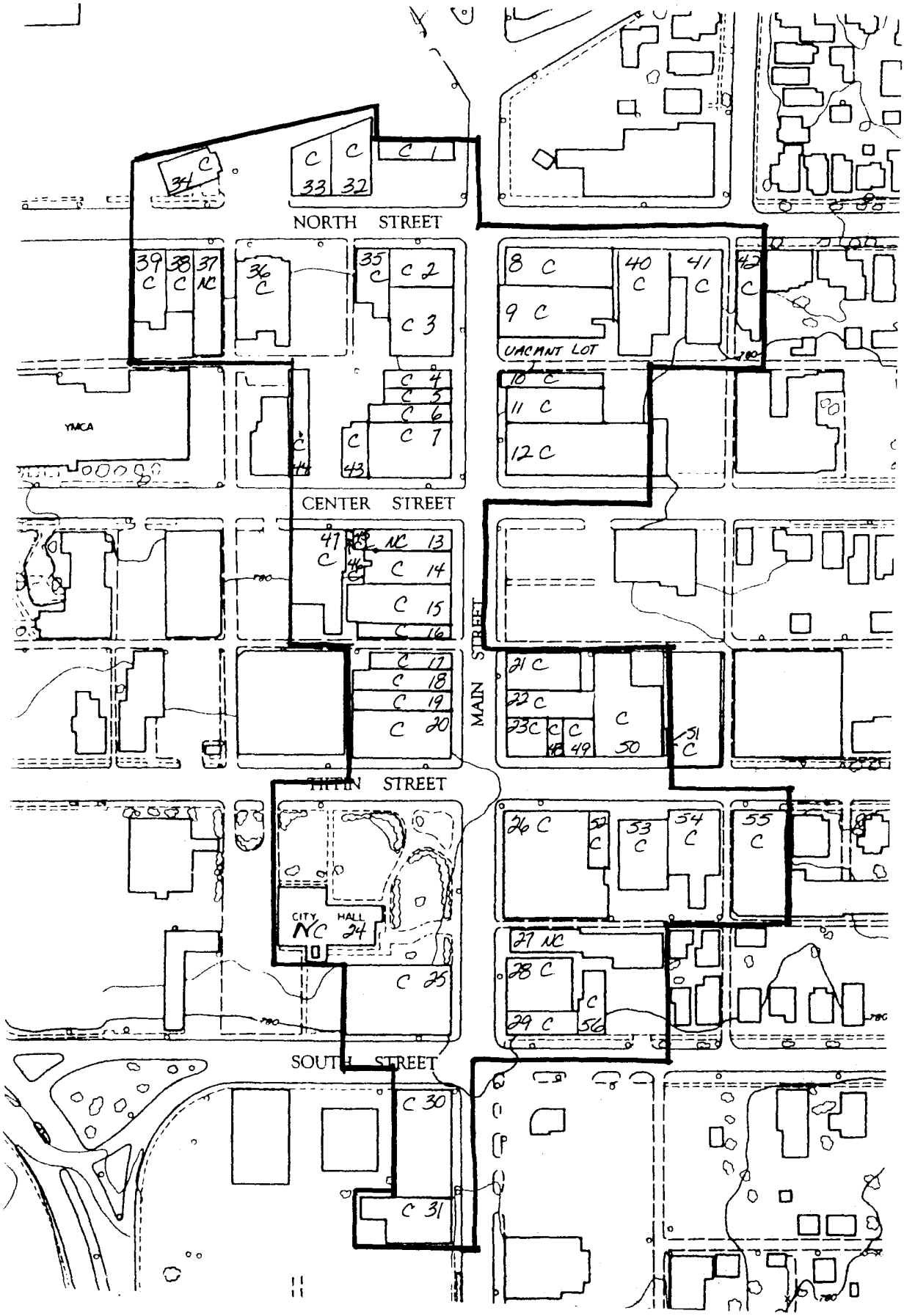
(1) PHOTO VIEWS

NOT TO SCALE



Fostoria Downtown Historic District
Seneca County, Ohio

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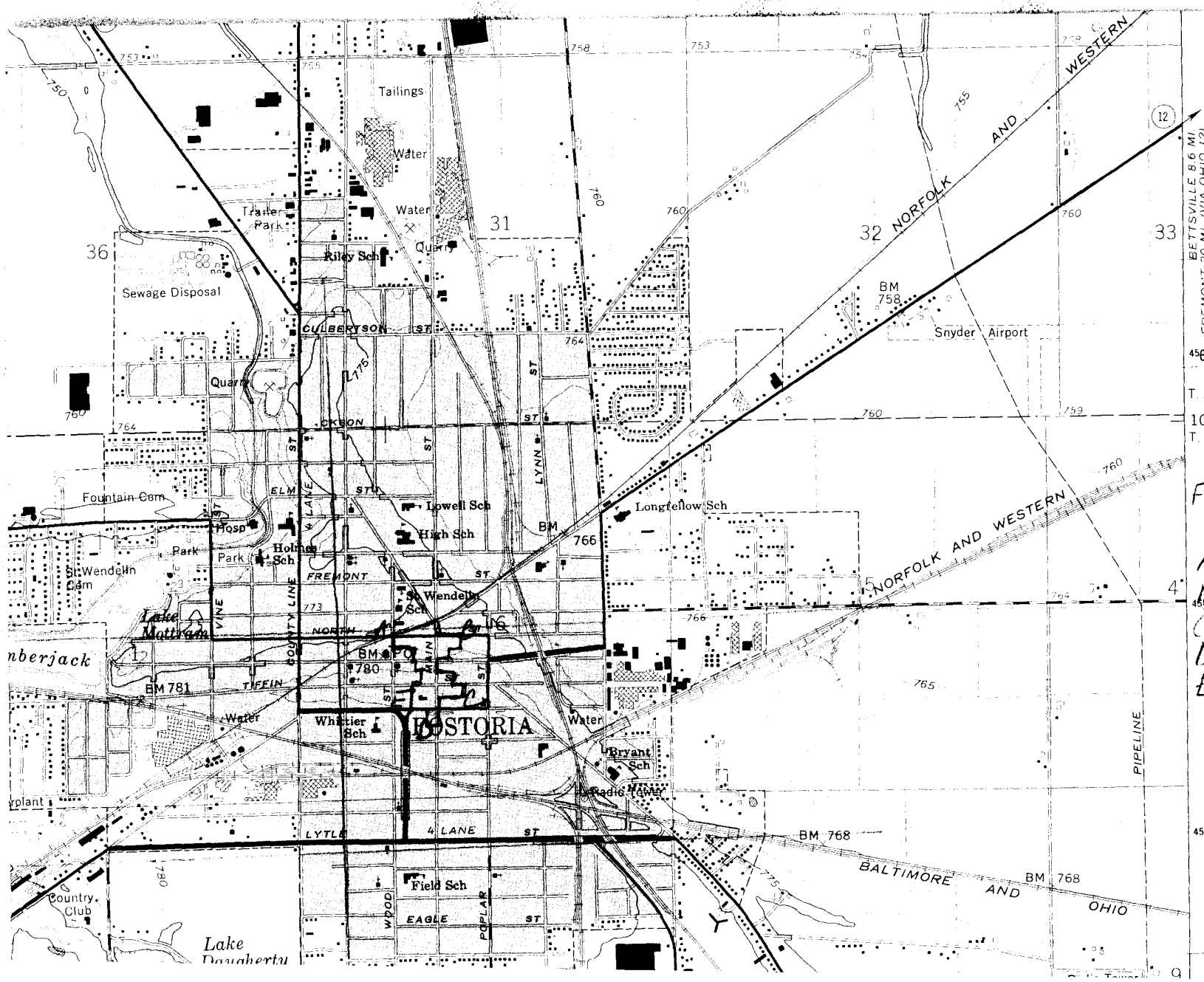

HISTORIC DISTRICT

FORTORIA QUADRANGLE
OHIO

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D 17 [illegible] 455[illegible]
E 17 [illegible] 455[illegible]

Ohio Historic Preservation Office

567 East [illegible] Street
Columbus, Ohio [illegible]
614/ 298-2015 Fax/ 614/ 298-[illegible]

Visit us at [illegible]

OHIO
HISTORICAL
SOCIETY
SINCE 1885

October 10, 2001

Mayor John Davoli
City of Fostoria
P.O. Box 1007
Fostoria, Ohio 44830

Dear Mayor Davoli:

Congratulations on the recent listing of the **Fostoria Downtown Historic District** into the National Register of Historic Places!

The National Park Service, United States Department of the Interior listed the Fostoria Downtown Historic District. The nomination was made in connection with a state plan to identify and document prehistoric and historic places in Ohio which qualify for National Register status under provisions of the National Historic Preservation Act of 1966 as amended.

The Ohio Historic Preservation Office (OHPO) is available to advise property owners in maintaining the historic character of their property. As you know from previous mailings received from this office, there are no restrictions placed on the properties following the National Register listing. However, the OHPO strongly encourages owners of historic properties to consider all options before completing work that could damage the structure or impair its historic integrity. Careful planning can facilitate the sensitive incorporation of contemporary alterations with the historic fabric. The OHPO provides free information on how to sensitively rehabilitate and repair historic properties, upon request.

Enclosed is information about the programs and services offered by the Ohio Historic Preservation Office.

Sincerely,

Barbara A. Powers
Department Head
Planning, Inventory and Registration.

BAP/tch

COPY: Nancy Recchie, Form Preparer
Dorene Nowatzke, Fostoria Area Chamber of Commerce
Senator Larry Mumper, District 26
Representative Rex Damschroder, District 89
North Star Council of Governments
Paul Graham, Ohio Department of Transportation

THE OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

National Register of Historic Places File Checklist

The following materials are contained in this file of the National Register form for:

Name: Toledo Downtown [illegible] District

County: [illegible]

✓ Original National Register of Historic Places nomination form

____ Multiple Property Nomination form

✓ Photograph(s)

✓ Photograph(s) (copies)

____ USGS map(s)

✓ USGS map(s) (copies)

____ Sketch map(s)/figure(s)/exhibit(s)

✓ Correspondence

✓ Other [illegible]

CES: 1/06

Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

REFNUM 7 8 0 0 2 0 8 5

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED 8/25/78

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Fostoria Mausoleum

AND/OR COMMON
same

2 LOCATION

STREET & NUMBER
702 Van Buren (West S.R. 18) — NOT FOR PUBLICATION

CITY, TOWN
Fostoria — VICINITY OF

CONGRESSIONAL DISTRICT
4th--Tennyson Guyer

STATE
Ohio 44830

CODE
039

COUNTY
Hancock

CODE
063

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	X OTHER: Mausoleu

4 OWNER OF PROPERTY

NAME
The Fostoria Mausoleum Association (Statutory Agent: Robert L. Goodyear)

STREET & NUMBER
531 College Avenue

CITY, TOWN
Fostoria — VICINITY OF 44830

STATE
Ohio

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Hancock County Court House

STREET & NUMBER
N. Main and W. Main Cross Streets

CITY, TOWN
Findlay

STATE
Ohio 45840

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Ohio Historic Inventory

DATE
May 1977 — __FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
Historic Preservation Office -- Heidelberg College

CITY, TOWN
Tiffin

STATE
Ohio 44883

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	X UNALTERED	X ORIGINAL SITE
X GOOD	__RUINS	__ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This limestone and concrete building features Roman details in its Tuscan pillars. The two interior pillars are free standing, round, and fluted; the two exterior ones are square pilasters.

The gabled pediment bears the date 1916; the name "Fostoria Mausoleum" is carved into the frieze.

The metal double doors once had plate glass. Two stained glass windows (one above the doors and one in the back) have round arches with keystones. Two small window openings, one on either side of the main entrance, have round arches with keystones.

The gabled red-tile roof is interrupted by a monitor which has twelve almost-square windows on each side. The windows are recessed and have wide plain slip sills.

The wall treatment is plain ashlar stone above a cut stone water table. The floor plan is basically rectangular with a three-foot recess on each side. This can be seen in the treatment of the roof which is separated with a plain gable in two places. A small extension of the building at the back is part of the original building. All walls are of solid construction.

The interior of the monitor area is painted white over plaster as is the rest of the ceiling. The walls are of Vermont Green Mountain marble with the Holme finish. The lettering on the crypt covers is almost all raised. Small hexigon-shaped black and white tiles give a chain or hook effect on the floor. Square black and white tiles create a darker border for the floor.

There are 24 crypts in each of the four rows; each row is separated by a ledge to give 96 crypts on a side. The back extension has two sections with three rows of two crypts each. These rows are also separated by ledges. There are a total of 204 crypts.

The exterior gables are marked on the inside by pilasters; the pilasters serve to divide the long rows of crypts.

There have been no changes made to the structure of this building or to its detailing.

SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	X ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	X OTHER (SPECIFY) Mausoleum
		__INVENTION		

SPECIFIC DATES 1916-1917 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Fostoria Mausoleum was built by the Latchaw Brothers of Findlay, Ohio. Work began shortly after July 3, 1916 and was completed shortly before May 11, 1917. The dedication ceremony was held on Sunday, May 27, 1917, at 2:00 P.M. with the Hon. R. Clinton Cole as orator and a male quartette to furnish the music.

The mausoleum is not owned by the City of Fostoria or a cemetery association. It is owned by the stockholders (the crypt owners) as a non-profit corporation known as the Fostoria Mausoleum Association. The organization received its Articles of Incorporation May 11, 1917 at the second regular meeting. The Articles were granted by William D. Fulton, Secretary of State, on May 4, 1917 and are recorded in the Records of Incorporations as of May 8, 1917 (vol. 196, p. 95). The signers of this document were J.B. Fosty, F. Bromley, C. German, Roscoe Carle, and C.F. Latchaw.

At this time, the City of Fostoria and the Chamber of Commerce were interested in attracting new industry to Fostoria; they were especially interested in a glass company, the J.C. Crawford Clothing Manufacturing Co., and a limestone company. It is believed that this mausoleum project was carried out much like a modern business enterprise.

The Latchaw Brothers, according to the minutes (1917), did a fine job on the building, and all believed it would last a long time. Among these members of the association were J.B. Fosty (first president), J.A. McCauley (first vice-president), George Yochum, S.R. Wilcox, Roscoe Carle (first secretary), E.R. Barkley, Christian German, and David Cole (first treasurer). These members, plus John Good, J.W. Corl, T.P. Mervin, J.C. Crawford, T.B. Hartley, and Mrs Howard Saunders, served as trustees until 1936. By November 18, 1918, 189 crypts had been sold; 95 are still sealed today.

George Yochum served as a trustee from 1917 until his death in 1926. He was a farmer before retiring to Fostoria and was a member of the Seneca County Fair Board. Member Roger S. Doe was a fine cabinet maker in the area. Other prominent Fostorians in the group included Thomas B. Hartley (a trustee from 1925 to 1933) and J.W. Corl.

The Fostoria Mausoleum Association was re-instated on September 3, 1976. The new officers were: Erson Wright (president), Robert Goodyear (vice-president), Ollivene Bolen (secretary), and LaDonna Ropp (treasurer). Goodyear and Ropp are relatives of original members of the Association. The current members are working toward the preservation of the building.

The architectural style and quality of the building provide the main significance for the structure. It is important locally for its prominent siting and for its associationwith a number of prominent citizens.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Minutes of the Fostoria Mausoleum Association. 1916-1936.
Fostoria Fountain Cemetery Records
Fostoria Review-Record, Fostoria Times, Fostoria Review-Times. 1916-1936.
Baxter, Charles. Famous Buildings. New York: Century Co., 1921.
Fostoria City Directories. 1910-1976.
Personal interviews with relatives of interred persons and area craftsmen.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY .259 acres

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	17	8[illegible]	[illegible]	B			
C				D			

VERBAL BOUNDARY DESCRIPTION

This property commences at the southwest corner of Outlot 35 in the Second Ward of the City of Fostoria and Hancock County and from there runs north along the west line of said Outlot for 75 feet; then east and parallel with the south line 120 feet; then south and parallel to the west line for 75 feet; then west along the south line for 120 feet to the point of beginning. The property is bounded by the Fostoria Fountain Cemetery on the west, residences on the north and east, and the Pillar Memory Garden on the south.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE: Mrs. Ollivene Bolen · Secretary

ORGANIZATION: Fostoria Mausoleum Association

DATE: 2 November 1976

STREET & NUMBER: 7077 County Road 41, Rt. 1

TELEPHONE: 419-288-7137

CITY OR TOWN: Bradner

STATE: Ohio 43406

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL X

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

The dimensions of the building are 22½ to 23 feet in height and 36' in width and 91 feet in length. The monitor rises above the roof about 4 feet.

The building is built of limestone on a concrete footing 4 feet deep on a base that is 6" thick and larger by 6" around the footing. There is a drainage system around the outside of the building, underground, of chipped limestone pieces with an average size of about 3" x 5" x 1". The chips are assumed to be at a depth beneath the grade level of 8" at the front of the building and about 12" or more at the rear of the building, thus draining the water to the east. This stone trench must be about 2' wide and about 1' deep. The chips could have come from the stone used for the building if the stone carving for the ashlar blocks was done on the sit The 1923 minutes indicate that there was also a water drip or wash attached to the foundation; this was at least 2' wide, and the water dripp on this from the eaves. Only a few pieces of this wash remain in the northeast corner of the building.

The exterior material is limestone ashlar blocks. These stones are 9" high and 8" thick and are held together with ½" dark gray mortar. The building is 27 courses high. The pointing was done in a bead. Later pointing was done with a lighter color mortar and was not beaded. The light mortar seems almost white and may be bleached out. The stones are not uniform in length as they were cut to fit where needed. The base stones are smooth cut, 18" high including the 2" water table, and are cut to length as needed.

The stone of the portico wall and the window surrounds is smooth cut and of a light tan or beige color limestone. These stones are rather large in size. The keystone of the small front window fits into the arch in line with a regular course of the structure. The sills are set in the regular course and extend beyond the frame, lining up with the width of the arch above. They are shaped to guide the water away from the building.

Originally all windows were of art glass or stained glass. The window of the monitor were colored glass around the rectangular center plain glass The large semi-circular stained glass windows in the front and back of the building are similar in design. The small front windows were also stained glass, and the design here matches part of the design of the larger windows The window framing of the rear window is different than that of the front window over the entrance.

The concrete roof is covered with red French tiles, each tile measurin 16" x 9" and attached with special roofing nails. The coping tile is a matching red curved or semi-circular 12" long tile. A ball type of tile covers the ends of the ridges and center of the hip joints. Restoration plans for the building include ordering this French tile from a company in Chicago.

The parapets and the parapet walls extending to the monitor and those across the top of the back wall are smooth cut stones. There are eight

parapets in all.

Due to the shape of the alcove at the rear of the building, we assume there are airways between the roof and the crypts in this area. There are two openings in the back wall that are each 8" square, one on each side near the parapets. It appears that there is not room for an air space for the roof of the monitor. If there is, there may be some space between the concrete of the ceiling and the concrete of the roof since there is a difference in their shapes.

At the entrance, there is a large concrete slab just below grade level that acts as the approach to the large concrete step to the portico. This step is 2' x 10'6", sloping from 10" at the back to 8" in thickness at the front in order to drain the water from the portico.

The doors are 40" x 2" and are of metal over wood. At one time the doors probably had the appearance of polished brass or bronze if they are not actually of those metals; they have now weathered to a black color. The clear plate glass windows originally in the doors have been replaced with plexiglas. A single smooth stone door sill shaped to carry water away from the door joins the outer stone floor to the inner tiled floor.

The hexagonal tile on the floor is $1\frac{1}{4}$" in size and of three colors: white, gray, and black. The border uses square tiles about 5/8" in length in black and white.

The solid wall construction consists of the exterior stone of 8", 3" tile, and the interior concrete. The tile is evidently for any drainage that may be necessary or for air circulation. The tile may also help to hold the inner and outer walls more securely together.

The interior wall and ceiling above the crypts are plastered to the concrete and then painted. The ceiling plaster has been repaired several times during the years. The wall plaster is of a rather thick coarse kind, and it is still intact. There may originally have been decorative paintings on the ceiling and side walls. At the ends of the building, the walls are plastered and painted from the same height as the ledge above the crypts on either side to the ceiling and around the stone casing of the windows.

The lower part of the building where the crypts are located, the crypt covers, the piers, the trim around the crypt covers, the ledges for each crypt, the walls beside the doors, and the walls of the alcove area are covered with 1" thick veneer of Vermont Green Mountain white marble. This marble may be no longer available. The wall veneer is in large sheets of marble pinned with metal fasteners to the concrete wall. A veneer "base" is placed around the base of the walls as a finishing.

There are five piers, one in the alcove and two on each side. Marble urns sit on the top of four of the piers.

The crypts are identified by letters at the beginning of the rows near the front door and by numerals along the top ledge. One reads down from the top for the letter of the row and across and down for the numeral to locate a particular crypt. The north side has the letters A, B, C, and D with

the numerals 1 through 24. The north side of the alcove has letters B, C, and D and the numerals 25 and 26. The south side is the same except the letters are E, F, G, and H; the alcove has F, G, and H.

Repair work done on the mausoleum to date has consisted primarily of replacing the windows in the monitor. All of these had been broken by 1976. The glass was replaced by $\frac{1}{4}$" plexiglas in 1977. A complete restorat program is planned for the building, including replacing roof tile where needed, repointing as needed (chemical analysis has been done on the mortar and cleaning (washing) the stone. A fabric analysis has been completed for the building, and the information supplied here comes from that analysi

SUBSTITUTION FOR #8 ON ORIGINAL NOMINATION FORM

Period of Significance: 1900 -

Area of Significance: Architecture Only

This Fostoria Mausoleum is architecturally important as an example of the Neo-Classical Revival style of architecture prominent in the 1910s. It is especially well documented since it is identical, except for its length, to a mausoleum built by the same company in Findlay, Ohio in 1915. The blueprints for the Findlay Mausoleum are located in the City Engineer' Office in that city. They, in turn, are based on plans drawn by the Ohio Mausoleum Company in Galion dated 7-9-1917.

The Fostoria Mausoluem was built by the Latchaw Brothers. This was a company made up of the four Latchaw brothers: Philip S., Eli L., Charle Forney, and Isaac N. The Latchaw family came to the Findlay area in the late 1800s and engaged in various trades; city directory research shows that many of the men were involved in the construction business or relate fields. One relative, John, a minister, was president of Findlay College about 1886. The Latchaw Brothers organized the Modern Mausoleum Promotio and Construction Company and built mausoleums in Findlay (2), Fostoria, and Fremont. The Fostoria and Fremont buildings are very similar to one of the Findlay buildings. The connection with the Ohio Mausoleum Company of Galion is unclear, but perhaps the Latchaw Brothers' efforts were a spin-off of this company. It may be that promoters of the Ohio Mausoleum Company came to Findlay with blueprints and that the Latchaw Brothers then used these blueprints to build the mausoleums in this area under their own Modern Mausoleum Promotion and Construction Company. This woul mean that the date on the Ohio Mausoleum Company blueprints of 1917 could not be the original date for this design.

The brothers not only built these buildings but actually did promote them. Charles seems to have acted as the legal expert for the brothers, since his name is found in the minutes of the Fremont Mausoleum Associati Findlay Mausoleum Association, and Fostoria Mausoleum Association. The Fostoria building cost about $35,000 to build, and the Latchaw brothers gave the Fostoria Mausoleum Association an endowment of $2040 for the building.

Work on the Fostoria Mausoleum began shortly after July 3, 1916 and was completed shortly before May 11, 1917. The dedication was held on Sunday, May 27, 1917, at 2PM with the Hon. R. Clinton Cole as orator and a male quartette to furnish the music.

These mausoleums built by the Latchaw Brothers were owned by shareholders (the crypt owners) as non-profit corporations. The Fostoria Mausoleum Association received its Articles of Incorporation May 11, 1917 at its second regular meeting. The Articles were granted by William D.

Fulton, Secretary of State, on May 4, 1917 and are recorded in the Records of Incorporations as of May 8, 1917 (vol. 196, p. 95). The signers of this document were J.B. Frosty, F. Bromley, C. German, Roscoe Carle, and Charles Forney Latchaw. Apparently the brothers built the mausoleum, helped organize the association to run it, then turned the building over to the association with an endowment to help them maintain it. This project seems to have been carried out much like any business enterprise today.

According to the minutes of 1917, the Latchaw Brothers did a fine job on the building, and all believed it would last a long time. Among the first members of the association were J.B. Fosty (first president), J.A. McCauley (first vice-president), George Yochum, S.R. Wilcox, Roscoe Carle (first secretary), E.R. Barkley, Christian German, and David Cole (first treasurer). These members, plus John Good, J.W. Corl, T.P. Mervin, J.C. Crawford, T.B. Hartley, and Mrs. Howard Saunders, served as trustees until 1936.

George Yochum served as a trustee from 1917 until his death in 1926. He was a farmer before retiring to Fostoria and was a member of the Seneca County Fair Board. Member Roger S. Doe was a fine cabinet maker in the area. Roscoe Carle was also an incorporator of the Ohio Savings and Loan Association in Fostoria in 1915. Other prominent Fostorians in the group included Thomas B. Hartley (a trustee from 1925 to 1933) and J.W. Corl.

By November 18, 1918, 189 of the mausoleum's 204 crypts had been sold. 95 of the crypts are still sealed today. After many years of neglect and removal of bodies, a burial was held on December 5, 1977 when Mrs. Ella Slosser was interred here.

The Fostoria Mausoleum Association was re-instated on September 3, 1976. The new officers were: Erson Wright (president), Robert Goodyear (vice-president), Ollivene Bolen (secretary), and LaDonna Ropp (treasurer) Goodyear and Ropp are relatives of original members of the association. T group is now working to restore the mausoleum.

The Fostoria Mausoleum, then, is a locally-significant example of the Neo-Classical Revival style in architecture; the only changes over tim have been through deterioration through neglect, and this is now being corrected. The whole organization and promotion of the building by the Latchaw Brothers is important as an example of business promotions at this time. It is also important to recognize a building built by this area firm because, while they probably also built businesses and houses, only the mausoleums are identified as still standing.

Fostoria Nw
17 296/340
4559/600

T. 3 N.
10′
T. 2 N.
NORFOLK AND WESTERN
Lowell Sch
High Sch
Longfellow Sch
Holmes Sch
St Wendelin Sch
BM PO 780
Whittier Sch
FOSTORIA
Water
Bryant Sch
Radio Tower
Field Sch
BM 768
BALTIMORE AND OHIO
Radio Tower (KQJ-43)
PENN CENTRAL
Sportsman Park
Trailer Park
L O U D O N
Wolf Cr
PIPELINE
Cem
HANCOCK CO
SENECA CO
CHESAPEAKE AND OHIO
BASCOM 4.7 MI.
TIFFIN 11 MI.
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4558
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83°22′30″
300000m E.
299
R 12 E R 13 E
25′
3 MI. TO U.S. 224
UPPER SANDUSKY 24 MI.
INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1973
(NEW PIEGEL)
4366 III SE

1 MILE
7000 FEET
KILOMETER

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route — State Route

OHIO

QUADRANGLE LOCATION

Revisions shown in purple compiled in cooperation with the State of Ohio agencies from aerial photographs taken 1972. This map is not to be used for navigation

FOSTORIA, OHIO

N4107.5—W8322.5/7.5

1960

PHOTOREVISED 1973

AMS 4366 III NW SERIES V852

20242
ON REQUEST

reference zone 17
easting 296340 northing 4559600

September 8, 1978

Robert L. Goodyear
The Fostoria Mausoleum Association
531 College Avenue
Fostoria, Ohio 44830

Dear Mr. Goodyear:

I am pleased to inform you that the Fostoria Mausoleum, 702 Van Buren, Fostoria, has been entered in the National Register of Historic Places by the Heritage Conservation and Recreation Service, United States Department of the Interior.

The nomination was made in connection with a state plan to identify and document prehistoric and historic places in Ohio which qualify for National Register status under provisions of the National Historic Preservation Act of 1966. All nominations are approved by the Ohio Historic Site Preservation Advisory Board.

Enclosed is information explaining the purposes and goals of the National Register of Historic Places.

Sincerely,

Thomas H. Smith
State Historic Preservation Officer
Director, Ohio Historical Society

THS:cw

X.c: Office of the Mayor
Barb Howe, Regional Preservationist

Ohio Historic Preservation Office
Ohio Historical Center I-71 & 17th Avenue Columbus, Ohio 43211 (614) 466-8727

THE OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

National Register of Historic Places File Checklist

The following materials are contained in this file of the National Register form for:

Name: [illegible]

County: [illegible]

X Original National Register of Historic Places nomination form

____ Multiple Property Nomination form

X Photographs

X Photographs (copies)

____ USGS maps

X USGS maps (copies)

____ Sketch map(s)/figure(s)/exhibit(s)

X Correspondence

X Other news clip

CES: 5/01

Form No. 10-300 REV. (9/77)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

REFNUM 7 9 0 0 1 9 4 2

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Cory, Ambrose, Residence

AND/OR COMMON
"Tanglewood"

2 LOCATION

STREET & NUMBER
957 North Union Street — NOT FOR PUBLICATION

CITY, TOWN
Fostoria — VICINITY OF

CONGRESSIONAL DISTRICT
4th-Tennyson Guyer

STATE: Ohio — CODE: 039 — COUNTY: Seneca — CODE: 147

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
DISTRICT	PUBLIC	X OCCUPIED	AGRICULTURE	MUSEUM
X BUILDING(S)	X PRIVATE	UNOCCUPIED	COMMERCIAL	PARK
STRUCTURE	BOTH	WORK IN PROGRESS	EDUCATIONAL	X PRIVATE RESIDENCE
SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	ENTERTAINMENT	RELIGIOUS
OBJECT	IN PROCESS	YES: RESTRICTED	GOVERNMENT	SCIENTIFIC
	BEING CONSIDERED	YES: UNRESTRICTED	INDUSTRIAL	TRANSPORTATION
		X NO	MILITARY	OTHER:

4 OWNER OF PROPERTY

NAME
Leone and Eldon Good

STREET & NUMBER
957 North Union Street

CITY, TOWN
Fostoria — VICINITY OF

STATE: Ohio 44830

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Seneca County Courthouse

STREET & NUMBER
East Market and South Washington Streets

CITY, TOWN
Tiffin

STATE: Ohio

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Ohio Historic Inventory

DATE
October 1978 — FEDERAL X STATE COUNTY LOCAL

DEPOSITORY FOR SURVEY RECORDS
Heidelberg College Historic Preservation Office

CITY, TOWN
Tiffin

STATE: Ohio 44883

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
X EXCELLENT	__DETERIORATED	__UNALTERED	X ORIGINAL SITE
__GOOD	__RUINS	X ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This is a two-story brick building with a truncated hip asphalt roof; an 1874 drawing in the Seneca County atlas shows a balustrade on the roof to form a widow's walk. The cornice features ornately carved brackets. There are three interior brick chimneys. The brick is hand-pressed with hand-made mortar used in the construction. This Italianate building sits on a cut stone foundation with a stone water table.

The windows are double-hung 6/6 with cast iron sills and decorated shaped lintels. The windows have wood shutters. The front double door has a multi-light fanlight in the round arch above the door. A door off the porch on the west end of the south side has a decorated shaped lintel like those on the windows.

The porch on the west end of the south side has wood pillars supporting the sloping metal roof, with segmental arches in the entablature connecting the pillars. This porch appears to be original and is shown on the 1874 drawing. The front L-shaped porch is the only exterior alteration to the house; it has wood pillars supporting a steeply-sloping shed roof. The date of this alteration is unknown, but the owner guesses it was in the early 1900s. The 1874 drawing shows a small open porch by the front door, with wood columns supporting a flat roof and an open porch on the east end of the south side with a door facing east on that side.

The interior of the house has been beautifully restored, as has the exterior with the exception of the front porch. The interior has hand-hewn beams and rafters, with bark still on some of the beams. Square nails are used throughout the house. Plaster on the walls contains hog's hair. Door knobs and latches are of white porcelain. All woodwork is hand carved. Interior ceilings are beautifully-designed pressed copper.

The house is basically square in plan with a large two-story bay on the south side that projects out. A rear 1½-story rectangular section has a gable metal roof with an interior brick chimney. There is a small wood frame section with shed roof attached to this brick section with a door in the second floor gable end leading out to the roof of the wood addition. There is an open wood porch similar to that on the south side of the main house on the south side of the 1½-story brick section.

Outbuildings include a shelter area with a gable roof supported by four pillars and a stone fireplace under the roof, and a large three-car garage immediately north of the house. Landscaping includes many trees, a small pond with a running fountain on the south side, and an old grape arbor in back of the house.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	x ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
x 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
__1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES early 1860s BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

This house is significant as an example of Italianate architecture in Fostoria and as the town house of a prominent Seneca County farmer, Ambrose Cory.

The exact date of construction is not known, as it appears likely that there might have been an earlier brick house on the property that could have been occupied by Robert Caples, an important physician and community leader in early Fostoria. Caples' family sold 20 acres of land to Ambrose Cory in 1860 for $2000, including this plot. That would indicate some sort of structure, probably, but the style and quality of this building seem to date it from the 1860s. A house is shown on this plot on the 1863 map of Fostoria, but only squares are used to indicate the existence of buildings, so it is not possible to tell by the outline if this is the house shown.

Ambrose Cory was born in Susquehanna County, Pennsylvania on May 29, 1825 and was the son of Samuel P. and Serviah (Foster) Cory. The Cory family was among the early pioneers in the Fostoria area, with Ambrose' cousin the first male child born in Perry Township (Wood County, bordering Fostoria). Ambrose came to Perry Township with his parents in 1832, was reared on a farm here, and received a common school education. On February 14, 1854 he married Amanda Kelly, and they had three children.

The Corys lived in Perry Township until 1861 when they moved to Fostoria, presumably to this house. It is possible that the time between the 1860 purchase and 1861 move was used to build this house. The house is shown in the 1874 county atlas as a prominent local landmark. By 1886, Ambrose Cory was "the owner of a fine farm of eighty acres in Wood County, Ohio, as well as eighteen acres of land in Fostoria on which he resides, and which is one of the best improved places in the city." (1886 history, p. 893).

The 1874 atlas shows Cory owning 20 acres bounded by Jackson, Union, and County Line Roads. The 1896 atlas, which pictures him as a retired farmer, shows him owning most of the block bounded by Jackson, Union, Culbertson, and County Line; Culbertson was not a through street in 1874. Cory Street, which parallels Union and County Line, is named for him.

Ambrose Cory owned this house until 1904, when it was sold to his son Howard. Howard Cory then sold it to Mary C. Spratt in 1921. The Tri-County Savings and Loan took over ownership from 1922 to 1924, when it was sold to John Rogers Producing Co. Clarence Brown bought the house in 1926 and owned it until 1953, when the present owners purchased it. They have done the restoration work.

The house is also known as "Tanglewood," although the origin of this name is obscure. It seems to have been associated with the house since the time of Ambrose Cory and probably derives from the fact that early illustrations show the house surrounded by a wooded area.

This is still a recognized local landmark and was included in the Fostoria Antique Study's first designation of historic homes in the area in 1978.

Architecturally the massing and scale of the Cory House make it a visually prominent landmark in Fostoria. With the exception of the front porch, the house remains much as it was when pictured in the 1874 county atlas. The low hipped-roof, heavy projecting cornice, and ornate brackets are all architectural features that identify the Italianate styling of the property.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

1874 and 1896 Combined Atlas of Seneca County, Ohio. 1976 Reprint.
Fostoria '76. A Bicentennial History. Fostoria '76, Inc. 1976.
Fostoria Antique Study Club. "Heritage Homes of Fostoria, Ohio." 1978.
History of Seneca County, Ohio. Chicago: Warner, Beers & Co., 1886.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than 1 acre

QUADRANGLE NAME Fostoria QUADRANGLE SCALE 1:24000

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	17	297060	4556011	B			
C				D			
E				F			
G				H			

VERBAL BOUNDARY DESCRIPTION This is lot number 4060 on North Union Street; the dimensions are 135 feet along North Union Street and 290 feet east-west. The lot does not go back as far as Cory Street.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Leone Good (owner) and Barb Howe (Regional Preservation Officer)

ORGANIZATION Historic Preservation Office DATE 9 October 1978

STREET & NUMBER 957 North Union Street Heidelberg College TELEPHONE 419-448-2804 (Howe)

CITY OR TOWN Fostoria, Ohio 44830 Tiffin, Ohio 44883 STATE

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL X

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE 4/23/79

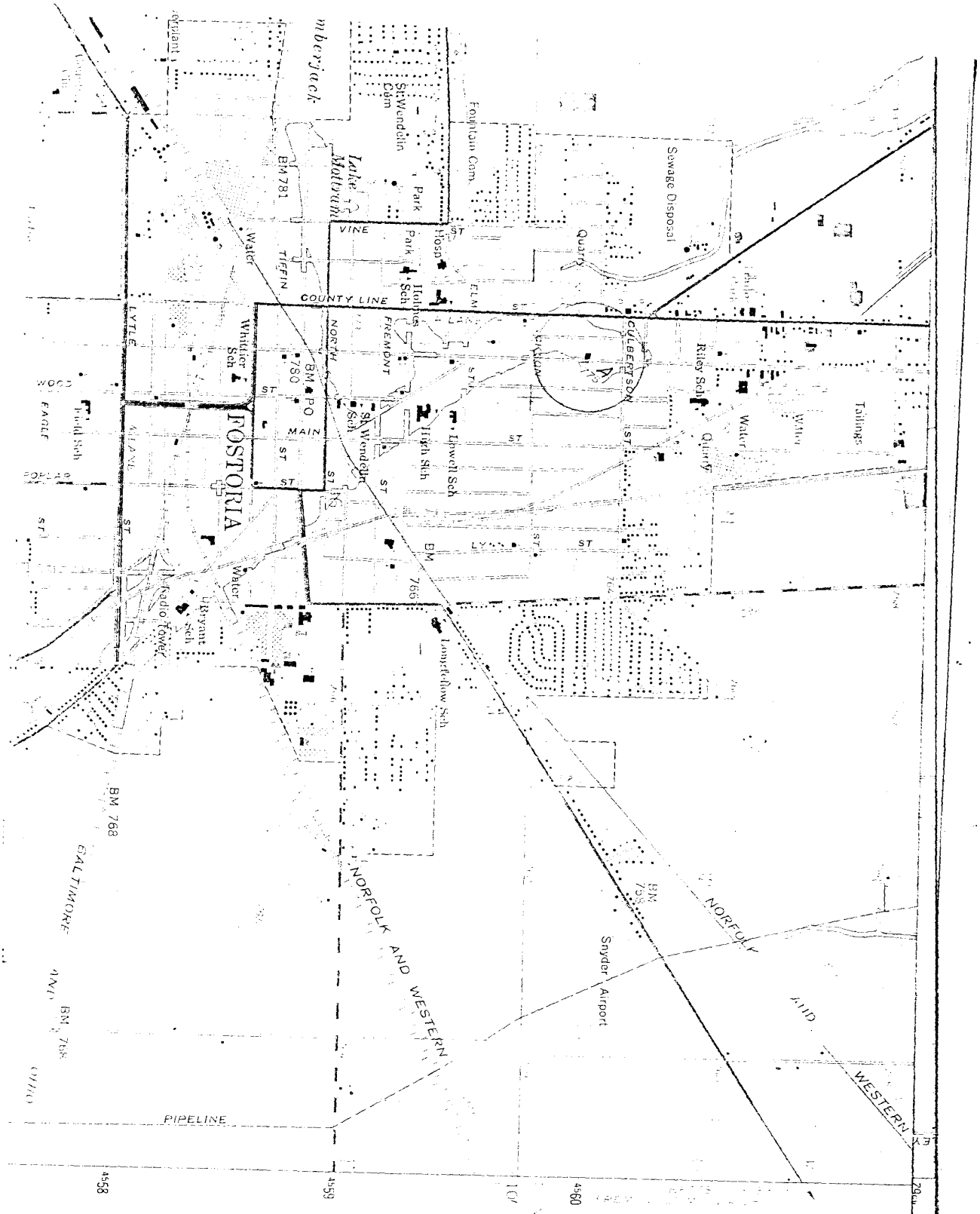
TITLE DATE

FOR NPS USE ONLY
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

KEEPER OF THE NATIONAL REGISTER
ATTEST: DATE

CHIEF OF REGISTRATION



A- Cagles - Cory Residence

17- 297060 - 456011

July 2, 1979

Leone and Eldon Good
957 North Union Street
Fostoria, Ohio 44830

Dear Mr. & Mrs. Good:

I am pleased to inform you that the Ambrose Cory House, 957 North Union Street, Fostoria, has been entered in the National Register of Historic Places by the Heritage Conservation and Recreation Service, United States Department of the Interior.

The nomination was made in connection with a state plan to identify and document prehistoric and historic places in Ohio which qualify for National Register status under provisions of the National Historic Preservation Act of 1966. All nominations are approved by the Ohio Historic Site Preservation Advisory Board.

Enclosed is information explaining the purposes and goals of the National Register of Historic Places.

Sincerely,

Thomas H. Smith
State Historic Preservation Officer
Director, Ohio Historical Society

THS:cw

X. c: Mayor of Fostoria
Barb Howe, Regional Preservationist

Ohio Historic Preservation Office
Ohio Historical Center I-71 & 17th Avenue Columbus, Ohio 43211 (614) 466-1500

THE OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

National Register of Historic Places File Checklist

The following materials are contained in this file of the National Register form for:

Name: _____

County: _____

___X___ Original National Register of Historic Places nomination form

_____ Multiple Property Nomination form

___X___ Photograph(s)

___X___ Photograph(s) (copies)

_____ USGS map(s)

___X___ USGS map(s) (copies)

___X___ Sketch map(s)/figure(s)/exhibit(s)

___X___ Correspondence

_____ Other _____

_____

_____

CES: 8/01

Form No. 10-300 REV. (9-77)

REFNUM 80003095

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED 3-24-80

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
Dana, Marcus, Residence

AND/OR COMMON
Kimes, Elwood, Residence

2 LOCATION

STREET & NUMBER
707 North County Line Street — NOT FOR PUBLICATION

CITY, TOWN
Fostoria — VICINITY OF — CONGRESSIONAL DISTRICT 4th-Tennyson Guyer

STATE Ohio — CODE 039 — COUNTY Hancock — CODE 063

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	X PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	__YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	__OTHER

4 OWNER OF PROPERTY

NAME
Elwood G. Kimes

STREET & NUMBER
707 North County Line Street

CITY, TOWN
Fostoria — VICINITY OF — STATE Ohio

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC
Hancock County Courthouse

STREET & NUMBER
South Main Street

CITY, TOWN
Findlay — STATE Ohio

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
Ohio Historic Inventory

DATE
August 1979 — __FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
Historic Preservation Office - Heidelberg College

CITY, TOWN
Tiffin — STATE Ohio

73-19

2 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
X EXCELLENT	__DETERIORATED	__UNALTERED	X ORIGINAL SITE
__GOOD	__RUINS	X ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

This is a one-and-one-half story Greek Revival wood frame building that sits on a brick foundation. The original horizontal wood siding with endboards can be seen on three sides of the building. The southern section of the house was built in 1836 and is the oldest part of the house; it has three rooms with 10½-feet high ceilings. The northern section was built in 1840 and has four rooms with 7-feet high ceilings. The 1840 addition was extended in the 1920s to the east to add two second-floor bedrooms.

The 1836 section has the classic Greek Revival portico with doric pillars of solid wood supporting the triangular pediment with a wide three-part entablature. The porch on the 1840 section was altered in the 1920s to replace four smaller pillars with the present four tall hollow wood pillars supporting a flat roof to give a more uniform appearance to the main facade.

Native wood was used throughout the house. Only one large 12-inch square wood hewn beam is used to support the 20½ feet x 30½ feet 1836 house. The rest of the supports are logs approximately 12 inches in diameter. The gable roof of the 1836 house is formed by smaller logs. Wood pegs are used throughout the house to hold the building together. The main door for the 1836 section is panelled with a wood architrave and nine-light transom; there is an entablature lintel on the inside, and the original lock is still used. Wood window surrounds in this section also use the entablature lintel. The flooring is still the original six-inch wide boards. The 1840 addition features a more ornate panelled and decorated door with a large light and more ornate woodwork with brackets and bulls-eye detailing on the interior. The addition measures 24½ feet x 30½ feet. All woodwork and wainscoting throughout the house is hand-made using square nails. Most windows in the house are double-hung with wood surrounds, with some 2/2, some 4/1, etc. The windows probably originally had smaller panes of glass, but these were replaced as they deteriorated.

The original house has a large room 19 feet x 19 feet as one enters the house; this was probably the living room, dining room, and kitchen, since it contains the only chimney in the house. This room features an ornate oil chandelier that has been electrified; the chandelier is original to the house, and it could be raised and lowered to fill the three oil lamps on it. Two bedrooms, each 9½ x 15 feet, were back of the main room. Walls in these rooms were plastered.

Minor changes have been made to the house over the years: excavation work for a basement and furnace installation; a fireplace built in the 1836 section to tap into the original chimney; tile ceiling installed in the living room and bedroom of the 1836 section to provide insulation; and a modernized kitchen. A two-car garage was built on the south side of the house in 1966; this is connected to the main house by a breezeway. An enclosed back porch has been created on the house, also.

East of the garage, there was originally a one-story frame building (about 20 feet x 20 feet) that was a stationhouse for stagecoaches visiting Risdon. The brick foundations have been located on the property, and, like the brick for the main house foundation, this probably was made from clay found along the nearby Portage Creek.

SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
1600-1699	X ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN
1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
X 1800-1899	__COMMERCE	X EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
1900	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES 1836, 1840 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The Marcus Dana Residence is significant as an excellent local example of Greek Revival architecture, as the oldest home in Fostoria, and as the residence of one of the first two physicians in Risdon (later part of Fostoria). Built in 1836 with a classic Greek Revival full portico with pediment, the house was enlarged four years later. The original horizontal wood siding with endboards is visible on three sides of the building, and important interior features include the woodwork, log beam construction, oil-light chandelier, and lock on the main door. Cited in several sources as the oldest house in Risdon, the Dana residence has a beautiful setting facing the Risdon Square, now maintained by the City of Fostoria as a park. Dana lived here from 1836 to his death in 1853. The house stayed in the Dana family for 58 years and, after other owners, was purchased by the Kimes family in 1908. The Dana Residence was recognized by the Fostoria Antique Study Club as one of its heritage homes in 1978, and it has been featured in newspaper articles and local histories as an important local structure.

Dr. Marcus Dana was one of the early settlers in Risdon. The village was laid out in 1832, and Dana was teaching there in 1833-1834. Educated at the Philadelphia Medical College (another source says Jefferson Medical College in Philadelphia), Dana started practicing medicine in Rison in June 1834. As one of the first two doctors in Risdon, he continued his medical practice until his death in June 1853. Dana was also active in the first church in Risdon, which was located near his home.

Although the ownership record of the house is not clear after Dana's death, it appears that the house stayed in the family for 58 years (Dana bought the land in 1835) and was then owned by the Lloyd and Hathaway families before being purchased by Howard Kimes in 1908. The Kimes family lived here for 7 years before purchasing the property. Elwood Kimes, one of the five children of Howard, is the present owner of the property.

Risdon united with Rome to form Fostoria in 1854. This fine Greek Revival home, facing on to Risdon Square, is an excellent reminder of Risdon's brief history as an independent community. The square itself has an historical marker and is well maintained by the City of Fostoria, but it is easy to miss the importance of the area as you drive through Fostoria today.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Fostoria Review-Times. 25 January 1979. "City's Oldest Home Being Well Preserved"
Fostoria '76. A Bicentennial History.
A.J. Baughman. History of Seneca County. 1913.
Fostoria Daily Times. 30 August 1932.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than 1 acre

QUADRANGLE NAME Fostoria QUADRANGLE SCALE 1:24000

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	17	2[illegible]	4[illegible]	B			
C				D			
E				F			
G				H			

VERBAL BOUNDARY DESCRIPTION

Lots 35 and 36 in the Town of Risdon, now Fostoria (all property owned by Elwood G. Kimes)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Mrs. Elwood Kimes, owner and Barb Howe, Regional Preservation Officer

ORGANIZATION Heidelberg College DATE 4 September 1979

STREET & NUMBER 707 N. County Line Street TELEPHONE (Howe) 419-448-2804

CITY OR TOWN Fostoria, Ohio 44830 STATE Tiffin, Ohio 44883

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ✓

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE David L. Brook

TITLE Chief, Div. of Hist. Pres., Ohio Historical Society DATE 1/22/80

FOR NPS USE ONLY

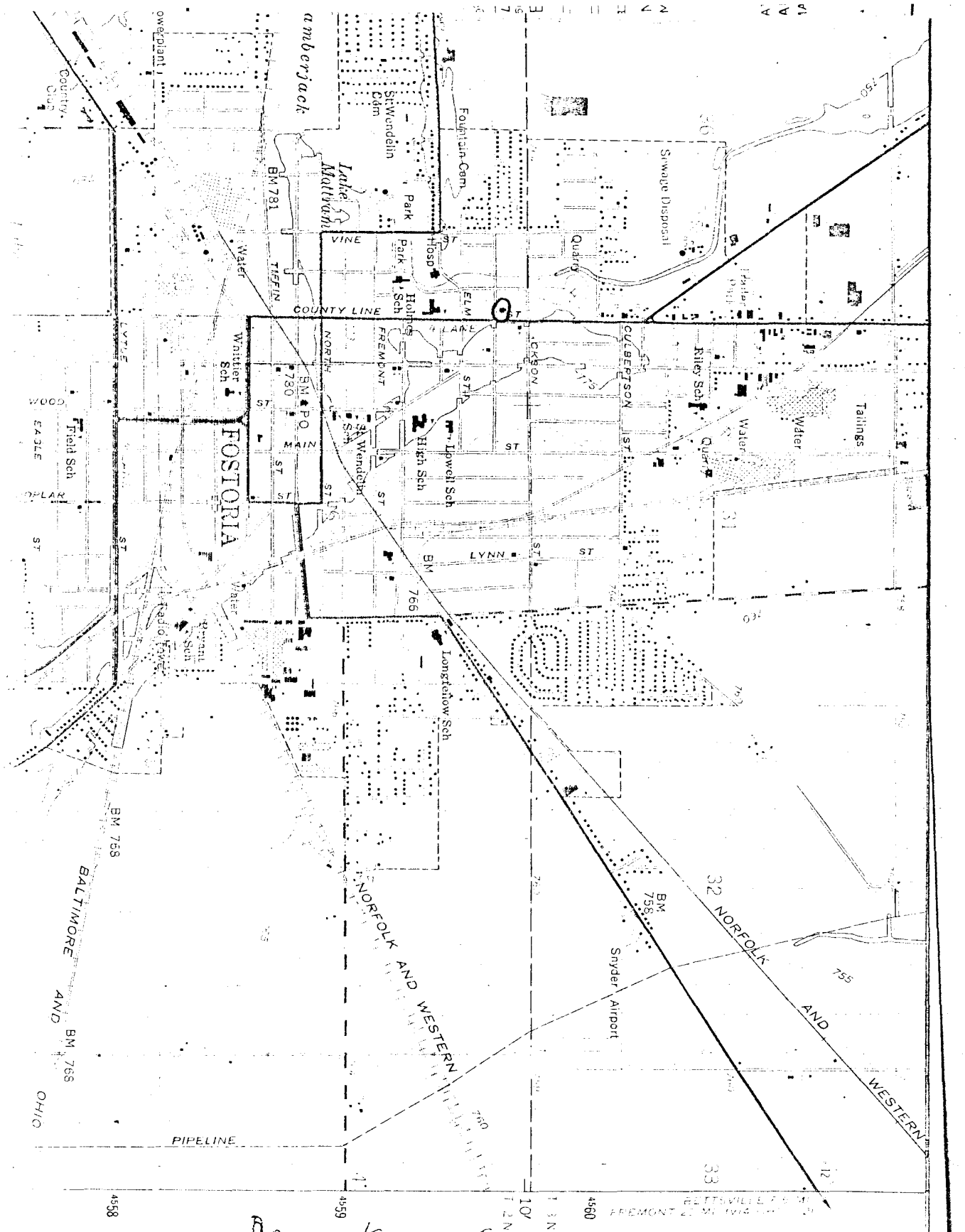
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

KEEPER OF THE NATIONAL REGISTER

ATTEST: DATE

CHIEF OF REGISTRATION



Dana-Times Residence
707 N. County Line Road
Fostoria, Ohio
Hancock County
17 - 296860 - 4559770

Ohio Historic Preservation Office
Ohio Historical Center I-71 & 17th Avenue Columbus, Ohio 43211 (614) 466-1500

April 1, 1980

Elwood G. Kimes
707 North County Line Street
Fostoria, Ohio 44830

Dear Mr. Kimes:

I am pleased to inform you that the Dana Marcus Residence, 707 North County Line Street, Fostoria, has been entered in the National Register of Historic Places by the Heritage Conservation and Recreation Service, United States Department of the Interior.

The nomination was made in connection with a state plan to identify and document prehistoric and historic places in Ohio which qualify for National Register status under provisions of the National Historic Preservation Act of 1966. All nominations are approved by the Ohio Historic Site Preservation Advisory Board.

Enclosed is information explaining the purposes and goals of the National Register of Historic Places.

Sincerely,

David L. Brook

David L. Brook
State Historic Preservation Officer

DLB:cw

X. c: Mayor of Fostoria
Barb Howe, RPO

THE OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

National Register of Historic Places File Checklist

The following materials are contained in this file of the National Register form for:

Name: Vera Marcus House

County: Hancock

X Original National Register of Historic Places nomination form

___ Multiple Property Nomination form

X Photographs

X Photographs (copies)

___ USGS maps

X USGS maps (copies)

X Sketch map(s)/figure(s)/exhibit(s)

X Correspondence

___ Other ___

CES: 5/01

Appendix C:

Ohio Historic Inventory Draft Forms for the Two Eligible Structures and Eight Representative House Types

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072205 **NEW**

4. Present Name(s): **Bohn Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
3260 Township Road 254

6a. Lot, Section or VMD Number:
510000131040

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 288720 Northing: 4555029

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
1970

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Ranch

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
BOHN JENNA M, BOHN TRAVIS D
3260 TR 254
Arcadia, OH 44804

26. Property Acreage: 1

27. Other Surveys:

28. No. of Stories: One story

29. Basement? No

30. Foundation Material: Brick bearing

31. Wall Construction:
Brick bearing

32. Roof Type:
Hip
Roof Material:
Asphalt shingle

33. No. of Bays: 3 Side Bays: 4

34. Exterior Wall Material(s):
Brick

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
1 over 1
Other

38. Building Dimensions: 68 ft x 40 ft

39. Endangered? NO
By What?

40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
60 ft; 212.68 ft

51. Condition of Property: Excellent

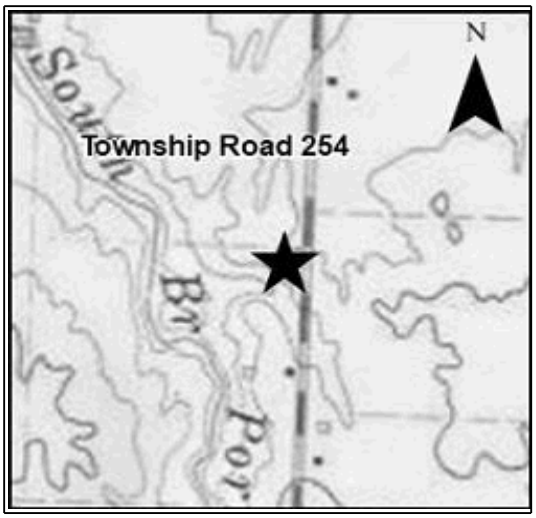
52. Historic Outbuildings & Dependencies
Structure Type(s):
Other Building Type

Date(s):
2000

Associated Activity:
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):



8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **06/16/2021**
49. PIR Reviewer:
50. PIR Review Date:

2. County: **Hancock**
4. Present or Historic Name(s): **Bohn Residence**
6. Specific Address or Location: **3260 Township Road 254**

Door Selection: Single off center
Door Position: Flush
Orientation: Lateral axis
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The S-13/ HAN0072613 resource is a single-story, three-by-four bay, brick, Ranch house. The rectilinear dwelling is protected by dual cross hip roof covered in asphalt shingles. No chimneys were observed; however, two metal pipe vents rise from the integrated two car garage. The fenestration is a mix of single and paired one-over-one modern sash windows and a multi pane bay window. The primary entrance is a paneled door flanked by single a sidelight and protected by a veritable hood formed by an extended eave.

43. History and Significance

The Hancock County Auditor's Office lists a 1970 construction date, consistent with the resource's style, form, massing, and materials.

44. Description of Environment and Outbuildings (See #52)

The dwelling is situated on a square 1-acre parcel consisting of a manicured lawn on the west side of TR 254, immediately northwest of the Village of Arcadia. Ornamental vegetation is comprised of boxwood and numerous mature deciduous trees. The sole ancillary structure is a small modern gambrel roof shed.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072305 **NEW**

4. Present Name(s): **Addington Residence**

2. County: **Hancock**

5. Historic or Other Name(s): **Hosler Residence**

6. Specific Address or Location:
2106 Township Road 256

6a. Lot, Section or VMD Number:
510000130830

7. City or Village:
Fostoria

9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone: 17 Easting: 290319 Northing: 4556831

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:
AGRICULTURE

17. Date(s) or Period:
c.1875

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular
None

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Gabled Ell

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
ADDINGTON EDYIE E, ADDINGTON JOHN R
2106 TR 256
Fostoria, OH 44830

26. Property Acreage: 5.37

27. Other Surveys:

28. No. of Stories: Two story

29. Basement? No

30. Foundation Material: Concrete slab

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Cross gable
Roof Material:
Asphalt shingle

33. No. of Bays: 4 Side Bays: 2

34. Exterior Wall Material(s):
Aluminum or vinyl siding

35. Plan Shape: T-shaped

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
6 over 6

38. Building Dimensions: 60 ft x 55 ft

39. Endangered? NO
By What?

40. Chimney Placement: Gable end, interior

41. Distance from & Frontage on Road:
107.65 ft; 354.54 ft

51. Condition of Property: Excellent

52. Historic Outbuildings & Dependencies
Structure Type(s):
English or Three Bay Barn
Other Building Type
Date(s):
c.1890
Associated Activity:
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):
Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **Addington Residence**

6. Specific Address or Location: **2106 Township Road 256**

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **07/01/2021**
49. PIR Reviewer:
50. PIR Review Date:

Door Selection: Single off center
Door Position: Flush
Orientation: Gable with lateral wing
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a two-story, four-by-two bay, frame, Gabled Ell house. The T-plan dwelling is rests on a replacement poured concrete foundation protected by intersecting gables roofs covered in asphalt shingles. An internal brick chimney pierces the ridge on the gabled end. The fenestration is comprised of six-over-six replacement windows. The primary entrance is located in the second bay of the lateral wing, protected by two-bay wide, hipped roof porch supported by simple wooden posts and railings. A gabled, two-bay garage is attached to the gabled end. Further additions include a gabled, single-story frame unit and a pent roof porch at the intersection of primary unit.

43. History and Significance

The Hancock County Auditor's Office lists a c.1890 construction date, consistent with the resource's style, form, massing, and materials. However, a farmstead is indicated in the vicinity of the resource on a parcel owned by T.B. Hosler, suggesting that the resource is older than what is listed in the county auditor records.

44. Description of Environment and Outbuildings (See #52)

The dwelling is situated on a 5.37-acre manicured parcel within a remote agricultural setting on the west side of TR 256, approximately 2.10 miles northwest of the Village of Arcadia. A variety of ornamental vegetation is found along the driveway and walkway with mature deciduous trees scattered throughout the parcel. A sizeable retention pond is located immediately north of the resource. The ancillary structures consist of a c.1890 barn, two small sheds, and a gazebo.

45. Sources of Information

Hancock County Auditor

Hardesty, H.H.
1875 *Illustrated Historical Atlas of Hancock County, Ohio*. H.H. Hardesty, Chicago.

Site Visit

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072405 **NEW**

4. Present Name(s): **Kreais Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
19604 State Route 613

6a. Lot, Section or VMD Number:
510000129290

7. City or Village:
Washington (Township of)

9. U.T.M. Reference
Quadrangle Name: Bloomdale

Zone: 17 Easting: 289838 Northing: 4559425

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
c.1850

17b. Alteration Date(s):

18. Style Class and Design:

Element	Federal
Element	Greek Revival

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Four Bay I House

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
KREAIS KENNETH E & RONALD L
19604 STATE RT 613
BLOOMDALE OH 44817

26. Property Acreage: 64.03

27. Other Surveys:

28. No. of Stories: Two story

29. Basement? No

30. Foundation Material: Unknown

31. Wall Construction:
Brick bearing

32. Roof Type:
Gable
Roof Material:
Asphalt shingle

33. No. of Bays: 4 Side Bays: 2

34. Exterior Wall Material(s):
Common or American bond

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
1 over 1

38. Building Dimensions: 38 ft x 18 ft

39. Endangered? NO
By What?

40. Chimney Placement: Gable end, exterior

41. Distance from & Frontage on Road:
57.13 ft; 1169.29 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):
Other Building Type

Date(s):
c.1900

Associated Activity:
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/05/2021**
49. PIR Reviewer:
50. PIR Review Date:

2. County: **Hancock**

4. Present or Historic Name(s): **Kreais Residence**

6. Specific Address or Location: **19604 State Route 613**

Door Selection: Two doors symmetrical
Door Position:
Orientation: Lateral axis
Symmetry: Bilateral symmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a two-story, four-by-two bay, rectilinear, brick, Four By I-House. The dwelling is protected by a gabled roof covered in asphalt shingles. An exterior, gable end chimney is present on the south elevation, piercing the eaves. The exterior wall planes are faced in American bond. The fenestration consists of one-over-one modern replacement sash windows, capped by flat and segmental arches. The third bay on the ground story has been brick infilled. The primary entrance is a recessed paneled wood door opens to the east elevation. Remnants of a porch are evidenced by a gabled outline above the primary entrance and flanking bays and holes in the façade indicating bracing. The dwelling rests on an unknown foundation. Additions include a shed room frame and enclosed porch on the rear elevation, and an enclosed porch separating the dwelling from a two-bay gabled garage.

43. History and Significance

The Hancock County Auditor's Office lists a 1900 construction date; however, based on the dwelling's architectural features, notably the common bonding and flat and segmental arches, which are commonly associated with the Federal, Greek Revival, and Italianate styles, all of which predate the auditor's placement date by approximately 50 years.

44. Description of Environment and Outbuildings (See #52)

The dwelling is located on a 64.03-acre parcel in a remote, agricultural setting on the north side of SR 613, southeast of the Village of Bloomdale. Norfolk Southern railroad tracks bisect the parcel. The sole ancillary structure is a small gambrel roof shed.

45. Sources of Information

Hancock County Auditor Office

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072505 **NEW**

4. Present Name(s): **Crawford Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
21218 County Road 226

6a. Lot, Section or VMD Number:
510001006269

7. City or Village:
Fostoria

9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone: 17 Easting: 292319 Northing: 4559045

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:
AGRICULTURE

17. Date(s) or Period:
c.1900

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: American foursquare

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
CRAWFORD AMBER
21218 COUNTY RD 226
FOSTORIA OH 44830

26. Property Acreage: 7.17

27. Other Surveys:

28. No. of Stories: Two and a half story

29. Basement? No

30. Foundation Material: Rock-Faced concrete block

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Hip
Roof Material:
Asphalt shingle

33. No. of Bays: 2 Side Bays: 2

34. Exterior Wall Material(s):
Aluminum or vinyl siding

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction
17b.

37. Window Type(s):
1 over 1

38. Building Dimensions: 62 ft x 31 ft

39. Endangered? NO
By What?

40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
36.56 ft; 1003.23 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):
Other Barn
Other Building Type
Date(s):
c.1920 c.1900
Associated Activity:
Original/Most significant construction
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):
Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **Crawford Residence**

6. Specific Address or Location: **21218 County Road 226**

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/09/2021**
49. PIR Reviewer:
50. PIR Review Date:

Door Selection: Single off center
Door Position: Flush
Orientation: Lateral axis with multiple smaller lateral extension
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a two-and-one-half story, two-by-two bay, frame, American Foursquare. The dwelling is covered by a low pyramidal hipped roof covered in asphalt shingles with three hipped dormers, lit by paired horizontal sliding windows. There is no chimney observed. The exterior wall planes are clad in aluminum siding. The fenestration consists of double hung one-over-one modern replacement sash windows with a northeast corner bay window. The primary entrance is sheltered by an full width, open frame hipped roof porch supported by three posts located on the south elevation. The dwelling rests on rock-faced concrete block foundation. Additions include a one-story frame with an attached enclosed frame porch on the rear elevation.

43. History and Significance

Based on the popularity of the American Foursquare during the first two decades of the 20th century, and the hipped roof with dormers, footprint, and window configuration, we agree with the circa 1900 construction date per the Hancock County Auditor's Office.

44. Description of Environment and Outbuildings (See #52)

The dwelling is located on a 7.17-acre parcel in a remote, agricultural setting on the north side of County Road 226, west of the City of Fostoria. The ancillary structures include a three-gable barn, and a small shed.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072605 **NEW**

4. Present Name(s): **Arcadia Post Office**

2. County: **Hancock**

5. Historic or Other Name(s): **Bank (Unknown Institution)**

6. Specific Address or Location:
108 North Main Street

6a. Lot, Section or VMD Number:
530000135050

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 288968 Northing: 4553945

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? YES

15. Other Designation (NR or Local)

16. Thematic Associations:
Post Office
Bank

17. Date(s) or Period:
c.1890-Present

17b. Alteration Date(s):

18. Style Class and Design:

Element	Romanesque Revival
Element	Neo-Classical Revival

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Falsefront

22. Original Use, if apparent:
Financial institution

23. Present Use:
Post Office

24. Ownership: Private

25. Owner's Name & Address, if known:
DULING HOLDINGS LLC
6570 ROAD J-6
OTTAWA OH 45875

26. Property Acreage: 0.1152

27. Other Surveys:

28. No. of Stories: One story

29. Basement? Unknown

30. Foundation Material: Rock-Faced Plain Ashlar, w/ cut stone water table

31. Wall Construction:
Brick bearing

32. Roof Type:
Flat
Roof Material:
Unknown

33. No. of Bays: 3 Side Bays: 2

34. Exterior Wall Material(s):
Brick

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
Storefront
1 over 1

38. Building Dimensions: 40 ft x 20 ft

39. Endangered? NO
By What?

40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
15.45 ft; 37.63 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):

Date(s):

Associated Activity:

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**

47. Organization: **Weller & Associates, Inc.**

48. Date Recorded: **08/27/2021**

49. PIR Reviewer:

50. PIR Review Date:

2. County: **Hancock**

4. Present or Historic Name(s): **Arcadia Post Office**

6. Specific Address or Location: **108 North Main Street**

Door Selection: Single off center
Door Position: Recessed
Orientation: Other
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a single-story, three-by-two bay, brick, false front building with Romanesque and Neoclassical elements. The commercial building, resting on a sandstone ashlar foundation, is protected by a flat roof comprised front façade extension beyond the end gable, forming a "false front," which is adorned decorative corbels, molding, and a rectilinear sandstone blocked with "BANK" carved in high relief. The external wall planes are faced in running bond. The primary elevation has prominent storefront windows topped by sandstone lintels. The streetside windows are single, fixed panes. Transom windows extend over the top of the storefront bays, as well as the large, deeply recessed, primary door in the third bay. The lateral elevation windows feature segmented arches with one-over-one sashes; vertical boards infill the first bay window. A sandstone water table runs below the first two storefront window bays.

43. History and Significance

The Hancock County Auditor's Office lists the building's construction date 1925. Based on the building type, foundation materials, and decorative Romanesque and Neoclassical elements, it is more likely that the building was constructed c.1890. Built originally as a bank, research could not determine the institution that constructed the building. Per auditor records, the Arcadia Post Office relocated to the building in 1997. A structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map.

44. Description of Environment and Outbuildings (See #52)

The building is located on a 0.115-acre rectangular lot on the west side of North Main Street, slightly north of the intersection with State Route 12, in the heart of the Village of Arcadia. It is situated slightly between two buildings, with the north example also a false front. Surrounding buildings invoke a feeling of a rural, commercial center.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072705 **NEW**

4. Present Name(s): **Gabriel Residence**

2. County: **Hancock**

5. Historic or Other Name(s): **Hartman Residence**

6. Specific Address or Location:
4813 Township Road 254

6a. Lot, Section or VMD Number:
510000132550

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 288679 Northing: 4552314

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
c.1875

17b. Alteration Date(s):

18. Style Class and Design:
High Italianate
Transitional Neo-Classical Revival

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Other House Type

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
GABRIEL JAMES W, GABRIEL BARBARA J
4813 TOWNSHIP RD 254
ARCADIA OH 44804

26. Property Acreage: 1.08

27. Other Surveys:

28. No. of Stories: Two story

29. Basement? Unknown

30. Foundation Material: Concrete block

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Cross gable
Roof Material:
Asphalt shingle

33. No. of Bays: Side Bays:

34. Exterior Wall Material(s):
Wood

35. Plan Shape: Irregular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction
17b.

37. Window Type(s):
1 over 1

38. Building Dimensions: 45 ft x 98 ft

39. Endangered? NO
By What?

40. Chimney Placement: Off center within ridgeline

41. Distance from & Frontage on Road:
52.05 ft; 248.35 ft

51. Condition of Property: Excellent

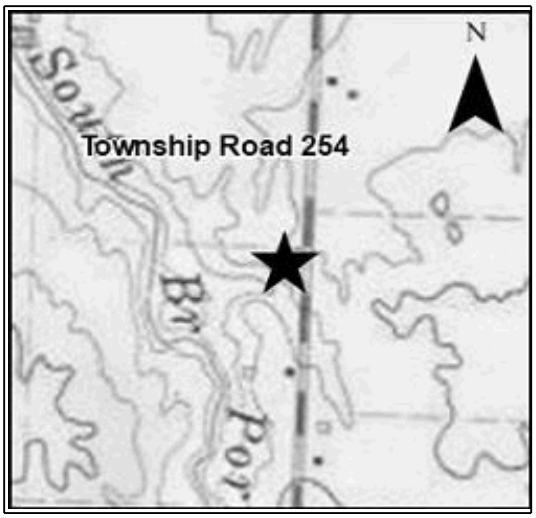
52. Historic Outbuildings & Dependencies
Structure Type(s):
Garage
Garage
Date(s):
2005 2012
Associated Activity:
Original/Most significant construction
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):
Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **Gabriel Residence**

6. Specific Address or Location: **4813 Township Road 254**



8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/09/2021**
49. PIR Reviewer:
50. PIR Review Date:

Door Selection: Corner
Door Position: Flush
Orientation: Multiple facade orientation
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a two-story, irregular bay, frame, transitional Italianate and Neoclassical house. The dwelling is protected by a cross-gable roof covered in asphalt shingles with overhanging eaves and bargeboards. A square cupola rises from the roof intersection. Both the roof and cupola are embellished by large, intricate, sculpted brackets dominating the cornice. A banded, paneled frieze runs below the cornice. An interior gable end chimney pierces the east elevation ridge. The cupola is lit by four double hung, one-over-one sashes with U-shaped crowns, topped by a segmental pediments, decorative brackets, and plain lug sills. The exterior wall planes are clad in painted clapboard, heavily molded pilasters, and intricate scrollwork notably the window surrounds and corner boards. The fenestration consists of tall, narrow, double hung one-over-one modern replacement sash windows embellished by triangular pediments and plain lug sills, with a polygonal bay window on the facade that is covered by an overhang with asphalt shingles. The primary entrance is a wooden door lit by glass panels and a single pane encased within molding. The entrance is located on the south elevation, protected by a wrap-around open frame porch supported by square posts and ringed by a balustrade. The dwelling rests on presumably replacement concrete block foundation. Additions include an open frame porch west elevation west, a one-story frame attachment on the south elevation, a roof extension on the northwest corner of the one-story frame attachment, and a two-story frame attached to the rear elevation.

43. History and Significance

Hancock County Auditor's Office lists date of construction as 1889. Based on the wide, overhanging eaves, bracketed cornice, tall, narrow windows, heavily molded woodwork, cross floorplan, and pedimented windows, this resource exhibits character defining features of late Italianate with heavy, transitional Neoclassical elements; the latter stylistic details were prominent at the time of the resource's construction, and we therefore concur with the auditor's record. According to the late nineteenth century county atlas, the parcel on which the resource is located is owned by H. Hartman, who presumably retained possession of the land, and constructed the above resource.

44. Description of Environment and Outbuildings (See #52)

The dwelling is located on a 1.08-acre parcel in a remote, agricultural setting on the east side of Township Road 254, south of the Village of Arcadia. There are three ancillary structures including two detached frame garages and a small frame shed.

45. Sources of Information

Hancock County Auditor Office

Hardesty, H.H.
1875 *Illustrated Historical Atlas of Hancock County, Ohio*. H.H. Hardesty, Chicago

Site Visit

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072805 **NEW**

4. Present Name(s): **Pessell Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
204 North Main Street

6a. Lot, Section or VMD Number:
530000134990

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 288964 Northing: 4554072

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
1914

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Bungalow Dormer Front

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
PESSELL EDNA M
204 N MAIN ST
ARCADIA OH 44804

26. Property Acreage: 0.2

27. Other Surveys:

28. No. of Stories: One and a half story

29. Basement? Unknown

30. Foundation Material: Concrete block

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Hip
Roof Material:
Asphalt shingle

33. No. of Bays: 3 Side Bays: 3

34. Exterior Wall Material(s):
Aluminum or vinyl siding

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
1 over 1
3 over 1

38. Building Dimensions: 38 ft x 30 ft

39. Endangered? NO
By What?

40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
28.08 ft; 63.17 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):
Garage

Date(s):
c.1930

Associated Activity:

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/27/2021**
49. PIR Reviewer:
50. PIR Review Date:

2. County: **Hancock**

4. Present or Historic Name(s): **Pessell Residence**

6. Specific Address or Location: **204 North Main Street**

Door Selection: Single centered
Door Position: Flush
Orientation: Other
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a one-and-one-half story, three-by-three bay, frame, dormer front Bungalow. The dwelling is protected by an asphalt shingle hip roof with like dormers. No chimney was observed. The exterior wall planes are clad in vinyl siding. The fenestration consists of one-over-one double hung modern replacement windows. The east elevation windows are flanked by tall, narrow, three-over-one side lights. The centered, primary entrance consists of a multipaned door sheltered by an open porch supported by square piers with panels just below the capitals. Rails infill the piers. The foundation is constructed with concrete blocks. Additions include an enclosed porch on the southwest corner, and a single frame attached to the rear elevation.

43. History and Significance

The Hancock County Auditor's Office lists the dwelling's construction date 1914, which matches the type, form, and materials. A structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map; however, based on auditor records, it is presumed that the dwelling replaced the above structure.

44. Description of Environment and Outbuildings (See #52)

The building is located on a 0.2-acre manicured lawn parcel on the west side of North Main Street in the Village of Arcadia. It is surrounded by several mature deciduous trees. The sole outbuilding is a c.1930 single detached garage.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic Map

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0072905 **NEW**

4. Present Name(s): **Johnson Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
402 East South Street

6a. Lot, Section or VMD Number:
530000134630

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 289347 Northing: 4554234

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
1928

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Hall and Parlor

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
JOHNSON GUY, JOHNSON PAMELA
402 SOUTH ST
ARCADIA OH 44804

26. Property Acreage: 0.2758

27. Other Surveys:

28. No. of Stories: One story

29. Basement? Unknown

30. Foundation Material: Unknown

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Gable
Roof Material:
Standing seam (metal)

33. No. of Bays: 2 Side Bays: 1

34. Exterior Wall Material(s):
Aluminum or vinyl siding

35. Plan Shape: Rectangular

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
1 over 1

38. Building Dimensions: 58 ft x 40 ft

39. Endangered? NO
By What?

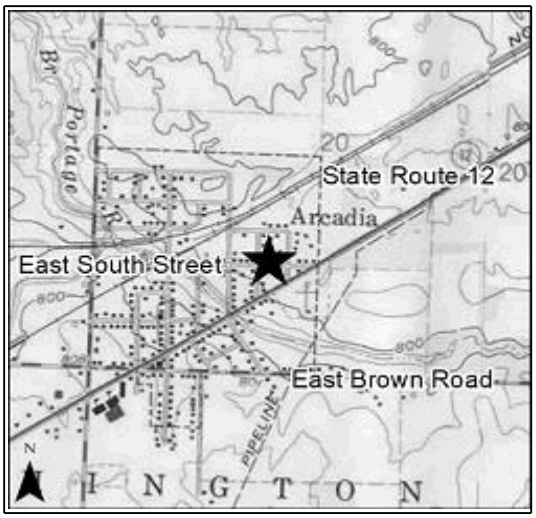
40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
23.97 ft x 64.5 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):
Garage
Other Building Type
Date(s):
1987 1990
Associated Activity:

53. Affiliated Inventory Number(s):
Historic (OHI):
Archaeological (OAI):



8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/27/2021**
49. PIR Reviewer:
50. PIR Review Date:

2. County: **Hancock**
4. Present or Historic Name(s): **Johnson Residence**
6. Specific Address or Location: **402 East South Street**

Door Selection: Single centered
Door Position: Flush
Orientation: Lateral axis
Symmetry: Bilateral symmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a single-story, three-by-one bay, frame, Hall and Parlor residence. The dwelling is protected by a side-gabled roof sheathed in standing seam metal. No chimney was observed. The exterior wall planes are clad in aluminum siding. The fenestration consists of one-over-one double hung modern replacement windows. The primary entrance is a wooden door with nine fixed panes enclosed by a full width porch formed by the extending front roof, supported by turned spindles and rails. The foundation is constructed with unknown materials. Additions include an open porch on the east elevation, and a single frame attached to the rear elevation.

43. History and Significance

The Hancock County Auditor's Office lists the dwelling's construction date 1914, which matches the stylistic elements, type, form, and materials. No structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map, which supports the construction date and suggests a post-First World War expansion of the village.

44. Description of Environment and Outbuildings (See #52)

The building is located on a 0.2758-acre manicured lawn parcel on the north side of East South Street in the Village of Arcadia. It is surrounded by manicured lawns and several mature deciduous trees. The outbuildings include a shed and single detached pole garage, both modern.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic Maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0073105 **NEW**

4. Present Name(s): **Karrick Residence**

2. County: **Hancock**

5. Historic or Other Name(s):

6. Specific Address or Location:
206 North Main Street

6a. Lot, Section or VMD Number:
530000134980

7. City or Village:
Arcadia

9. U.T.M. Reference
Quadrangle Name: Arcadia

Zone: 17 Easting: 289347 Northing: 4554234

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? YES

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
1907

17b. Alteration Date(s):

18. Style Class and Design:
Dominant Stick

18a. Style of Addition or Elements(s):

19. Architect or Engineer:

19a. Design Sources:

20. Contractor or Builder:

21. Building Type or Plan: Other House Type

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
KARRICK THOMAS R & TERESA
206 N MAIN ST
ARCADIA OH 44804

26. Property Acreage: 0.2

27. Other Surveys:

28. No. of Stories: Two and a half story

29. Basement? Unknown

30. Foundation Material: Rock-Faced concrete block

31. Wall Construction:
Balloon/western/platform frame

32. Roof Type:
Cross gable
Roof Material:
Slate

33. No. of Bays: 4 Side Bays: 2

34. Exterior Wall Material(s):
Beaded clapboard
Shaped wood shingle

35. Plan Shape: Latin cross

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction

17b.

37. Window Type(s):
1 over 1
Other

38. Building Dimensions: 61 ft x 32 ft

39. Endangered? NO
By What?

40. Chimney Placement: No chimney observed

41. Distance from & Frontage on Road:
23.62 ft; 63.81 ft

51. Condition of Property: Good/Fair

52. Historic Outbuildings & Dependencies
Structure Type(s):
English or Three Bay Barn
Greenhouse
Date(s):
c.1910 c.1960
Associated Activity:

53. Affiliated Inventory Number(s):
Historic (OHI):

Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **Karrick Residence**

6. Specific Address or Location: **206 North Main Street**

8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **08/27/2021**
49. PIR Reviewer:
50. PIR Review Date:

Door Selection: Single off center
Door Position: Flush
Orientation: Gable dominant with multiple smaller lateral extension
Symmetry: Bilateral asymmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The resource is a two-and-a-half story, four-by-three bay, frame, Stick residence. The dwelling is protected by an intersecting gambrel roof sheathed in slate. No chimney was observed. Cornice returns are present on the top portion, which connect a carved knob at the roof peak to a decorative elliptical brace. The lower portion slightly flares at the house plate. The gambrel faces are clad in fishscale shingles, while the clapboards cover the wall planes. Fenestration is a mixture consisting of paired modern replacement double hung windows on the gambrel, set within a simply adorned mullion, and two two-over-two and one four-over-four windows, all double hung, lighting the slightly projecting bay, respectively. Turned rails and a short flight of steps leads to the primary side hall entrance, a four fixed pane door with scrolled muntins. It is set deep within a porch formed by an overhanging portion of the roof, with a spandrel running along the eave. The foundation is comprised of rock-faced concrete blocks. A modern, single-story frame addition extends from the southwest corner.

43. History and Significance

The Hancock County Auditor's Office lists the dwelling's construction date 1907, which matches the stylistic elements, type, form, and materials. No structure is indicated in this location on the USGS *1903 Findlay, Ohio 15 Minute Series (Topographic)* map, which supports the construction date and suggests that the dwelling is a latent, isolated example of Stick as the style was common between c.1870-1890.

44. Description of Environment and Outbuildings (See #52)

The dwelling is located on a 0.2-acre manicured lawn parcel at the northwest corner of North Main and College Streets in the Village of Arcadia. It is surrounded by several mature deciduous trees. A vinyl fence and an English barn in the western half of the parcel encloses a greenhouse, and two small sheds.

45. Sources of Information

Hancock County Auditor

Site Visit

USGS Topographic maps

Ohio Historic Preservation Office

800 E. 17th Avenue
Columbus, OH 43211
614/298-2000

OHIO HISTORIC INVENTORY

Draft Form - Not Reviewed by OHPO

Section 106/RPR Review: RPR Number:

1. No. HAN0073205 **NEW**

4. Present Name(s): **N/A**

2. County: **Hancock**

5. Historic or Other Name(s): **N/A**

6. Specific Address or Location:
1316 County Road 257

6a. Lot, Section or VMD Number:
510001014638

7. City or Village:
Washington (Township of)

9. U.T.M. Reference
Quadrangle Name: Fostoria

Zone: 17 Easting: 291135 Northing: 4557835

10. Classification: Building

11. On National Register? NO

13. Part of Established Hist. Dist? NO

15. Other Designation (NR or Local)

16. Thematic Associations:

17. Date(s) or Period:
1880

17b. Alteration Date(s):

18. Style Class and Design:
None — No academic style - Vernacular
Element — Italianate

18a. Style of Addition or Elements(s):

19. Architect or Engineer:
N/A

19a. Design Sources: N/A

20. Contractor or Builder: N/A

21. Building Type or Plan: Non-discernable House Type

22. Original Use, if apparent:
Single Dwelling

23. Present Use:
Single Dwelling

24. Ownership: Private

25. Owner's Name & Address, if known:
Joshua Haynes and Heather Hickle
1316 County Road 257
Fostoria, OH, 44830

26. Property Acreage: 4.1

27. Other Surveys:

28. No. of Stories: Two story

29. Basement? No

30. Foundation Material: Rock-Faced Plain Ashlar, w/ cut stone water table

31. Wall Construction:
Brick bearing

32. Roof Type:
Hip
Roof Material:
Standing seam (metal)

33. No. of Bays: 4 Side Bays: 4

34. Exterior Wall Material(s):
Brick
Stretcher or running bond

35. Plan Shape: Square

36. Changes associated with 17/17b Dates:
17. Original/Most significant construction
17b.

37. Window Type(s):
1 over 1

38. Building Dimensions: 34 x 32 ft

39. Endangered? NO
By What?

40. Chimney Placement: Off center within roof surface

41. Distance from & Frontage on Road:
50.01 ft and 39.08 ft

51. Condition of Property: Good/Fair

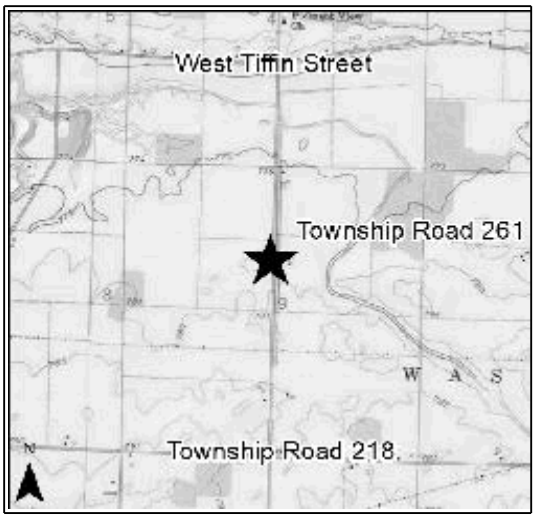
52. Historic Outbuildings & Dependencies
Structure Type(s):
Other Outbuilding/Structure/Feature
Other Outbuilding/Structure/Feature
Date(s):
1940 1940
Associated Activity:
Original/Most significant construction
Original/Most significant construction

53. Affiliated Inventory Number(s):
Historic (OHI):
Archaeological (OAI):

2. County: **Hancock**

4. Present or Historic Name(s): **N/A**

6. Specific Address or Location: **1316 County Road 257**



8. Site Plan (location map) with North Arrow

46. Prepared By: **Austin White**
47. Organization: **Weller & Associates, Inc.**
48. Date Recorded: **10/12/2021**
49. PIR Reviewer:
50. PIR Review Date:

Door Selection: Two doors symmetrical
Door Position: Flush
Orientation: Multiple facade orientation
Symmetry: Bilateral symmetry

Report Associated With Project:

Primary Author	Secondary Author(s)	Year	Title
White, Austin		2021	History/Architecture Investigations for the 404.7 ha (1,000 ac) South Branch Solar Project in Washington Township, Hancock County, Ohio

42. Further Description of Important Interior and Exterior Features

The HAN0073205 resource is a two-story, four-by-four bay, brick, hipped house with Italianate elements. The square dwelling is protected by a hip roof covered in standing seam metal, and rests on a rock-faced ashlar foundation with a cut stone water table. A short, off-center brick chimney rises from the flat portion of the roof. The external wall plans are faced in stretcher bond. The fenestration consists of tall, narrow one-over-one modern sash windows crowned by bracketed pediments. The primary entrance is comprised of paired paneled doors topped by recessed transom windows and header segmental arches.

43. History and Significance

Based on the hipped roof with wide, overhanging eaves, tall, narrow windows, bracketed pediments, and a square floorplan, this resource exhibits Italianate elements. These stylistic details were prominent at the time of the resource's construction, and we therefore concur with the auditor's 1880 record. According to the late nineteenth century county atlas, the parcel on which the resource is located is owned by I.T. Hales, who presumably retained possession of the land, and constructed the above resource.

The HAN0073205 resource was not found to be associated with significant events, patterns of events, or individuals important to our history in a manner necessary for inclusion in the NRHP under Criterion A or B. Although the resource retains its square floor plan and Italianate lintels, the resource features modern replacement windows and doors, specifically on the second story and is not the work of a master; therefore, the resource is not eligible for inclusion in the NRHP under Criterion C.

44. Description of Environment and Outbuildings (See #52)

The dwelling is situated on a square 4.1-acre parcel consisting of a manicured lawn on the west side of CR 216, roughly equidistant from the Village of Arcadia and the City of Fostoria. Several mature trees partial encircle the dwelling. The ancillary structures include a small barn and shed; an artificial pond is located immediately behind the structures.

45. Sources of Information

Hancock County Auditor's Office; USGS 1901 Fostoria, Ohio 15 Minute Series (Topographic) Map; and Hardesty's Illustrated Historical Atlas of Hancock County, 1875

UPDATED APPENDIX R

VISUAL IMPACT ASSESSMENT ADDENDUM

www.haleyaldrich.com

VISUAL IMPACT ASSESSMENT ADDENDUM
SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

by
Haley & Aldrich, Inc.

for
South Branch Solar, LLC

File No. 0135392-002
December 2021

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1. Introduction

This Visual Impact Assessment Addendum (Addendum) has been prepared to update the previously provided Visual Impact Assessment (VIA) to reflect the adjustment of South Branch Solar (the Project) from an up to 205-megawatt solar energy facility to an up to 129.6-megawatt Project. Because no new parcels have been added (the former site was 1,000 acres and is now reduced to approximately 700 acres), the smaller Project Area size has no potential to increase visibility. In fact, visibility would be less, and the extent of the 5-mile radius within which it is evaluated would be decreased.

The following sections note aspects of the VIA that would materially change as a result of the Project's reduction in size.

2. Updated Visual Characteristics of South Branch Solar

As shown in Revised Figure 1, the Project Area has been reduced in size to approximately 700 acres by eliminating the use of two of the previously proposed northern parcels. With this change, only one high-voltage electric transmission corridor traverses the Project Area, with the second now located north of the Project Area.

The Project Area location has not changed with respect to its proximity to the Village of Arcadia and City of Findlay; however, it is now farther from the City of Fostoria.

The Project now consists of approximately 300,000 solar panels, as shown in Revised Figure 2. The only changes in visual characteristics proposed other than the reduction in the layout size is that all collector lines will be underground and fewer meteorological towers are proposed.

3. Visual Assessment Methodology

No change in visual assessment methodology is noted, other than the receipt of the waiver that confirms that evaluating potential visual impacts within a 5-mile-radius is appropriate (now approximately 106 square miles). Updated Figure 3 indicates little change from the prior model, other than eliminating some of the extent of potential visibility to the north, as would be expected in association with elimination of prior northerly parcels. As was previously the case, considerable vegetation and other features exist that would screen or block line-of-sight views toward the Project, as illustrated in Updated Figure 4. As for Updated Figure 3, the changes are most marked in association with elimination of the previously included northern parcels. Updated Figure 5 illustrates the Project's Visual Study Area (VSA).

4. Inventory of Visually Sensitive Resources

Visually sensitive resources within the VSA were identified per the requirements of Ohio Administrative Code 4906-04-08(D). No new locations were identified, as the VSA is a subset of the area previously evaluated.

Updated Figure 6 shows the location, within the 5-mile VSA, of the following:

- Formally adopted land and water recreation areas;
- Recreational trails;
- Scenic rivers;
- Scenic routes or byways; and
- Registered landmarks of historic, religion, archaeological, scenic, natural, or other cultural significance (those districts, sites, buildings, structures, and objects that are recognized by, registered with, or identified as eligible for registration by the national registry of natural landmarks, the state historical preservation office or Ohio Department of Natural Resources (ODNR).

The following sections discuss the changes associated with the updated Project layout and VSA.

4.1 PUBLIC LANDS AND RECREATIONAL AREAS AND TRAILS

As shown in Updated Table 1, the same 18 recreational areas and trails are identified within the 5-mile VSA of the Project. Several resources (Nos. 3, 5, 9, 12, 14, and 15) have changed from middle-ground to background reviews.

Of these, the conservative screening modeling indicates that three resources would have the potential for view of the Project. Each of these three resources (the Fostoria Reservoir, the Veterans Memorial Reservoir, and the Veterans Memorial Park) are located within the middle-ground distance zone of the VSA (1.5 to 4.0 miles). Ground-truthing was conducted to indicate whether visibility was likely. For all three features, intervening topography, vegetation, and structures were observed that prevented views of the existing overhead transmission lines that extend across the Project Area. Therefore, based on distance and existing features (predominantly wooded vegetation, as well as intervening structures), the Project is not expected to alter the existing visual landscape of these resources.

Updated Table 1. Public Lands and Recreational Areas and Trails within the VSA

ID[1]	Resource	Type	Distance Zone	Visibility[2]
1	Arcadia Community Center	Recreational Area	Near-Foreground	No
2	Aeraland Recreational Area	Recreational Area	Foreground	No
3	City Park	Recreational Area	Background	No
4	Daugherty Lake	Recreational Area	Middle-Ground	No
5	Fostoria City Park	Recreational Area	Background	No
6	Fostoria Country Club	Recreational Area	Middle-Ground	No
7	Fostoria Reservoir	Recreational Area	Middle-Ground	Possible
8	Fostoria Reservoir Park	Recreational Area	Middle-Ground	No
9	Gray Park	Recreational Area	Background	No
10	Lakeland Golf Course	Recreational Area	Middle-Ground	No
11	Lumberjack Lake	Recreational Area	Middle-Ground	No
12	Meadowlark Park	Recreational Area	Background	No
13	Mosier Lake	Recreational Area	Middle-Ground	No
14	Mottram Lake	Recreational Area	Background	No
15	Portage Park	Recreational Area	Background	No
16	Red Hawk Run Golf Course	Recreational Area	Middle-Ground	No

ID[1]	Resource	Type	Distance Zone	Visibility[2]
17	Veterans Memorial Reservoir	Recreational Area	Middle-Ground	Possible
18	Veterans Memorial Reservoir Park	Recreational Area	Middle-Ground	Possible

[1] As shown on Updated Figure 6.
[2] Model results based on both topographic and vegetative screening.

4.2 DESIGNATED SCENIC RESOURCES

As shown on Updated Figure 6, there continue to be no designated scenic resources within the 5-mile VSA for the Project.

4.3 PROPERTIES OF HISTORIC SIGNIFICANCE

As shown in Updated Table 2, there continue to be eight known properties of historic significance within the 5-mile VSA for the Project. Five of these resources (Nos. 21, 22, 23, 24, and 25) now fall within the background distance zone. The conservative screening model indicates that the Project will not be visible from any of these resources. Note that each of these resources is located within the more densely settled areas of Arcadia and Fostoria, where existing structures and vegetation block the potential for line-of-sight to the Project.

Updated Table 2. Properties of Historic Significance within the VSA

ID[1]	Resource	Type	Distance Zone	Visibility[2]
19	Washington Township Cemetery	Cemetery	Near-Foreground	No
20	Knollcrest Cemetery	Cemetery	Foreground	No
21	Fountain Cemetery	Cemetery	Background	No
22	St. Wendelin Cemetery	Cemetery	Background	No
23	Fostoria Downtown Historic District	NRHP Site	Background	No
24	Fostoria Mausoleum	NRHP Site	Background	No
25	Dana, Marcus, House	NRHP Site	Background	No
26	Cory, Ambrose, House – “Tanglewood”	NRHP Site	Background	No

[1] As shown on Updated Figure 6.
[2] Model results based on both topographic and vegetative screening.

4.4 HIGH-USE PUBLIC AREAS

As shown in Updated Table 3, the number of high-use public areas within the 5-mile VSA for the Project has reduced from 27 to 21 (eliminating prior Nos. 43, 45, 46, 48, 49, and 51). However, the conservative screening model indicates that the Project would not have the potential to be visible from any of these identified areas. Each of these resources are located within the more densely settled areas within the VSA, the Village of Arcadia and portions of the cities of Fostoria and Findlay. Intervening structures and vegetation block the potential for line-of-sight to the Project.

Table 3. High-Use Public Areas within the VSA

ID[1]	Resource	Type	Distance Zone	Visibility[2]
27	Arcadia School	School	Foreground	No
28	Diebleys Airport	Air Navigation	Background	No
29	Encounter Church	Place of Worship	Background	No

ID[1]	Resource	Type	Distance Zone	Visibility[2]
30	Enon Valley Presbyterian Church	Place of Worship	Middle-Ground	No
31	First Christian Church	Place of Worship	Background	No
32	Fostoria High School	School	Background	No
33	Fostoria Intermediate School	School	Background	No
34	Kaubisch Public Library	Library	Background	No
35	Living Hope Foursquare Church	Place of Worship	Background	No
36	Open Door Family Worship Center	Place of Worship	Background	No
37	Revival Center	Place of Worship	Background	No
38	Saint Wendelin Catholic Church	Place of Worship	Background	No
39	Saint Wendelin Catholic School	School	Background	No
40	Salem United Methodist Church	Place of Worship	Middle-Ground	No
41	Trinity Episcopal Church	Place of Worship	Background	No
42	Wesley United Methodist Church	Place of Worship	Middle-Ground	No
44	Christ Community Church	Place of Worship	Background	No
47	Parkview Christian Church	Place of Worship	Background	No
50	StoneBridge Church of God	Place of Worship	Background	No
52	Rutter	Air Navigation	Foreground	No
53	Arcadia United Methodist Church	Place of Worship	Foreground	No

[1] As shown on Figure 6.
[2] Model results based on both topographic and vegetative screening.

5. Landscape and Viewer Characteristics

No change in character of the VSA has resulted from the Project reduction in size. Updated Table 4 and Updated Table 5 reflect the landscape character types within the updated VSA and by distance zone, respectively.

Updated Table 4. Landscape Types Within the Visual Study Area

Landscape Type	Total Area of Landscape Type within the VSA		% of Landscape Type within the VSA
	acres	square miles	
Pasture and Cropland	56,429	88.2	83.1
Developed	6,870	10.7	10.1
Forest	3,595	5.6	5.3
Open Water	508	0.8	0.7
Wetland	246	0.4	0.4
Grassland	122	0.2	0.2
Scrub/Shrub	115	0.2	0.2
TOTAL	67,885	106.1	100.0

Updated Table 5. Distance Zones by Landscape Type

Landscape Type	Landscape Type by Distance Zone							
	Near-Foreground (0 to 0.5-mile)		Foreground (0.5 to 1.5 miles)		Middle-Ground (1.5 to 4.0 miles)		Background (4.0 to 5.0 miles)	
	acres (%)	square miles	acres (%)	square miles	acres (%)	square miles	acres (%)	square miles
TOTAL	3,195	5.0	7,362	11.5	35,924	56.1	21,404	33.4
Pasture and Cropland	2,766 (86.6%)	4.3	6,374 (86.6%)	10.0	30,725 (85.5%)	48.0	16,564 (77.4%)	25.9
Forest	105 (3.3%)	0.2	527 (7.2%)	0.8	1,745 (4.9%)	2.7	1,217 (5.7%)	1.9
Developed	315 (9.9%)	0.5	418 (5.7%)	0.7	2,816 (7.8%)	4.4	3,321 (15.5%)	5.2
Wetland	0 (0%)	0	28.2 (0.4%)	0	115 (0.3%)	0.2	102 (0.5%)	0.2
Open Water	0.7 (0%)	0	5.4 (0.1%)	0	443 (1.2%)	0.7	58.8 (0.3%)	0.1
Grassland	6.2 (0.2%)	0	7.6 (0.1%)	0	58.2 (0.2%)	0.1	50.5 (0.2%)	0.1
Scrub/Shrub	1.8 (0.1%)	0	1.8 (0%)	0	21.1 (0.1%)	0	90.0 (0.4%)	0

The general character has not changed, nor have the Landscape Similarity Zones, although the aboveground Utility Corridors now extend within the Project Area (the 138-kilovolt [kV]electric transmission line to which the Project will interconnect) and just north of the Project Area (the 345-kV electric transmission line). The Viewer Groups applicable to the VSA also remain the same as previously identified.

6. Visual Impact Assessment

6.1 PHOTOVOLTAIC (PV) ARRAY AND O&M BUILDING VIEWSHED ANALYSIS

The updated viewshed analysis, using the same methodology as previously presented, shows potential visibility of the proposed solar panels within the VSA on Updated Figure 4 and summarized in Updated Table 6. The model indicates that views of the Project will be screened from approximately 88 percent of the VSA by intervening topography and vegetation; actual visibility is expected to be even less due to additional vegetation and other site-specific factors.

Updated Table 6. Panel Viewshed Analysis Results Summary

Analysis	VSA		Modeled Visibility by Distance Zone							
			Near-Foreground (0 to 0.5-mile)		Foreground (0.5 to 1.5 miles)		Middle-Ground (1.5 to 4.0 miles)		Background (4.0 to 5.0 miles)	
	acres	square miles	acres	square miles	acres	square miles	acres	square miles	acres	square miles
Total Area	67,885	106.1	3,195	5.0	7,362	11.5	35,924	56.1	21,404	33.4
Viewshed Visibility	8,220	12.8 (12.1%)	2,515	3.9 (78.7%)	3,159	4.9 (42.9%)	2,537	4.0 (7.1%)	11.4	0.02 (0.1%)
Note: All values are approximate.										

PV panel visibility is concentrated within the near-foreground distance zone, with approximately 79 percent of the area within 0.5-mile from the Project Area indicated as having potential views of some portion of the Project. View potential from areas beyond the near-foreground and into the foreground distance zone (0.5 to 1.5 miles) is considerably reduced, with approximately 43 percent of the foreground distance zone indicated as having the potential for views of the PV panels, and middle-ground and background viewing potential is significantly less.

Ground-truthing (as discussed in Section 6.2) indicates that no areas beyond the foreground distance, and only limited areas within that distance, were currently observed to have views of the approximately 140-foot and approximately 100-foot existing overhead transmission lines that extend through and near the Project Area. The Project (with a maximum panel height of 15 feet) is also not expected to be visible except in relative proximity.

Potential PV panel visibility within the various Landscape Types, as predicted by the viewshed analysis, is summarized in Updated Table 7.

Updated Table 7. Landscape Types Viewshed Analysis Results Summary

Analysis	VSA	Landscape Type			
		Pasture/Cropland/ Grassland/Scrub-Shrub	Forest	Developed	Wetland/Open Water
Total Area	67,885	56,666	3,595	6,870	754
Viewshed Visibility	8,220 (12.1%)	7,752 (12.5%)	3.6 (0.1%)	412 (4.7%)	53 (6.5%)
Modeled Viewshed Visibility – Near Foreground (0 to 0.5-mile)	3,195	2,366	1.2	147	0.7
Modeled Viewshed Visibility – Foreground (0.5 to 1.5 miles)	7,362	3,008	1.4	150	0.4
Modeled Visibility – Middle-Ground (1.5 to 4.0 miles)	35,924	2,368	0.9	115	52

Modeled Visibility – Background (4.0 to 5.0 miles)	22,404	11	0	0.2	0
Note: All values are approximate and provided in acres.					

The Pasture/Cropland/Grassland/Scrub-Shrub Landscape Type, which makes up approximately 87 percent of the VSA, has the greatest potential for visibility (12.5 percent) of the proposed solar arrays. As noted above, ground-truthing via field reconnaissance indicates that areas more distant than the foreground are extremely unlikely to have views of the Project, and that views even at that distance will be limited.

The viewshed map (Updated Figure 4) also illustrates how potential views of the Project would become more limited to smaller portions of the proposed PV panel arrays as distance increases from the Project in certain directions.

6.2 PROJECT SUBSTATION AND UTILITY SWITCHYARD VIEWSHED ANALYSIS

No changes have occurred to the Project Substation and Utility Switchyard; therefore, no change results in the visual analysis.

6.3 FIELD VERIFICATION

No change to the field verification or photographs has resulted from the Project's decreased size.

6.4 VIEWS FROM VISUALLY-SENSITIVE AREAS

No change in view potential is associated with the Project's reduction in size. Where visibility may be possible, the viewing context and distance would be unlikely to materially change the character of the landscape from visually-sensitive resources; therefore, no impact is anticipated. Although the Fostoria Reservoir, the Veterans Memorial Reservoir, and the Veterans Memorial Park continue to be indicated as having the potential for views of the Project, ground-truthing indicated that this is unlikely.

7. Representative Visual Simulations

Given the adjusted Project Area, two of visual simulations previously presented would no longer be relevant as representative locations to illustrate the visual appearance of the Project. The two locations previously presented have been retained, with two replacement locations and one additional location selected. The updated visual simulations reflecting the current layout are provided in Updated Attachment B.

7.1 VISUAL SIMULATION METHODOLOGY

No change in visual simulation methodology is reflected in the updated simulations.

7.2 VISUAL SIMULATION RESULTS

The visual simulations are provided in Updated Attachment B, with a discussion of the potential visual effects associated with the Project are summarized below. An inset image is provided for each to depict the location of the photographer relative to the evaluated Project layout. For each viewpoint, the existing view is depicted, followed by a view representing conditions with the Project in place, showing a 3D simulation of the Project. Where landscaping is proposed (a landscaped photograph, showing the 3D simulation of the Project and any proposed landscaping is also provided). As discussed in Section 9, landscaping is proposed in certain areas that will soften and screen potential views of Project elements still further.

7.2.1 Viewpoint 1 – Monroe Street – Previous Location

No material changes result for this vantage point. The layout in this location has been set back from the closest residence by more than 550 feet. This distance, as well as the robust vegetation planned, will considerably soften views of the Project from this location.

This simulation incorporates the proposed Level 3 Landscape Buffer, which is a mixture of deciduous and evergreen vegetation, with varying heights and textures. Although views of the panels are not completely obstructed, the integration of a diversity of species is intended to soften and screen views of the panels. Low-growing grasses and pollinator-friendly vegetation are also incorporated in the landscape plan to provide additional color and enhance the habitat within the Project Area. Grasses are expected to be maintained within the intervening fields, which will also contribute to softening and screening of Project views.

7.2.2 Viewpoint 2 – County Road 109 – Previous Location

No material changes result for this vantage point. Considerable set-back from the residences in this vicinity have been incorporated into the layout. The Applicant plans to install robust landscaping along the outside of the security fence. This simulation incorporates the proposed Level 3 Landscape Buffer, which is a mixture of deciduous and evergreen vegetation, with varying heights and textures. Although views of the panels are not completely obstructed, the integration of a diversity of species is intended to soften and screen views of the panels. Low-growing grasses and pollinator-friendly vegetation are also incorporated in the landscape plan to provide additional color and enhance the habitat within the Project Area. Grasses are expected to be maintained within the intervening fields, which will also contribute to softening and screening of Project views.

7.2.3 Viewpoint 3 – Township Road 256 – New Location

7.2.3.1 Existing Conditions

This location was selected to represent views from the northeast of the Project Area, taken in the approximate location of existing residences located in that vicinity. As such, the view is approximately 350 feet from the Project Area (at its closest), looking southwest toward the Project.

The existing near-foreground view includes paved roadway, extending into the distance, as well as mown grassy road edges and open fields. Existing overhead electrical transmission infrastructure extends through the near-foreground, continuing diagonally across the view. The road and open fields

continue to extend through the middle-ground of this view. Mature trees are visible on the eastern side of TR 256, with additional scattered mature trees visible along a property boundary just north of the Project Area. The overhead transmission lines continue to be a dominant element of the middle-ground view, with the structures receding beyond that tree line. Further wooded areas can be seen in the background, as well as other agricultural features such as silos.

7.2.3.2 Proposed Project

With the simulated Project in place, the foreground and middle-ground of the image does not change. During the growing season, crop growth would have the potential to soften and further obscure Project views to the south. This foreground agricultural field is not a part of the Project Area and is expected to continue its current agricultural use. The overhead transmission lines continue to be a dominant visual element.

The panels are shown tilted toward the viewer at their maximum tilt, which would happen only at certain times of the day; a lesser tilt would occur at other times of the day, reducing the visual height of the panels. Details of the fencing surrounding the panels cannot be discerned at this distance; however, the panels are visible in the distance as a low horizontal feature set behind the existing mature trees.

The tops of trees and tall agricultural elements are visible beyond the panels, although other shorter structures in the distance would be obscured.

7.2.3.3 Landscaped Simulation

Additional landscaping has been added to intersperse with existing mature trees along the Project fence line, extending approximately to the point of intersection with utility rights-of-way that extend through this area. By filling in some of the existing gaps in the tree line with different trees and shrubs, additional softening of this relatively distant view will be provided. Low-growing grasses and pollinator-friendly vegetation are incorporated along the outer edge of the security fence to provide additional color and enhance the habitat within the Project Area.

7.2.4 Viewpoint 4 – Township Road 254 – New Location

7.2.4.1 Existing Conditions

This location was selected to represent views from the north and west of the Project Area, taken in the approximate location of existing residences located in that vicinity. As such, the view is approximately 500 feet from the Project Area, looking southeast toward the Project.

The existing foreground consists of mown grassy road shoulder, followed by open fields. During the growing season, crop growth would have the potential to soften and further obscure views toward the Project views to the south, depending on what is planted; this foreground agricultural field is not a part of the Project Area. Open agricultural fields that are within the Project Area continue in the middle-ground view from this location. Background features in this view include the overhead electrical transmission line and associated structures, areas of mature trees or forest, and other agricultural structures.

7.2.4.2 Proposed Project

With the simulated Project in place, the agricultural style fencing and panels are visible in the mid-distance of the image. They appear as a dark horizontal linear feature beyond which portions of other background features remain visible.

The panels are shown at their maximum tilt, which would happen only at certain times of the day; a lesser tilt angle would occur at other times of the day, reducing the visual height of the panels. The existing overhead transmission lines are still visible in the background, considerably taller than the 15-foot-tall panels, as are the tops of several areas of trees.

7.2.4.3 Landscaped Simulation

With landscaping shown along the outside of the security fence, the mixture of evergreen and deciduous trees, interspersed with shrubs, views of the panels are not completely obstructed, but are screened and softened. Low-growing grasses and pollinator-friendly vegetation are also incorporated in the landscape plan to provide additional color and enhance the habitat within the Project Area, although this may not be visible once crop growth in the intervening field is present. Depending on the type of crop grown in that field, it could significantly obstruct potential line of sight toward the Project.

7.2.5 Viewpoint 5 – State Route 12 – New Location

7.2.5.1 Existing Conditions

This location was added to illustrate views that may be experienced from the more heavily traveled Route 12 south of the Project Area. This location is approximately 950 feet from the Project Area.

The existing foreground has open fields, extending into the middle-ground with fields that reflect corn stubble. During the growing season, crop growth would have the potential to soften and further obscure views north toward the Project, depending on what is planted; these agricultural fields are not a part of the Project Area. In the middle-ground the existing railroad tracks can be seen extending between the viewer and the Project Area. Existing grassy vegetation is visible beyond the tracks. In the background, areas of trees, as well as distant views of the existing overhead electric transmission line structures and other buildings can be seen.

7.2.5.2 Proposed Project

With the simulated Project in place, the panels are visible as a dark horizontal line beyond the fields and railroad tracks. No detail of fencing is visible at this distance and vantage point, where variations in terrain play a part in screening Project views. The existing grassy vegetation also provides for visual screening, and any crop growth in the foreground and middle-ground fields would also play a part in screening the Project from view.

The panels are shown at their maximum tilt, which would happen only at certain times of the day; a lesser tilt angle would occur at other times of the day, reducing the visual height of the panels. Beyond the panels, the existing overhead transmission lines are still visible in the background, as are the background clusters of trees.

7.2.5.3 Landscaped Simulation

No landscaping is planned along this portion of the Project Area due to the distance, screening associated with terrain, the presence of active rail lines in the intervening area, and the potential for additional screening associated with use of the fields present in the foreground and middle-ground.

7.3 SUMMARY

In summary, the visual simulations illustrate that visibility of the solar array quickly dissipates with distance and proposed landscaping will soften and screen much of the Project from view.

In limited locations where panels are directly adjacent to roads and residences, the fence and panels may be visible. However, the effect of that visibility on scenic quality or existing landscape character will be very particular to the individual viewing experience. None of the visually-sensitive resources identified in Section 4 are expected to have unmitigated, direct views of the Project; therefore, potential visual impacts from the Project will primarily be on nearby non-participating residences and local roads that extend through and immediately around the Project Area. Proposed landscaping to reduce visual effects is not shown on these simulations and is discussed further in Section 9.

The aboveground electrical facilities are consolidated in a location where existing, taller electrical infrastructure, such as the approximately 100-foot-tall 138-kV transmission line, is currently present. Although their higher profile could enhance their visibility, their discrete location limits the viewers who would experience a material change. The effect of that change is limited by being co-located with the existing 138-kV overhead transmission line, which is approximately 100 feet tall.

8. Potential for Glare

No glare impacts were modeled for the prior Project layout. With the decrease in Project size, this lack of impacts is not expected to change.

9. Planned Mitigation and Minimization

With the adjusted Project, no visual impacts continue to be anticipated for any of the designated scenic resources evaluated within 5 miles of the Project Area, although some nearby residences will have views of portions of the Project. To offset visual impacts for local viewers from individual non-participating residences and travelers along local roadways, landscaping will be implemented in locations as shown in the previously provided Landscape and Lighting Plan (updated mapping is provided in Updated Attachment D).

The use of fencing compatible with the agricultural character of the surrounding area and the implementation of a landscaping plan will provide for softening of the horizontal lines to lessen potential impacts associated with near-foreground views. The Landscape and Lighting Plan, previously submitted, outlines the methods to be employed by the Applicant to blend the Project into the existing landscape. The Landscape Plan indicates locations where added screening is currently proposed in the form of landscape plantings (with updated mapping provided in Updated Attachment D), and detail regarding the anticipated vegetative screening scenarios. Note that these specific locations may be

adjusted based on final design refinements, coordination with landowners regarding preference, and/or other factors.

10. Conclusions

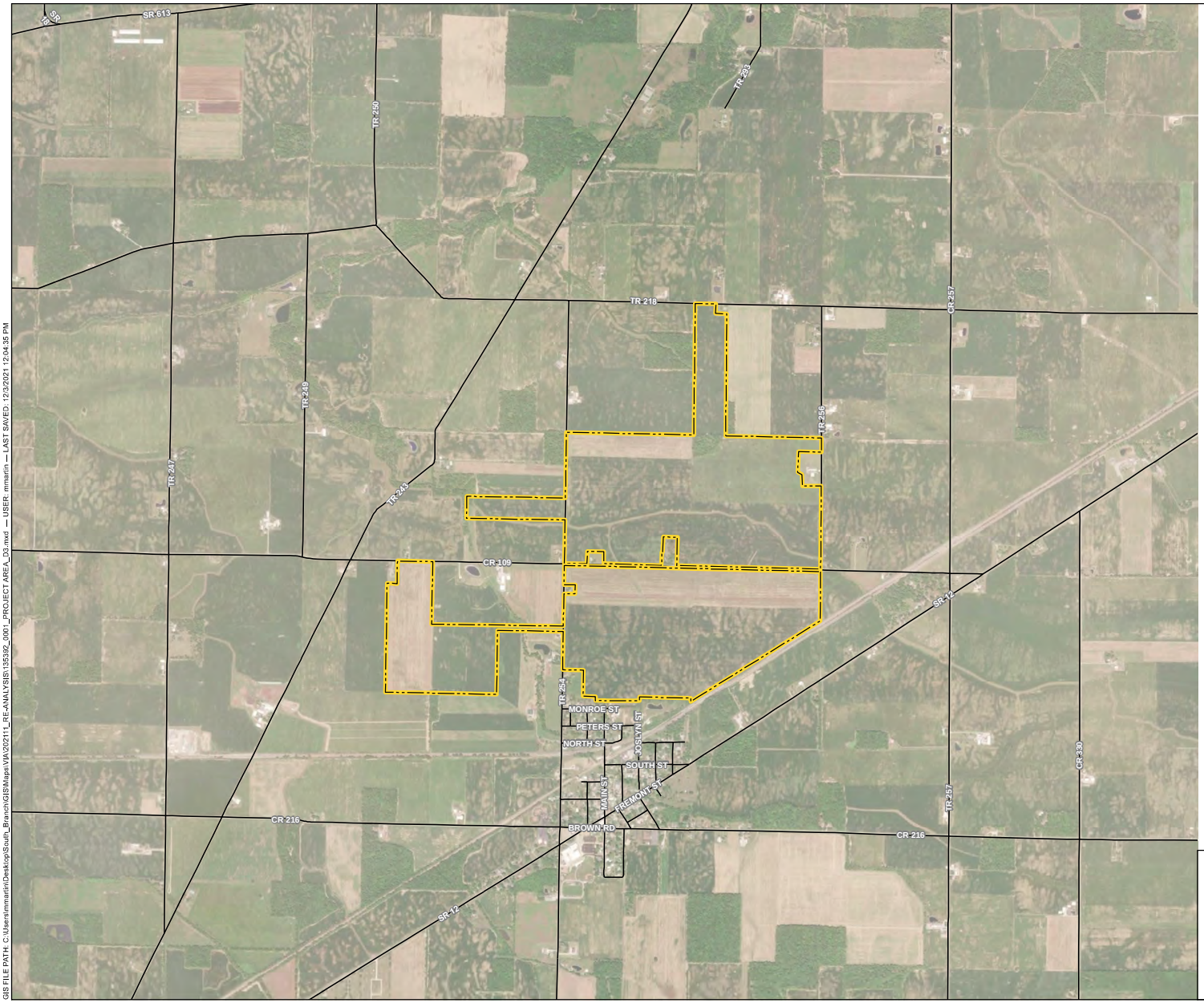
As was the case with the prior Project confirmation, the Project is not expected to be visible from any of the identified visually sensitive viewing resources. Visibility of significant portions of the Project is concentrated within the Project Area itself and the open fields located immediately adjacent to the Project. With a smaller Project Area, the number of proximate viewers has been reduced. PV panel visibility is higher within the near-foreground distance zone (up to 0.5-mile) and diminishes significantly at the foreground and middle-ground distances. Although modeling indicates that potential visibility could extend between the foreground distance, ground-truthing indicated this potential for visibility is overstated. Beyond 0.5-mile, screening provided by existing vegetation and wooded stream corridors, in combination with the low height of the solar panels, will significantly limit Project visibility.

The aboveground electrical components associated with the Project are taller but more compact and are located immediately proximate to other electrical structures of a similar height, such as the approximately 100-foot-tall 138-kV transmission line. Although the substation features may be visible from some locations, the impacts of the visibility are expected to be diminished due to the narrow profile of the tallest elements and the neutral color of components, as they blend with the background vegetation and sky.

As illustrated in the visual simulations, the Project will result in varying levels of visual impact when viewed from adjacent roads and residences. This impact may be mitigated by the presence of seasonal crops in actively farmed fields; however, during the rest of the year, the Project will introduce areas of low-lying structures that will alter the existing agricultural character of the landscape. However, as demonstrated in the simulations, this visibility and potential visual impact diminishes rapidly as the Project is viewed from greater distances and landscaping is proposed to further mitigate potential views from sensitive receptors. It is anticipated that impacts will be limited to areas directly adjacent to the Project.

As discussed in Section 9 (with updated mapping provided in Updated Attachment D), the use of landscaping in certain locations (to be revised based upon final design, drain tile locations, and landowner considerations) along certain perimeters of the Project fence line is expected to mitigate the visual impact of the Project when viewed at near-foreground distances. The plantings will serve to break up the horizontal lines created by the array and fence line and help the Project blend with the existing landscape, providing aesthetic as well as ecological benefits.

UPDATED FIGURES



LEGEND

ROAD

PROJECT AREA

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ROADS DATA SOURCE: OHIO LOCATION BASED RESPONSE SYSTEM (LBRS)
3. AERIAL IMAGERY SOURCE: ESRI WORLD IMAGERY (08/21/2020).

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HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

PROJECT AREA

DECEMBER 2021

UPDATED FIGURE 1

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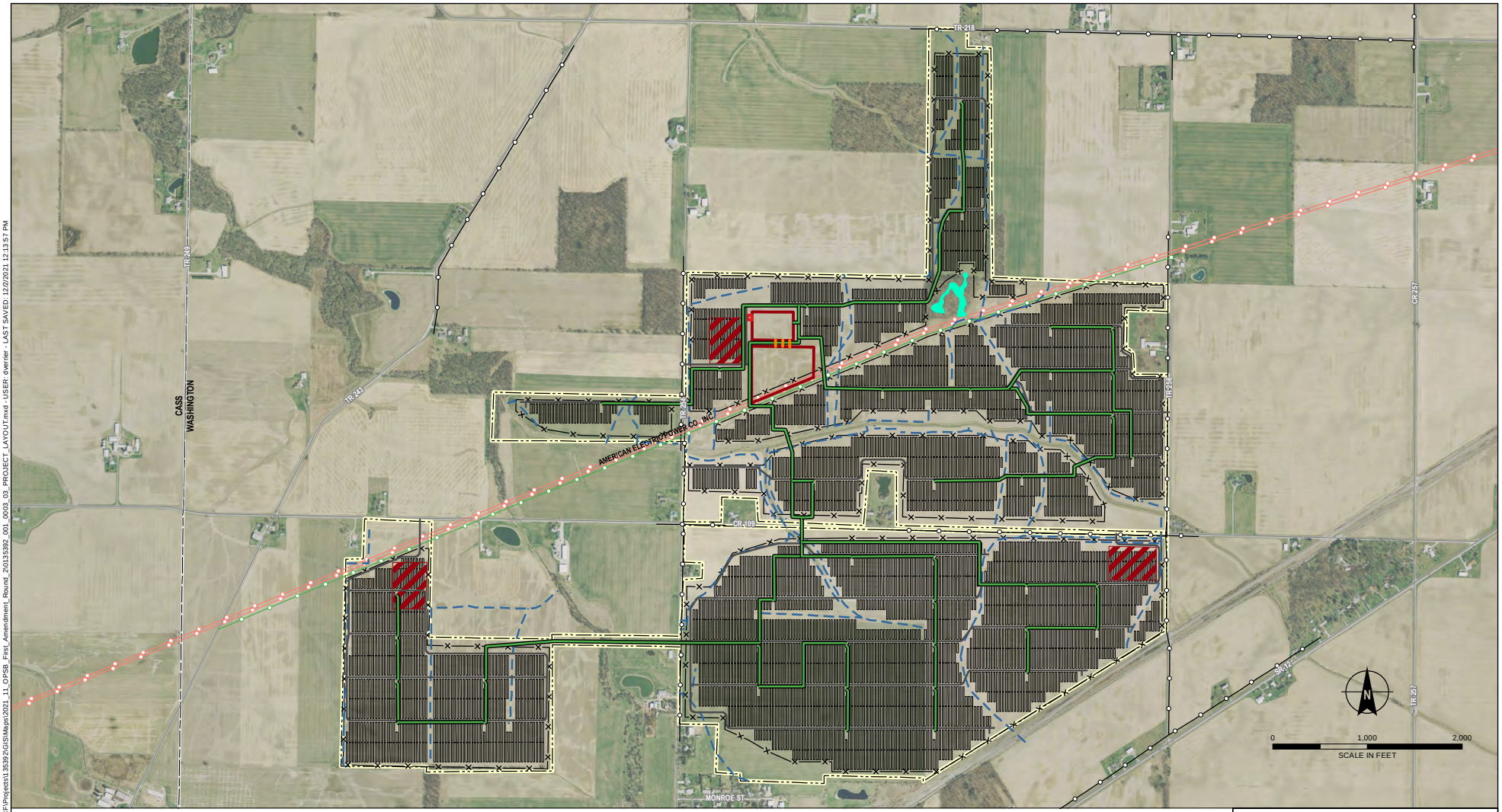

POTENTIAL COLLECTION LINE
POTENTIAL GRAVEL ROAD
GEN-TIE LINE
138 kV TRANSMISSION LINE
TRANSMISSION LINE, UNKNOWN VOLTAGE
GAS LINE
DRAIN TILE LINE
O&M FACILITY BOUNDARY
SUBSTATION BOUNDARY
ROAD
DELINEATED WETLAND
POTENTIAL SOLAR ARRAY
LAYDOWN YARD
SECURITY FENCE
PROJECT AREA
TOWNSHIP BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. kV = KILOVOLTS
3. ELECTRIC TRANSMISSION LINES DATA SOURCE: DEPARTMENT OF HOMELAND SECURITY (DHS) HOMELAND INFRASTRUCTURE FOUNDATION-LEVEL DATA (HIFLD) AND CLIENT
4. ROADS DATA SOURCE: OHIO DEPARTMENT OF TRANSPORTATION (ODOT)
5. TOWNSHIP BOUNDARIES DATA SOURCE: OHIO EMERGENCY MANAGEMENT AGENCY (OEMA)
6. AERIAL IMAGERY SOURCE: OHIO STATEWIDE IMAGERY PROGRAM (OSIP), 2011

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PROJECT LAYOUT

UPDATED FIGURE 2

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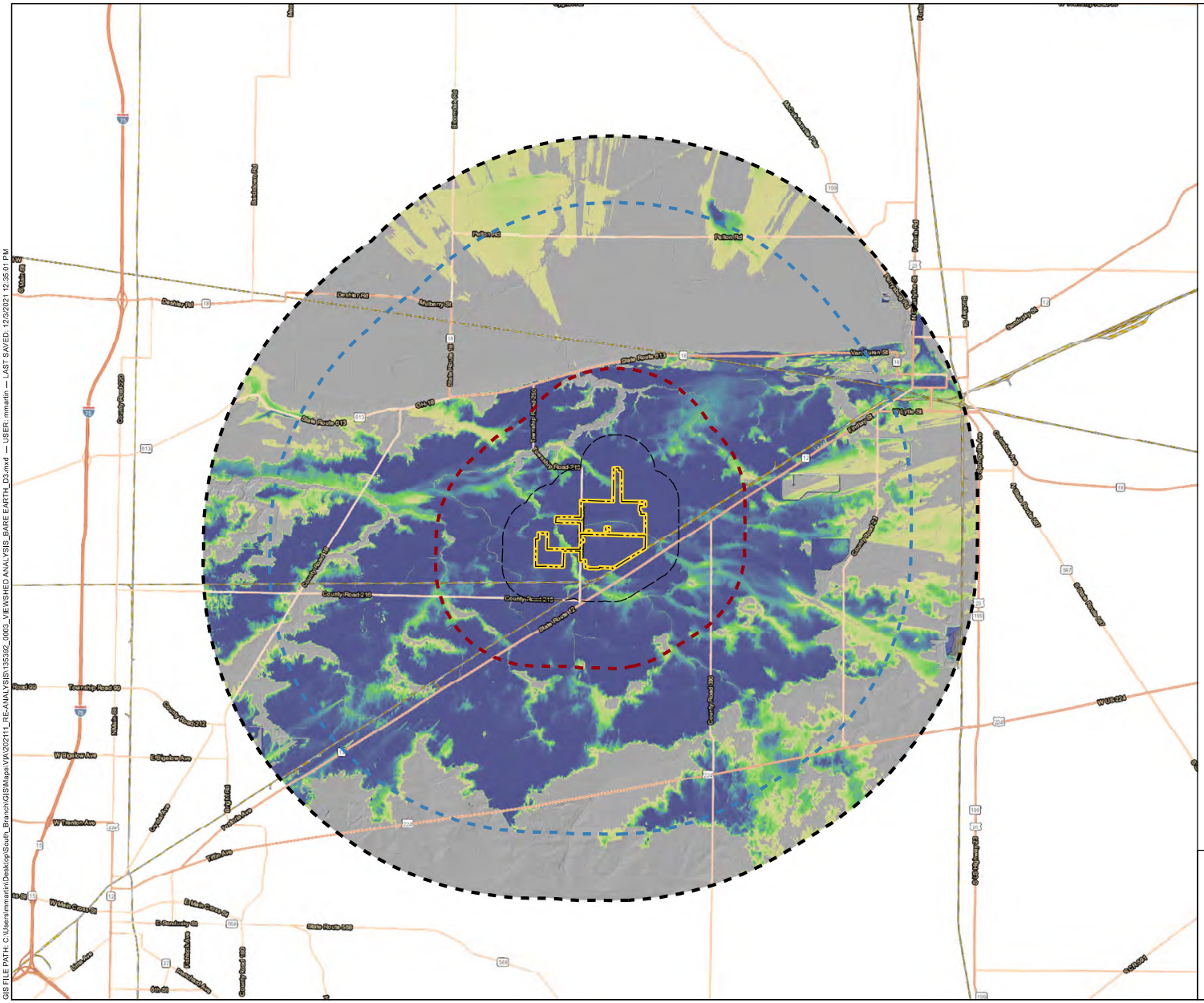

LEGEND

- PROJECT AREA
- 0.5-MILE BUFFER
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POTENTIAL PANEL VISIBILITY

- MORE PANELS POTENTIALLY VISIBLE
- FEWER PANELS POTENTIALLY VISIBLE

NOTES

1. VIEWSHED ANALYSIS BASED ON OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP) LIDAR DATA USING BARE EARTH ELEVATIONS ONLY. OBSERVER HEIGHT WAS ASSUMED TO BE 6 FEET AND PANEL HEIGHT WAS ASSUMED TO BE 15 FEET.

2: BASEMAP: ESRI WORLD TRANSPORTATION AND OGRIP LIDAR HILLSHADE.

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SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

PANEL VIEWSHED ANALYSIS:
BARE EARTH

DECEMBER 2021

UPDATED FIGURE 3

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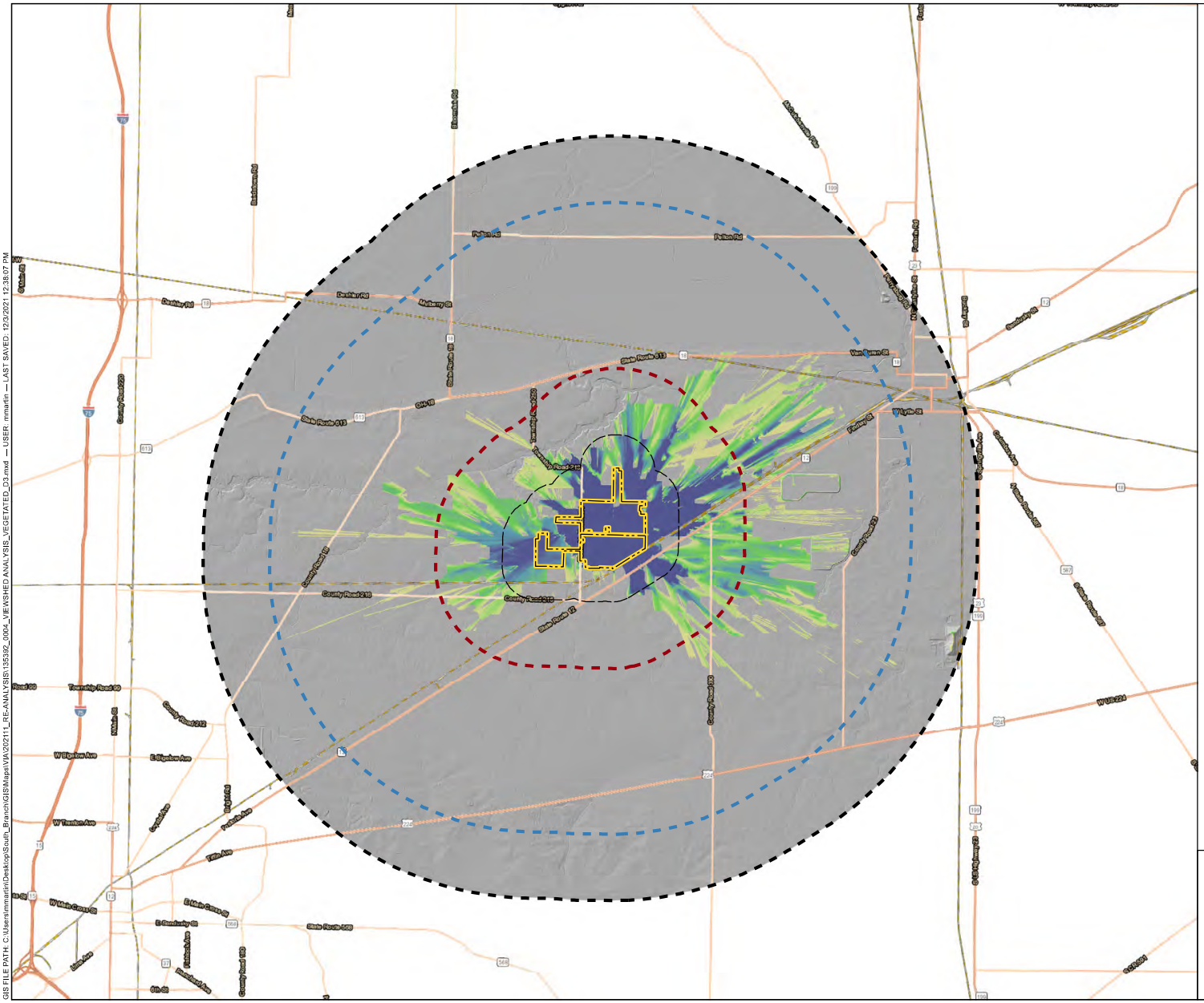

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- PROJECT AREA
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POTENTIAL PANEL VISIBILITY

- MORE PANELS POTENTIALLY VISIBLE
- FEWER PANELS POTENTIALLY VISIBLE

NOTES

1. VIEWSHED ANALYSIS BASED ON OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP) LIDAR DATA AND ACCOUNTS FOR THE SCREENING EFFECTS OF VEGETATION, BUILDINGS AND OTHER STRUCURES. OBSERVER HEIGHT WAS ASSUMED TO BE 6 FEET AND PANEL HEIGHT WAS ASSUMED TO BE 15 FEET.

2: BASEMAP: ESRI WORLD TRANSPORTATION AND OGRIP LIDAR HILLSHADE.

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HANCOCK COUNTY, OHIO

PANEL VIEWSHED ANALYSIS: VEGETATED

DECEMBER 2021

UPDATED FIGURE 4

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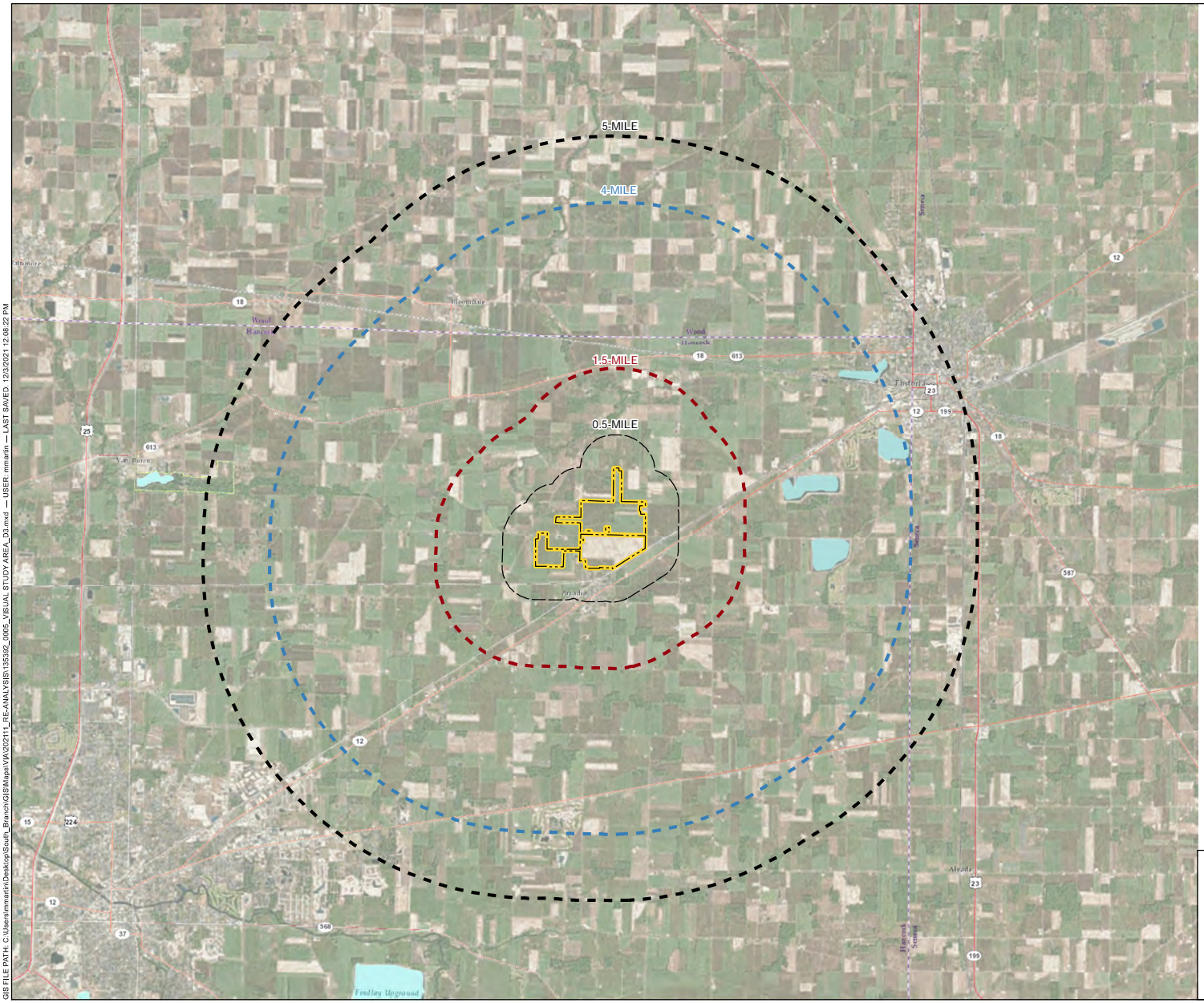

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NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI REFERENCE LAYER.

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HANCOCK COUNTY, OHIO

VISUAL STUDY AREA

DECEMBER 2021

UPDATED FIGURE 5

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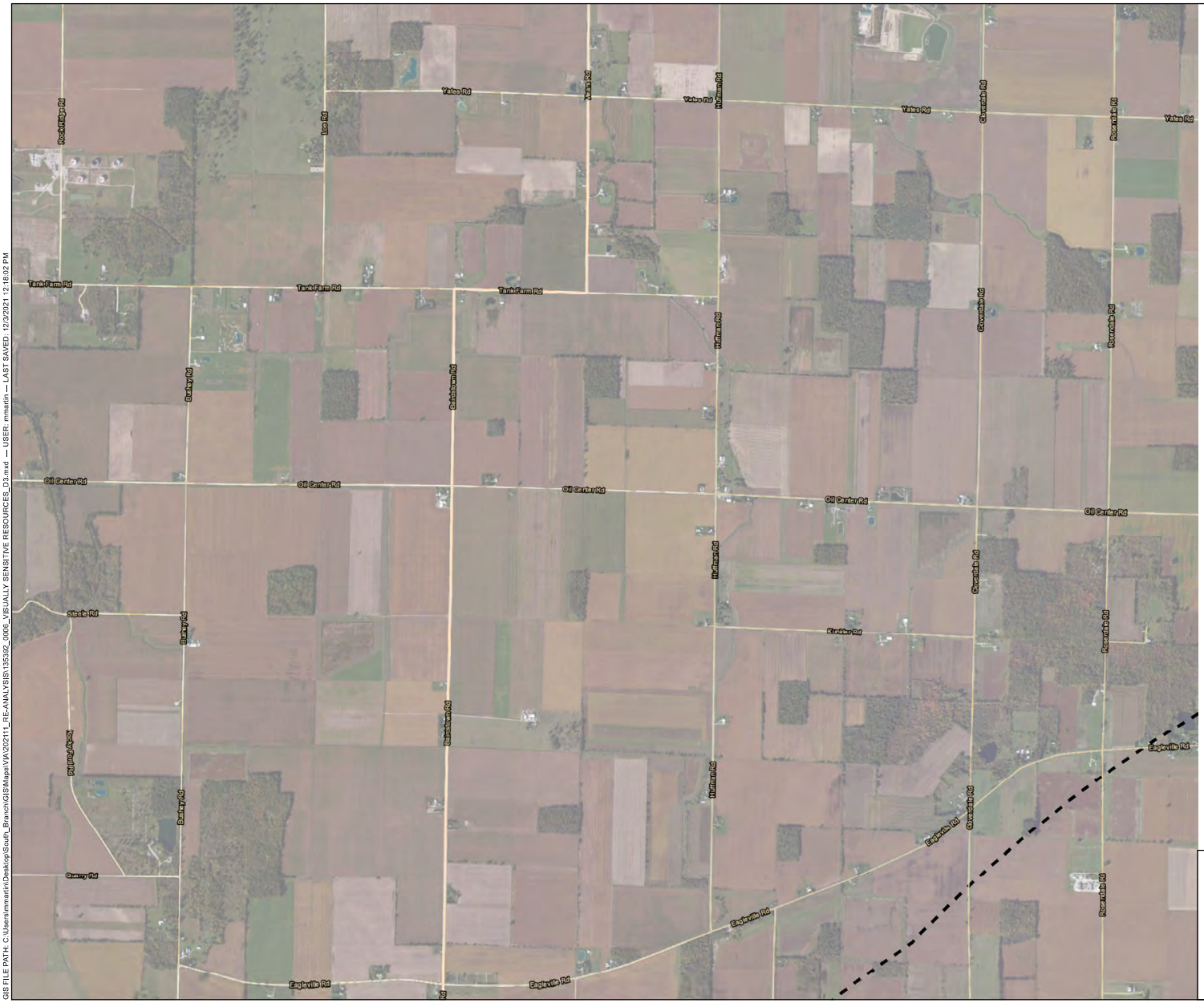

LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
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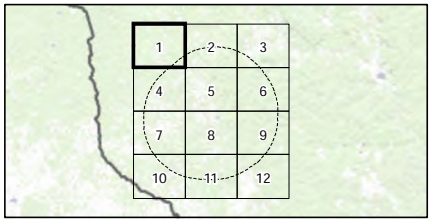

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 1 OF 12

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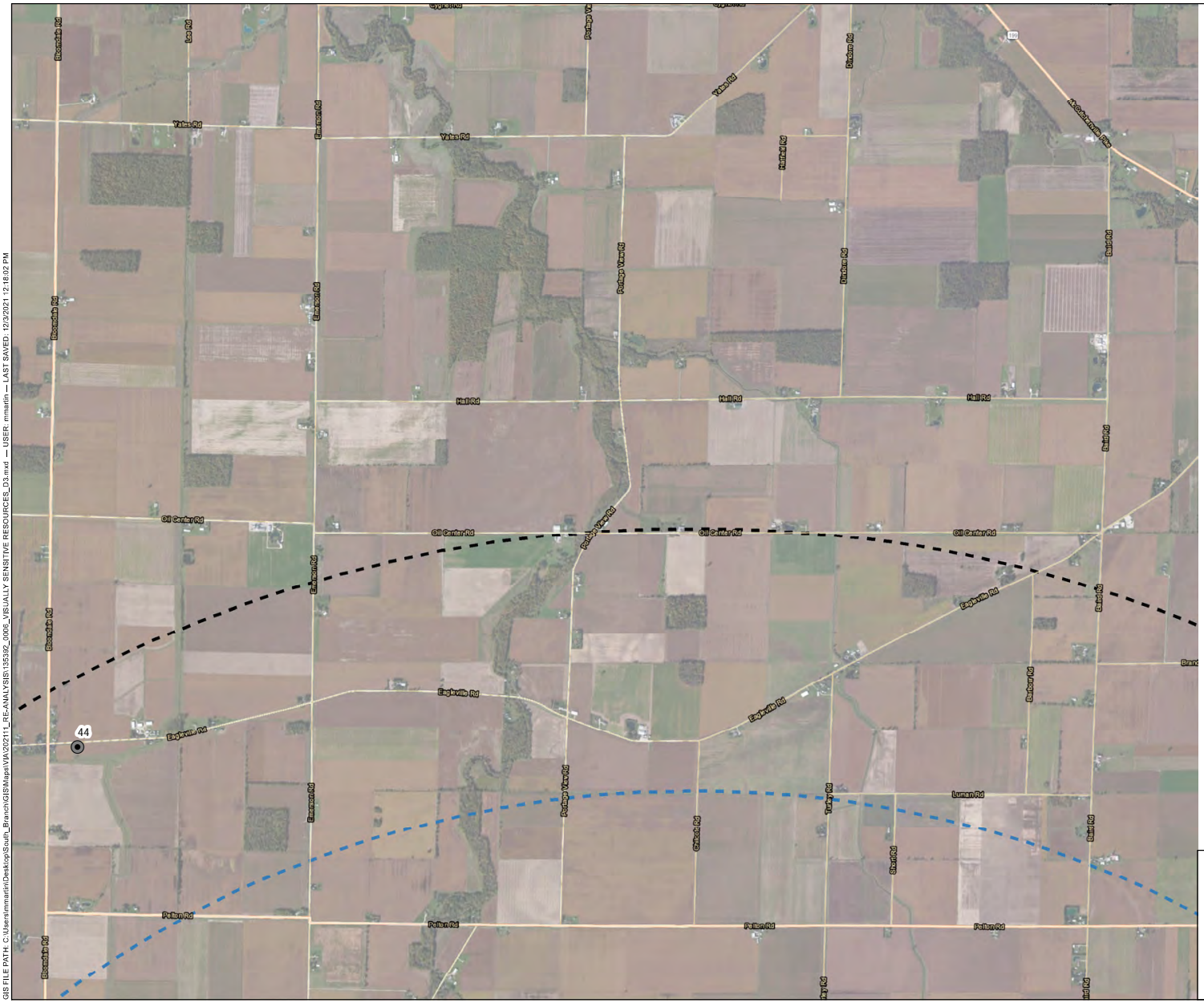

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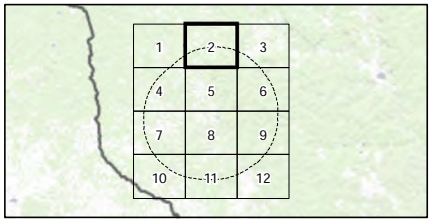

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 2 OF 12

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LEGEND

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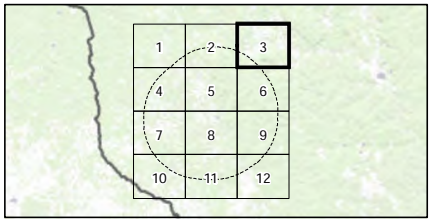

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

UPDATED FIGURE 6
SHEET 3 OF 12

DECEMBER 2021

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LEGEND

- ● AIR NAVIGATION FACILITY
- ● CEMETERY
- ● SCENIC RESOURCE
- ● LIBRARY
- ● PLACE OF WORSHIP
- ● RECREATIONAL
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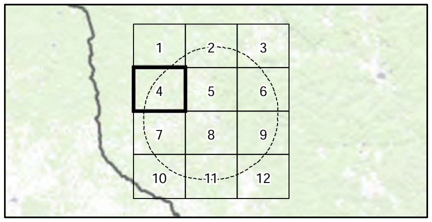

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

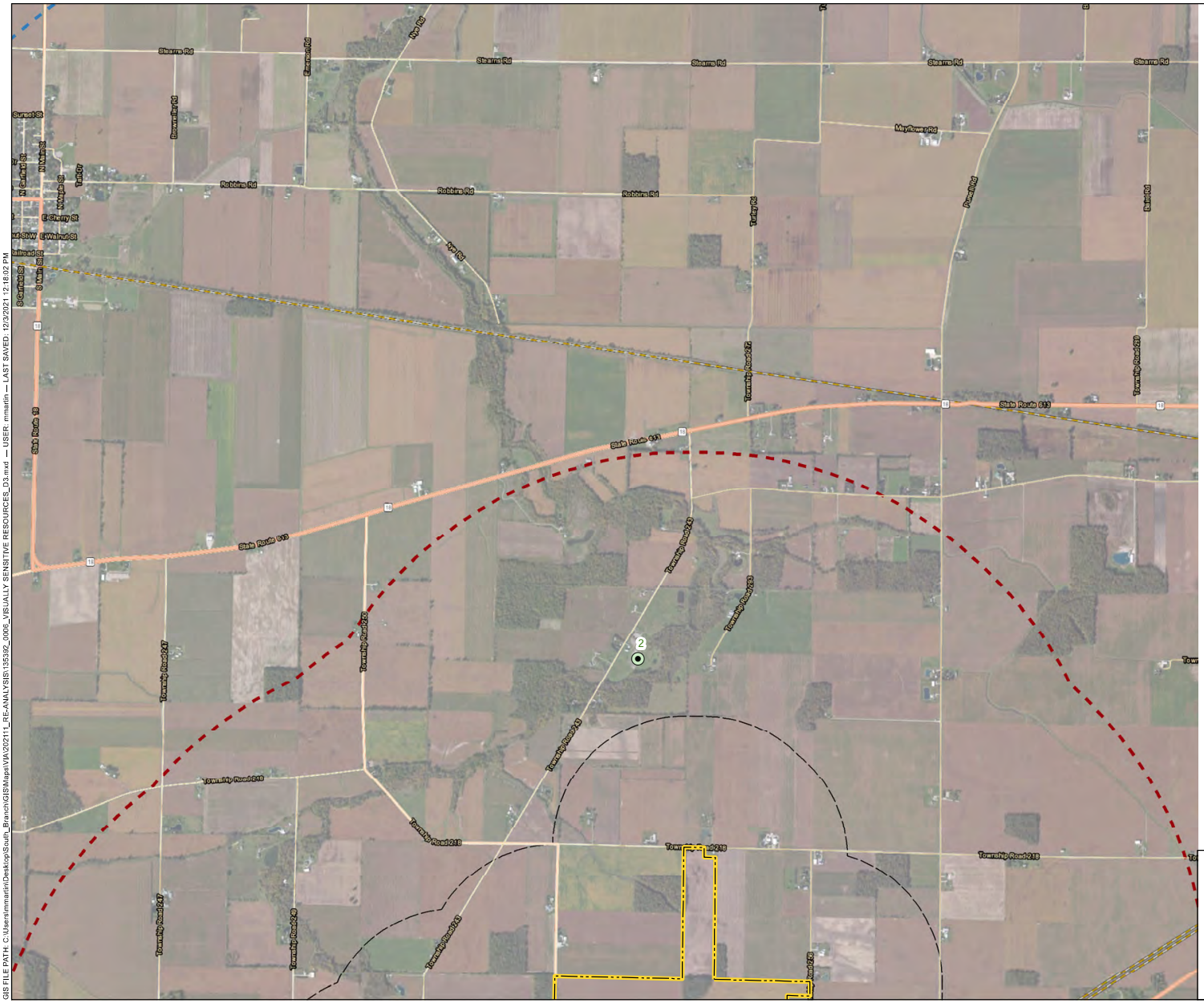
HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

UPDATED FIGURE 6
SHEET 4 OF 12

DECEMBER 2021



LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
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- RECREATIONAL
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- 4-MILE BUFFER
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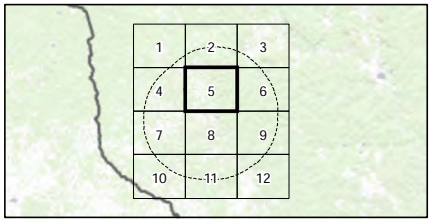

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

N

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SCALE IN FEET

HALEY ALDRICH

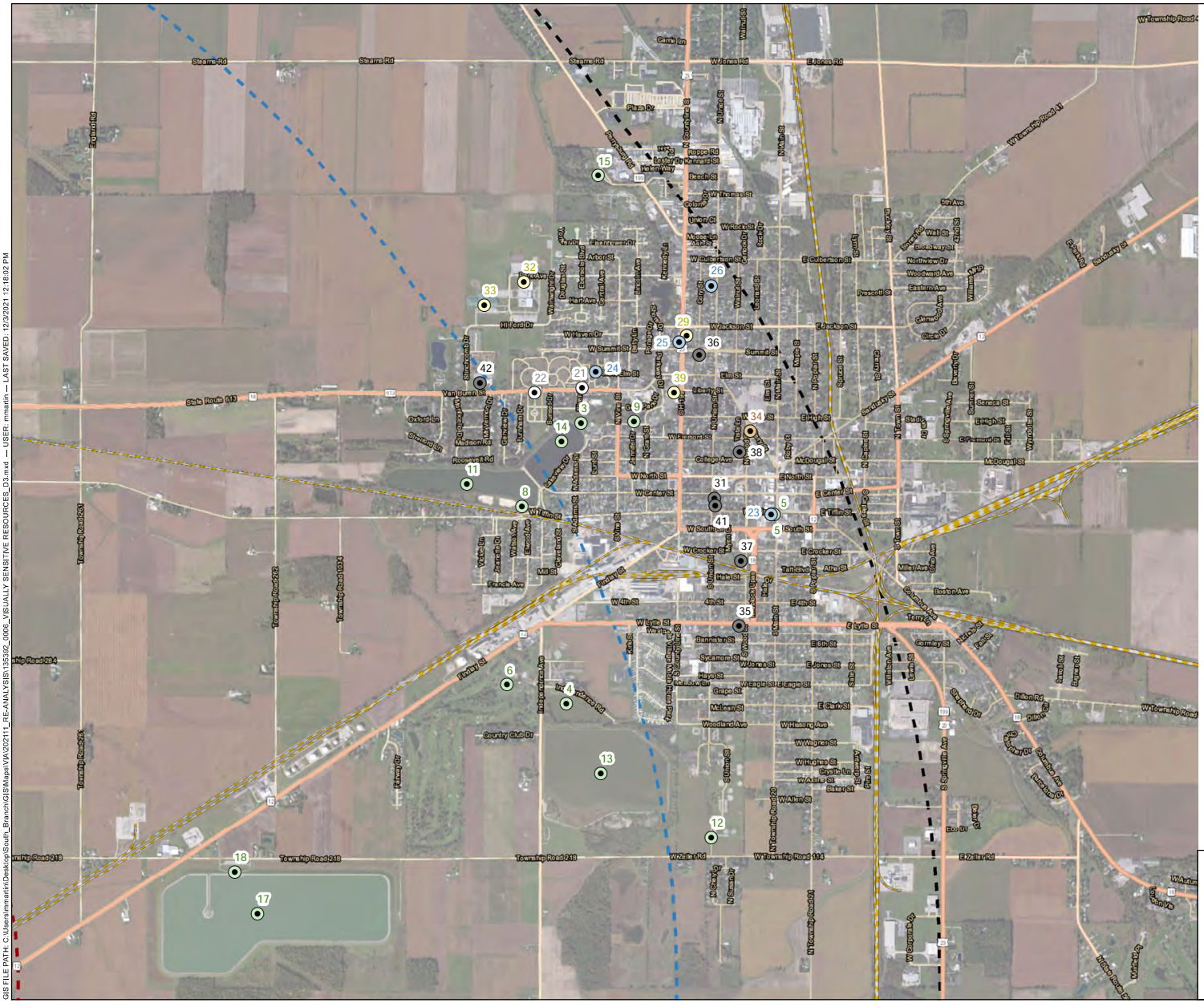
SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

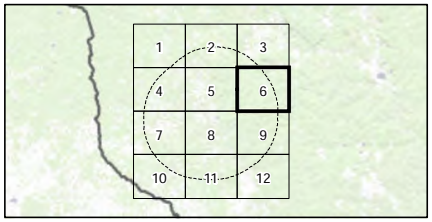
UPDATED FIGURE 6
SHEET 5 OF 12

GIS FILE PATH: C:\Users\mmartin\Desktop\South_Branch\GIS\Maps\VIA\202111_RE-ANALYSIS\135392_0006_VISUALLY SENSITIVE RESOURCES_D3.mxd — USER: mmartin — LAST SAVED: 12/3/2021 12:18:02 PM



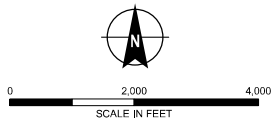
LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
- PLACE OF WORSHIP
- RECREATIONAL
- SCHOOL
- PROJECT
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
- 5-MILE BUFFER



NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION



HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 6 OF 12

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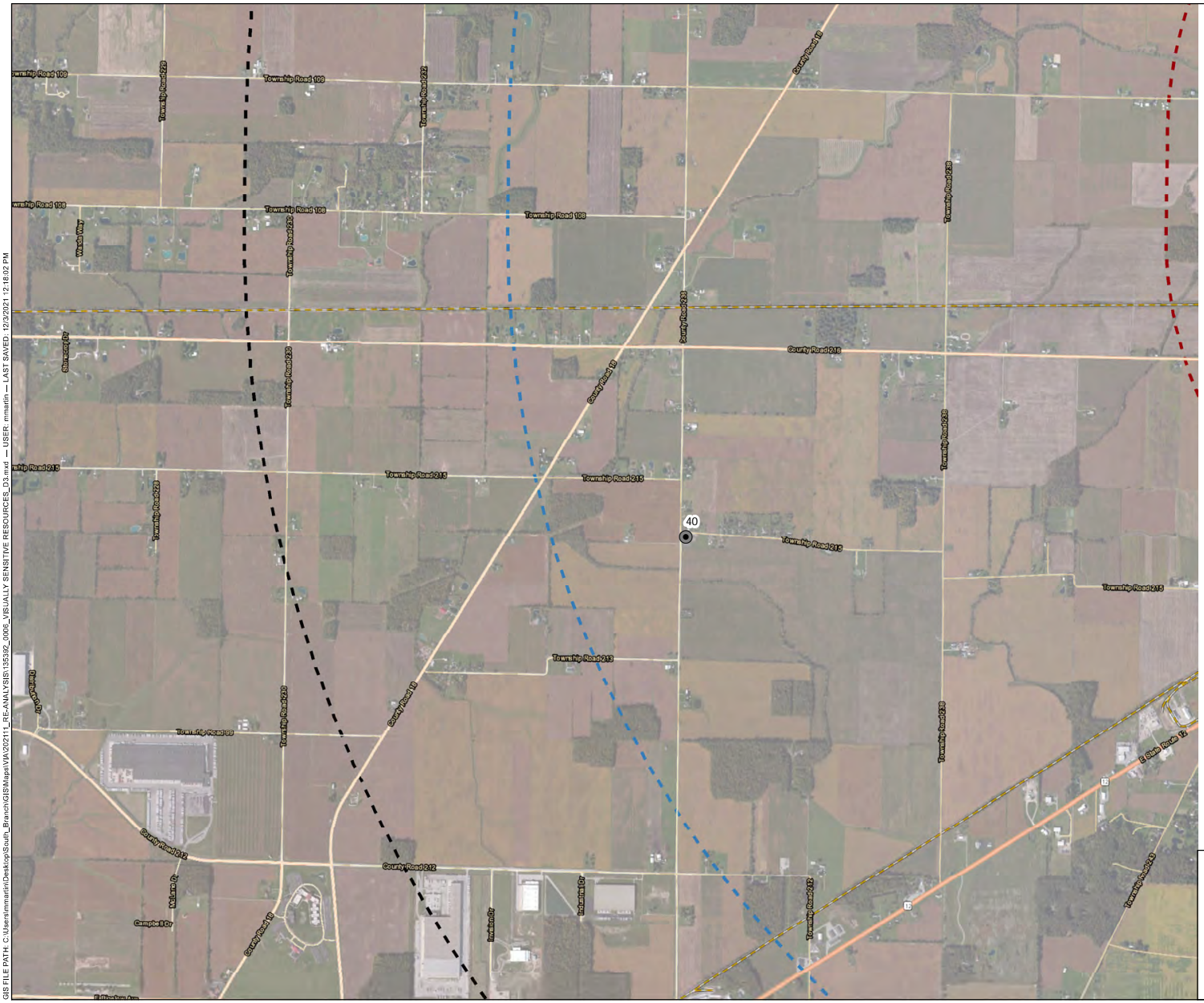
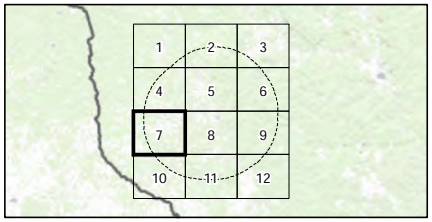


LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
- PLACE OF WORSHIP
- RECREATIONAL
- SCHOOL
- PROJECT
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
- 5-MILE BUFFER



NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 7 OF 12

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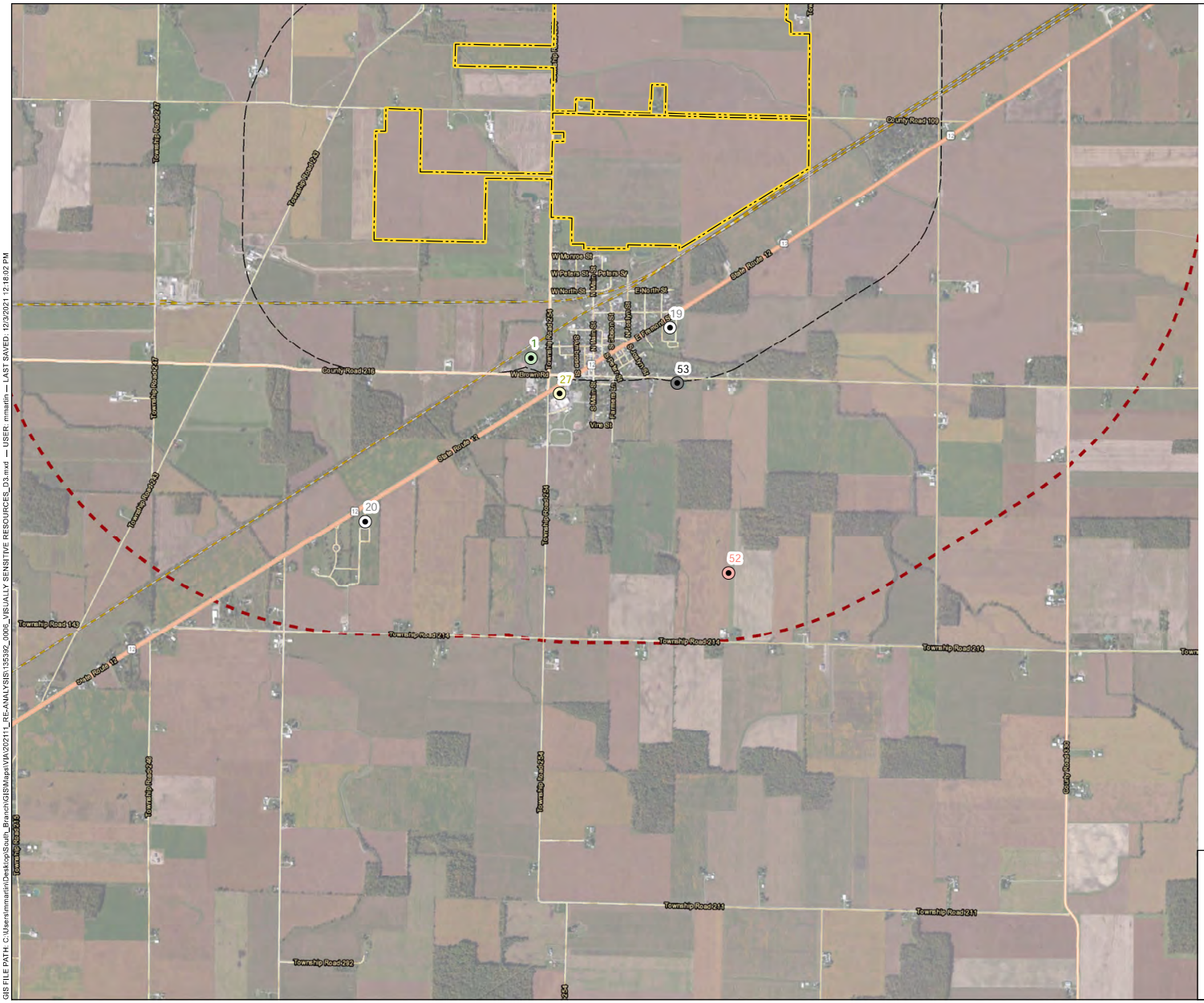

LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
- PLACE OF WORSHIP
- RECREATIONAL
- SCHOOL
- PROJECT
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
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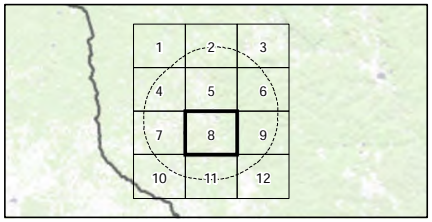

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

UPDATED FIGURE 6
SHEET 8 OF 12

DECEMBER 2021

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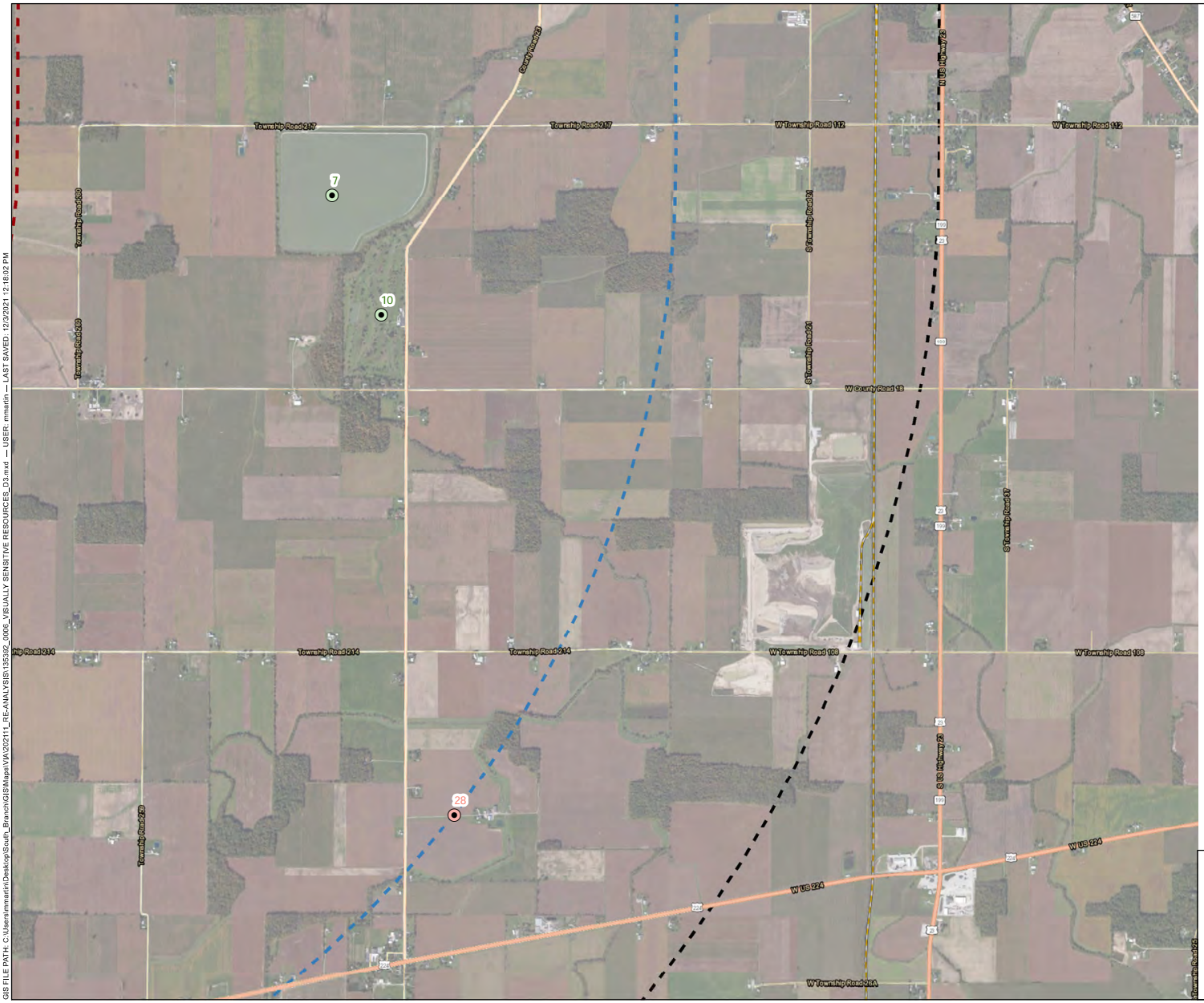

LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
- PLACE OF WORSHIP
- RECREATIONAL
- SCHOOL
- PROJECT
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
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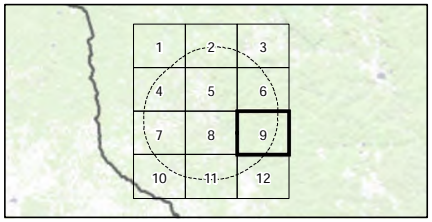

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

UPDATED FIGURE 6
SHEET 9 OF 12

DECEMBER 2021

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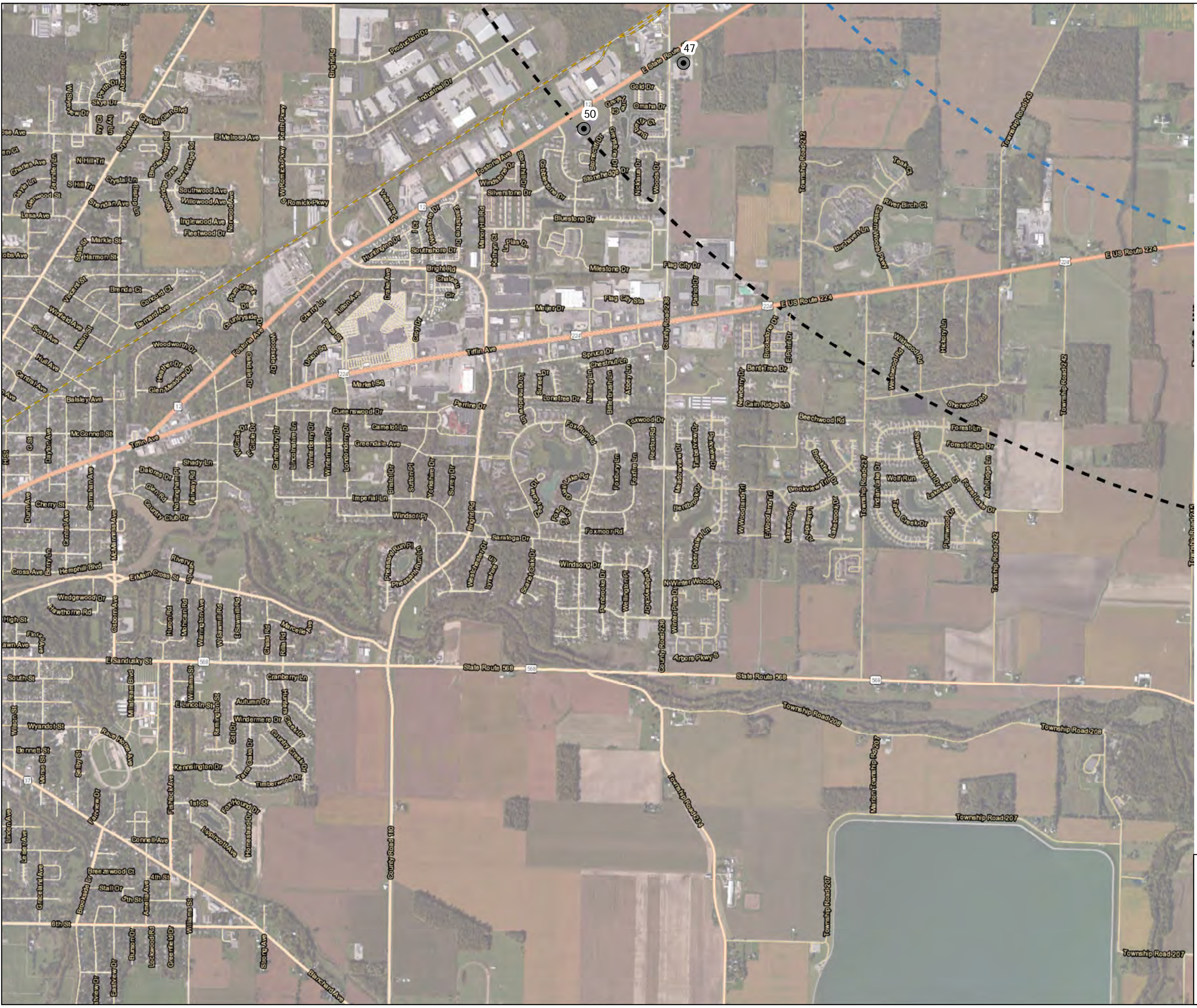

LEGEND

● AIR NAVIGATION FACILITY

● CEMETERY

● SCENIC RESOURCE

● LIBRARY

● PLACE OF WORSHIP

● RECREATIONAL

● SCHOOL

▭ PROJECT

▭ 0.5-MILE BUFFER

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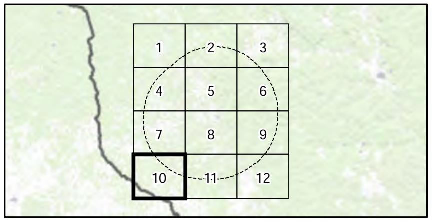

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 10 OF 12

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LEGEND

- ● AIR NAVIGATION FACILITY
- ● CEMETERY
- ● SCENIC RESOURCE
- ● LIBRARY
- ● PLACE OF WORSHIP
- ● RECREATIONAL
- ● SCHOOL
- ▭ PROJECT
- ▭ 0.5-MILE BUFFER
- ▭ 1.5-MILE BUFFER
- ▭ 4-MILE BUFFER
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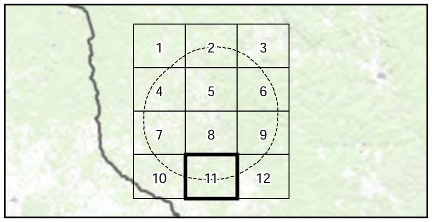

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 11 OF 12

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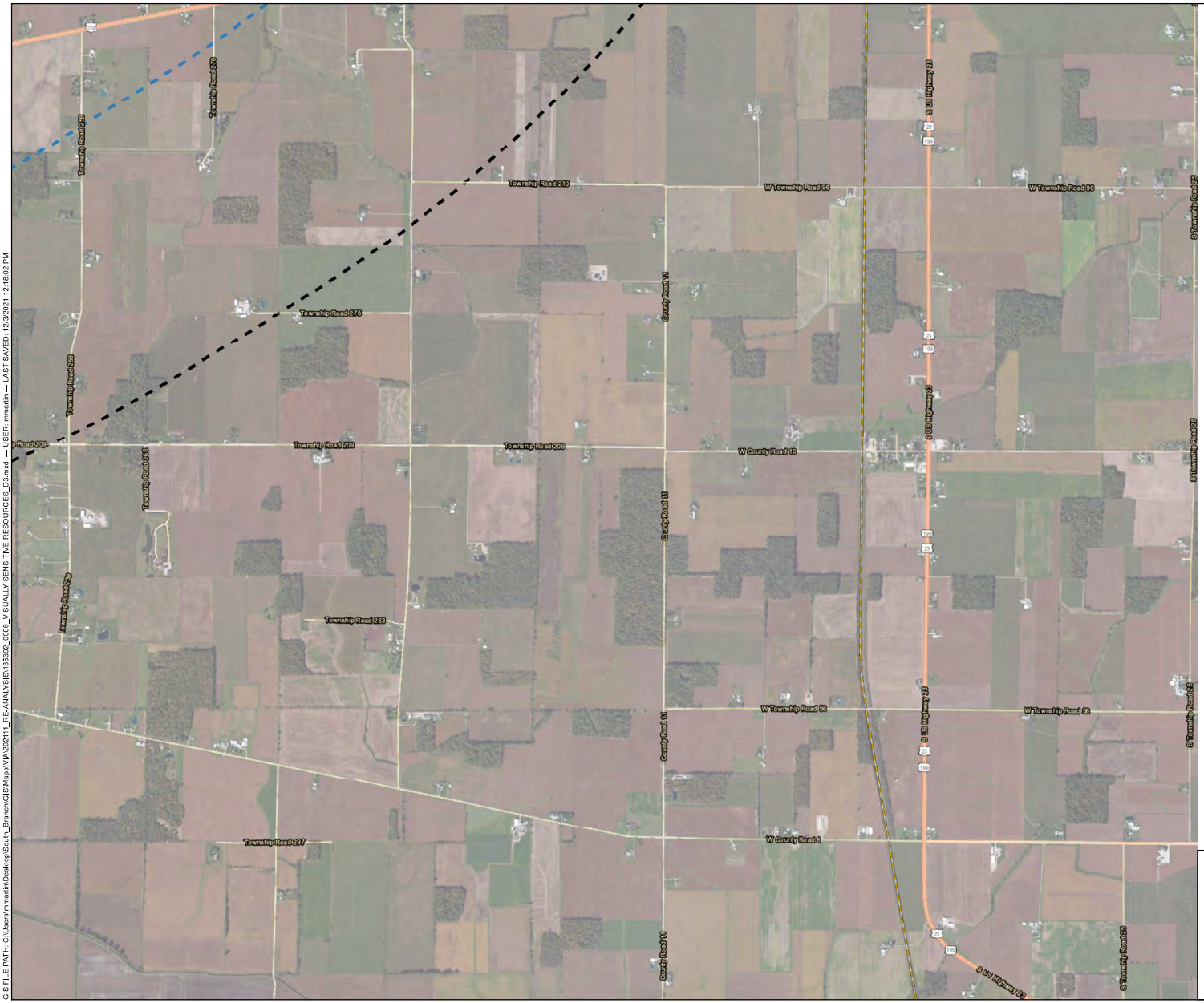
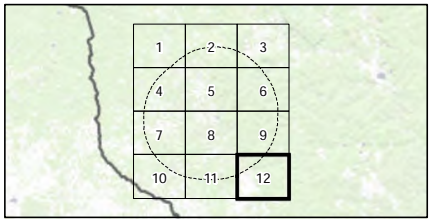


LEGEND

- AIR NAVIGATION FACILITY
- CEMETERY
- SCENIC RESOURCE
- LIBRARY
- PLACE OF WORSHIP
- RECREATIONAL
- SCHOOL
- PROJECT
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
- 5-MILE BUFFER



NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION

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SCALE IN FEET

HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

VISUALLY SENSITIVE RESOURCES

DECEMBER 2021

UPDATED FIGURE 6
SHEET 12 OF 12

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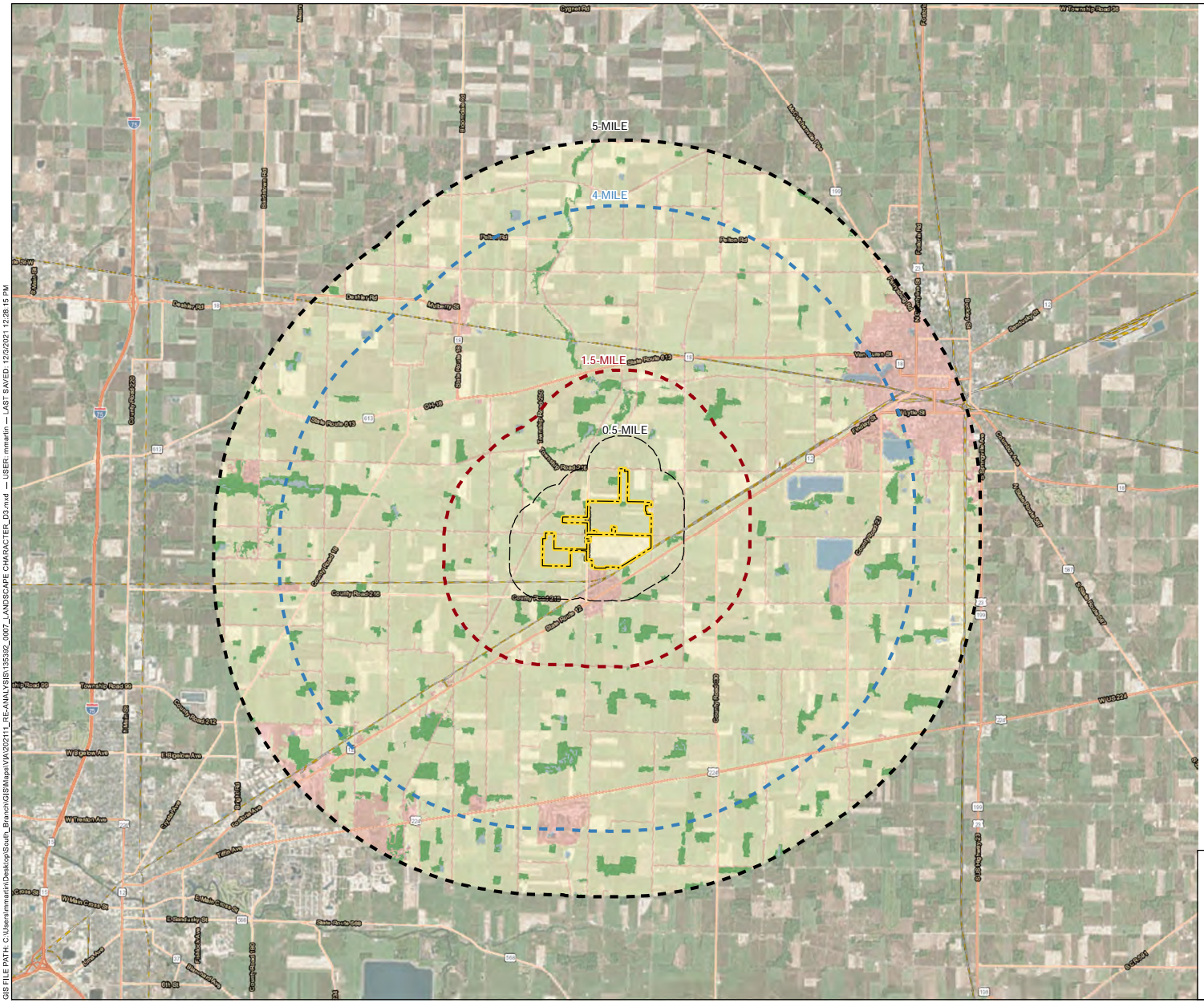

LEGEND

- PROJECT AREA
- WETLAND/OPEN WATER
- DEVELOPED
- FOREST
- PASTURE/CROPLAND/GRASSLAND/SCRUB-
- 0.5-MILE BUFFER
- 1.5-MILE BUFFER
- 4-MILE BUFFER
- 5-MILE BUFFER

NOTES

1. BASEMAP: CLARITY WORLD IMAGERY AND ESRI WORLD TRANSPORTATION.

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HALEY ALDRICH

SOUTH BRANCH SOLAR
HANCOCK COUNTY, OHIO

LANDSCAPE CHARACTER

DECEMBER 2021

UPDATED FIGURE 7

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UPDATED ATTACHMENT B
VISUAL SIMULATIONS

Before

After

After With Landscaping

South Branch Solar
Hancock County, Ohio

Visual Simulations
Updated Viewpoint 1: Monroe Street

PLANIT
www.planitstudies.com

Before

After

After With Landscaping

South Branch Solar
Hancock County, Ohio

Visual Simulations
Updated Viewpoint 2: County Road 109

PLANIT
www.planitsolutions.com

Before

After

After With Landscaping

South Branch Solar
Hancock County, Ohio

Visual Simulations
New Viewpoint 3: Township Road 256

PLANIT
www.planitutilities.com

Before

After

After With Landscaping

South Branch Solar
Hancock County, Ohio

Visual Simulations
New Viewpoint 4: Township Road 254

PLANIT
www.planitsolutions.com

Before

After

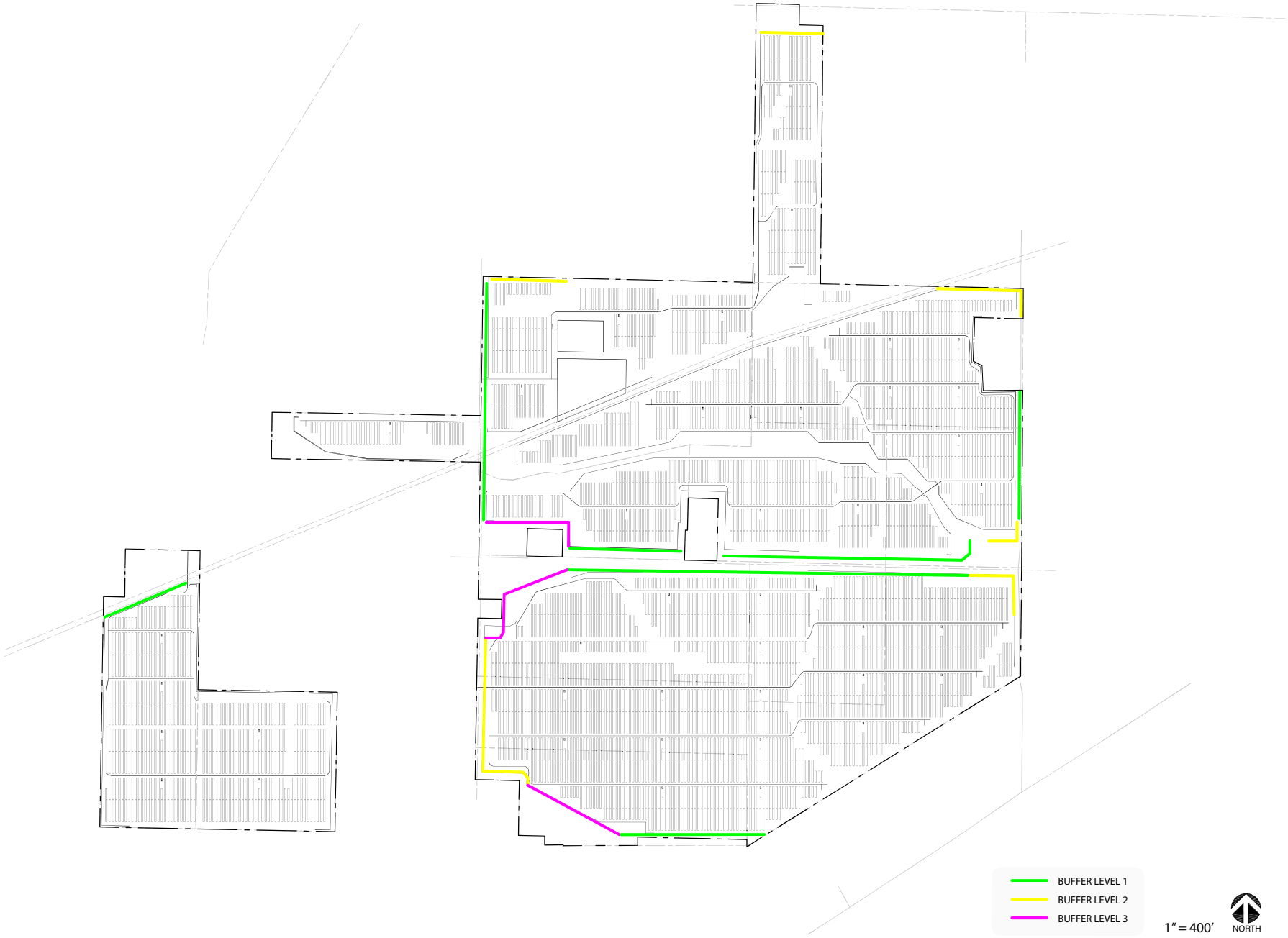
After With Landscaping
(*no landscaping proposed*)

South Branch Solar
Hancock County, Ohio

Visual Simulations
New Viewpoint 5: State Route 12

PLANIT
www.planitstudios.com

UPDATED ATTACHMENT D
ADJUSTED LANDSCAPE BUFFER



PLANIT
www.planitstudios.com

SOUTH BRANCH SOLAR

WASHINGTON TOWNSHIP
HANCOCK COUNTY, OHIO

ISSUANCES

NO.	DESCRIPTION	DATE
A	SCREENING PLAN	12.09.21

PROJECT NO.
021-054

DRAWN BY
S.P.H.

CHECKED BY
K.A.A.

NOT FOR CONSTRUCTION

SCREENING PLAN

L - 1.1