Rouget Road Solar Farm

Exhibit A-1.4 Construction Information MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

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30th Floor
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PREPARED BY

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EXHIBIT A-1.4 – CONSTRUCTION INFORMATION

(a) **Describe the project's proposed construction and installation methods including:**

1. **Soil surveying and testing plans, pursuant to NREPA.**
   The Project will conduct soil surveying and testing, pursuant to the Natural Resources and Environmental Protection Act ("NREPA"). A soil survey protocol has been developed to compare pre-construction (existing) soil conditions to post construction restoration conditions. This will ensure that the post-construction restoration soil conditions meet or exceed pre-construction soil quality. **Appendix II Exhibit A-1.4** includes the Baseline Soil Survey Sampling and Analysis Plan.

   On behalf of the Applicant, Terracon Consultants conducted a geotechnical investigation for the Project (**Appendix II, Exhibit A-1.4,** Rouget Road Solar Design Level Geotechnical Engineering Report). The geotechnical investigation consisted of 28 soil borings at a depth of 20 feet; 28 cone penetration test ("CPT") soundings at a depth of 12 – 20 feet; 15 test pits at a depth of 5 – 8 feet; and two soil borings at a depth of 50 feet within the substation location. These samples underwent various lab testing, including moisture content, unconfined compressive strength, grain size analysis, chemical analysis, thermal resistivity, corrosion, California Bearing Ratio, and index testing. These geotechnical investigations support evaluation of the strength, compressibility, stiffness, and density characteristics of the soil in the Project Area as well as the general suitability of the proposed Project equipment.

   Disturbed areas will be seeded to stabilize the Project Site after construction is completed. The Project will be considered stabilized when soil disturbance is finished and uniform perennial vegetation cover with a density of 70% has been achieved in all portions of the Project Area where ground disturbance occurred and there is no infrastructure.

   The Applicant has created a Standard Operating Procedure ("SOP") for the discovery and management of contaminant-impacted soils during the construction phase of RWE Clean Energy ("RWECE") and subsidiary facilities. This SOP outlines the roles and responsibilities of RWECE Personnel and the Construction Contractor (or EPC Contractor), if contaminant impacted soil is detected during construction. This document provides tools for the identification of contaminant impacted soil, the required materials needed for effective management of contaminant impacted soil, and the reporting procedures both internally and externally upon the discovery of contaminant impacted soils. A copy of the plan, SOP Contaminant Impacted Soil Management Response, is provided as an appendix to **Appendix II Exhibit A-1.4**.

   The Project completed a Phase I Environmental Site Assessment ("ESA") in February 2025 as a preliminary investigation of the Project Area environmental conditions. The Phase I ESA was conducted in accordance with the Environmental Protection Agency ("EPA") All Appropriate Inquiries ("AAI") Rule (40 CFR Part 312) and American Society for Testing and Materials ("ASTM") Standard E2247-23 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property). Standard E2247-23 incorporates Standard E1527-21 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process [ASTM 2021]) by reference and is intended to be no less stringent than Standard E1527-21. The

goal of the processes established by this practice is to assess the property, to the extent feasible pursuant to the processes prescribed in ASTM Standard E2247-23, for the presence of recognized environmental conditions ("RECs"). The Phase I ESA included a site reconnaissance of the Project Area, interviews with the property owners, and a review of available environmental records concerning the properties and surrounding areas. Based on the results of the findings from the assessment, assessment has revealed no RECs, controlled RECs, or significant data gaps in connection with the subject property. Refer to Phase I ESA in **Appendix II, Exhibit A-1.4**.

2. **Grading and excavation.**
The majority of the Project is located on relatively flat, open, agricultural land requiring little clearing and grading during construction, which minimizes the potential for erosion. Construction of the Project will include limited grading of the topsoil as part of the installation of Project infrastructure. At this stage of the Project exact grading depths are not known. It is anticipated that grading will involve cuts and fills within +/- 2 feet of existing grade. However, localized high and low areas may require greater depths/heights of cut and/or fill. Slopes are anticipated to not be greater in height than 5 to 10 feet. The site design will be constructed using an approach that minimizes the amount of on-site grading required by the racking manufacturer's design specifications and the stormwater pollution prevention plan. Topsoil will be segregated on-site and decompacted prior to spreading over the areas to be restored. The disturbed areas will be seeded to stabilize the Site after construction is completed. The Applicant will use, to the extent practicable, a perennial pollinator seed mix, that meets Michigan Pollinator Habitat Scorecard, that will promote soil health, decompaction, and restoration during operation of the Project as well as provide habitat to pollinators and other wildlife. Minimal excavation for installment of infrastructure is anticipated for this Project. A grading analysis will be performed as part of the site engineering design, and soil will be cut and filled as necessary to maintain drainage and slope per equipment and site access road needs. In areas where grading is needed, the topsoil will be stripped and stockpiled in an upload area to be respread on the same land for permanent vegetation establishment. Cable runs will be trenched as needed to minimize overall land disturbance. Each solar module tracking system will be supported by steel posts driven into the ground. Each tracker system will be supported by 10 or 15 steel piles, dependent on string length. The entire system will be supported by approximately 79,500 steel piles installed with a pile-driving machine. Grading will also be required for construction of both temporary and permanent sediment basins. The grading and excavation activities required for the Project will be conducted in accordance with county-level erosion control requirements and the Michigan Environment, Great Lakes, and Energy ("EGLE") issued Notice of Coverage under the National Pollutant Discharge Elimination System permit. Refer to Sheet 30 in **Appendix II, Exhibit A-1.1** for details and typical grading and excavation schematics. See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 5-6.

3. **Construction of temporary and permanent access roads, staging areas, and laydown areas and trenches.**
Access roads for the Project are likely to vary by use and under current plans will include the following:

- Driveway entrances from the public right-of-way per Lenawee County Standard may be up to 30 feet wide and may include culverts.

- Private on-site access roads to the Project substation will be approximately 20 feet wide. These will be lined with geofabric and covered with 12 inches of gravel.
- Other private on-site access roads leading to inverters and transformers will be approximately 16 feet wide. These will consist of compacted soil or gravel, as needed.

Driveways from public roadways as well as internal access roads will be constructed to allow access to the Project Site during construction and operation. Driveways located outside of the security fencing will allow access to the public roadways.

Approximately 57,600 linear feet of internal access roads will be constructed. The Project does not anticipate using existing access roads. The final location and length of these internal access roads will depend on the final site design issued for construction but will be within the Project Area. Access roads within and around the Project Area will be designed with conventional stone at least 6 to 10 inches thick and engineered to support project construction as well as post-construction traffic which will be primarily light maintenance vehicles. The roads will meet the requirement to support a maximum vehicle load of 80,000 pounds for fire truck access. In addition, the substation access road will be able to support heavy vehicle delivery (HS-20 loading) up to two times per year throughout the design life.

A large crane may be necessary for construction of the Project substation, installation of inverters/transformers, or gen-tie line poles; however, given the location of the substation within the facility and proximity to the existing roadway, a dedicated crane path is not anticipated.

During construction, there will be approximately five construction laydown and staging areas for PV solar module construction and the substation. Laydown areas will be prepared prior to the construction of access roads. Each laydown area may include trailers, storage areas, a gravel parking lot, a water tank, generators/power service, communications, and trash and recycling. These laydown areas are within the Project Area and will total approximately 80 acres. Additionally, there may be other areas used for laydown, assembly, cable pulling/tensioning, storage, etc., that may be in and around the PV solar module areas within the Project Area. The exact location, size, and quantity of temporary laydown areas will be determined by the general contractor and will be located within the proposed limits of disturbance ("LOD"). The internal construction of access roads may remain after the completion of construction. The laydown areas will be restored to pre-construction contours and revegetated following construction if outside of the PV solar module areas. Temporary sediment and erosion control measures will be installed throughout the Project Area per final plans.

Trenches and drainage basin systems may be constructed to collect stormwater. See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 6-9.

4. Stringing of cable and/or laying of pipe.

The PV solar modules will be connected electrically by direct current ("DC") cabling. The cabling can be either buried in a trench or secured on the tracking system. The DC cables from PV solar modules and each tracker connect to load break disconnects ("LBD"). The number of trackers connected to one LBD varies, to optimize physical and electrical design, ranging from 2 to 10 trackers per LBD. The output of several combiner boxes is then connected to a single inverter housed in a power station which includes the inverter, DC and alternating current ("AC") switchgear, communications and control equipment, and a medium-voltage ("MV") transformer. The MV AC output of each power station is then

connected to the MV collector system at the Project's substation via underground cables that run parallel to the internal roads of the facility. The depth of the installed DC cables will be determined during final engineering but is anticipated to be a minimum of 48 inches below grade in accordance with the National Electrical Code ("NEC"). See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 9-10.

5. **Installation of electric transmission line poles and structures, including foundations.**
Approximately 46 inverters and power stations will be installed to convert the DC electrical power generated by the PV solar modules to AC electrical power to be delivered to the point of interconnection ("POI"). MV transformers will step up the AC to 34.5 kilovolts ("kV") and DC collection lines that collect the power from a specific set of trackers to a single combiner box will be installed underground and/or above ground for the Project. The AC collection system will be comprised of underground MV cable that will transmit the power from each inverter/power station to the Project substation. The three-phase 34.5-kV AC collection system with communication wire may be underground or overhead. The collection system will total approximately 135,350 linear feet (26 miles) of belowground or aboveground copper and aluminum wiring.

   The Project will require one substation, which will include a step-up transformer (34.5-kV low side and 138-kV high side voltage) and all protective, monitoring, and control equipment required for this type of facility. An approximate 528-linear-foot (0.1-mile), high-voltage (138-kV) gen-tie line will depart from the Project substation to the Utility (Michigan Electric Transmission Company, LLC) Substation, which will be the POI of the Project. The gen-tie line will be hung on light-duty wood pole equivalent steel structure(s), monopole dead-ends that will be approximately 80 feet above the ground. Additional structures will be required for lightning protection within the substation and could exceed heights of 70 feet. The preliminary location for the Project's substation and gen-tie line are shown on the Site Plan located in **Appendix II Exhibit A-1.1**

   All Project equipment will be compliant with applicable Underwriters Laboratories, Institute of Electrical and Electronics Engineers, NEC, National Electric Safety Code, and American National Standards Institute ("ANSI") listings. See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 9-10.

6. **Depth of underground infrastructure.**
Underground infrastructure will consist of MV AC cables, DC cables, fiber optic cables, fiber pull boxes, piles (for trackers and inverters), ground rings, ground rods, and PVC conduit. The depth of the underground infrastructure will be determined during final engineering but will be a minimum of 48 inches below grade in accordance with the relevant NEC standard. See also **Appendix I, Exhibit 3,** Direct Testimony of G. Swamynathan, at pp. 10.

7. **Post-construction restoration.**
Restoration will occur as soon as practical post-construction. Refer to the Landscape Plan on Sheets 26 and 27 provided in **Appendix II, Exhibit A-1.1** for details on temporary and permanent stabilization to occur post-construction. See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 3.

8. **Maps showing the following:**

i. **The planned routes (may be preliminary) for cranes and other heavy equipment.** Refer to sheet 32 (Proposed Haul Route Plan) of the Site Plan provided in **Appendix II Exhibit A-1.1** for the preliminary PV array component haul routes to the site. See also **Appendix I, Exhibit 3,** Direct Testimony of G. Swamynathan, at pp. 7-8.

ii. **The location of any existing deeded easement granted to any entity within the footprint of the facility.**
Refer to the Existing Conditions on sheets 3 through 5, Proposed Setbacks on sheet 6, and Proposed Conditions on sheets 7 through 19 of the Site Plan provided in **Appendix II Exhibit A-1.1** for the existing deeded easements. If additional easement locations are identified as the Project progresses, then they will be incorporated and accounted for in the design and placement of infrastructure. See also **Appendix I, Exhibit 3**, Direct Testimony of G. Swamynathan, at pp. 14.

iii. **The location of known existing and proposed county and intercounty drains, drain easements, and underground drainage tile including data provided by the county drain commission or the property owner as applicable and to the extent available.**
The locations of known existing and proposed county and intercounty drains, drain easements, and underground drainage tile are provided on Existing Conditions on sheets 3 through 5, Proposed Setbacks on sheet 6, and Proposed Conditions on sheets 7 through 19 of the Site Plan provided in **Appendix II Exhibit A-1.1**. The Applicant has coordinated with the Lenawee County Drain Commission to obtain county drain easement locations within the Project area. The Applicant is working with the landowners to identify existing private drains and will continue to do so. See also **Appendix I, Exhibit 3,** Direct Testimony of G. Swamynathan, at pp. 10-11.

APPENDIX A

Baseline Soil Survey
Sampling and Analysis Plan

Baseline Soil Survey Sampling and Analysis Plan for the Rouget Road Solar Project Lenawee County, Michigan

SEPTEMBER 2026

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BASELINE SOIL SURVEY
SAMPLING AND ANALYSIS PLAN
FOR THE ROUGET ROAD SOLAR PROJECT
LENAWEE COUNTY, MICHIGAN

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September 2026

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1 INTRODUCTION

Rouget Road Solar Farm, LLC ("Rouget Road"), a subsidiary of RWE Clean Energy, LLC, has proposed the development of the Rouget Road Solar Farm ("Project"), located in Lenawee County, Michigan (Figure 1). The Project consists of approximately 2,133 acres of privately owned agricultural land and is anticipated to have a 40-year life prior to decommissioning. The following baseline soil survey Sampling and Analysis Plan ("SAP") describes the proposed methodology to evaluate soil resources at a high level across the proposed Project in accordance with Natural Resources Conservation Service ("NRCS") guidelines to establish baseline soil conditions that apply to topsoil conservation, and soil physicochemical properties that reflect soil health, suitability for vegetation establishment, and site stabilization.

Additional goals of this survey are to establish soil resource suitability and topsoil salvage depths to maximize suitable soil resource availability for revegetation purposes. Topsoil preservation is a critical component of revegetation as native plant species of a region are adapted to properties of the surface soil and subsoil may not adequately support vegetation. Preserving the integrity of the topsoil is a critical step to successful revegetation after construction and operations. The survey will provide baseline data to support environmental permitting efforts, site design, and revegetation planning. Baseline soil data will be used to assist with topsoil conservation, revegetation planning, and to track potential changes in soil properties that may impact post-Project land use.

Finally, this SAP defines the Project area, approximate locations of data collection and level of effort, and the survey methods employed. It also establishes procedures for field operations, quality assurance and quality control, data validation and evaluation, and reporting to provide compliance with Michigan Public Service Commission ("MPSC") and Part 91 of Michigan's Natural Resources and Environmental Protection Act ("NREPA") permit requirements regarding soil resource evaluation and protection.

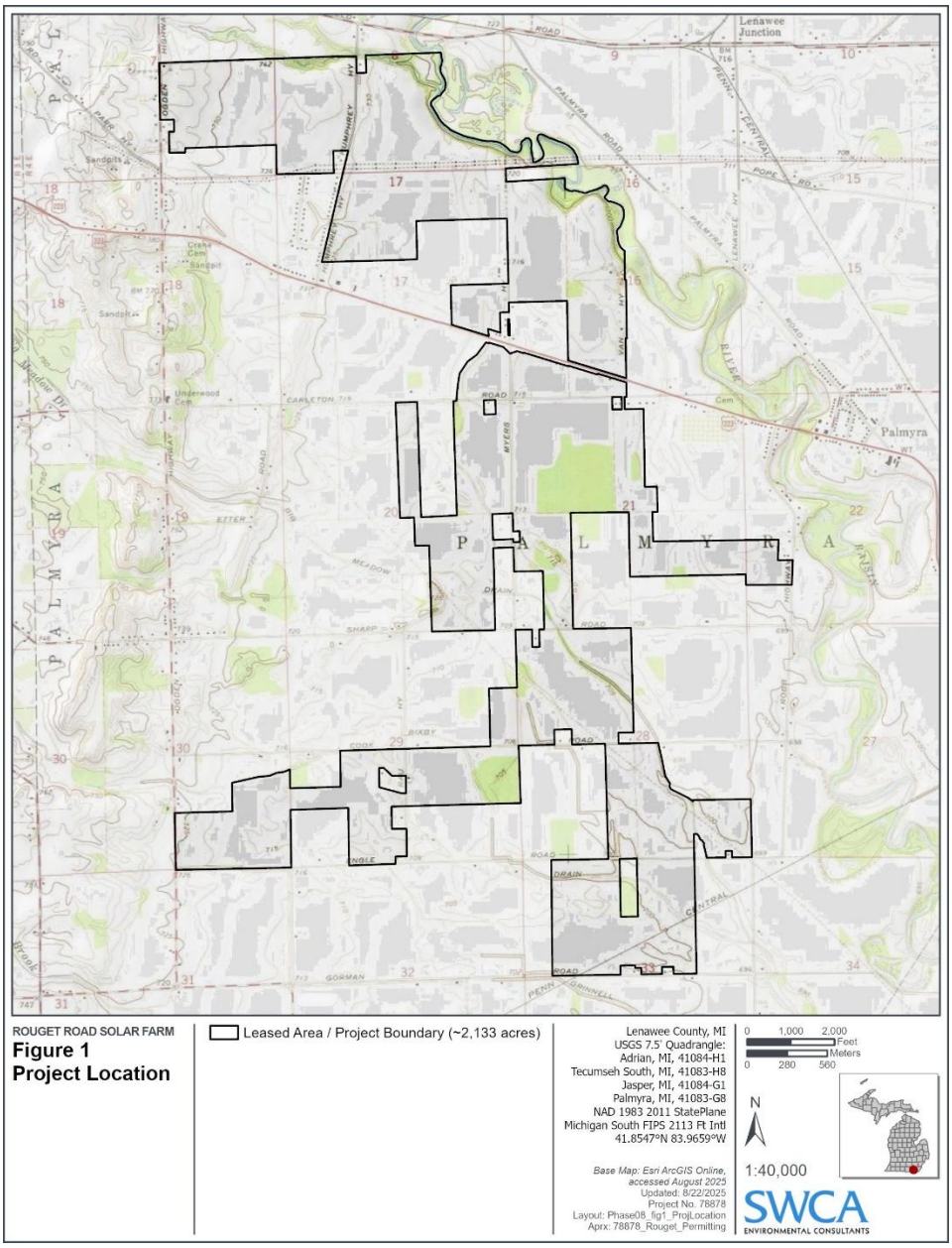


Figure 1. Rouget Road Solar Farm, Lenawee County, Michigan.

2 PRELIMINARY DESKTOP ASSESSMENT

Prior to conducting the baseline soil survey, a desktop analysis will be performed to assess available soil survey data. A certified professional soil scientist ("CPSS") will review soil map units ("SMUs"), as informed by publicly available datasets, including the NRCS gridded Soil Survey Geographic ("gSSURGO") Database, throughout the Project area to finalize soil survey methodology. The gSSURGO database was developed by the NRCS for natural resource planning and management and provides digital access to original soil survey data for streamlined use on Geographic Information Systems ("GIS")

platforms. Soil surveys will be conducted to provide an accurate representation of soil resources across the Project area.

3 FIELD SURVEY METHODS

The baseline soil survey, as described in this SAP, is intended to provide detailed information on soil resources within the Project area as well as establish baseline conditions to track potential changes in soil properties over time as a result of Project impacts. Soil survey methodology will be designed to delineate soil resources across the Project area at a high level as well as quantify suitable topsoil and/or subsoil resource availability for conservation purposes and document baseline soil physicochemical properties for monitoring purposes.

Soil survey methodology and sampling will be designed in accordance with the methods, standards, and procedures for soil survey and mapping as described in Title 430-VI of the National Soils Handbook (NRCS 2024); Soil Survey Manual (Soil Science Division Staff 2017); and Keys to Soil Taxonomy (Soil Survey Staff 2022). A CPSS will direct soil survey efforts to characterize soil resources and to verify NRCS SMUs identified from gSSURGO data during the desktop assessment. The NRCS soil survey will serve as the foundation for the baseline soil survey and will be verified and expanded upon through field survey efforts.

3.1 Topsoil Survey

Field survey efforts will confirm and expand upon NRCS gSSURGO data. Sample locations will be determined by changes or relative influences in any of the five soil forming factors consisting of time, climate, parent material, topography and relief, and biota resulting in potential variations in soil formation. Sample locations will be established in representative areas for each identified soil type based on changes in vegetation community, topography, landform, and land use. The baseline soil survey will be intensive enough to delineate topsoil depths and baseline soil physicochemical properties for each SMU present within the Project.

Survey teams will sample at predetermined georeferenced locations across the Project area using a Global Positioning System ("GPS")-enabled field tablet to ensure the soil sampling and survey are conducted in the proper locations. Final sample locations may be adjusted in the field based on access, permissions, field conditions, and professional judgement. Actual soil survey locations will be logged and georeferenced at the time of sampling.

Survey teams will use a soil push probe, hand auger, or sharpshooter spade to assess soils across the Project. Based on the proposed Project area (approximately 2,133 acres), a minimum of 45 soil cores will be excavated to a minimum depth of 24 inches, or paralithic contact. Soil staff will systematically describe soil resources for the morphological features listed below to confirm identified SMU components from the gSSURGO data:

- Horizonation (delineation of cores into soil horizons)
- Soil color using the Munsell Color Chart (wet and dry)
- Soil structure
- Soil texture by feel flowchart
- Soil consistence
- Percent coarse fragment content

- Root content
- Presence/absence of redoximorphic features
- Restrictive layers (e.g., refusal, fragipan, hardpan, etc.)

Landscape information such as slope, aspect, topographic position, landform, vegetation community, and land use will also be collected at each survey location during field sampling. Cardinal direction photographs will be collected at each survey location in the field and photographs for each soil core will be taken during soil profile descriptions. Areas such as rock land or rock outcrops will be identified, and soil samples will be attempted, with photo-documentation of conditions to validate the absence of suitable material for soil salvage practices. These areas are typically lacking vegetation and devoid of suitable topsoil and subsoil resources. Conventions for soil profile characterization of physical and chemical parameters will follow general NRCS guidance, provided within the Field Book for Describing and Sampling Soils (Schoeneberger et al. 2024), Soil Survey Field and Laboratory Methods Manual (Soil Survey Staff 2014), and the Soil Survey Manual (Soil Science Division Staff 2017).

Soil staff will attempt to map all Project affected lands for the permit area at an Order 3 soil survey level which will entail sample collection for every 50 acres of affected lands. Sampling frequency will also depend on the size and distribution of the SMUs. Any long-term or permanent Project features will require full baseline sampling. Soil mapping and sampling will primarily focus on areas within proposed disturbance areas, as identified at the time of fieldwork, where soil will be handled or removed. Additional soil sampling may be needed and will be done at the discretion of the CPSS in charge based on soil heterogeneity and general site conditions.

3.2 Physicochemical Evaluation of Soils

Soil staff will collect laboratory soil samples representative of site conditions following the soil profile description and topsoil delineation task to analyze soil physicochemical properties of soil horizons and evaluate material suitability for soil salvage practices and revegetation purposes. Soil samples will be submitted to a certified soil lab for analysis of the following parameters:

- Soil pH (saturated paste)
- Electrical conductivity (saturated paste)
- Sodium adsorption ratio (saturated paste)
- Exchangeable sodium percentage (as warranted)
- Cation exchange capacity
- Organic matter content
- Macronutrients (i.e., nitrogen, phosphorus, and potassium)
- Texture (% sand, silt, and clay)

Soil laboratory analysis will establish baseline conditions for comparison during the life, as applicable, of the Project and after decommissioning as well as to identify any potential limiting factors for revegetation. Soil resources, specifically topsoil, that are disturbed during grading and construction activities are typically removed from the location and stockpiled, mixing topsoil resources from across the site. This mixing and reapplication of topsoil for revegetation often results in resources being placed in areas different from their origination; therefore, soils sampled during baseline evaluations are likely to have variable physicochemical

properties between different sampling events (i.e., baseline versus post-decommissioning and revegetation). Soil resources will be handled to preserve beneficial properties necessary for plant growth to ensure soil is returned to a useful condition. Field Equipment

The following field equipment may be used to map soil resources, evaluate soil cores, and collect soil samples:

- Soil push probe, bucket auger, or sharpshooter spade
- Measuring tape
- Field tablet with ArcGIS Field Maps and Survey 123 software, or equivalent alternative
- Field tablet camera
- Field forms (as needed)
- NRCS Field Book for Describing and Sampling Soils
- Munsell color book
- Sample receptacle
- Shipping container

3.3 Data Management

Data management practices will be cautiously employed to guarantee data integrity, safekeeping, and provide a level of quality assurance/quality control.

3.3.1 Data Collection

Data collection will be managed using a handheld field tablet with ArcGIS Field Maps and Survey 123, or equivalent software. Photographs will be taken using a handheld tablet to document site conditions and linked to individual sampling locations. Soil profile descriptions will be recorded in an electronic database at the time of the field assessment. Any required physical field forms will be collected by the team manager at the end of each day and scanned for safekeeping. Upon completion, all electronic field data will be uploaded daily and synced to a Project specific server database for future analysis and management.

3.3.2 Soil Sample Packaging and Delivery

The following process will be used for all soil sample packaging and delivery:

- Soil samples will be collected using a hand trowel or shovel and placed in a sealable heavy-duty polyethylene plastic bag for laboratory submission.
- Sample identification numbers and soil profile horizons will be written on the outside of the receptacle using permanent marker.
- Soil samples will be placed in an appropriate durable shipping container.
- Other physicochemical soil samples will not be stored on ice but will be kept as cool as possible in the field and during transport.
- Lab-specific chain of custody forms will accompany soil samples enclosed in a sealed plastic bag for protection.

All samples will be delivered to the laboratory using appropriate shipping procedure.

3.3.3 Laboratory Analyses for Soil Samples

Selected parameters consist of soil properties that can impair vegetation establishment and negatively impact revegetation success. It is anticipated that soil samples will be analyzed in the laboratory within 14 to 21 days of receipt. Upon receipt from the laboratory, all analytical data will be downloaded with original reports being preserved and not manipulated in any way. Analytical and field data will be entered into a database and reviewed to ensure proper data entry was conducted throughout the process.

4 REPORTING

The data collected during the baseline soil survey will be summarized in a baseline soils technical report to fulfill permitting requirements. This report will include the following:

- Sampling methodology and summary of analytical methods and results
- Descriptions of SMUs encountered within the Project area
- Results and interpretation of soil field assessment
- Results and interpretation of soil laboratory analyses
- Soil survey map to depict soil units delineated across the Project area and soil sample locations
- Soil salvage map to provide location and depth of suitable topsoil resources for salvage practices during construction

Soil profile description data collected during field surveys will be presented in tabular form and referenced to the sampling site location for each collected and delineated soil profile. Soil analytical results will be presented in tabular form by soil depth and referenced to the mapping unit, soil series, sampling site location, and soil horizon. Measured topsoil data will be used to provide soil salvage recommendations for areas requiring grading.

5 LITERATURE CITED

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APPENDIX B

Design Level Geotechnical

Engineering Report

Rouget Road Solar

Design Level Geotechnical Engineering Report

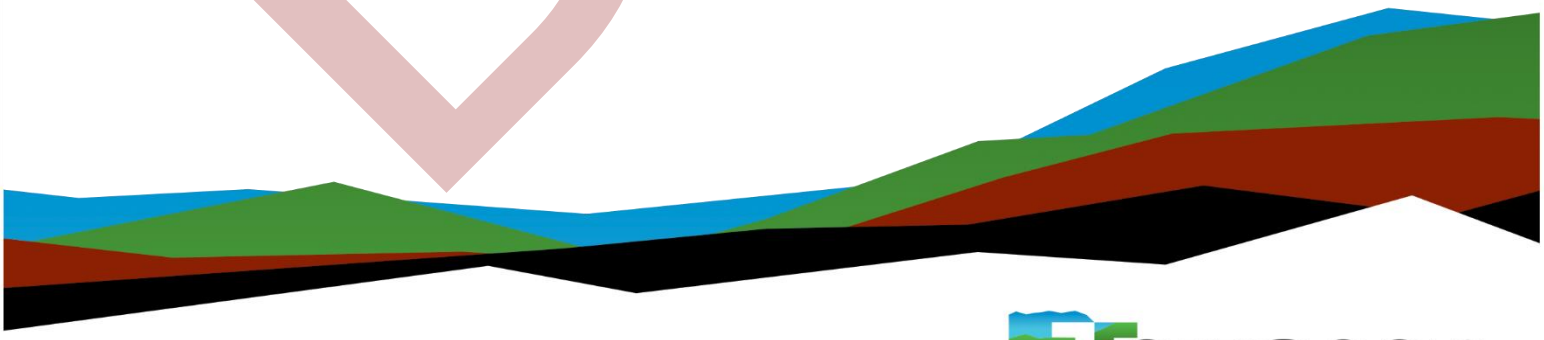
Adrian, Lenawee County, Michigan

August 20, 2025 | Terracon Project No. CK245217

Prepared for:

RWE Renewables Americas, LLC
353 N. Clark Street, Ste 1000
Chicago, Illinois 60654-4721

Draft



Terracon
Explore with us
Nationwide
Terracon.com
Facilities
Environmental
Geotechnical
Materials

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August 20, 2025

RWE Renewables Americas, LLC
353 N. Clark Street, Ste 1000
Chicago, Illinois 60654-4721

Attn: Mr. Robert Pearce, P.E.
P: 312.478.1799
E: Robert.Pearce@rwe.com

Re: Design Level Geotechnical Engineering Report
Rouget Road Solar
Near the Intersection of US-233 and Myers Highway
Adrian, Lenawee County, Michigan
Terracon Project No. CK245217

Dear Mr. Pearce:

We have completed the scope of Design Level Geotechnical Engineering services for the referenced project in general accordance with Terracon Proposal No. PCK245217-R1 dated January 27, 2025. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of solar panel foundations, unpaved roads, and ancillary structures for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon Consultants-MI, Inc.

Nicholas L. Hussey, P.E.
Department Manager

Yogesh S. Rege, P.E.
Senior Engineering Consultant
Senior Principal

Subject Matter Expert review by Aditya Rayudu, P.E. (TX)

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Tension Load Test Results
Compression Load Test Results

Note: This report was originally delivered in a web-based format. **Blue Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the terracon logo will bring you back to this page. For more interactive features, please view your project online at **client.terracon.com**.

Refer to each individual Attachment for a listing of contents.

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Geohazards

Item	Overview Statement [1]
Pile Drivability	We do not expect piles to encounter difficult driving conditions or refusal.
Shallow Bedrock	Shallow bedrock is not anticipated at this site. However, four piles out of 71 installed at this site encountered refusal on likely cobbles and boulders within the glacial till materials.
Frost Potential	The soils at this site are frost susceptible.
Shallow Groundwater	Groundwater was encountered at depths as shallow as about 3.5 feet below grade at the site.
Liquefaction	Liquefaction is not a concern at this site.
Karst	Karst is not a concern at this site.

1. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

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Introduction

This report presents the results of our subsurface exploration and Design Level Geotechnical Engineering services performed for the proposed Rouget Road Solar facility planned to be located near the intersection of US-233 and Myers Highway in Adrian, Lenawee County, Michigan. The approximate location of the project is shown on the attached **Site Location** map. The purpose of these services was to provide information and design level geotechnical engineering recommendations relative to the proposed solar development.

The design level geotechnical engineering Scope of Services for this project included soil borings, cone penetration test (CPT) soundings, field electrical resistivity testing, pile load testing (PLT), laboratory thermal resistivity testing, laboratory corrosion testing, and preparation of this report. A map showing the exploration locations are shown on the attached **Exploration Plan**. Boring logs, CPT logs, results of the laboratory testing performed on soil samples obtained from the site during our field exploration, corrosivity test data, thermal resistivity test data, and field electrical resistivity test results are included in **Appendix B – Exploration and Laboratory Results**.

The pile load testing locations are shown on the attached **Pile Load Test Location Plan**. The pile drive times, tension, lateral, and compression pile load testing results are included in the **Appendix C - Pile Load Testing Data** section of this report.

Project Description

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our current understanding of the project conditions is as follows:

Item	Description
Information Provided	An email was provided by RWE with a Scope of Work (SOW) for a design level geotechnical evaluation for the referenced site. RWE provided a Google Earth™ format of site boundaries.

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Item	Description
Project Description	It is our understanding that the Client intends to develop an approximately 233 MW AC photovoltaic (PV) electric power plant on the subject site. We understand that the buildable area for the PV Arrays will be about 1,398 acres. The power plant will consist of solar panels installed on steel structures and various other equipment and appurtenances associated with the substation (e.g., switchgear, transformers, inverters, and overhead and underground electrical conveyance). A substation is planned in the northern portion of the site.
Proposed Structures	The proposed project will include the construction of ground-mounted solar panels on steel racks preferably founded on driven W-section steel beams. Ancillary electrical equipment will be supported on driven piles, concrete slabs-on-grade, spread footings, or drilled piers at several locations on site.
Maximum Loads	Structural loads were not provided but have been estimated based on our project experience with fixed rack systems. **Panel Array Racking System:** ▪ PV Module Downward: 1 – 7 kips ▪ PV Module Uplift: 0.5 – 3 kips ▪ PV Module Lateral: 1 – 2 kips ▪ PV Module Moment: 0.1 – 30 kip-ft **Ancillary Electrical Equipment in the Array:** ▪ 50 kips (total weight) with assumed maximum mat foundation size of 15 feet by 30 feet **Substation Structures with Mat Foundations:** ▪ 250 kips (total weight) for transformers with assumed mat foundation dimensions of 18 feet by 22 feet ▪ 10 kips for circuit breakers and control building with assumed maximum foundation dimensions of 7 feet by 7 feet
Grading/Slopes	Grading and/or site plans were not provided at this stage of the project. However, it is anticipated that the site work involves cuts and fills within +/- 2 feet of existing grade. Localized high and low areas may require greater depths/heights of cut and/or fill. Slopes are anticipated to have a minimum 3(H):1(V) inclination and not be greater in height than 5 to 10 feet.

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Item	Description
Pavements	Unpaved access roads are planned for the site as described below: ▪ Access roads are to support post-construction traffic which we understand will be primarily light maintenance vehicles. The roads will be required to support a maximum vehicle load of 80,000 pounds for fire truck access. Additionally, the substation access road should be able to support heavy vehicle delivery (HS-20 loading) up to two times per year throughout the design life. ▪ We understand it is acceptable for the access roads to require ongoing maintenance throughout their design life.

Terracon should be notified if any of the above information is inconsistent with the planned construction, especially the grading limits, as modifications to our recommendations may be necessary.

Site Conditions

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Site Information	The approximately 1,398-acre site is located on the north and south sides of US Highway 233 near the intersection with Myers Highway in Adrian, Lenawee County, Michigan. The approximate center of the site is located near 41.8648° N 83.9606° W. See **Site Location**
Existing Improvements	The site is comprised of agricultural fields. Existing structures, wooded areas, and drainage features in the vicinity of the site are excluded from the buildable area.
Current Ground Cover	At the time of our field exploration, the site was covered with agricultural row crops (soybeans, corn, and hay).
Existing Topography (Lenawee Co. GIS)	Site grades generally increase to the north and east and range from about elevation 705 to 725 feet above Mean Sea Level.

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Geotechnical Characterization

Site Geology

We reviewed the surficial geology at this site using publicly available geologic maps from the state of Michigan. The bedrock at this site is primarily shale from the Coldwater Shale Formation of the Mississippian Age. The surficial geology of the majority of the site is lacustrine sand and gravel. However, a small area in the northwesternmost parcels (exploration points 1 through 3) is identified as a surficial geology derived from glacial outwash sand and gravel with post-glacial alluvium.

Soil Survey

The Soil Survey for Lenawee County, Michigan, as prepared by the United States Department of Agriculture (USDA), Soil Conservation Service (now renamed the Natural Resource Conservation Service - NRCS), identifies 31 soil types at the subject site. The soil survey presents shallow (typically upper 80 inches) soil stratification information.

In general, the soil survey indicates the near-surface soils are a mixture of areas of coarse-grained and fine-grained soils. The majority of the site's near-surface soils are identified as silty sand or lean clay soils. Across most of the site, the seasonal high groundwater depths are within about 2 feet of the existing ground surface.

The NRCS Soil Survey is not intended as a substitute for site-specific geotechnical exploration; rather it is a useful tool in planning a project scope in that it provides information relative to the soil types likely to be encountered. Boundaries between adjacent soil types on the NRSC Soil Survey maps are approximate. In general, the shallow subsurface conditions identified in the borings conducted for this project generally agree with the NRCS Soil Survey.

Subsurface Profile

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of the site. Conditions observed at each exploration point are indicated on the individual logs. The GeoModel and individual logs can be found in **Appendix B - Exploration and Laboratory Results**.

As part of our analyses, we identified the following model layers within the subsurface profile. For a more detailed view of the model layer depths at each boring location, refer to the GeoModel.

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Model Layer	Layer Name	General Description
1	Topsoil	About 8 to 16 inches of topsoil
2	Lacustrine Soils	Generally loose to medium dense sand with variable fine grained materials
3	Glacial Soils	Generally stiff to hard lean clay and sandy lean clay with some layers of silt

Groundwater Conditions

The borings were observed during drilling and shortly after the completion of drilling for the presence and level of groundwater and the groundwater levels were estimated from the pore pressures in the CPT soundings. The water levels are summarized in the table below.

Groundwater Levels During Field Exploration				
Boring No.	During Drilling (feet)	After Drilling (feet)	CPT No.	Estimated During Test (feet)
B-1	8.5	8.5	CPT-2	13.5
B-3	--- [1]	--- [1]	CPT-4	10
B-6	Not encountered	Not encountered	CPT-5	10
B-8	Not encountered	Not encountered	CPT-7	10
B-9	Not encountered	Not encountered	CPT-10	4
B-11	18.5	18.5	CPT-12	10
B-13	3.5	15.5	CPT-14	7
B-17	Not encountered	Not encountered	CPT-15	9.5
B-18	6	10.6	CPT-16	10
B-20	10	13.5	CPT-19	16
B-23	5	6.6	CPT-21	16
B-25	6	10.6	CPT-22	5.5
B-26	Not encountered	18.5	CPT-24	20+ [2]
B-28	5	--- [3]	CPT-27	7
B-30	13.5	8.6	CPT-29	6
B-33	6	5.6	CPT-31	20+ [2]

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Groundwater Levels During Field Exploration				
Boring No.	**During Drilling (feet)**	**After Drilling (feet)**	**CPT No.**	**Estimated During Test (feet)**
B-34	13.5	13.5	**CPT-32**	20+ [2]
B-36	6	Not encountered	**CPT-35**	16.5
B-38	8.5	9.5	**CPT-37**	20+ [2]
B-40	Not encountered	11.6	**CPT-39**	16
B-42	Not encountered	--- [3]	**CPT-41**	17
B-44	Not encountered	Not encountered	**CPT-43**	10
B-45	8.5	10.6	**CPT-46**	10
B-47	13.5	13.5	**CPT-48**	10
B-49	Not encountered	18.5	**CPT-51**	10
B-50	Not encountered	Not encountered	**CPT-52**	11.5
B-53	Not encountered	Not encountered	**CPT-54**	10
B-56	Not encountered	Not encountered	**CPT-55**	11
SS-1	33.5	39.6		
SS-2	13.5	39.6		

1. Field log was lost, therefore groundwater levels are not known.
2. Groundwater level estimated to be deeper than the maximum CPT sounding depth.
3. No indication for a delayed groundwater level was provided on the field log.

A longer period of time may be required for groundwater to develop and stabilize in a borehole. Longer term observations in piezometers or observation wells, sealed from the influence of surface water, are often required to define groundwater levels.

Test Pit Summary

We performed a series of test pit excavations at the site during the pile load testing stage of the project. The test pits were extended to depths of about 5 to 8 feet below existing grade. The test pits were completed at the locations of exploration points 1, 6, 9, 11, 14, 15, 16, 19, 23, 29, 36, 44, 47, 51, and 54. The conditions in the test pits generally confirmed the conditions encountered in the corresponding borings at each

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location. Logs of the test pits are provided in **Appendix B – Exploration and Laboratory Results**. Representative photographs of the test pits are provided in the **Photograph Log** section.

Laboratory Corrosion Testing (Pending)

Terracon is currently performing laboratory corrosion testing on representative samples from the project site. The table below will list the results of laboratory pH, soluble sulfate, sulfides, soluble chloride, total salts, oxidation-reduction potential (redox), and electrical resistivity testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

These test results are to be provided to assist in determining the type and degree of corrosion protection that may be required. We recommend that a certified corrosion engineer be retained to analyze the need for corrosion protection and to design appropriate protective measures, if required.

Corrosivity Test Results Summary

Parameter	Number of Tests	Min.	Max.	Average
pH				
Soluble Sulfate (mg/kg)				
Sulfides (mg/kg)				
Chlorides (mg/kg)				
Total Salts (mg/kg)				
Redox (mV)				
Electrical Resistivity (Ω-cm)				

Results of soluble sulfate testing can be classified in accordance with ACI 318 – Building Code Requirements for Structural Concrete. Numerous sources are available to characterize corrosion potential to buried metals. Section 10.7.5 of the AASHTO LRFD Bridge Manual, 8th Edition, 2017, states the following soil or site conditions should be considered as indicative of potential deterioration or corrosion situation for steel piles:

- Soil electrical resistivity less than 2,000 ohm-cm
- Ph less than 5.5
- Ph between 5.5 and 8.5 with high organic content
- Sulfate concentration greater than 1,000 ppm (mg/kg)

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Laboratory Thermal Resistivity

Laboratory thermal resistivity testing was completed by Geotherm USA on 14 bulk samples obtained from depths of approximately 1 to 4 feet below the existing ground surface during the design level exploration. The thermal resistivity testing was performed in general accordance with the IEEE standard. The dry-out curves for the bulk samples were developed from soil specimens compacted to approximately 90% of the standard Proctor criteria (ASTM D698) at the as-received moisture content and dried to 0% moisture to develop the dry-out curves. The results of the laboratory thermal resistivity testing are presented in **Appendix B – Exploration and Laboratory Results**.

Laboratory Thermal Resistivity Test Results Summary

Test Condition	Thermal Resistivity (°C-cm/W) [1, 2]				Number of Tests
	Parameter	Min.	Max.	Average	
Remolded to 90%	Remolded Wet	47	63	53.6	14
	Remolded Dry	139	249	193.1	

1. The "Remolded Wet" Bulk samples were tested near the optimum moisture content.
2. The "Dry" samples were tested at a moisture content near 0%.

Field Electrical Resistivity

Field measurements of soil electrical resistivity were performed by Terracon between June 18, 2025, and July 16, 2025. Field electrical resistivity testing for the preliminary level exploration was not considered due to the maximum "a" spacing extending 16 feet. The "a"-spacings at the various locations are shown in the table below.

Location	No. of Tests	"A"-spacing (feet)[1]
PV Array Areas	28	0.5, 1, 3, 5, 10, 20, 35, 50, 75, 100, 175, and 250
Substation Area	1	0.5, 1, 3, 5, 10, 20, 35, 50, 75, 100, 175, 250, and 300

1. The maximum "a" spacing at some locations was adjusted based on site constraints

The locations of the electrical resistivity testing is shown on the **Field Electrical Resistivity Plan** and the results of the field electrical resistivity testing are included in **Appendix B – Exploration and Laboratory Results** section of this report.

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Seismic Site Class

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil properties observed at the site and as described on the exploration logs and results, our professional opinion is for that a **Seismic Site Classification of D** be considered for the project. Subsurface explorations at this site were extended to a maximum depth of 50 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

Pile Load Testing Results

Each of the piles described in this section was installed into oversized predrilled holes about 12 inches in diameter and about 2 feet deep to remove a portion of the soils subject to adfreeze. The installation and testing methodology are described in **Appendix C – Pile Load Testing**.

Summary of Pile Installation Results

A summary of the time required to advance each pile to its specified embedment depth is summarized in the following table.

Test Location	Pile ID	Embed Depth (ft)	Actual Embedment Below Adfreeze Predrilling (ft)	Total Drive Time (sec) [1]	Average Drive Time (sec/ft) [2]
1	A	7	5	20	4.0
	B	10	8	90	11.3
3	A	7	5	71	14.2
	B	9.8	7.8	271	34.7
	C	7	5	62	12.4
6	A	7	5	76	15.2
	B	7.5	5.5	260	47.3
9	A	7	5	39	7.8
	B	10	8	318	39.8
	C	7	5	46	9.2
11	A	7	5	135	27.0

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Test Location	Pile ID	Embed Depth (ft)	Actual Embedment Below Adfreeze Predrilling (ft)	Total Drive Time (sec) [1]	Average Drive Time (sec/ft) [2]
	B	8.9	6.9	253	36.7
14	A	7	5	127	25.4
	B	8.5	6.5	417	64.2
	C	7	5	83	16.6
15	A	7	5	20	4.0
	B	10	8	40	5.0
16	A	7	5	30	6.0
	B	10	8	40	5.0
18	A	7	5	16	3.2
	B	10	8	100	12.5
19	A	7	5	10	2.0
	B	10	8	28	3.5
	C	7	5	16	3.2
20	A	7	5	9	1.8
	B	10	8	37	4.6
23	A	7	5	22	4.4
	B	10	8	23	2.9
	C	7	5	7	1.4
26	A	7	5	15	3.0
	B	10	8	67	8.4
28	A	7	5	9	1.8
	B	10	8	39	4.9
	C	7	5	8	1.6
29	A	7	5	12	2.4
	B	10	8	32	4.0
30	A	7	5	14	2.8
	B	10	8	33	4.1
32	A	7	5	11	2.2
	B	10	8	82	10.3
35	A	7	5	15	3.0
	B	10	8	49	6.1
	C	7	5	15	3.0
36	A	7	5	22	4.4
	B	10	8	58	7.3
	C	7	5	24	4.8
40	A	7	5	12	2.4
	B	10	8	33	4.1
44	A	7	5	13	2.6

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Test Location	Pile ID	Embed Depth (ft)	Actual Embedment Below Adfreeze Predrilling (ft)	Total Drive Time (sec) [1]	Average Drive Time (sec/ft) [2]
	B	10	8	117	14.6
	C	7	5	15	3.0
45	A	7	5	26	5.2
	B	10	8	63	7.9
	C	7	5	29	5.8
47	A	7	5	31	6.2
	B	10	8	124	15.5
	C	7	5	28	5.6
48	A	7	5	3	0.6
	B	10	8	16	2.0
49	A	7	5	13	2.6
	B	10	8	27	3.4
	C	7	5	17	3.4
51	A	7	5	13	2.6
	B	10	8	38	4.8
	C	7	5	18	3.6
52	A	7	5	13	2.6
	B	10	8	27	3.4
	C	7	5	15	3.0
54	A	7	5	17	3.4
	B	10	8	35	4.4
	C	7	5	19	3.8

1. Total drive time only includes time driving piles through soil from bottom of predrilled holes.
2. Average drive time divides the total drive time by the actual embedment below adfreeze predrilling.

Summary of Pile Load Test Results

The individual pile load test results are provided in **Appendix C – Pile Load Testing**. The following table provides a summary of each test pile location, embedment depth, uplift load at ¼ of an inch of vertical displacement, compression load at ¼ of an inch vertical displacement, and the lateral load at 1 inch of lateral displacement measured at 6 inches above the ground surface:

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Test Location	Pile ID	Embed Depth (ft)	Total Drive Time (sec)	Uplift Load at ¼ of an inch Displacement (lbs.)	Lateral Load at 1 inch Displacement (lbs.)	Compression Load at ¼ of an inch Displacement (lbs.)
1	A	7	20	3,480	2,860	---
	B	10	90	6,840	2,700	---
3	A	7	71	7,410	2,380	---
	B	9.8	271	14,840	2,650	---
	C	7	62	---	---	10,010
6	A	7	76	9,890	3,170	---
	B	7.5	260	13,980	3,010	---
9	A	7	39	7,230	2,680	---
	B	10	318	14,380	3,340	---
	C	7	46	---	---	8,100
11	A	7	135	13,950	4,020	---
	B	8.9	253	14,630	2,360	---
14	A	7	127	>15,000	3,320	---
	B	8.5	417	>15,000	3,460	---
	C	7	83	---	---	>15,000
15	A	7	20	4,070	3,630	---
	B	10	40	>15,000	3,670	---
16	A	7	30	9,070	3,850	---
	B	10	40	10,330	2,710	---
18	A	7	16	9,500	4,270	---
	B	10	100	14,480	4,140	---
19	A	7	10	7,300	3,180	---
	B	10	28	6,710	3,090	---
	C	7	16	---	---	10,200
20	A	7	9	3,390	2,890	---
	B	10	37	7,030	2,890	---
23	A	7	22	4,460	2,700	---
	B	10	23	4,240	3,030	---
	C	7	7	---	---	4,710
26	A	7	15	8,240	3,020	---
	B	10	67	8,000	2,880	---
28	A	7	9	6,920	2,350	---
	B	10	39	8,340	2,400	---
	C	7	8	---	---	6,690
29	A	7	12	6,190	2,350	---
	B	10	32	9,710	2,880	---
30	A	7	14	4,050	3,110	---

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Test Location	Pile ID	Embed Depth (ft)	Total Drive Time (sec)	Uplift Load at ¼ of an inch Displacement (lbs.)	Lateral Load at 1 inch Displacement (lbs.)	Compression Load at ¼ of an inch Displacement (lbs.)
	B	10	33	4,610	2,820	---
32	A	7	11	9,060	3,210	---
	B	10	82	13,600	4,070	---
35	A	7	15	5,200	3,040	---
	B	10	49	8,060	2,700	---
	C	7	15	---	---	4,760
36	A	7	22	4,690	1,910	---
	B	10	58	9,750	2,650	---
	C	7	24	---	---	>15,000
40	A	7	12	8,040	3,030	---
	B	10	33	5,850	2,770	---
44	A	7	13	8,110	2,720	---
	B	10	117	>15,000	2,160	---
	C	7	15	---	---	11,600
45	A	7	26	3,910	2,280	---
	B	10	63	14,880	2,940	---
	C	7	29	---	---	11,750
47	A	7	31	8,510	1,770	---
	B	10	124	9,340	2,230	---
	C	7	28	---	---	10,040
48	A	7	3	4,180	2,990	---
	B	10	16	5,010	2,750	---
49	A	7	13	2,110	1,120	---
	B	10	27	8,620	2,060	---
	C	7	17	---	---	3,770
51	A	7	13	4,700	2,320	---
	B	10	38	10,640	2,570	---
	C	7	18	---	---	6,880
52	A	7	13	4,490	2,240	---
	B	10	27	4,750	2,460	---
	C	7	15	---	---	8,110
54	A	7	17	4,680	2,300	---
	B	10	35	10,060	2,450	---
	C	7	19	---	---	8,520

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PV Array Field

Solar Pannel Support Pile Design Recommendations

General

We understand the main foundation component in the array area will be driven pile foundations for support of solar arrays; however, some lightly-loaded structures are typically required across the site. In general, small structures may be supported on driven piles or isolated mat/slab foundation systems.

Based on the results of the pile load testing program, we have broken the site into five zones (Zone 1 through 5) for axial parameters and two zones (Zones A and B) for lateral parameters for supporting the PV array tracking systems. The project site was then zoned by matching test locations with their axial and lateral zones. The following table presents the results of the combined zoning on the site:

Zoning for PV Array Trackers	
Combined Zone	**Pile ID**
1A	001, 020, 023, 030, 048, 049, 052
2A	029, 035, 036, 051, 054
3A	019, 026, 028, 040, 047
3B	016
4A	045
4B	015
5A	003, 006, 009, 014, 044
5B	011, 018, 032

A map of these zones is provided in the attached **Pile Zoning Plan** in the **Appendix A – Site Location and Exploration Plans** section of this report.

Design level geotechnical engineering recommendations for foundation systems and other earth connected phases of the project are outlined in this report. The recommendations contained in this report are based upon the results of field and laboratory testing, engineering analyses, and our current understanding of the proposed project.

Adfreeze Stress and Depth to which Adfreeze Applies

It is Terracon's professional opinion that the near-surface overburden soils encountered in the borings drilled at this site are frost susceptible. In cold weather climates, design to resist frost heave forces exerted on foundations is often a significant factor in the

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foundation design. Specifically, pile lengths will need to be long enough to counteract potential heave forces in the seasonal frost zone.

As the frost penetrates deeper into the soil and the ground swells due to freezing, a portion of the soil profile and ground surface will rise due to frost heaving. The upward displacement is due to freezing water contained in the soil voids along with the formation of ice lenses in the soil. The freezing material grips the steel pile and exerts an uplift force due to the adfreeze stress developed around the surface area of the pile. The amount of upward force depends on the following:

- The thickness of ice lenses formed in the seasonal frozen ground
- The bond between the steel pile surface and the frozen ground
- The surface area of the steel pile in the seasonally frozen ground

Adfreeze on pile foundations may be significant. If the anchorage of the foundations and the deadweight of the pile are not sufficient to resist these upward forces, adfreeze load can cause uplift to structures. Based on our review of soil samples and associated references, we recommend an adfreeze stress of 1,500 psf be considered when determining the frost heave load on a pile. The box perimeter of the pile (two times the pile shape depth, d, plus two times the flange width, b_f) acting over a depth of 2.6 feet should be considered when determining the adfreeze stress on a pile. The adfreeze depth was calculated using the Modified Berggren equation along with a review of nearby weather station information and the results of the soil borings completed at the site.

Depending on the final size of the solar panels, the adfreeze uplift forces could govern the design and embedment depth of the steel piles; therefore, uplift might be the primary factor in foundation costs. The factor of safety against uplift should be determined based on discussions with the owner and design engineer considering the desired level of risk, construction costs, and the long-term maintenance program.

Axial Capacity Recommendations

The axial uplift capacity of driven piles may be estimated based on skin friction developed along the perimeter of the pile, while the compression capacity may be estimated using the skin friction and end bearing. When determining embedment depths, the perimeter of a wide flange beam should be taken as twice the sum of the flange width and section depth. For axial tension and compression load conditions, the upper 1 foot of soil should be neglected due to near-surface soil disturbances.

The ultimate axial capacity of driven steel piles may be calculated using the skin friction and end bearing values for each zone as presented in the following table.

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Axial Zone	Depth Interval (feet bgs)	Ultimate Skin Friction (psf) (q_s) [1,2,3]	Ultimate End Bearing (lbs.) ($Q_{ult\ (end)}$) [1,2]
1	2.6 – 10	350	1,500
2	2.6 – 7	550	3,500
	7 – 10	850	
3	2.6 – 7	650	1,000
	7 – 10	850	
4	2.6 – 7	450	7,500
	7 – 10	1,100	
5	2.6 – 7	900	1,000
	7 – 10	1,100	

1. Values only applicable to piles driven to a minimum of 7 feet.
2. The ultimate skin friction is based on the results of the uplift load testing. The upper 3 feet should be neglected in pile design for axial uplift and the upper 1 foot should be neglected for axial compressive loading conditions.
3. For Allowable Strength Design (ASD), we recommend the allowable capacity be determined by applying a minimum factor of safety (FOS) of at least 1.5 to the ultimate values of skin friction and end bearing. Piles deeper than 10 feet can use the above values of ultimate skin friction with a FOS of 2.

The above values are to be used in the following equations to obtain the ultimate uplift or compression load capacity of a pile:

$$\boldsymbol{Q_{ult\ (compressive)} = Q_{ult\ (end)} + H \times P \times q_s}$$

$$\boldsymbol{Q_{ult\ (uplift)} = H \times P \times q_s}$$

$Q_{ult} = Ultimate\ uplift\ or\ compression\ capacity\ of\ post\ (lbs)$

$Q_{ult-(end)} = Ultimate\ end\ bearing\ capacity\ per\ the\ table\ above\ (lbs)$

$H = Depth\ of\ pile\ embedment\ (ft)$

$P = Perimeter\ area\ of\ pile\ (i.e. W6 \times 9 = 1.64\ sqft/ft)$

$q_s = Skin\ friction\ per\ depth\ per\ the\ table\ above$

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For Allowable Strength Design (ASD), we recommend the allowable capacity be determined by applying a minimum factor of safety (FOS) of at least 1.5 to the ultimate values of skin friction and end bearing. Piles deeper than 16 feet can use the above values of ultimate skin friction with a FOS of 2.

An example calculation to determine the allowable capacity for a W6x9 pile in tension and founded at a depth of 9 feet in the area of Zone 2 would be as follows:

$$Q_{allowable(uplift)} = (7 - 2.6) \times 1.64 \times \frac{550}{1.5} + (9 - 7) \times 1.64 \times \frac{850}{1.5} = 4{,}505\ pounds$$

An example calculation to determine the allowable tension capacity for a 17-foot embedded pile in Zone 4 is shown below:

$$Q_{allowable(uplift)} = (7 - 2.6) \times 1.64 \times \frac{450}{1.5} + (10 - 7) \times 1.64 \times \frac{1{,}100}{1.5} + (17 - 10) \times 1.64 \times \frac{1{,}100}{2.0}$$
$$= 12{,}087\ pounds$$

The provided skin friction values are applicable for piles that are driven using a Vermeer PD-10 pile driver with a hydraulically operated hammer. If a smaller or larger drive hammer is used, we recommend that Terracon be consulted to determine the minimum drive time based on the actual equipment to be used.

Piles should have a minimum center-to-center spacing of at least 5 times their largest cross-sectional dimension to prevent reduction in the axial capacities due to group effects.

Final pile design shall be completed by an engineer licensed in the State of Michigan based upon information contained in this geotechnical engineering report and independent pile load testing.

Lateral Capacity Recommendations

Lateral load response of pile foundations was calculated using the computer program *LPILE 2022* by Ensoft, Inc. The stiffness of the pile and the stress-strain properties of the surrounding soils determine the lateral resistance of the foundation. We modeled the lateral response of the tested piles to evaluate LPILE input parameters that can be used for design of the production piles. Recommended LPILE input parameters for design level lateral load analysis for driven pile foundations are shown in the following table:

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LPILE Parameters – Zone A (All PLT locations except 011, 015, 016, 018, and 032)					
Layer Depth Range (feet)	**LPILE Soil Model**	**Effective Unit Weight (pcf)**	**Friction Angle (°)**	**Effective Cohesion (psf)**	**Strain, ε_{50} and k**
0 to 5.5	Sand (Reese)	115	29	---	Use default values
5.5 to 9	Sand (Reese)	55	29	---	
9 to 20	Stiff Clay w/o Free Water	60	---	1,000	

LPILE Parameters – Zone B (PLT locations 011, 015, 016, 018, and 032)					
Layer Depth Range (feet)	**LPILE Soil Model**	**Effective Unit Weight (pcf)**	**Friction Angle (°)**	**Effective Cohesion (psf)**	**Strain, ε_{50} and k**
0 to 5.5	Sand (Reese)	115	29	---	Use default values
5.5 to 20	Stiff Clay w/o Free Water	60	---	2,500	

The lateral load test results were varied between the different locations and embedment depths at the site. Therefore, we are providing the following table of p-multiplier values that should be used for the corresponding zones and embedment depths:

Zone	Minimum Pile Embedment Depth (feet-bgs) [1]	P-Multiplier [2,3]
A	7	1.5
	10	1.0
B	7	2.5
	10	1.2

1. Minimum pile embedment depth of 7 feet.
2. The p-multiplier value for the 10-foot-deep piles may be used for piles installed deeper than 10 feet.
3. P-multiplier values for depths between 7 and 10 feet can be linearly interpolated.

Lateral analyses were performed by using LPILE to generate a load vs. deflection curve that was generally consistent with the field load test results. The shear load was applied at approximately 2 feet above the ground surface. The effective unit weight, cohesion, and friction angle were based on the results of the SPT borings and CPT soundings. The

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p-multiplier was then adjusted (by trial-and-error method) such that the applied load resulted in a deflection value that matched the load test results. Please note that this procedure was based on only one discrete set of data determined at about 6 inches from the ground surface during the field load testing. These results should be used for LPILE analysis only using the 2022 version of LPILE. These parameters are only applicable to piles installed to a minimum of 7 feet bgs. In our evaluation, the piles were modeled as a Steel AISC Section Strong Axis.

The structural engineer should evaluate the moment capacity of the pile as part of their structural evaluation. Piles should have a minimum center-to-center spacing of at least five times their largest cross-sectional dimension in the direction of the lateral loads, or the lateral capacities should be reduced due to group effects. If piles will be spaced closer than five times their largest cross-sectional dimension, we should be notified to provide supplemental recommendations regarding resistance to lateral loads.

Construction Considerations

Based on the field exploration and laboratory testing, it is our opinion that the soils on the site are suitable for direct pile installation into native soils. We do not expect that widespread pre-drilling will be required for this project. However, four out of the 71 piles installed at this site encountered premature refusal at depths shallower than their planned embedment depths. Based on the surficial geology at this site (glacial deposition) and the gravel and cobbles identified during the test pits at this site, as well as our knowledge of the bedrock geology in this area, we anticipate that these pile refusals were likely on cobbles or boulders within the glacially-deposited soils and are not indicative of widespread areas of potential shallow bedrock at this site. During construction, the contractor should expect to encounter occasional pile refusals due to similar occurrences of cobbles and boulders. If the obstructions cannot be removed, limited undersized predrilling may be needed where such refusals occur.

A geotechnical engineer should be engaged to make periodic observations of pile driving operations during construction. Each pile should be observed and checked for buckling, crimping and alignment in addition to recording penetration resistance, depth of embedment, and general pile driving operations.

As part of the overall quality control program, the time rate of installation (seconds per foot of embedment) should be recorded during production pile driving. As a direct extension of the design process, additional "proof" testing should be performed on a representative number of production piles that do not meet the minimum installation rate criteria outlined in this report.

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Preliminary Embedment Depth Analysis

The preliminary embedment depth analysis (PEA) is in progress and the results will be submitted as an addendum to this report or incorporated into the finalized version of this report.

Mat Foundations for Support of Inverters and Transformers

We understand the main foundation component in the array area will include driven pile foundations for support of solar arrays; however, some lightly loaded structures such as inverter blocks are typically required across the site. In general, lightly loaded equipment may be supported on isolated mat/slab foundation systems. We also anticipate that transformers at the substation may be supported on mat foundations.

Mat Foundation Design Parameters

Very loose to loose sands and silts were occasionally encountered near the surface in the PV array area and will require recompaction into a medium dense (or better) relatively density prior to foundation construction. Based on the anticipated types of structures and the expected magnitude of loading, surface compaction using a ho-pac or other large plate compactor for smaller isolated foundations, or a moderate to heavy vibratory roller to provide compaction over a larger area, is anticipated to be necessary to sufficiently improve the granular subgrade materials for foundation support.

If lower strength (soft to medium stiff) clays are encountered at the planned Design Footing Level, we recommend that they be removed and replaced with properly placed and compacted granular structural fill (such as Michigan Department of Transportation (MDOT) 21AA crushed stone, or other material as approved by the geotechnical engineer) or lean concrete. Excavations in cohesive subgrade soils should be completed using a smooth-lipped excavator bucket in a trimming motion to avoid disturbances to the bearing subgrade.

Our analysis in this section has considered that the inverter pad mat foundations will have a maximum size of approximately 15 feet by 30 feet and will support loads up to about 50 kips. The design recommendations for the transformers are based on a mat foundation of about 18 feet wide by 22 feet long supporting a transformer weighing up to about 250 kips. If different foundation dimensions are planned or a different foundation load is expected, our engineer should be contacted to provide updated recommendations.

If the site has been prepared in accordance with the requirements noted in the **Earthwork** section of this report, the foundations should be designed based on the criteria outlined below.

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Item	Description
Anticipated Average Mat Contact Pressure [1, 2]	500 psf for inverter blocks 750 psf for transformers
Suitable Bearing Material [3]	▪ Native sands recompacted into a medium dense or better relative density, or ▪ Stiff to hard clay soils, or ▪ Lean concrete or crushed stone extending to suitable materials
Design Modulus of Subgrade Reaction, k	▪ 100 pci
Corrected Modulus of Subgrade Reaction based on Foundation Width, K_c	▪ Inverter on sand: 28 pci ▪ Inverter on clay: 7 pci ▪ Transformer on sand: 28 pci ▪ Transformer on clay: 6 pci
Minimum Embedment below Finished Grade for Frost Protection [4]	48 inches
Ultimate Coefficient of Sliding Resistance [5]	0.30 – cohesive material 0.40 – granular material
Ultimate Passive Resistance [6] **(equivalent fluid pressures)**	360 pcf (granular backfill) 290 pcf (cohesive backfill)
Estimated Total Settlement from Structural Loads [2]	Less than about 1 inch for inverters Less than about 1.5 inches for transformers

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.
2. Values provided are for maximum loads noted in **Project Description**. Additional geotechnical consultation will be necessary if higher loads are anticipated.
3. Unsuitable or very loose soils should be overexcavated and replaced per the recommendations presented in **Earthwork**.
4. Embedment necessary to minimize the effects of frost and/or seasonal water content variations.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Frictional resistance for granular materials is dependent on the bearing pressure which may vary due to load combinations. For fine-grained materials, lateral resistance using cohesion should not exceed ½ the dead load.
6. Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face. Assumes no hydrostatic pressure.

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If the maximum contact pressure for a foundation is greater than assumed in the table above, our geotechnical engineer should be contacted to provide supplemental recommendations, as appropriate. The weight of the foundation concrete below grade may be neglected in dead load computations.

It is common to reduce the k-value to account for dimensional effects of large, loaded areas. For such features, the value of K_c in the formula below is the corrected or design modulus value in units of psi/in, k is the table value above, and b is the mat width (short dimension) or tributary loaded area measured in units of feet. Soft or unstable subgrade will be remediated by scarifying and recompacting or by overexcavation and replacement. For sand subgrades, this can be estimated as:

$$K_c = k\left(\frac{b+1}{2b}\right)^2$$

For clay subgrades, this can be estimated as:

$$K_c = k(\frac{1}{b})$$

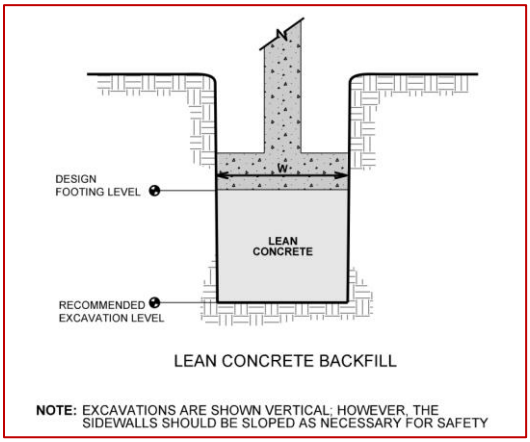
Our engineer can provide refined estimates of K_c if provided more detailed information regarding the loads and application area to conduct settlement analysis.

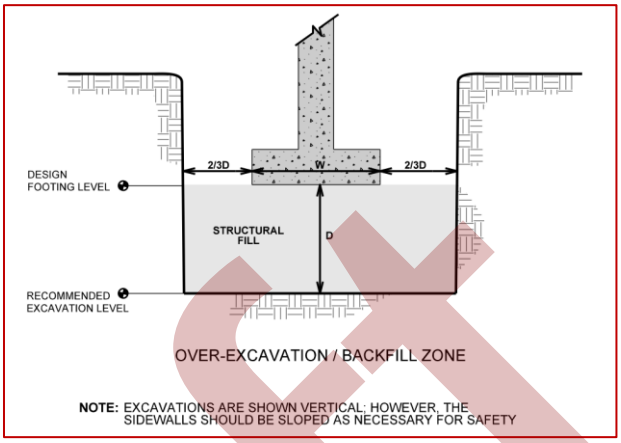
Mat Foundation Construction Considerations

As noted in **Earthwork**, the base of footing excavations should be observed by the Geotechnical Engineer or their representative. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are observed at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The lean concrete replacement zone is illustrated on the sketch below. Overexcavation for structural fill placement below footings should be conducted as shown below. The overexcavation should be backfilled up to the Design Footing Level with compacted granular material such as MDOT Gradation 21AA crushed stone placed as recommended in the **Earthwork** section.

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Frost Considerations

The soils on this site are frost susceptible, and small amounts of water can affect the performance of the slabs on-grade. Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible (NFS) fill or structural slabs.

Substation Area

Proposed substation structures such as H-frames, dead-ends, and poles are anticipated to be supported on a series of deep foundations such as drilled shafts or direct embed poles. Smaller equipment such as circuit breakers or control buildings may be supported on shallow foundations and larger equipment such as transformers are anticipated to be supported on mat foundations.

Spread Footing Foundations

We understand within the substation that some equipment and structures such as control buildings may be supported on shallow footing foundations.

As discussed previously in this report for the PV array areas, lower strength soils (very loose to loose sands/silts or soft to medium stiff clays) were also encountered near the surface in the substation area and will require improvement prior to foundation construction. Granular soils should be recompacted into a medium dense (or better) relative density and lower strength clay soils should be overexcavated and replaced with suitable granular structural fill or lean concrete extending to suitable soils. Overexcavations in cohesive subgrade soils should be completed using a smooth-lipped excavator bucket in a trimming motion to avoid disturbances to the bearing subgrade.

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The following sections present design recommendations and construction considerations for the shallow foundations for proposed lightly loaded structures and related structural elements.

Spread Foundation Axial Design Parameters

For the spread footing design recommendations provided in this subsection, we have considered a maximum axial load of about 10 kips and foundation sizes less than about 7 feet by 7 feet.

Item	Description
Maximum Net Allowable Bearing Pressure [1, 2]	2,500 psf
Required Bearing Stratum [3]	▪ Stiff to hard clay soils, or ▪ Sands recompacted into a medium dense or better relative density, or ▪ Compacted crushed stone or lean concrete extending to suitable soils
Minimum Foundation Dimensions	Per IBC 1809.7
Ultimate Passive Resistance [4] **(equivalent fluid pressures)**	290 pcf (cohesive material) 360 pcf (granular material)
Ultimate Coefficient of Sliding Resistance [5]	0.30 – cohesive material 0.40 – granular material
Minimum Embedment below Finished Grade for Frost Protection	Exterior footings in unheated areas: 48 inches Exterior footings in heated areas: 42 inches Interior footings in heated areas: 20 inches
Estimated Total Settlement from Structural Loads [2]	Less than about 1 inch

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.
2. Values provided are for maximum loads noted in **Project Description**. Additional geotechnical consultation will be necessary if higher loads are anticipated.
3. Unsuitable or soft soils should be overexcavated and replaced per the recommendations presented in **Earthwork**.
4. Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face. Assumes no hydrostatic pressure.
5. Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Frictional resistance for granular materials is dependent on the bearing

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Item	Description
	pressure which may vary due to load combinations. For fine-grained materials, lateral resistance using cohesion should not exceed ½ the dead load.

The net allowable foundation bearing pressures apply to dead loads plus design live load conditions. The design bearing pressure may be increased by 25 percent when considering transient loads that include wind conditions. The weight of the foundation concrete below grade may be neglected in dead load computations.

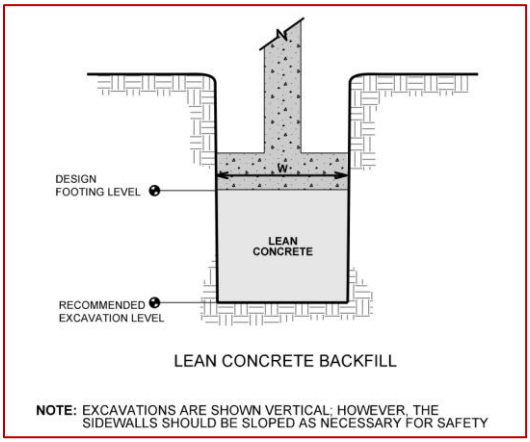
Foundation excavations should be observed by the Geotechnical Engineer. If the soil conditions encountered differ significantly from those presented in this report, Terracon should be contacted to provide additional evaluation and supplemental recommendations.

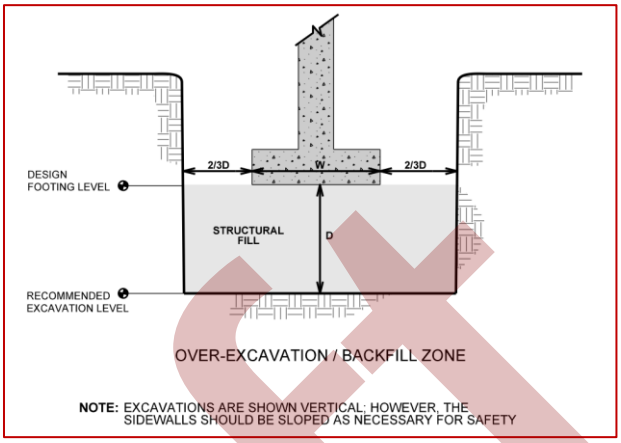
Foundation Construction Considerations

As noted in **Earthwork**, the base of footing excavations should be observed by the Geotechnical Engineer or their representative. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are observed at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The lean concrete replacement zone is illustrated on the sketch below. Overexcavation for structural fill placement below footings should be conducted as shown below. The overexcavation should be backfilled up to the Design Footing Level with compacted granular material such as MDOT Gradation 21AA crushed stone placed as recommended in the **Earthwork** section.

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Frost Considerations

The soils on this site are frost susceptible, and small amounts of water can affect the performance of lightly-loaded foundations and exterior slabs. Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible (NFS) fill or structural slabs (for instance, structural stoops in front of control building doors). As an alternative to extending NFS fill to the full frost depth, consideration can be made to placing extruded polystyrene or cellular concrete under a buffer of at least 2 feet of NFS material.

Deep Foundation Design

Deep foundations, including drilled shaft foundations and/or direct embedment foundations with crushed stone or concrete backfill, are anticipated to be utilized for the support of substation structures for the project.

Deep Foundation Axial Design Parameters

Soil design parameters are provided below in the **Deep Foundation Design Summary** table for the design of drilled shaft and/or direct embed pole foundations. The values presented for allowable side friction and end bearing include a factor of safety of 2 and 3, respectively. The following table does not consider any cuts or fills at the substation area.

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Drilled Shaft Design Summary [1] (Based on Boring SS-1)				
Depth (feet)	Stratigraphy [2]		Allowable Side Friction (psf) [3]	Allowable End Bearing Pressure (psf) [4]
	GeoModel Layer No.	Material		
0 to 4	1/2	Frost Depth	---	---
4 to 12	3	Sandy Lean Clay	1,100	9,000
12 to 32	3	Lean Clay	800	9,000
32 to 42	3	Silt	900	12,000
42 to 50	3	Sandy Lean Clay	1,100	12,000

1. Design capacities are dependent upon the method of installation and quality control parameters. The values provided are estimates and should be verified when installation protocol have been finalized.
2. See **Subsurface Profile** in **Geotechnical Characterization** for more details on stratigraphy.
3. Applicable for compressive loading only. Reduce to 2/3 of values shown for uplift loading. The effective weight of the shaft can be added to uplift load resistance to the extent permitted by IBC.
4. Drilled shafts should have a minimum length of at least 10 feet for end bearing to apply. Shafts should extend at least one diameter into the bearing stratum for end bearing to be considered.

Shafts should be adequately reinforced as designed by the Structural Engineer for both tension and shear to sufficient depths. Buoyant unit weights of the soil and concrete should be used in the calculations below the highest anticipated groundwater elevation.

Drilled shaft should have a minimum (center-to-center) spacing of three diameters. Closer spacing may require a reduction in axial load capacity. Axial capacity reduction can be determined by comparing the allowable axial capacity determined from the sum of individual piles in a group versus the capacity calculated using the perimeter and base of the pile group acting as a unit. The lesser of the two capacities should be used in design.

A minimum shaft diameter of 30 inches should be used. Drilled shafts should have a minimum length of 10 feet and should extend into the bearing strata at least one shaft diameter for the allowable end-bearing pressures listed in the above table.

Post-construction settlements of drilled shafts designed and constructed as described in this report are estimated to range from about ½ to ¾-inch. Differential settlement between individual shafts is expected to be ½ to ⅔ of the total settlement.

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Deep Foundation Lateral Loading

MFAD and LPILE design parameters below are the primary sources for development of each of the following design parameters included the FAD 5.1 User's Guide, Revision 0, dated December 2015 (FAD reference) and LPILE 2022. Such analysis should be considered if lateral loads exceed about 10 kips. Modern versions of LPILE provide estimated default values of k_h and E_{50} based on strength and are recommended for the project. Since deflection or a service limit criterion will most likely control lateral capacity design, no safety/resistance factor is included with the parameters.

Stratigraphy[1]		MFAD / LPILE Soil Model	S_u (psf)[2]	ϕ[2]	γ' (pcf)[2]	LPILE Parameters[3]		MFAD
Depth (feet)	Material					ε_{50}	K (pci)	E_d[4]
0 to 4	Frost Depth	Soil / Sand (Reese)	---	29°	115	Use Default Value		0.2
4 to 12	Sandy Lean Clay	Soil / Stiff Clay w/o Free Water	4,000	---	125			2.3
12 to 32	Lean Clay	Soil / Stiff Clay w/o Free Water	3,000	---	65			1.7
32 to 42	Silt	Soil / Sand (Reese)	---	28°	60			2.4
42 to 50	Sandy Lean Clay	Soil / Stiff Clay w/o Free Water	4,000	---	70			2.3

1. See **Subsurface Profile** in **Geotechnical Characterization** for more details on Stratigraphy.
2. Definition of Terms:
   S_u: Undrained shear strength
   ϕ: Internal friction angle
   γ': Effective unit weight. Groundwater assumed to be at a depth of about 13 feet below grade in the substation area.
3. Lateral modulus (K) and ε_{50} strain values are intended for the LPILE program and should not be used as inputs in other design software programs.
4. MFAD software deformation modulus.

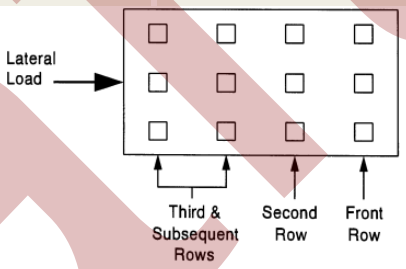
When shafts are used in groups, the lateral capacities of the shafts in the second, third, and subsequent rows of the group should be reduced as compared to the capacity of a

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single, independent shaft. Guidance for applying p-multiplier factors to the p values in the p-y curves for each row of pile foundations within a pile group are as follows:

Center to Center Shaft Spacing [1,2]	P-Multiplier, P_m [3]		
	Front Row	Second Row	Third and Subsequent Rows
3B	0.8	0.4	0.3
4B	0.9	0.65	0.5
5B	1.0	0.85	0.7
6B	1.0	1.0	1.0

1. Spacing in the direction of loading. B = shaft diameter
2. For the case of a single row of shafts supporting a laterally loaded grade beam, group action for lateral resistance of shafts would need be considered when spacing is less than three shaft diameters (measured center-to-center).
3. See adjacent figure for definition of front, second and third rows.



Spacing closer than 3D (where D is the diameter of the shaft) is not recommended without additional geotechnical consultation due to potential for the installation of a new shaft disturbing an adjacent installed shaft likely resulting in axial capacity reduction.

The load capacities provided herein are based on the stresses induced in the supporting soil strata. The structural capacity of the shafts should be checked to assure they can safely accommodate the combined stresses induced by axial and lateral forces. Lateral deflections of shafts should be evaluated using an appropriate analysis method, and will depend upon the shaft's diameter, length, configuration, stiffness and "fixed head" or "free head" condition. We can provide additional analyses and estimates of lateral deflections for specific loading conditions upon request. The load-carrying capacity of shafts may be improved by increasing the diameter and possibly the length.

Drilled Shaft Construction Considerations

The drilling contractor should be experienced in the subsurface conditions observed at the site, and the excavations should be performed with equipment capable of providing a clean bearing surface. Difficult drilling conditions could occur where cobbles or boulders are encountered within the glacially-deposited soils. The drilled straight-shaft foundation system should be installed in general accordance with the procedures presented in

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"Standard Specification for the Construction of Drilled Piers", ACI Publication No. 336.1-01.

Subsurface water was encountered as shallow as about 13.5 feet below grade in Boring SS-2 at the time of our field exploration. Subsurface water levels are influenced by seasonal and climatic conditions, which result in fluctuations in subsurface water elevations. Additionally, it is common for water to be present after periods of significant rainfall. Casing or slurry drilling procedures should be expected at this site to reduce the potential for excavation sidewall collapse due to the presence of groundwater and sand soils in the soil overburden. The casing should be of sufficient length and stiffness and have an appropriate cutting edge to allow it to be firmly seated to seal out groundwater. If possible, excess water should be evacuated from the casing to place concrete in the "dry."

Care should be taken to not disturb the sides and bottom of the excavation during construction. The bottom of the shaft excavation should be free of loose material before concrete placement. Concrete should be placed as soon as possible after the foundation excavation is completed, to reduce potential disturbance of the bearing surface.

While withdrawing casing, care should be exercised to maintain concrete inside the casing at a sufficient level to resist earth and hydrostatic pressures acting on the casing exterior. Arching of the concrete, loss of seal and other problems can occur during casing removal and result in contamination of the drilled shaft. These conditions should be considered during the design and construction phases. Placement of loose soil backfill should not be permitted around the casing prior to removal.

The drilling contractor should remove all soft and disturbed soils from the base of the drilled shaft prior to placing concrete. The drilled shaft installation process should be performed under the observation of the Geotechnical Engineer. The Geotechnical Engineer should document the shaft installation process including soil and groundwater conditions observed, consistency with expected conditions, and details of the installed shaft.

Direct Embed Pole Construction Considerations

We understand that direct embedment poles may be installed at the substation. These are typically installed in an oversized excavation to the design depth and then backfilled with crushed stone in approximately 12-inch lifts. At a minimum, we recommend that the excavation hole be at least 12 inches larger than the pole outer diameter. We understand that a compressed air tamper is commonly used on the stone backfill to achieve some degree of compaction on each lift. Care should be taken to prevent bridging of backfill material around the pole, and smaller lifts could be used to help reduce the potential for bridging. Granular backfill having a maximum particle size less than ¼ of the minimum distance between the pole and hole/casing (approximately 1½

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inches for a 6-inch annular space) along with slow, controlled placement will reduce the potential for bridging and development of voids along the sides of the pole. As an alternative, lean concrete could be considered as a backfill material around the poles if a casing is used. The skin friction values provided in the **Deep Foundation Axial Design Parameters** subsection are for compressive loads with concrete backfill and it is assumed that there will be adequate shear transfer between the pole and the concrete backfill.

It is our understanding that 2-inch minus crushed stone is typically used as backfill around direct embedment poles. As noted above, a smaller maximum particle size of 1½ inches is recommended. The granular material is typically compacted with an air tamper. For design purposes, effective unit weights of 125 pcf and 65 pcf (above and below the groundwater level, respectively) and an internal friction angle of 38 degrees could be used for the crushed stone. The skin friction parameters provided in the **Deep Foundation Axial Design Parameters** subsection are appropriate for concrete drilled shafts or at an intimate soil-casing interface for poles placed in holes supported by a corrugated steel casing/sleeve. Poles installed with direct embedment using crushed stone backfill will develop skin friction along the perimeter of the pole; the available resistance will vary with depth/overburden pressure from 0 psf at the ground surface to approximately 35*D psf (where D is equal to the depth at the bottom of the pole). Where crushed stone backfill is placed within casing, the total skin friction for both the pole/stone and casing/soil interfaces should be compared and the lower value used in design calculations. Casing/sleeves not in intimate contact with the surrounding soil due to overdrilling will have severely reduced skin friction and axial design should be based on end bearing alone. Lateral deflection would also be significant until movement was sufficient to engage the surrounding soil. These values do not include any factor of safety. For a condition of direct embedment poles without sleeves, a conservative approach would be to assume the pole is directly against the in-situ soils; where granular backfill is used, the degree of compaction influences these values.

Earthwork

Earthwork is anticipated to include clearing and grubbing, excavations, and structural fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include quality criteria necessary to render the site in the state considered in our geotechnical engineering evaluation for foundations, at-grade slabs, and access roads.

Site Preparation

The site work conditions will be largely dependent on the weather conditions and the contractor's means and methods in controlling surface drainage and protecting the

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subgrade. The near-surface sandy soils encountered in the borings should provide acceptable and relatively well-drained subgrade soils for construction, but the near-surface silts and clays will likely become unstable during the construction process and stabilization may become necessary to facilitate construction activities. Site preparation in the substation or where inverter mat foundations will be installed should include clearing and grubbing, installation of a site drainage system such as drain tile in wet areas, subgrade preparation, proofrolling, and vibratory densification as necessary. Site preparation is not necessary in the PV array field or where inverters will be supported on driven piles except to improve site drainage where necessary. Complete stripping of the topsoil should be performed in the proposed equipment pad, control building, and access roadway areas.

Subgrade Preparation

As noted above, topsoil should be removed from the access road areas and below any buildings and mat foundations. Stripping depths based on the widely-spaced borings and test pits are estimated to be about 2 to 16 inches but could vary considerably between our test locations and across the site. We recommend actual stripping depths be evaluated during construction to aid in preventing removal of excess material. In agricultural fields, plowing and tilling activities can disturb soils beyond the top 12 inches and can result in soils with elevated organic matter contents below the topsoil layer. Trees, tree stumps, and large vegetation should be cleared from the site at the location of mat foundations and roadway areas. Exposed surfaces should be free of mounds and depressions which could prevent uniform compaction in proposed array panel, inverter, and access road areas.

Following stripping and prior to the placement of new structural fill in areas below design grade and in rough graded cut areas, subgrades should be proofrolled to help delineate unstable soil zones. The near surface soils at this site include areas of sands and clays and different proofrolling methods apply to the different subgrade materials. Clay subgrades should be proofrolled with an adequately loaded vehicle such as a fully-loaded tandem-axle dump truck weighing at least 20 tons and sandy subgrades should be proofrolled using a vibratory smooth drum roller weighing at least 10 tons. The proofrolling should be performed under the observation of the Geotechnical Engineer. Areas excessively deflecting under the proofroll should be delineated and subsequently addressed by the Geotechnical Engineer. Excessively wet or dry material should either be removed or moisture conditioned and recompacted. Proofrolling should not be performed on obviously unstable areas. Unstable areas (generally considered to be areas that deflect more than about 1 inch during proofrolling) identified by proofrolling should be undercut to expose stable material and backfilled with structural fill or treated with chemical stabilization.

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Soil Stabilization

The near-surface soils at this site generally included sandy lean and clayey sand and could become unstable with repetitive construction traffic and/or precipitation events and stabilization, especially in access road areas, could become necessary. Further evaluation of the need and recommendations for subgrade stabilization can be provided during construction as the geotechnical conditions are exposed. Methods of subgrade improvement, as described below, could include scarification, moisture conditioning and recompaction, removal of unstable materials and replacement with granular fill (with or without geosynthetics), and chemical stabilization. The appropriate method of improvement, if required, would be dependent on factors such as schedule, weather, the size of area to be stabilized, and the nature of the instability. More detailed recommendations can be provided during construction as the need for subgrade stabilization occurs. Performing site grading operations during warm seasons and dry periods would help reduce the amount of subgrade stabilization required. A brief summary of several improvement methods is provided below:

- **Scarification, Moisture Conditioning, and Recompacting** - It may be feasible to disc, dry, and recompact the exposed soils. The success of this procedure would depend primarily upon favorable weather and sufficient time to dry the soils. Stable subgrades likely would not be achievable if the thickness of the unstable soil is greater than about 1 foot, if the unstable soil is at or near groundwater levels, or if construction is performed during a period of wet or cool weather when drying is difficult.
- **Densification of Granular Soils –** In portions of the site where a predominantly granular soil profile is encountered, the exposed granular soils could be proofrolled with several passes of a vibratory roller (minimum dead weight of 8 tons on the drum) or densified using plate vibrators. In foundation excavations, the granular soils can be densified in place with plate vibrators or hand guided equipment (i.e. jumping jack or dry compactor) depending on the size of the area to be recompacted and space constraints.
- **Undercut and Replacement with Structural Fill** – The unstable soils can be undercut and replaced with structural fill in accordance with this section of the report. Acceptable materials and compaction requirements are discussed below. The undercuts can also potentially be replaced with the overexcavated material after chemical stabilization such as portland cement or Class C fly ash.
- **Chemical Modification** - Since the areas needing subgrade stabilization could be relatively extensive, chemical stabilization may be more economical and a practical way to remediate the subgrade soils. It could also be considered as a construction expedient method.

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Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Structural fill is material used below, or within 10 feet of structures, access roads, or constructed slopes. General fill is material used to achieve grade outside of these areas.

Reuse of On-Site Soil: Excavated on-site soil may be reused as fill above and below structures, roadways, and landscaping areas. If on-site soils are planned to be used as backfill below the Design Footing Level of shallow/mat foundations, our Geotechnical Engineer should be notified to determine if modifications to the shallow foundation recommendations are warranted.

Property	General Fill	Structural Fill
Composition	Free of deleterious material	Free of deleterious material
Maximum particle size	6 inches (or 2/3 of the lift thickness)	1.5 inches
Fines content for Granular Soils	Not limited	Not limited
Plasticity for Cohesive Soils	Not limited	Maximum liquid limit of 45 Maximum plasticity index of 23
GeoModel Layer Expected to be Suitable[1]	2, 3	2, 3

1. Based on subsurface exploration. Actual material suitability should be determined in the field at time of construction.

Imported Fill Materials: Imported fill materials should meet the following material property requirements. Regardless of its source, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade.

Soil Type [1]	USCS Classification	Acceptable Parameters (for Structural Fill)
Low Plasticity Cohesive	CL, CL-ML	Liquid Limit less than 45 Plasticity index less than 23
Granular	GW, GP, GM, GC, SW, SP, SM, SC	Less than 30% passing No. 200 sieve

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Soil Type [1]	USCS Classification	Acceptable Parameters (for Structural Fill)

1. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site. Additional geotechnical consultation should be provided prior to use of uniformly graded gravel on the site.

Fill Placement and Compaction Requirements

Structural fill should meet the following compaction requirements.

Material Type and Location (Approved Imported Structural Fill or Native Soils)[1,2]	Per the Standard Maximum Density Test (ASTM D 698)			Recommended Test Frequency per Lift [4]
	Minimum Compaction Requirement (%)	Range of Moisture Contents for Compaction (% Over Optimum)		
		Min.	Max.	
Beneath foundations:	98	-2%	+2%	1 test / 2,500 sf
Array areas and general site grading:	95	-3%	+3%	1 test / 5,000 sf
Miscellaneous backfill (non-structural areas):	85	-1%	+4%	1 test / 5,000 sf
Compacted native soils within 1 foot of finished roadway subgrade:	98	-2%	+2%	1 test / 1,000 lf
Compacted native soils more than 1 foot below finished roadway subgrade:	95	-2%	+2%	1 test / 1,000 lf
Utility trench backfill in non-structural areas[3,5]:	85	-3%	+3%	1 test / 1,000 lf
Aggregate base (roadways):	98	-2%	+2%	1 test / 1,000 lf

1. Structural fill should be placed in a maximum 12-inch loose lift thickness when heavy, self-propelled compaction equipment is used and 4 to 6 inches in loose thickness for hand-guided equipment (i.e., jumping jack or plate compactor).
2. If the granular material is a coarse sand or gravel, or of a uniform size, or has a low fines content, compaction comparison to relative density may be more appropriate. In this case, granular materials should be compacted to at least 70% relative density (ASTM D 4253 and D 4254) at workable moisture content.
3. Compaction requirements may be increased by the electrical engineer based on thermal resistivity analyses. Upper 12 inches should be compacted to 98% within structural areas.

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Material Type and Location (Approved Imported Structural Fill or Native Soils)[1,2]	Per the Standard Maximum Density Test (ASTM D 698)			Recommended Test Frequency per Lift [4]
	Minimum Compaction Requirement (%)	Range of Moisture Contents for Compaction (% Over Optimum)		
		Min.	Max.	

4. Frequency of tests may be increased or decreased at the discretion of the Geotechnical Engineer of Record.
5. ASTM D6938 Backscatter Method may be used for compaction testing in trenches in order to avoid damage to conductors. If trenchless technologies are utilized during construction, then verification tests should be performed to verify the compaction level near the cable. Due to the controlled nature of the trenchless systems, the Engineer of Record may decrease the recommended test frequency at their discretion based on observations and tests results on-site.

Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction. Excavations should be backfilled with structural fill in accordance with this report and be compacted in accordance with recommendations in this report.

On-site materials are generally considered suitable for backfill of utility and pipe trenches from 1 foot above the top of the pipe to the final ground surface, provided the soil is free of organic matter and deleterious substances. Trench backfill should be mechanically placed and compacted as discussed earlier in this report. Compaction of initial lifts (typically the first one to two lifts) should be accomplished with hand-operated tampers or other lightweight compactors. Flooding or jetting for placement and compaction of backfill is not recommended.

Grading and Drainage

All grades must be adjusted to provide positive drainage away from the structures and should be maintained throughout the life of the structures. Backfill against utility line trenches should be well-compacted and free of construction debris. After construction and prior to project completion, we recommend that verification of final grading be performed to document that positive drainage, as described above, has been achieved.

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Earthwork Construction Considerations

Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of grade-supported improvements such as mat foundations and access roadways. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to construction of flatwork including floor slabs, at-grade slabs, and the access roadways.

Groundwater was encountered at depths as shallow about 3.5 feet below grade in the PV array area. In the planned substation area, groundwater was encountered in both borings, but was shallowest in Boring SS-2 with groundwater observed at a depth of about 13.5 feet below grade. The groundwater table could affect excavation efforts, especially for drilling for deep foundations. A temporary dewatering system consisting of sumps with pumps may be necessary to achieve the recommended depth of excavation depending on groundwater conditions at the time of construction. Excavations extending into layers of water-bearing granular materials would likely require more substantial dewatering efforts.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety or the contractor's activities; such responsibility shall neither be implied nor inferred.

Excavations or other activities resulting in ground disturbance have the potential to affect adjoining properties and structures. Our scope of services does not include review of available final grading information or consider potential temporary grading performed by the contractor for potential effects such as ground movement beyond the project limits. A preconstruction/ precondition survey should be conducted to document nearby property/infrastructure prior to any site development activity. Excavation or ground disturbance activities adjacent or near property lines should be observed or instrumented for potential ground movements that could negatively affect adjoining property and/or structures.

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Construction Observation and Testing

The earthwork efforts should be observed by the Geotechnical Engineer. Observation should include documentation of adequate removal of surficial materials (vegetation and topsoil) as well as proofrolling and mitigation of unsuitable areas delineated by the proofroll.

The Geotechnical Engineer may require additional tests as considered necessary to check on the uniformity of compaction. No additional layers of fill should be placed until the field density test results indicate that the specified density has been obtained.

In areas of foundation excavations, the bearing subgrade should be evaluated by the Geotechnical Engineer. If unanticipated conditions are observed, the Geotechnical Engineer should recommend mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's or a qualified geotechnical representative's evaluation of subsurface conditions, including assessing variations and associated design changes.

Gravel-Surfaced Drives and Parking

General Comments

Roadway designs are provided for the traffic conditions and aggregate roadway life conditions as noted in the table below. A critical aspect of aggregate roadway performance is site preparation. Roadway designs noted in this section are contingent upon the site being prepared as will be recommended in the **Earthwork** section of this report. Additionally, our recommendations are based on *Chapter 4 Low-Volume Road Design* found in AASHTO 1993.

Native Soil Subgrades

Considering the variability of the subsurface conditions at this site, including very loose sands/silts and areas of lower strength clays, we have considered a design California Bearing Ratio (CBR) of 3 percent for this site.

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Design Parameters for Post-Construction Traffic

We understand unpaved access roads are planned throughout the site. The unpaved road sections for post-construction use have been developed under the following assumptions:

Aggregate Roadway Design Parameters for Post-Construction Traffic		
Parameter	**Value**	**Comments**
Traffic Loading	PV Array Area = 1,500 ESALs [1]	Assumed
Design Life	20 years	Assumed
Design CBR	3.0	Assumed
Resilient Modulus	20,000 psi (frozen) 1,500 psi (saturated) 3,300 psi (wet) 4,900 psi (dry)	Assumed based on poor soil conditions
Aggregate Base Elastic Modulus	20,000 psi	Assumed
Allowable Rut Depth	2 inches	Assumed
Design Serviceability Loss	2.0	Assumed
Vehicle Tire Pressure	80 psi	Assumed

1. ESAL = 18 kips Equivalent Single Axle Load

Access Road Sections

As a minimum, we recommend the following options for unpaved access roads considering only post-construction traffic:

Typical Unpaved Road Section – Post Construction Traffic			
Base Course Thickness [1]	**Subbase Type[2]**	**Geogrid Stabilization**	**Area**
9 inches	Native Soil	No	PV Array Area
6 inches		Yes [3]	

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Typical Unpaved Road Section – Post Construction Traffic			
Base Course Thickness [1]	**Subbase Type**[2]	**Geogrid Stabilization**	**Area**

1. Base materials should meet MDOT Gradation 21AA crushed stone or other alternate gradation as approved by the Geotechnical Engineer.
2. Subbase prepared in accordance with the **Earthwork** section.
3. Analysis considers the use of Tensar NX850 geogrid.

There will be a need for an ongoing maintenance program. Ruts or potholes that develop should be filled with additional aggregate base rather than by re-grading. Also, the unpaved roadway would need to be constructed with adequate drainage to prevent the ponding of water which would contribute to additional ongoing maintenance.

Access Roadway Design and Construction Considerations

The roadway subgrade, if prepared early in the project, should be carefully evaluated as the time for construction approaches. We recommend the roadway area be stripped of existing topsoil/organic subsoil, or otherwise unsuitable material, be rough graded, and compacted with a vibratory smooth drum roller (for sand subgrades) or a fully-loaded dump truck (for clay subgrades). Particular attention should be paid to high traffic areas that were rutted and disturbed, and areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by replacing the materials with properly compacted fill.

Aggregate surfaced drives, regardless of the section thickness or subgrade preparation measures, will require on-going maintenance and repairs to keep them in a serviceable condition. It is not practical to design a gravel section of sufficient thickness that on-going maintenance will not be required. This is due to the porous nature of the gravel that will allow precipitation and surface water to infiltrate and soften the subgrade soils, and the limited near surface strength of unconfined gravel that makes it susceptible to rutting. When potholes, ruts, depressions or yielding subgrades develop, they must be addressed as soon as possible to avoid major repairs.

Maintenance should consist of periodic grading with a road grader. Typical repairs could consist of placing additional gravel in ruts or depressed areas. Potholes and depressions should not be filled by blading adjacent ridges or high areas into the depression areas. New material should be added to the depressed areas as they develop.

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General Comments

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly effect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others. Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

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Attachments

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Exploration and Testing Procedures

Field Exploration

Number of Exploration Points	Approximate Boring Depth (feet)	Location
28 soil borings	20	PV array area
28 CPT soundings	12 to 20	
15 test pits	5 to 8	
2 soil borings	50	Substation

Exploration Point Layout and Elevations: Terracon personnel provided the boring and CPT layout using handheld GPS equipment (estimated horizontal accuracy of about ±10 feet) and referencing existing site features. Approximate ground surface elevations were estimated using Google Earth. If elevations and a more precise boring layout are desired, we recommend the exploration points be surveyed.

Subsurface Exploration Procedures (Soil Borings): We advanced the borings with a track-mounted rotary drill rig using continuous flight augers. Four samples were obtained in the upper 10 feet of each boring with additional samples obtained at intervals of 5 feet thereafter. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge was pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings were backfilled with auger cuttings after their completion.

We also observed the boreholes while drilling and at the completion of drilling for the presence of groundwater. The groundwater levels are shown on the attached boring logs.

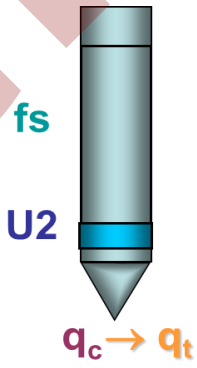
The sampling depths, penetration distances, and other sampling information were recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials observed during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the geotechnical engineer's

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interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.



Subsurface Exploration Procedures (Cone Soundings): Cone soundings were performed using a piezometric electronic cone penetrometer (CPTu) in general accordance with ASTM D5778, "Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils." This device includes a cone-tipped sounding unit attached to steel rods with flush joint couplings. The sounding unit has electronic strain gauges that measure point resistance and sleeve friction, a transducer that measures pore water pressure, and an inclinometer that measures verticality of the sounding unit. The readings from the cone instruments are transmitted to a computer at the surface that stores the data and provides real-time display of the cone results. A depth encoder device monitors penetration depth, tilt, and speed as the rods are pushed slowly into the ground. The cone unit records the measured values at 2-cm intervals. No soil samples were gathered through this subsurface investigation technique.



CPTu testing provides detailed information on stratigraphy and a measure of the in-situ soil properties. The resistance to penetration is correlated with soil strength and density properties, and estimated soil types are shown on the CPT sounding plots.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests. The laboratory testing program included the following types of tests:

- Moisture content
- Dry unit weight
- Unconfined compressive strength
- Atterberg limits (in progress)
- Grain size analysis (in progress)
- Chemical analyses – pH, sulfates, chloride ion, electrical resistivity (in progress)
- Thermal resistivity

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- Moisture-density relationship

Based on the results of our field and laboratory programs, we described and classified the soil samples in accordance with the Unified Soil Classification System.

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Photography Log



Test Pit #1 – Located near B-1



Test Pit #6 – Located near B-6



Test Pit #9 – Located near B-9



Test Pit #11 – Located near B-11

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Test Pit #14 – Located near CPT-14



Test Pit #15 – Located near CPT-15



Test Pit #16 – Located near CPT-16



Test Pit #19 – Located near CPT-19



Test Pit #23 – Located near B-23



Test Pit #29 – Located near CPT-29



Test Pit #36 – Located near B-36



Test Pit #44 – Located near B-44



Test Pit #47 – Located near B-47



Test Pit #51 – Located near CPT-51

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Test Pit #54 – Located near CPT-54

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Appendix A – Site Plans

Contents:

Site Location Plan
Exploration Plan
Thermal Resistivity Sample Location Plan
Field Electrical Resistivity Plan
Pile Load Test Location Plan
Pile Zoning Plan

Note: All attachments are one page unless noted above.

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Site Location

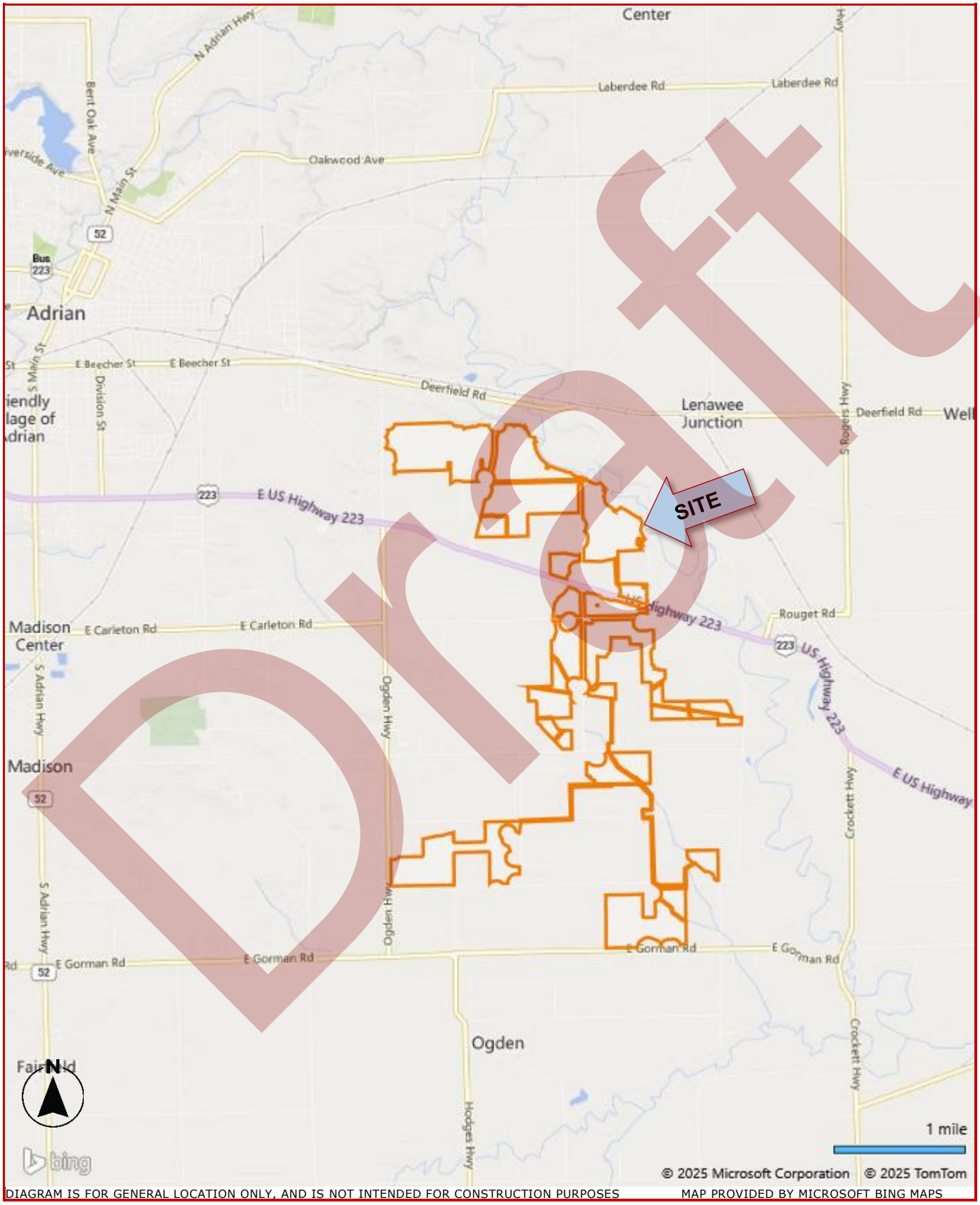


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

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Exploration Plan

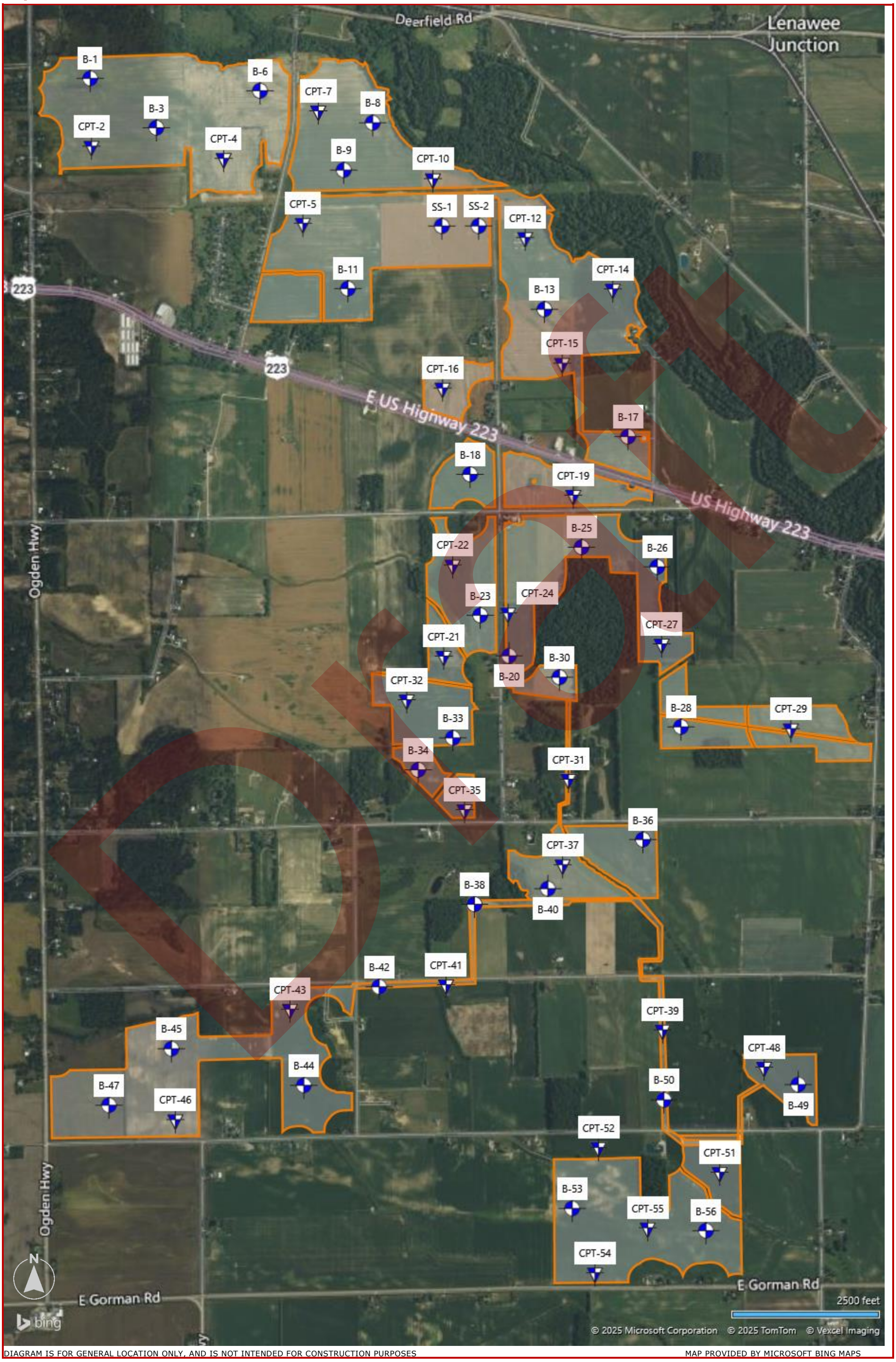


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Thermal Resistivity Sample Location Plan

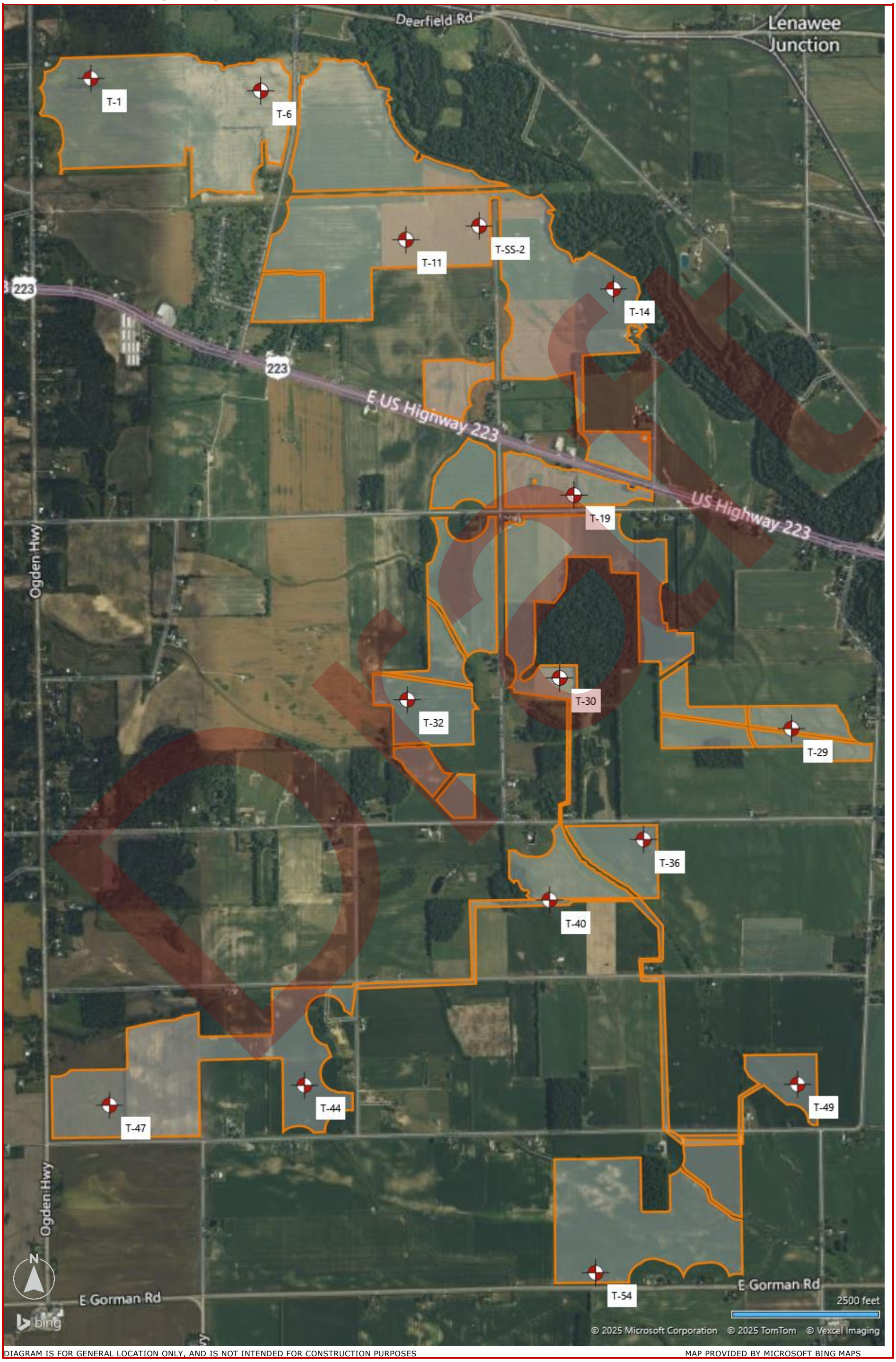


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Field Electrical Resistivity Plan

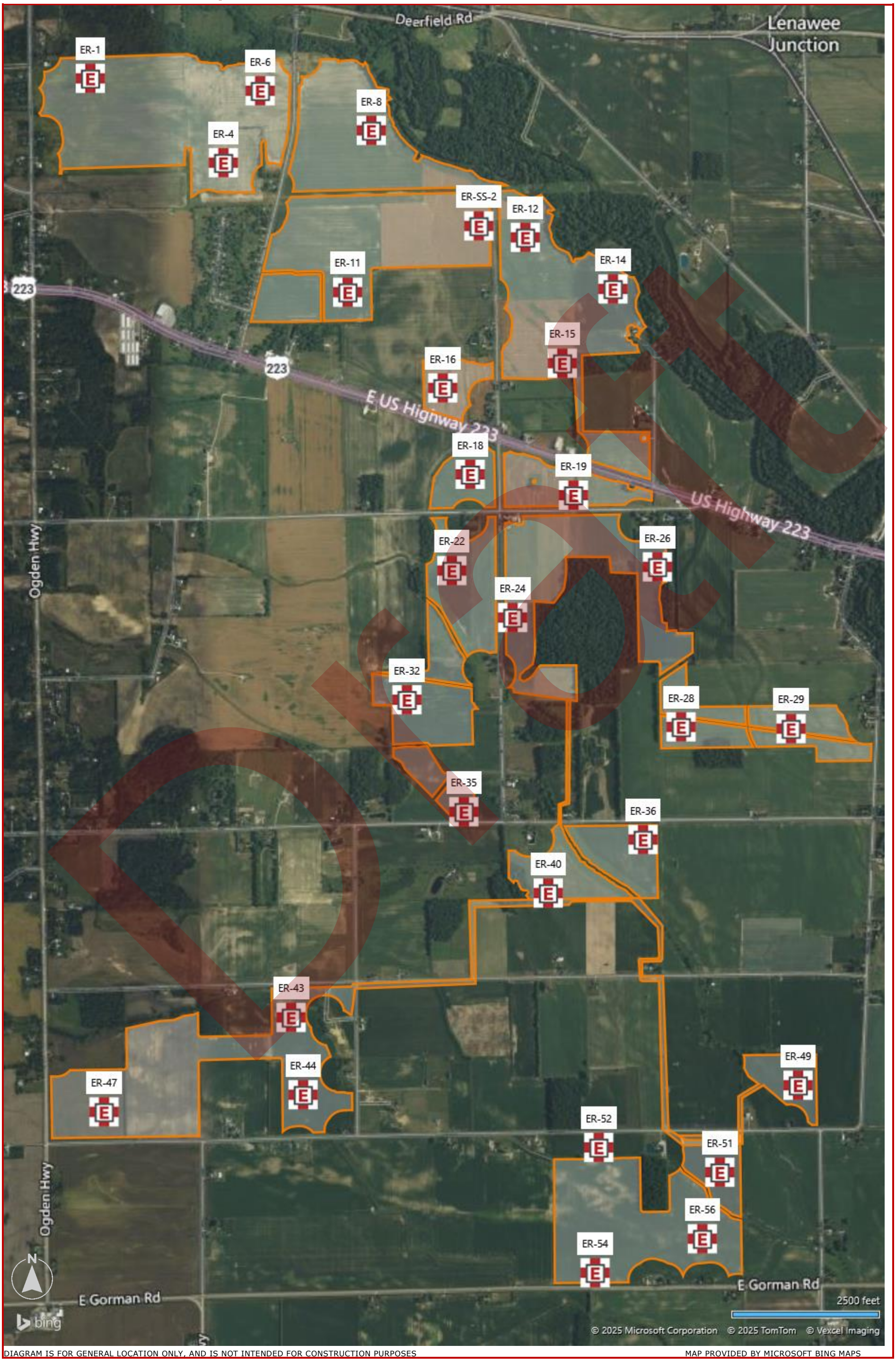


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Pile Load Test Location Plan

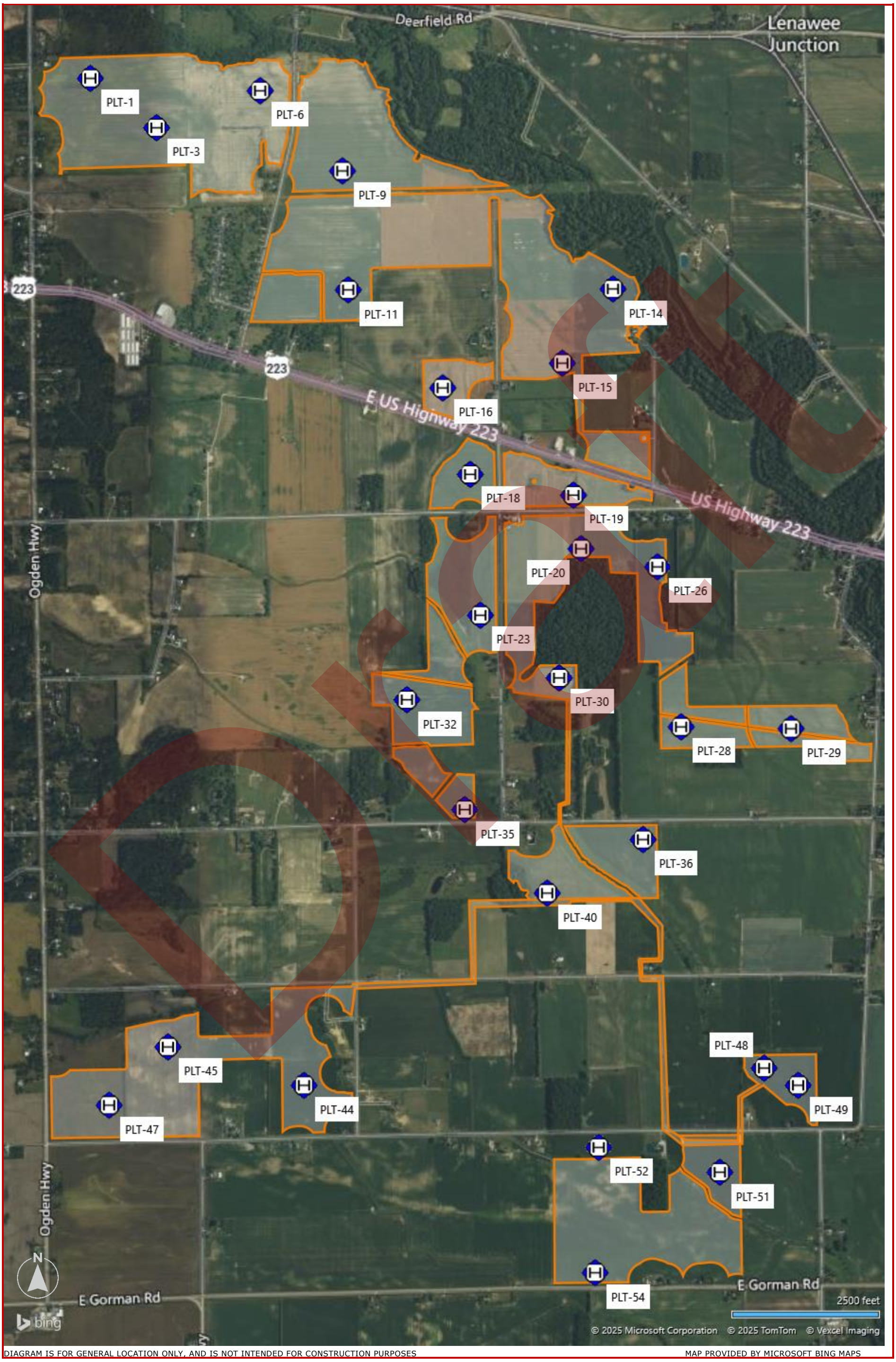


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Pile Zoning Plan

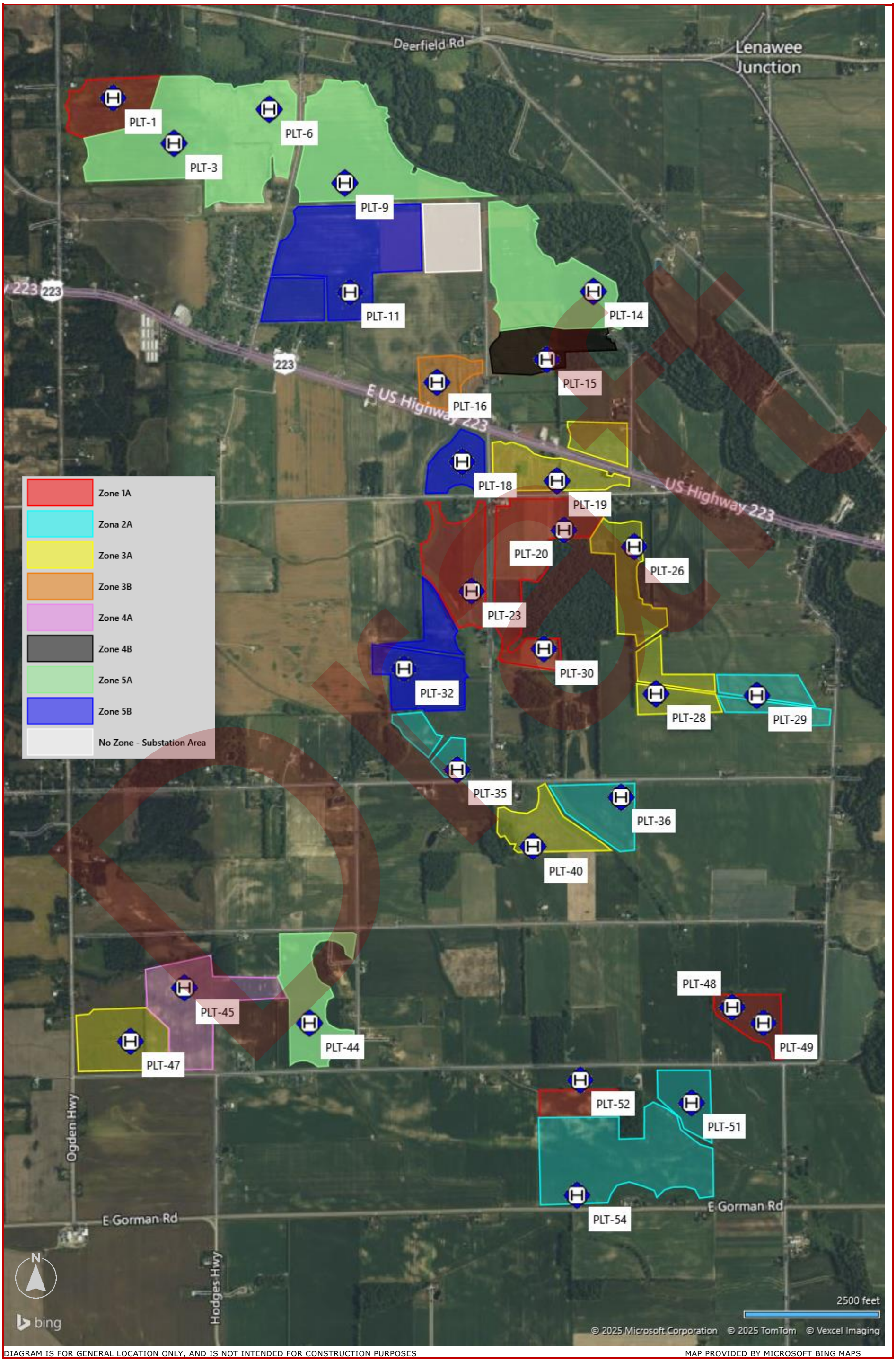


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Appendix B – Exploration and Laboratory Results

Contents:

GeoModel (3 pages)
Boring Logs (32 pages)
CPT Soundings (28 pages)
Test Pit Logs (15 pages)
Field Electrical Resistivity Test Data (29 pages)
Thermal Resistivity Test Data (16 pages)
Moisture Density Relationship (14 pages)
General Notes
CPT General Notes
Unified Soil Classification System

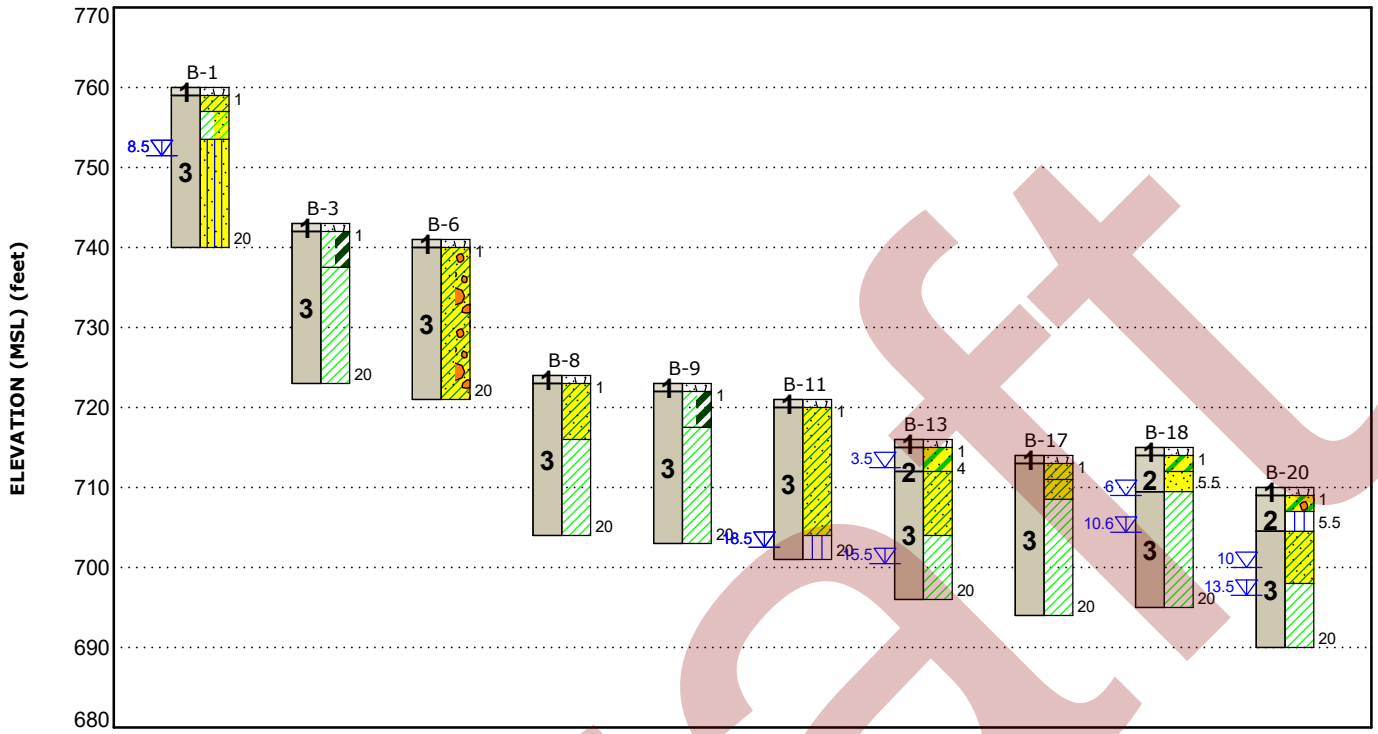
Note: All attachments are one page unless noted above.

Draft

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

2204 Yankee St
Niles, MI

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 8 to 16 inches of topsoil
2	Lacustrine Soils	Generally loose to medium dense sand with variable fine grained material
3	Glacial Soils	Generally stiff to hard lean clay and sandy lean clay with some layers of silt

Legend

- Topsoil
- Lean Clay with Sand
- Lean Clay/Fat Clay
- Sandy Lean Clay with Gravel
- Clayey Sand
- Clayey Sand with Gravel
- Sandy Lean Clay
- Silty Sand
- Lean Clay
- Silt
- Poorly-graded Sand

▽ First Water Observation
▽ Second Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

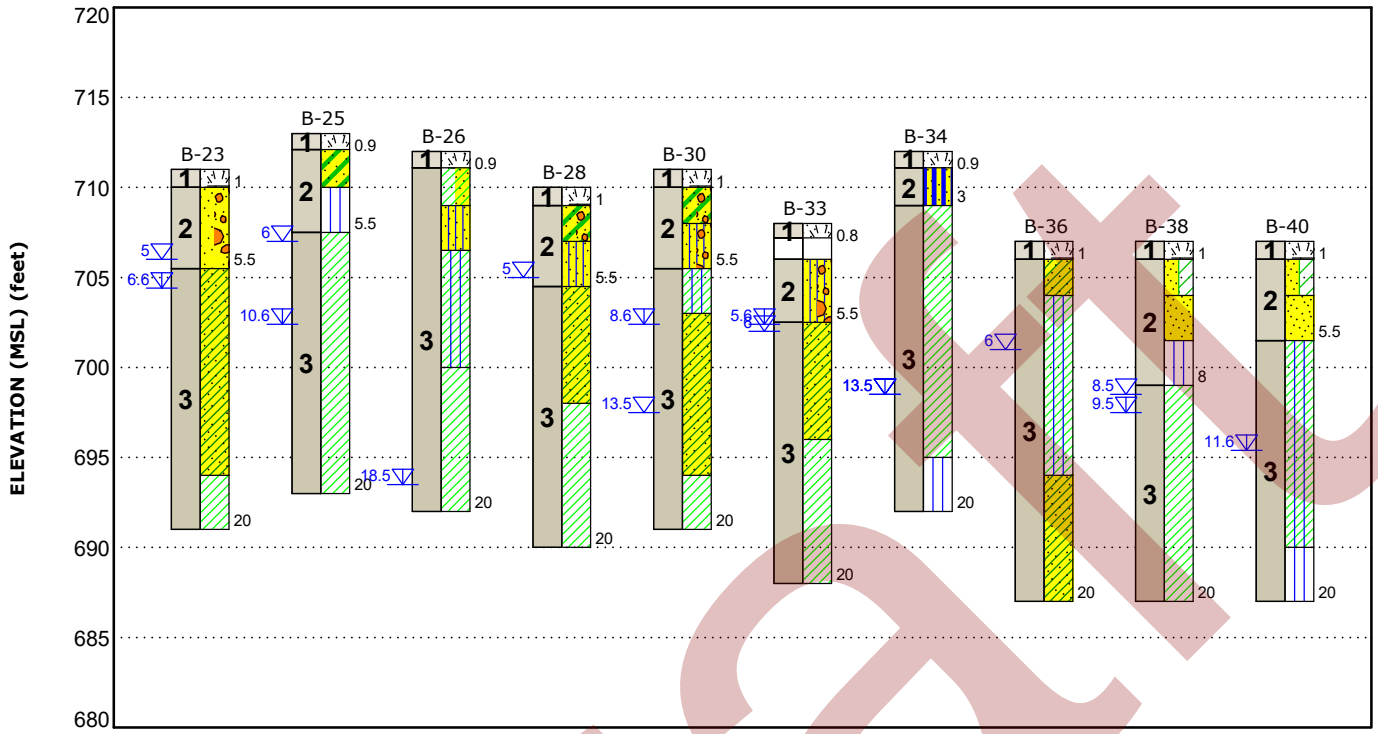
NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

Draft

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

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3	Glacial Soils	Generally stiff to hard lean clay and sandy lean clay with some layers of silt

Legend

- Topsoil
- Poorly-graded Sand with Gravel
- Sandy Lean Clay
- Lean Clay
- Clayey Sand
- Silt
- Lean Clay with Sand
- Silty Sand
- Silty Clay
- Clayey Sand with Gravel
- Silty Sand with Gravel
- Sandy Silt
- Poorly-graded Sand with Clay
- Poorly-graded Sand

▽ First Water Observation
▽ Second Water Observation

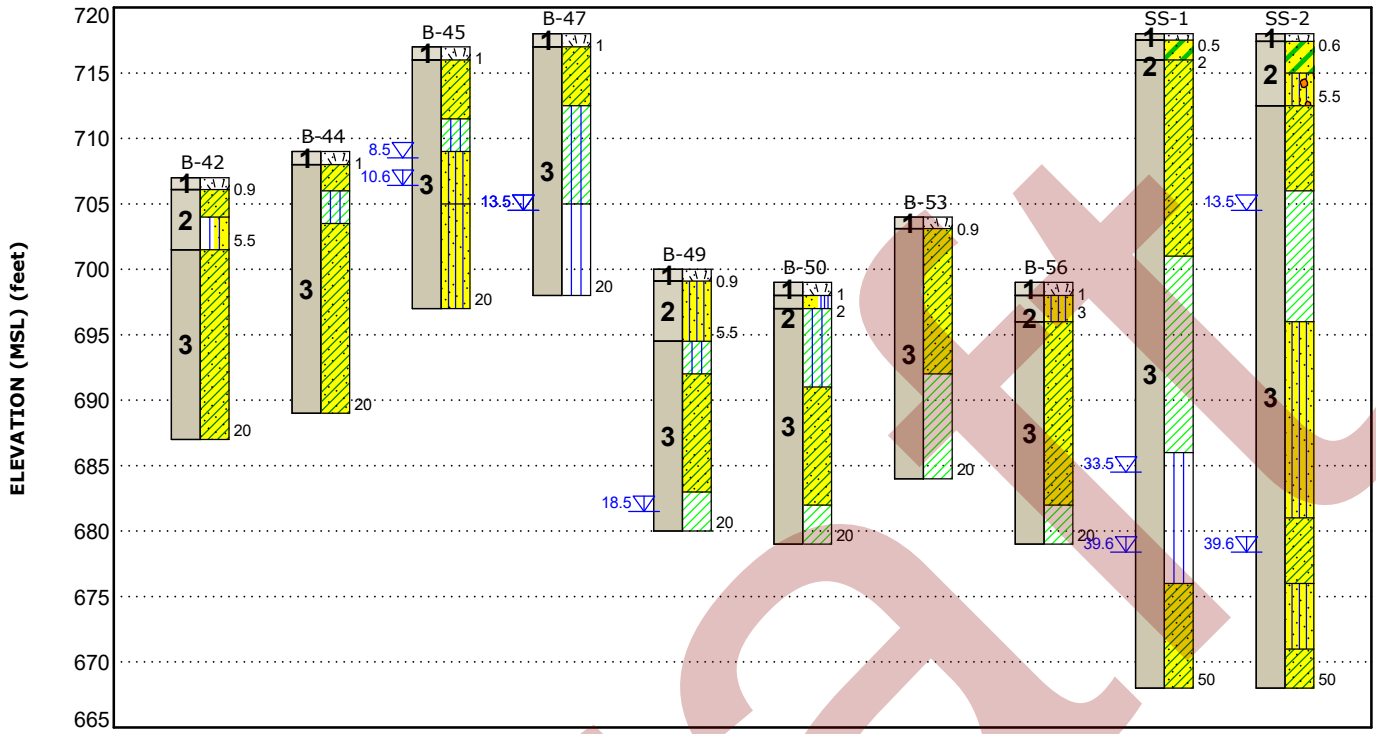
Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

Draft

Terracon
2204 Yankee St
Niles, MI

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	Topsoil	About 8 to 16 inches of topsoil
2	Lacustrine Soils	Generally loose to medium dense sand with variable fine grained material
3	Glacial Soils	Generally stiff to hard lean clay and sandy lean clay with some layers of silt

Legend

- Topsoil
- Silt with Sand
- Silty Sand
- Lean Clay
- Clayey Sand
- Sandy Lean Clay
- Silty Clay
- Silt
- Poorly-graded Sand with Silt
- Silty Sand with Gravel

▽ First Water Observation
▽ Second Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project. Numbers adjacent to soil column indicate depth below ground surface.

Draft

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-1

Location: See Exploration Plan

Latitude: 41.8822° Longitude: -83.9885°

Depth (Ft.) Approximate Elevation: 760 (Ft.)

Model Layer	Depth (Ft.)	Elevation	Description	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1	0		12" Topsoil										
	1.0	759											
3			**SANDY LEAN CLAY (CL)**, trace gravel, brown, stiff to very stiff			15	3-5-5 N=10	4.0				25.5	
	3.0	757											
			LEAN CLAY WITH SAND (CL), brown, medium stiff			17	1-1-4 N=5	0.75				22.3	
	6.5	753.5											
			SILTY SAND (SM), with occasional clay seams, fine to medium grained, brown, medium dense			16	5-7-11 N=18					22.1	
				▽		17	6-7-10 N=17					25.3	
			becoming gray at about 13 feet			12	5-7-9 N=16					20.7	
						12	6-8-10 N=18					19.9	
	20.0	740	***Boring Terminated at 20 Feet***										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 8.5' while drilling
▽ 8.5' after drilling
Cave in at 10.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-21-2025

Boring Completed
07-21-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-3

Location: See Exploration Plan

Latitude: 41.8799° Longitude: -83.9844°

Depth (Ft.) Approximate Elevation: 743 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 742										
3		**LEAN TO FAT CLAY (CL/CH)**, mottled brown and gray, medium stiff to stiff			12	2-2-4 N=6	1.25				23.0	
					12	2-3-3 N=6	2.0				21.1	
		5.5 / 737.5 **LEAN CLAY (CL)**, brown, stiff to hard			12	4-8-13 N=21	3.0				19.6	
					12	8-10-13 N=23	4.5+				21.0	
		becoming gray at about 17 feet			12	3-8-14 N=22	4.0				24.2	
		20.0 / 723			12	3-5-5 N=10	2.0				20.2	
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started

Boring Completed

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-6

Location: See Exploration Plan

Latitude: 41.8816° Longitude: -83.9779°

Depth (Ft.) Approximate Elevation: 741 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 740										
3		**SANDY LEAN CLAY WITH GRAVEL (CL)**, brown, very stiff to hard			9	2-2-4 N=6	4.5+				18.1	
					13	6-9-13 N=22	4.5+				16.1	
		5			18	6-9-15 N=24	4.5+				18.4	
					15	10-9-12 N=21	4.5+				20.6	
		10										
		becoming gray at about 12 feet			18	4-7-8 N=15	4.5+				20.7	
		15										
		20.0 721			18	6-10-10 N=20	4.5+				13.6	
		20										
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-21-2025

Boring Completed
07-21-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-8

Location: See Exploration Plan

Latitude: 41.8801° Longitude: -83.9708°

Depth (Ft.) Approximate Elevation: 724 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 723										
3		**SANDY LEAN CLAY (CL)**, brown, stiff to hard			16	5-6-7 N=13	3.75				20.0	
					14	3-5-7 N=12	4.5+				19.9	
					18	5-9-15 N=24	4.5+				19.8	
		8.0 716										
		LEAN CLAY (CL), gray, stiff to hard			18	5-7-12 N=19	4.5+				21.5	
					18	3-5-8 N=13	2.0				19.6	
			▨		18	3-5-6 N=11	3.0				15.9	
		20.0 704										
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
▨ Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-9

Location: See Exploration Plan

Latitude: 41.8779° Longitude: -83.9726°

Depth (Ft.) Approximate Elevation: 723 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 722										
3		**LEAN TO FAT CLAY (CL/CH)**, mottled brown and gray, stiff to very stiff			18	3-5-6 N=11	2.75				24.3	
					16	2-5-6 N=11	4.0				20.8	
		5.5 / 717.5 **LEAN CLAY (CL)**, brown, very stiff to hard			18	5-9-8 N=17	4.5+				19.8	
					18	7-10-15 N=25	4.5+				18.2	
		becoming gray at about 13 feet			18	7-7-8 N=15	3.75				17.5	
		with sand seams in sample at about 18 feet 20.0 / 703	Cave in at 18.5'		18			UC	0.75	3.4	18.1	115
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-22-2025

Boring Completed
07-22-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-11

Location: See Exploration Plan
Latitude: 41.8724° Longitude: -83.9724°
Depth (Ft.) Approximate Elevation: 721 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 720										
3		**SANDY LEAN CLAY (CL)**, brown, stiff to hard			18	4-4-7 N=11	4.5+				18.8	
					16	4-8-10 N=18	4.5+				19.1	
		5			18	6-11-17 N=28	4.5+				16.5	
		becoming gray at about 8 feet			18	5-10-14 N=24	4.5+				17.2	
		10										
					18			UC			19.9	
		15										
		17.0 704 **SILT (ML)**, gray, dense										
		20.0 701			18	6-13-19 N=32					20.0	
		20										
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevation from Google Earth

Water Level Observations
18.5' while drilling
18.5' after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-13

Location: See Exploration Plan

Latitude: 41.8714° Longitude: -83.9601°

Depth (Ft.) Approximate Elevation: 716 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 715										
2		**CLAYEY SAND (SC)**, fine to medium grained, brown, very loose			16	1-1-2 N=3					13.8	
		4.0 / 712	▽									
3		**SANDY LEAN CLAY (CL)**, gray, very stiff to hard			18	5-7-9 N=16					17.3	
		5			18	5-9-12 N=21	4.5+				14.7	
					18	7-8-13 N=21	4.5+				14.9	
		10										
		12.0 / 704										
		LEAN CLAY (CL), gray, very stiff to hard			18	4-7-10 N=17	4.5+				19.0	
		15	▽									
			▨									
		20.0 / 696			16	4-7-12 N=19	2.75				20.6	
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 3.5' while drilling
▽ 15.5' after drilling
▨ Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-24-2025

Boring Completed
07-24-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-17

Location: See Exploration Plan

Latitude: 41.8655° Longitude: -83.9548°

Depth (Ft.) Approximate Elevation: 714 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 713										
3		**SANDY LEAN CLAY (CL)**, mottled brown and gray, medium stiff to stiff 3.0 / 711			6	3-2-4 N=6	2.0				17.9	
		SANDY LEAN CLAY (CL), brown, stiff to very stiff 5.5 / 708.5			12	6-5-7 N=12	3.0				13.5	
		LEAN CLAY (CL), gray, stiff to very stiff			10	2-5-5 N=10	2.75				13.6	
					18	6-8-10 N=18	2.0				16.7	
					12	3-5-7 N=12	3.0				12.2	
					15	4-6-9 N=15	2.5				18.6	
		20.0 / 694 ***Boring Terminated at 20 Feet***										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-30-2025

Boring Completed
07-30-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-18

Location: See Exploration Plan

Latitude: 41.8637° Longitude: -83.9647°

Depth (Ft.) Approximate Elevation: 715 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 714										
2		**CLAYEY SAND (SC)**, fine to medium grained, brown, loose 3.0 / 712			14	2-2-3 N=5					9.7	
2		**POORLY GRADED SAND (SP)**, fine to coarse grained, gray, medium dense 5.5 / 709.5			14	5-5-8 N=13					12.8	
3		**LEAN CLAY (CL)**, with occasional sand seams, dark gray to gray, very stiff to hard	▽		17	6-11-13 N=24					9.8	
3					18	4-8-13 N=21	1.5				18.3	
3			▽									
3			▨		17	3-7-8 N=15	1.75				19.9	
3					17	4-8-12 N=20	2.0				20.9	
		20.0 / 695 ***Boring Terminated at 20 Feet***										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 6' while drilling
▽ 10.6' after drilling
▨ Cave in at 12.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-30-2025

Boring Completed
07-30-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-20

Location: See Exploration Plan

Latitude: 41.8552° Longitude: -83.9623°

Depth (Ft.) Approximate Elevation: 710 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 709										
2		**CLAYEY SAND WITH GRAVEL (SC)**, fine to coarse grained, dark brown, loose 3.0 / 707			13	1-1-5 N=6					17.3	
		SILT (ML), brownish gray, medium dense 5.5 / 704.5			16	4-6-7 N=13					17.2	
3		**SANDY LEAN CLAY (CL)**, gray, very stiff to hard 12.0 / 698			18	5-8-8 N=16	4.25				16.2	
					16	6-8-10 N=18	4.5+				14.5	
		LEAN CLAY (CL), gray, stiff to very stiff			14	3-7-4 N=11	3.5				18.6	
		20.0 / 690			15	3-7-8 N=15	2.5				19.2	
		Boring Terminated at 20 Feet										

5 10 15 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
10' while drilling
13.5' after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-22-2025

Boring Completed
07-22-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-23

Location: See Exploration Plan

Latitude: 41.8571° Longitude: -83.9641°

Depth (Ft.) Approximate Elevation: 711 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 710										
2		**POORLY GRADED SAND WITH GRAVEL (SP)**, fine to medium grained, dark brown, loose to medium dense			14	2-4-5 N=9					13.9	
					14	7-8-12 N=20					14.0	
		5.5 / 705.5										
3		**SANDY LEAN CLAY (CL)**, brownish gray to gray, stiff to very stiff			15	4-5-6 N=11	4.0				12.3	
					14	3-3-6 N=9	3.25				13.6	
					18	5-5-7 N=12	3.25				14.1	
		17.0 / 694										
		LEAN CLAY (CL), gray, very stiff			18	4-7-10 N=17	3.0				19.8	
		20.0 / 691										
		Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
5' while drilling
6.6' after drilling
Cave in at 6.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-22-2025

Boring Completed
07-22-2025

Draft

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-25

Location: See Exploration Plan

Latitude: 41.8603° Longitude: -83.9577°

Depth (Ft.) Approximate Elevation: 713 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.9 / 712.1 — 11" Topsoil										
2		3.0 / 710 — **CLAYEY SAND (SC)**, fine to medium grained, brown, loose			15	2-2-3 N=5					14.3	
2		5.5 / 707.5 — **SILT (ML)**, brown, medium dense			12	3-2-8 N=10					19.0	
3		**LEAN CLAY (CL)**, with occasional sand seams, brown, stiff to very stiff	▽		16	5-9-11 N=20	2.0				18.7	
3		becoming gray at about 9 feet	▽		18	5-6-9 N=15	2.25				18.2	
3					17	3-7-8 N=15	2.25				20.7	
3		20.0 / 693			17	4-6-10 N=16	3.0				19.3	
		Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 6' while drilling
▽ 10.6' after drilling

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-31-2025

Boring Completed
07-31-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-26

Location: See Exploration Plan

Latitude: 41.8594° Longitude: -83.9530°

Depth (Ft.) Approximate Elevation: 712 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.9 / 711.1 — 11" Topsoil										
3		3.0 / 709 — **LEAN CLAY WITH SAND (CL)**, and occasional sand seams, brown, medium stiff to stiff			17	2-3-4 N=7	2.0				16.4	
		5.5 / 706.5 — **SILTY SAND (SM)**, with clay seams, fine to medium grained, grayish brown, medium dense			15	7-12-10 N=22					19.7	
		SILTY CLAY (CL-ML), gray, stiff to very stiff			16	3-7-6 N=13	1.75				15.9	
					17	9-10-12 N=22					16.3	
		12.0 / 700 — **LEAN CLAY (CL)**, gray, very stiff to hard			18	3-7-9 N=16	4.25				18.6	
			Cave in at 18.5'		18	4-7-10 N=17	3.25				19.1	
		20.0 / 692 — ***Boring Terminated at 20 Feet***										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
18.5' after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-28

Location: See Exploration Plan

Latitude: 41.8519° Longitude: -83.9515°

Depth (Ft.) Approximate Elevation: 710 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 709										
2		**CLAYEY SAND WITH GRAVEL (SC)**, fine to coarse grained, brown, loose 3.0 / 707			18	1-2-6 N=8					17.2	
2		**SILTY SAND (SM)**, fine to coarse grained, dark brown, medium dense 5.5 / 704.5	▽		14	5-8-15 N=23					13.3	
3		**SANDY LEAN CLAY (CL)**, brownish gray to gray, stiff to very stiff 12.0 / 698			18	5-6-8 N=14	2.5				22.9	
3					18	6-9-6 N=15	2.5				17.5	
3		**LEAN CLAY (CL)**, gray, stiff to very stiff			18	5-6-8 N=14	2.5				21.2	
3		20.0 / 690			18	5-5-6 N=11	2.0				19.7	
		Boring Terminated at 20 Feet										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 5' while drilling

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-30

Location: See Exploration Plan

Latitude: 41.8542° Longitude: -83.9591°

Depth (Ft.) Approximate Elevation: 711 (Ft.)

Model Layer	Depth (Ft.)	Elevation	Description	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1	1.0	710	12" Topsoil										
2	3.0	708	**CLAYEY SAND WITH GRAVEL (SC)**, fine to coarse grained, brown, very loose			13	1-2-1 N=3					21.2	
2	5.5	705.5	**SILTY SAND WITH GRAVEL (SM)**, fine to medium grained, brown, medium dense			14	5-7-9 N=16					15.0	
3	8.0	703	**SILTY CLAY (CL-ML)**, gray, stiff			18	8-3-5 N=8	1.0				15.9	
3	17.0	694	**SANDY LEAN CLAY (CL)**, gray, stiff to hard	Cave in at 8.6'		18	9-14-16 N=30	3.5				12.9	
3	20.0	691	**LEAN CLAY (CL)**, gray, stiff to very stiff	13.5' while drilling		18	2-5-5 N=10	3.0				15.1	
				8.6' after drilling		18	3-7-9 N=16	1.25				20.8	
			Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
13.5' while drilling
8.6' after drilling
Cave in at 8.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-22-2025

Boring Completed
07-22-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-33

Location: See Exploration Plan

Latitude: 41.8514° Longitude: -83.9658°

Depth (Ft.) Approximate Elevation: 708 (Ft.)

Model Layer	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1	0.8	10" Topsoil										
	707.2											
2		**SILTY SAND WITH GRAVEL (SM)**, fine to coarse grained, dark brown, medium dense No sample obtained as farmer requested hand digging to about 3 feet to verify no drainage tile was present.										
	5.5											
	702.5											
3		**SANDY LEAN CLAY (CL)**, gray, very stiff to hard										
	5		▽		15	8-10-12 N=22					12.6	
					17	5-8-10 N=18	4.25				10.9	
	10				17	4-7-10 N=17	3.75				10.7	
	12.0											
	696											
		LEAN CLAY (CL), gray, stiff to very stiff										
	15				16	3-4-7 N=11	3.25				18.3	
	20				18	4-7-11 N=18	2.75				18.6	
	20.0	***Boring Terminated at 20 Feet***										
	688											

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 6' while drilling
▽ 5.6' after drilling
Cave in at 5.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Logged by
D. Goodman

Boring Started
07-22-2025

Boring Completed
07-22-2025

Notes
No sample from about 1 to 2.5 feet because farmer requested crew to hand dig to 2 feet to check for drain tile prior to boring.

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-34

Location: See Exploration Plan

Latitude: 41.8499° Longitude: -83.9680°

Depth (Ft.) Approximate Elevation: 712 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		11" Topsoil 0.9 / 711.1										
2		**SANDY SILT (ML)**, gray, loose 3.0 / 709			16	3-2-3 N=5					15.5	
3		**LEAN CLAY (CL)**, brown, medium stiff to very stiff			14	4-3-4 N=7					19.9	
		becoming gray at about 6 feet			16	2-6-5 N=11	1.5				22.4	
					17	3-4-7 N=11	2.0				17.9	
			▽		18	3-7-8 N=15	2.0				16.5	
			▨		17	4-7-11 N=18					16.5	
		17.0 / 695 **SILT (ML)**, gray, medium dense 20.0 / 692										
		Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 13.5' while drilling
▽ 13.5' after drilling
▨ Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-30-2025

Boring Completed
07-30-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-36

Location: See Exploration Plan

Latitude: 41.8467° Longitude: -83.9539°

Depth (Ft.) Approximate Elevation: 707 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 706										
3		**SANDY LEAN CLAY (CL)**, brown, very soft 3.0 / 704			12	1-0-1 N=1					16.4	
		SILTY CLAY (CL-ML), brownish gray to gray, stiff to hard			18	4-5-5 N=10	1.25				24.4	
			▽		24			UC			22.5	
					16	4-5-5 N=10	4.5+				17.4	
		13.0 / 694										
		SANDY LEAN CLAY (CL), gray, stiff to very stiff	▨		18	3-4-7 N=11	1.75				17.2	
		20.0 / 687			17	3-7-10 N=17	3.75				17.9	
		Boring Terminated at 20 Feet										

5 10 15 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 6' while drilling
Groundwater not encountered after drilling
▨ Cave in at 11.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-38

Location: See Exploration Plan

Latitude: 41.8436° Longitude: -83.9645°

Depth (Ft.) Approximate Elevation: 707 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 706										
2		**POORLY GRADED SAND WITH CLAY (SP-SC)**, fine to coarse grained, brown, loose 3.0 / 704			16	3-3-4 N=7					16.4	
2		**POORLY GRADED SAND (SP)**, fine to medium grained, gray, medium dense 5.5 / 701.5			16	4-5-6 N=11					17.4	
2		**SILT (ML)**, gray, medium dense 8.0 / 699			15	3-7-5 N=12					18.2	
3		**LEAN CLAY (CL)**, with occasional sand seams, gray, medium stiff to stiff	▽		17	8-4-4 N=8					21.8	
3					16	1-2-3 N=5	1.75				20.3	
3					18	4-8-6 N=14	2.0				18.5	
		Boring Terminated at 20 Feet 20.0 / 687										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 8.5' while drilling
▽ 9.5' after drilling
Cave in at 9.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-25-2025

Boring Completed
07-25-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-40

Location: See Exploration Plan

Latitude: 41.8444° Longitude: -83.9599°

Depth (Ft.) Approximate Elevation: 707 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 706										
2		**POORLY GRADED SAND WITH CLAY (SP-SC)**, with clay seams, fine to coarse grained, brown, loose 3.0 / 704			17	3-2-4 N=6					15.6	
2		**POORLY GRADED SAND (SP)**, fine to medium grained, gray, medium dense 5.5 / 701.5			17	5-8-10 N=18					15.0	
3		**SILTY CLAY (CL-ML)**, with occasional silt seams, gray, stiff to very stiff			18	3-4-4 N=8	4.0				16.9	
3					24			UC	1.48	3.9	18.5	116
3					16	10-5-4 N=9	1.0				18.3	
3		17.0 / 690										
		SILT (ML), gray, dense										
		20.0 / 687			17	15-17-18 N=35					11.0	
		Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
11.6' after drilling
Cave in at 11.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-23-2025

Boring Completed
07-23-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-42

Location: See Exploration Plan
Latitude: 41.8398° Longitude: -83.9704°
Depth (Ft.) Approximate Elevation: 707 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.9 (706.1) 11" Topsoil										
2		3.0 (704) **SANDY LEAN CLAY (CL)**, brown, medium stiff to stiff			13	2-3-2 N=5	1.75				17.3	
2		5.5 (701.5) **SILT WITH SAND (ML)**, grayish brown, medium dense			18	4-7-8 N=15					18.9	
3		**SANDY LEAN CLAY (CL)**, gray, stiff to hard			13	2-3-5 N=8	3.0				12.8	
3					18	3-6-8 N=14	4.0				15.9	
3					13	3-5-8 N=13	4.25				16.6	
3		20.0 (687)			18	5-8-10 N=18	4.0				17.4	
		Boring Terminated at 20 Feet										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-25-2025

Boring Completed
07-25-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-44

Location: See Exploration Plan
Latitude: 41.8352° Longitude: -83.9751°
Depth (Ft.) Approximate Elevation: 709 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 708										
3		**SANDY LEAN CLAY (CL)**, grayish brown, medium stiff to stiff 3.0 / 706			18	1-2-2 N=4	1.25				24.6	
		SILTY CLAY (CL-ML), brown, very stiff 5.5 / 703.5			18	5-6-9 N=15	2.75				18.2	
		SANDY LEAN CLAY (CL), gray, stiff to hard			18	6-9-12 N=21	4.5+				15.2	
					18	5-7-7 N=14	3.75				15.0	
					18	2-4-3 N=7	2.25				17.6	
			Cave in at 18.5'		17	4-6-6 N=12	3.5				12.8	
		20.0 / 689 ***Boring Terminated at 20 Feet***										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-25-2025

Boring Completed
07-25-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-45

Location: See Exploration Plan

Latitude: 41.8369° Longitude: -83.9834°

Depth (Ft.) Approximate Elevation: 717 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 716										
3		**SANDY LEAN CLAY (CL)**, brown, stiff to hard			16	4-5-7 N=12	4.25				23.3	
					18	5-6-7 N=13	3.0				19.3	
		5.5 / 711.5 **SILTY CLAY (CL-ML)**, with silt seams, brownish gray			18			UC				
		8.0 / 709 **SILTY SAND (SM)**, fine to medium grained, brownish gray, dense			17	11-21-17 N=38					22.1	
		12.0 / 705 **SILTY SAND (SM)**, fine to medium grained, gray, loose to medium dense			18	3-3-5 N=8					23.7	
					18	5-6-6 N=12					20.4	
		20.0 / 697 ***Boring Terminated at 20 Feet***										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
8.5' while drilling
10.6' after drilling
Cave in at 10.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-25-2025

Boring Completed
07-25-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-47

Location: See Exploration Plan

Latitude: 41.8343° Longitude: -83.9874°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1	0										
	12" Topsoil (1.0 / 717)										
	SANDY LEAN CLAY (CL), brown, stiff to very stiff			13	3-4-6 N=10	3.5				24.1	
				16	2-3-4 N=7	2.5				23.7	
	(5.5 / 712.5)										
	SILTY CLAY (CL-ML), brownish gray to gray, stiff to hard			20			UC	3.38	9.8	16.0	117
				13	3-5-7 N=12	4.5+				14.2	
3	(13.0 / 705)										
	SILT (ML), gray, medium dense	Cave in at 13.5'		12	7-10-16 N=26					15.6	
				10	6-8-13 N=21					19.9	
	(20.0 / 698)										
	Boring Terminated at 20 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
13.5' while drilling
13.5' after drilling
Cave in at 13.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-25-2025

Boring Completed
07-25-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-49

Location: See Exploration Plan

Latitude: 41.8352° Longitude: -83.9442°

Depth (Ft.) Approximate Elevation: 700 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.9 / 699.1 — 11" Topsoil										
2		5.5 / 694.5 — **SILTY SAND (SM)**, with occasional clay seams, fine to medium grained, brown, loose			16	3-3-3 N=6						
					14	2-3-4 N=7					14.8	
3		8.0 / 692 — **SILTY CLAY (CL-ML)**, brownish gray, stiff			15	2-3-6 N=9	1.0				22.9	
		17.0 / 683 — **SANDY LEAN CLAY (CL)**, gray, stiff			17	3-3-7 N=10	1.0				17.6	
					18	3-5-9 N=14					15.1	
		20.0 / 680 — **LEAN CLAY (CL)**, gray, stiff to very stiff	▽		17	4-6-10 N=16	1.25				8.2	
		Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
▽ 18.5' after drilling

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-28-2025

Boring Completed
07-28-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-50

Location: See Exploration Plan

Latitude: 41.8345° Longitude: -83.9526°

Depth (Ft.) Approximate Elevation: 699 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 — 698										
2		**POORLY GRADED SAND WITH SILT (SP-SM)**, fine to medium grained, brown, loose 2.0 — 697			17	2-3-3 N=6					16.3	
3		**SILTY CLAY (CL-ML)**, brown to brownish gray, stiff to very stiff			18	3-3-6 N=9	2.0				17.6	
					16	4-6-10 N=16	2.0				19.8	
		8.0 — 691										
		SANDY LEAN CLAY (CL), gray, stiff to very stiff			16	2-4-5 N=9	2.0				21.4	
					18	3-3-5 N=8					16.0	
		17.0 — 682										
		LEAN CLAY (CL), gray, stiff										
		20.0 — 679			18	4-4-7 N=11	1.5				18.2	
		Boring Terminated at 20 Feet										

Depth (Ft.): 5, 10, 15, 20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-28-2025

Boring Completed
07-28-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-53

Location: See Exploration Plan

Latitude: 41.8295° Longitude: -83.9583°

Depth (Ft.) Approximate Elevation: 704 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.9 / 703.1 — 11" Topsoil										
3		**SANDY LEAN CLAY (CL)**, brown, medium stiff to very stiff			16	4-3-4 N=7	3.0				19.6	
					18	2-2-3 N=5	2.5				20.6	
		becoming gray at about 6 feet			18	4-3-4 N=7	4.0				13.4	
					18	3-3-5 N=8	3.0				20.6	
		12.0 / 692 — **LEAN CLAY (CL)**, gray, stiff to very stiff			18	3-5-7 N=12	3.5				16.5	
			Cave in at 18.5'		18	3-5-7 N=12	4.0				16.3	
		20.0 / 684 — ***Boring Terminated at 20 Feet***										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-30-2025

Boring Completed
07-30-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. B-56

Location: See Exploration Plan

Latitude: 41.8284° Longitude: -83.9500°

Depth (Ft.) Approximate Elevation: 699 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 (698)										
2		**SILTY SAND (SM)**, fine to medium grained, brown, loose 3.0 (696)			18	2-2-2 N=4					23.5	
3		**SANDY LEAN CLAY (CL)**, brownish gray, medium stiff to very stiff			18	2-2-3 N=5	3.0				23.6	
					18	3-5-5 N=10	1.5				24.4	
					18	2-5-6 N=11	2.5				19.4	
					18	5-7-8 N=15	3.25				13.2	
		17.0 (682) **LEAN CLAY (CL)**, gray, medium stiff to very stiff										
			Cave in at 18.5'		16	1-3-4 N=7	2.5				14.3	
		20.0 (679) ***Boring Terminated at 20 Feet***										

5
10
15
20

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered during drilling
Groundwater not encountered after drilling
Cave in at 18.5'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Logged by
D. Goodman

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Boring Started
07-30-2025

Boring Completed
07-30-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. SS-1

Location: See Exploration Plan

Latitude: 41.8753° Longitude: -83.9665°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.5 6" Topsoil 717.5										
2		**CLAYEY SAND (SC)**, fine to medium grained, brown, loose 2.0 716			15	3-1-3 N=4					19.6	
3		**SANDY LEAN CLAY (CL)**, with occasional silt seams, brownish gray, very stiff to hard			18	13-14-17 N=31	4.5+				16.4	
		becoming gray at about 6 feet			16	7-12-17 N=29	4.5+				17.4	
					18	4-7-12 N=19	4.5+				18.1	
					18	6-10-10 N=20	3.25				18.7	
		17.0 701 **LEAN CLAY (CL)**, gray, very stiff to hard			24			UC	2.69	14.7	18.1	115
					18	6-5-10 N=15	2.75				21.5	

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
33.5' while drilling
39.6' after drilling
Cave in at 39.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-24-2025

Boring Completed
07-24-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. SS-1

Location: See Exploration Plan

Latitude: 41.8753° Longitude: -83.9665°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
		LEAN CLAY (CL), gray, very stiff to hard *(continued)*										
					24			UC			23.1	
		32.0 686										
		SILT (ML), gray, dense to very dense										
			▽		15	4-13-24 N=37					21.7	
3			▨		18	14-23-27 N=50					14.9	
		42.0 676										
		SANDY LEAN CLAY (CL), gray, very stiff to hard										
					18	12-14-10 N=24	4.5+				21.3	
					18	5-7-8 N=15	3.5				14.1	
		50.0 668										
		Boring Terminated at 50 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 33.5' while drilling
▽ 39.6' after drilling
▨ Cave in at 39.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-24-2025

Boring Completed
07-24-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. SS-2

Location: See Exploration Plan

Latitude: 41.8753° Longitude: -83.9642°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.6 7" Topsoil 717.4										
2		**CLAYEY SAND (SC)**, fine to medium grained, brown, loose			10	1-2-3 N=5					17.3	
		3.0 715										
		SILTY SAND WITH GRAVEL (SM), fine to coarse grained, dark brown, medium dense			16	12-14-13 N=27					9.7	
		5.5 712.5										
3		**SANDY LEAN CLAY (CL)**, gray, very stiff to hard			17	5-9-13 N=22	4.5+				16.6	
					16	4-8-10 N=18	4.5+				18.5	
		12.0 706										
		LEAN CLAY (CL), gray, very stiff to hard	▽		17	5-7-11 N=18	4.25				21.3	
					24			UC	4.05	8.7	20.6	111
		22.0 696										
		SILTY SAND (SM), with occasional clay seams, fine to medium grained, gray, medium dense to dense			18	5-9-15 N=24					22.7	

Depth (Ft.): 5, 10, 15, 20, 25

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 13.5' while drilling
▽ 39.6' after drilling
Cave in at 39.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-24-2025

Boring Completed
07-24-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Boring Log No. SS-2

Location: See Exploration Plan

Latitude: 41.8753° Longitude: -83.9642°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
		SILTY SAND (SM), with occasional clay seams, fine to medium grained, gray, medium dense to dense *(continued)*										
					0							
					18	10-12-20 N=32					19.5	
		37.0 681										
3		**SANDY LEAN CLAY (CL)**, gray, hard										
					18	11-22-25 N=47	4.5+				15.2	
		42.0 676										
		SILTY SAND (SM), fine to medium grained, gray, medium dense										
					18	8-12-10 N=22					19.7	
		47.0 671										
		SANDY LEAN CLAY (CL), gray, very stiff										
					18	6-8-7 N=15	3.25				22.0	
		50.0 668										
		Boring Terminated at 50 Feet										

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
13.5' while drilling
39.6' after drilling
Cave in at 39.6'

Drill Rig
B-57

Hammer Type
Automatic

Driller
B. Richardson

Notes

Advancement Method
3¼" HSA

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by
D. Goodman

Boring Started
07-24-2025

Boring Completed
07-24-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

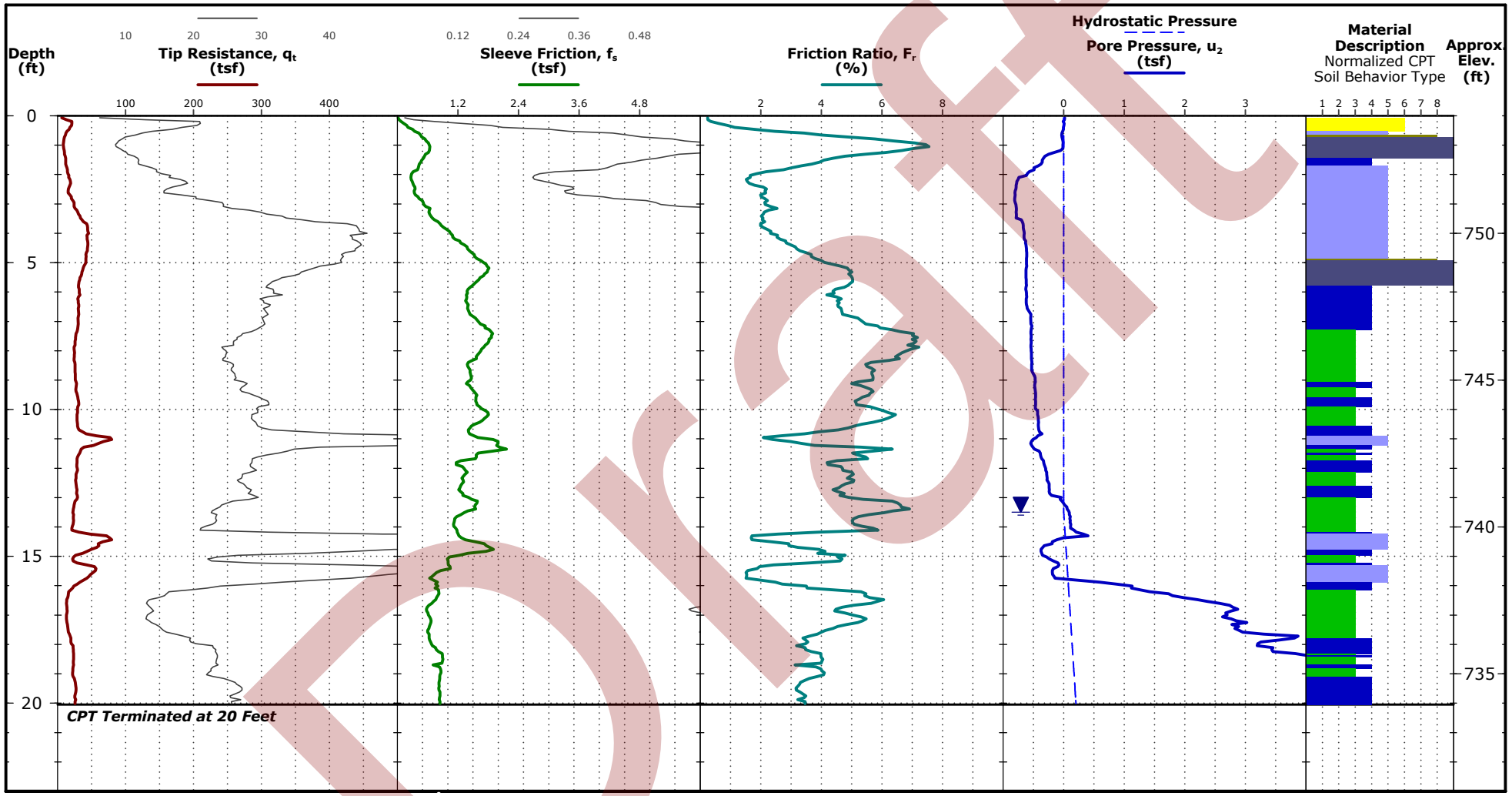
CPT Sounding ID CPT-2

Latitude: 41.8790° Longitude: -83.9884°

Terracon
2204 Yankee St
Niles, MI

Elevation: 754 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/1/2025
CPT Completed: 7/1/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

13.5 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

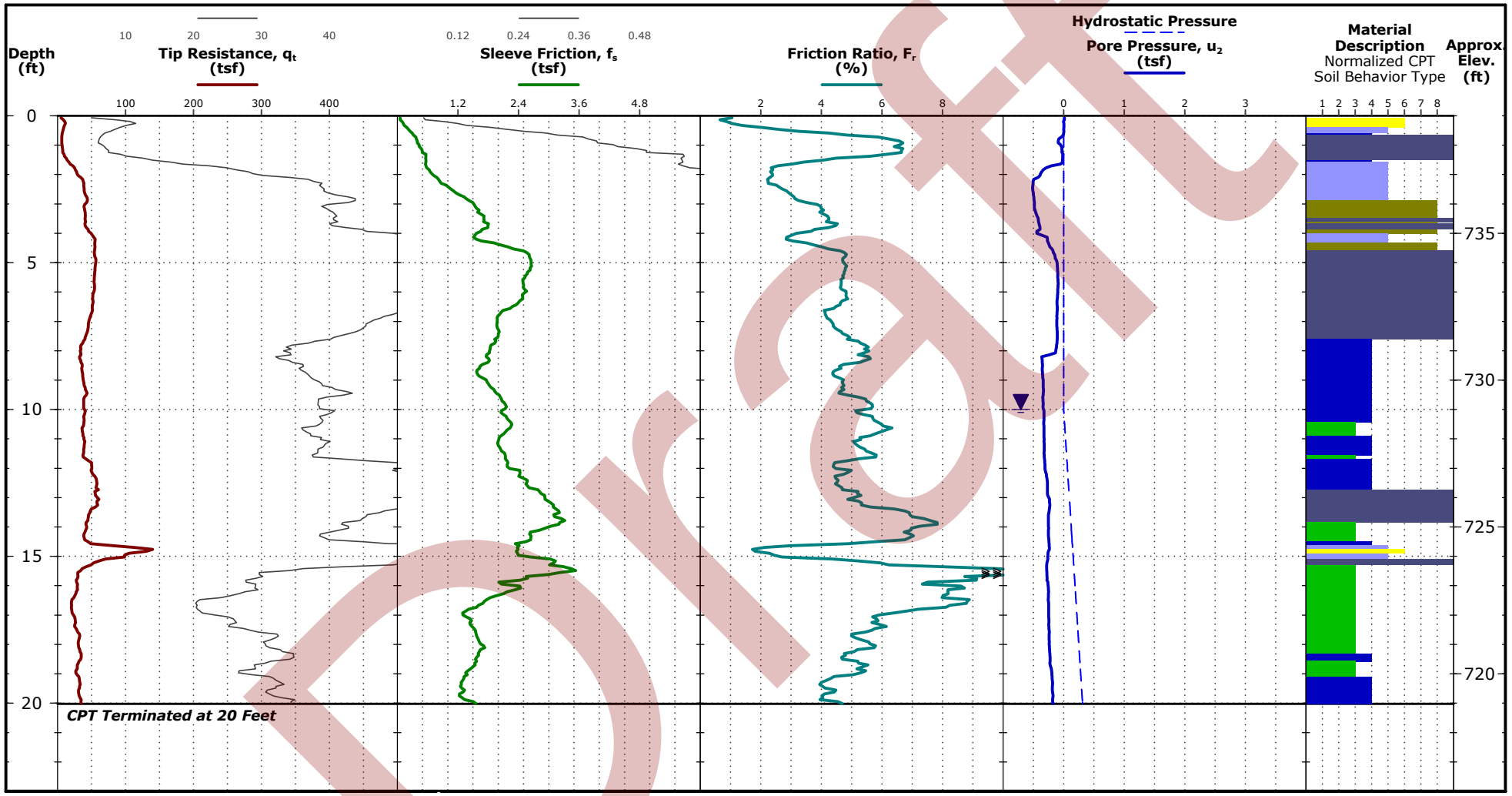
CPT Sounding ID CPT-4

Latitude: 41.8784° Longitude: -83.9802°

Terracon
2204 Yankee St
Niles, MI

Elevation: 739 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/1/2025
CPT Completed: 7/1/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

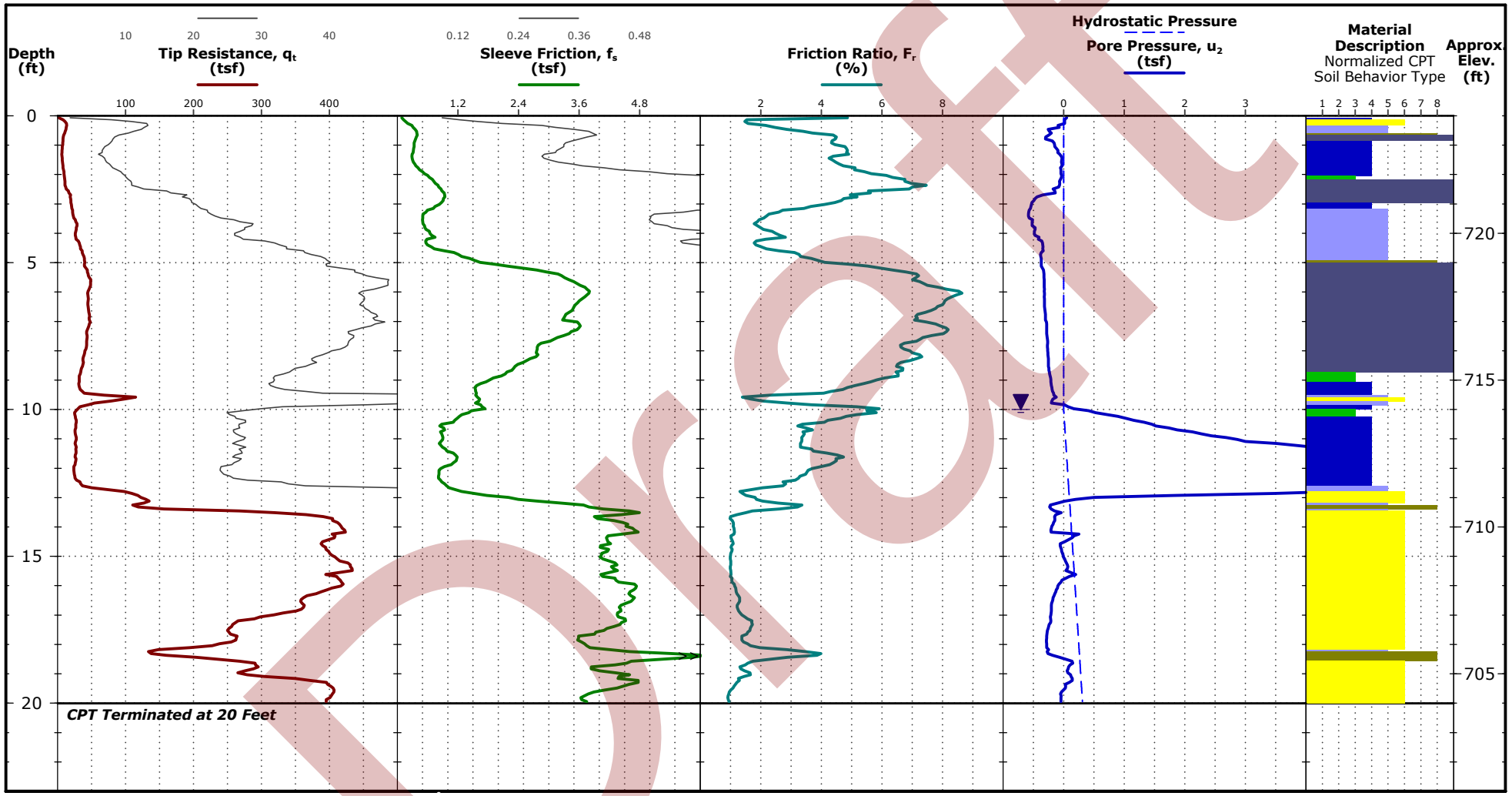
CPT Sounding ID CPT-5

Latitude: 41.8754° Longitude: -83.9752°

Terracon
2204 Yankee St
Niles, MI

Elevation: 724 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/2/2025
CPT Completed: 7/2/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

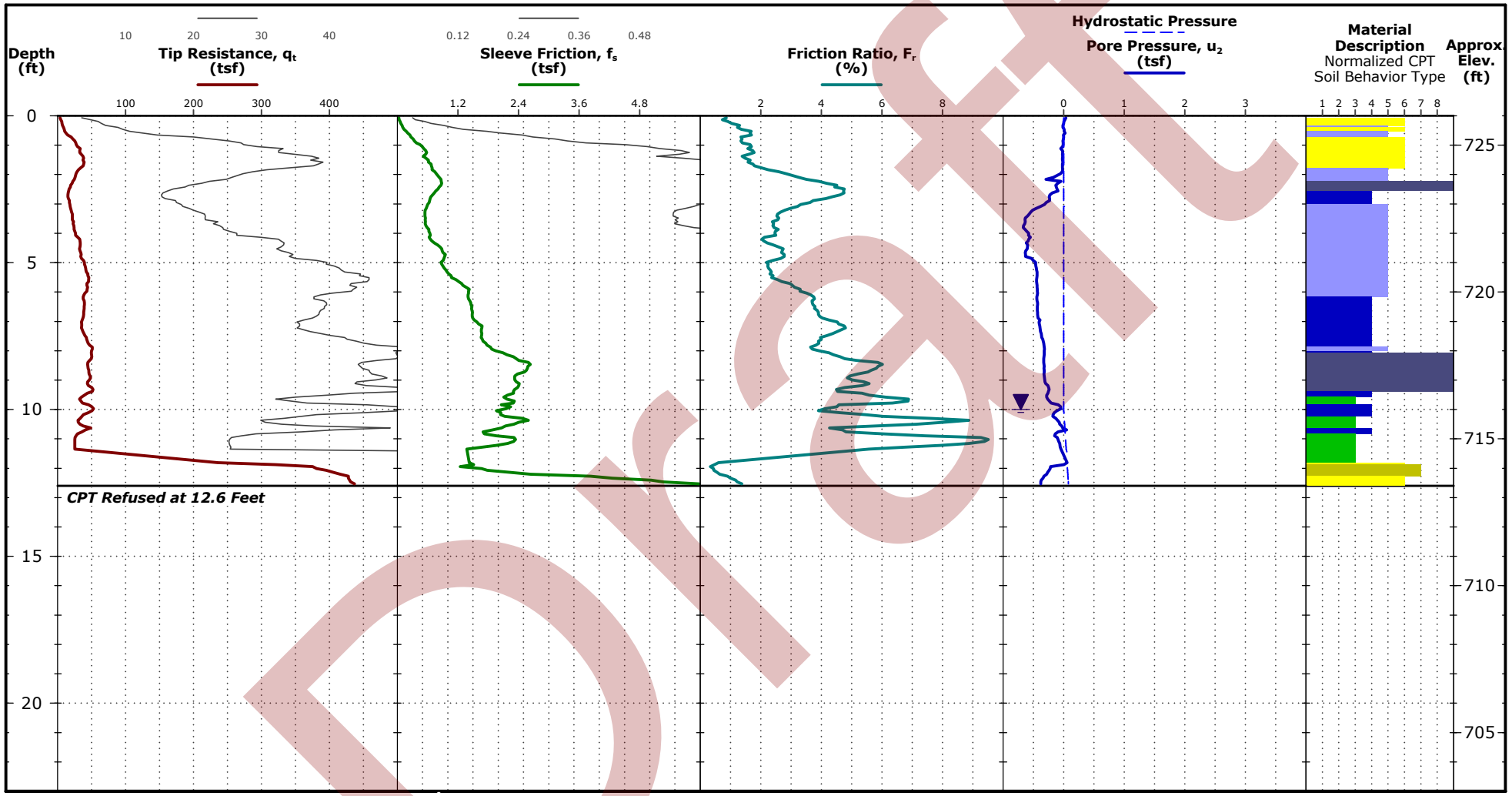
CPT Sounding ID CPT-7

Latitude: 41.8806° Longitude: -83.9742°

Terracon
2204 Yankee St
Niles, MI

Elevation: 726 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/1/2025
CPT Completed: 7/1/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

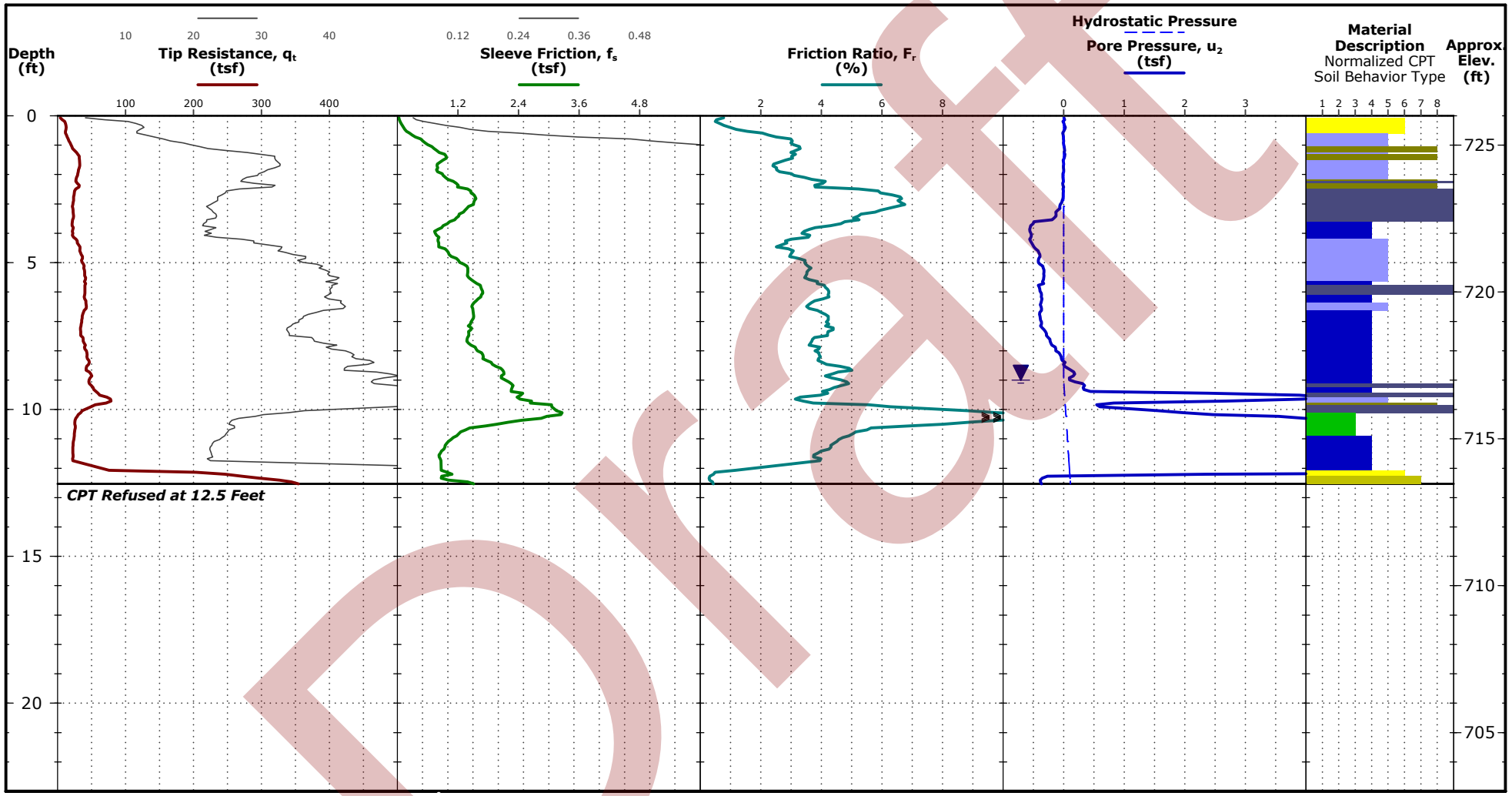
CPT Sounding ID CPT-7 (Offset)

Latitude: 41.8806° Longitude: -83.9742°

Elevation: 726 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/1/2025
CPT Completed: 7/1/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

9 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

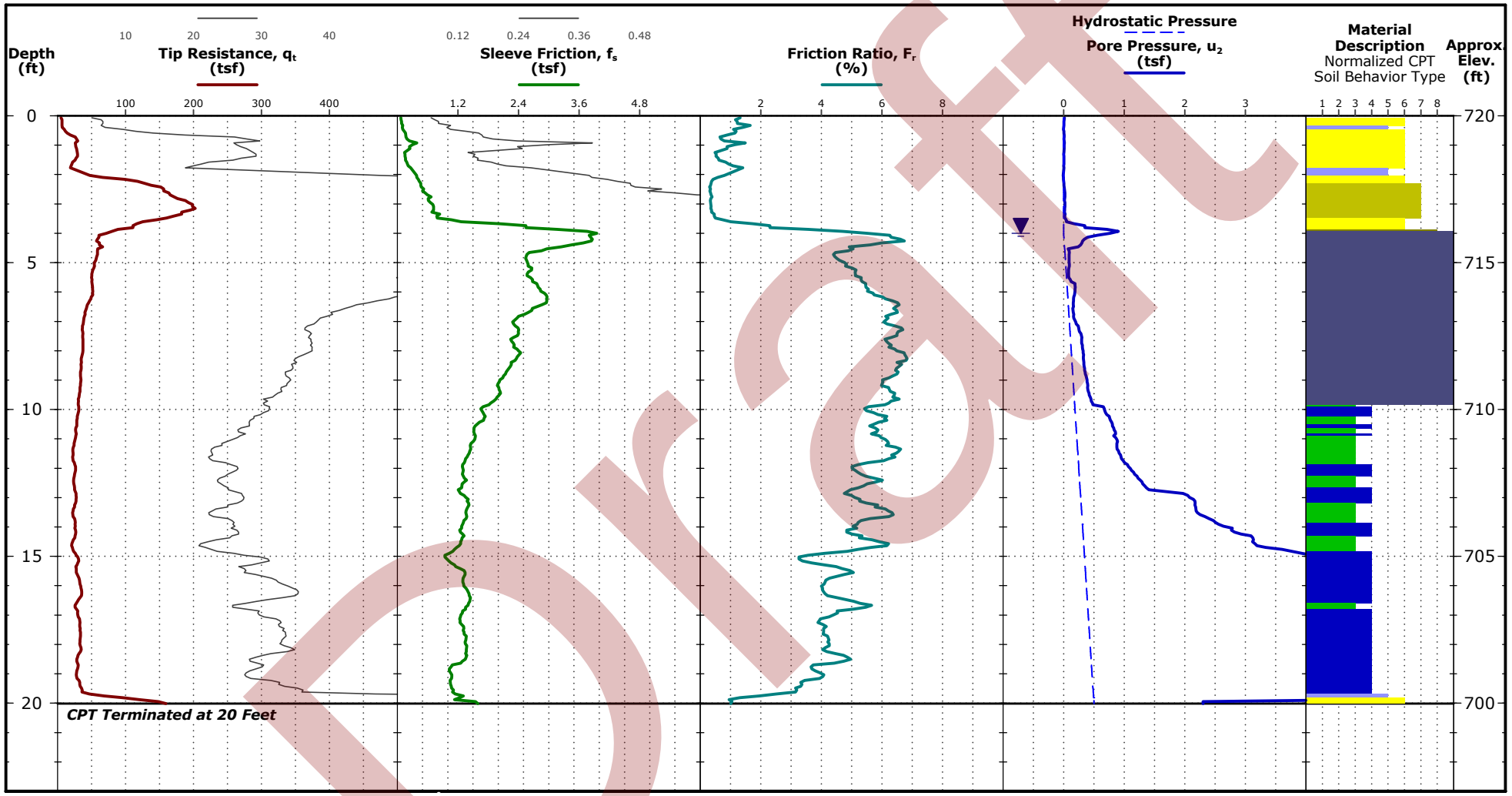
CPT Sounding ID CPT-10

Latitude: 41.8775° Longitude: -83.9671°

Terracon
2204 Yankee St
Niles, MI

Elevation: 720 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/2/2025
CPT Completed: 7/2/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 4 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

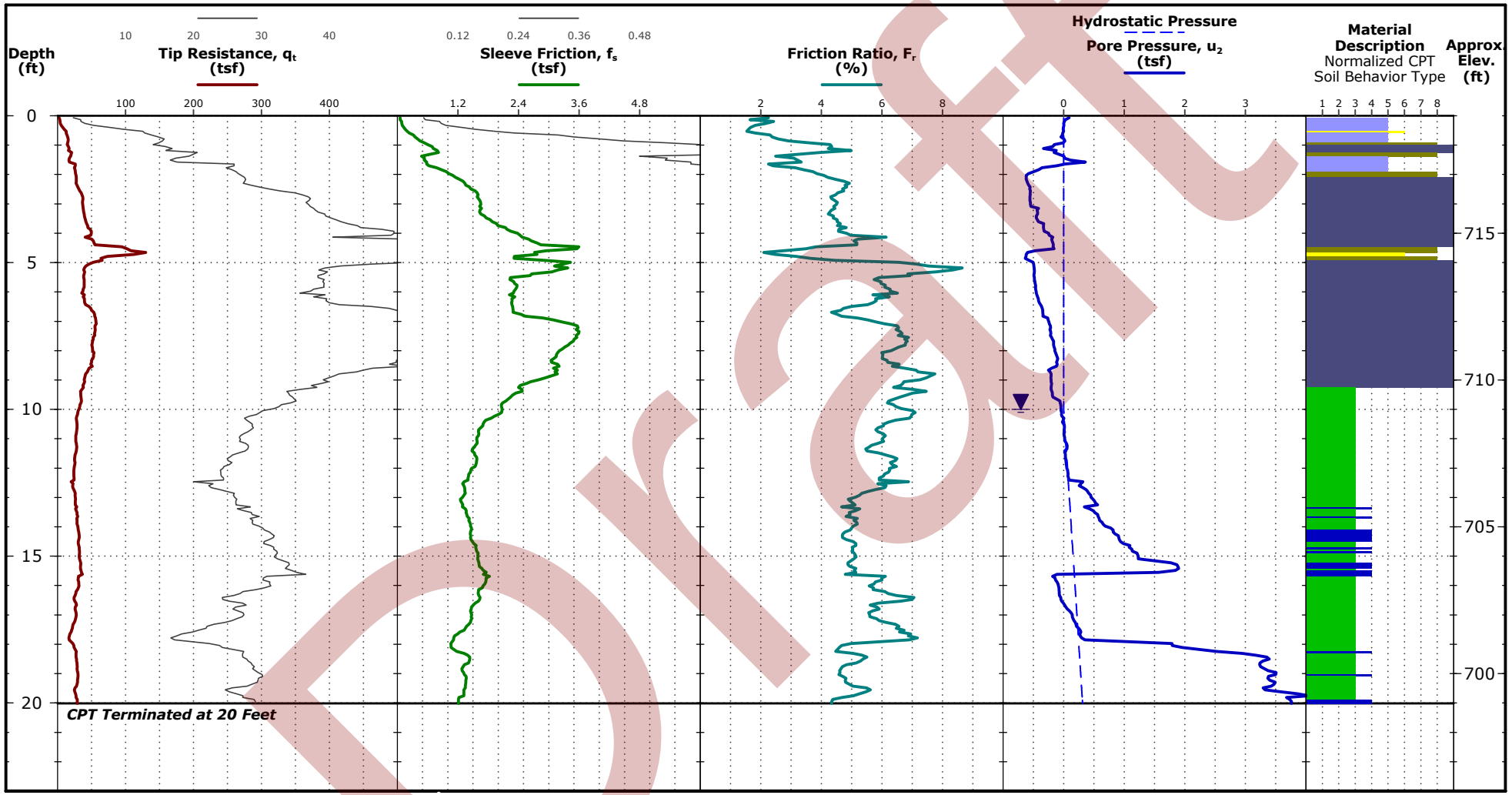
CPT Sounding ID CPT-12

Latitude: 41.8747° Longitude: -83.9613°

Terracon
2204 Yankee St
Niles, MI

Elevation: 719 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/3/2025
CPT Completed: 7/3/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

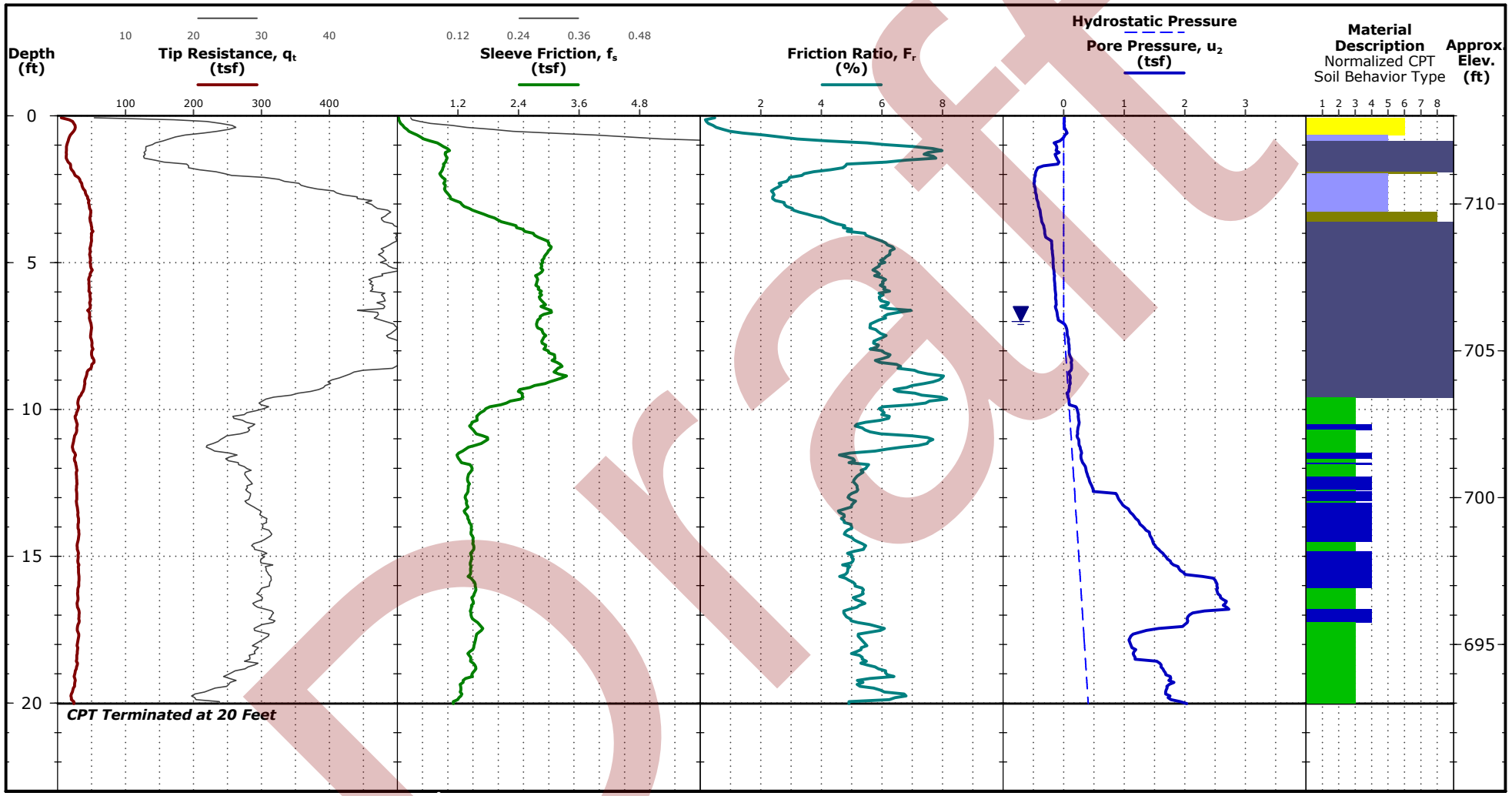
CPT Sounding ID CPT-14

Latitude: 41.8723° Longitude: -83.9558°

Terracon
2204 Yankee St
Niles, MI

Elevation: 713 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/3/2025
CPT Completed: 7/3/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 7 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

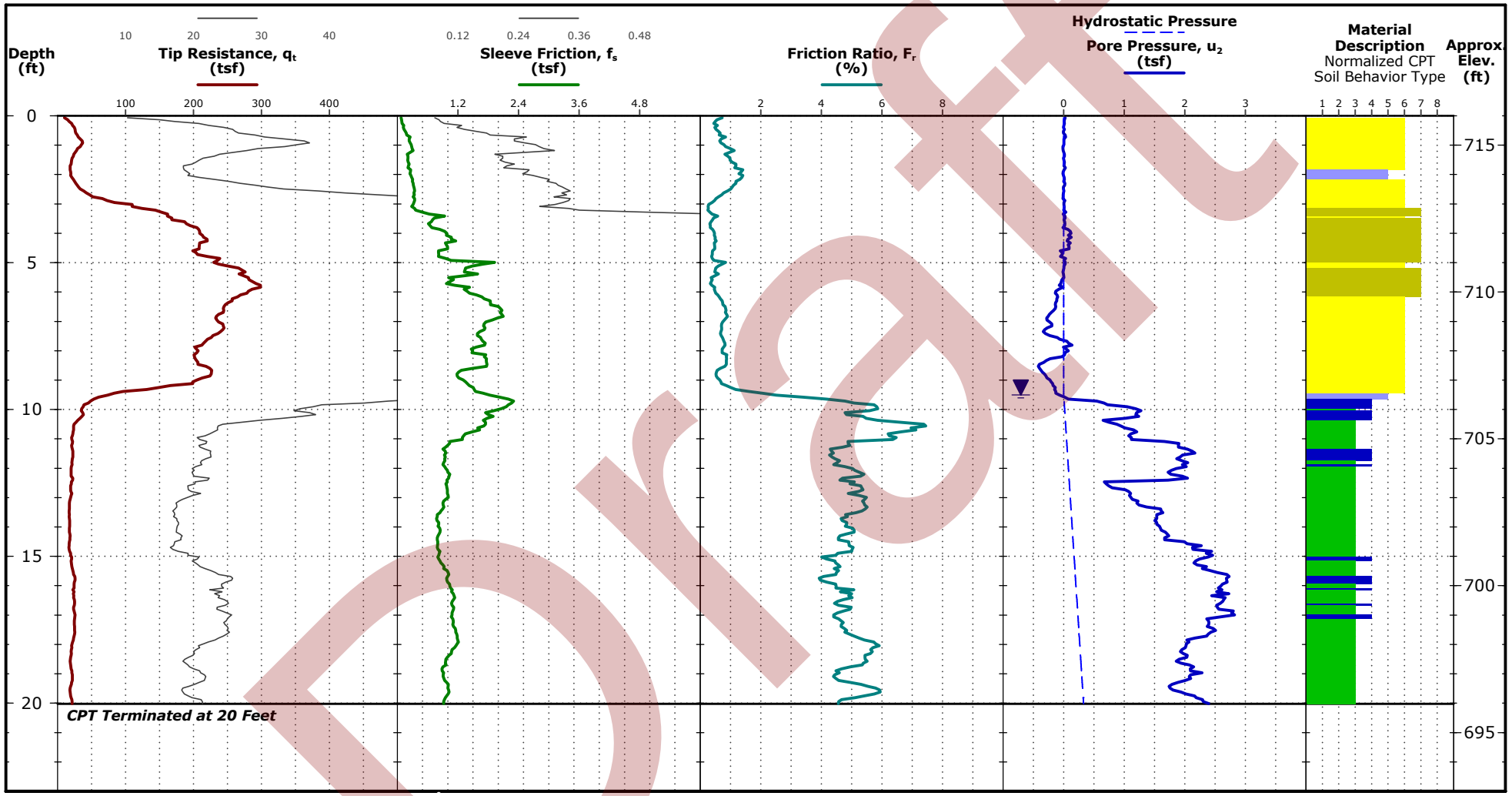
CPT Sounding ID CPT-15

Latitude: 41.8689° Longitude: -83.9590°

Terracon
2204 Yankee St
Niles, MI

Elevation: 716 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/3/2025
CPT Completed: 7/3/2025



See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

9.5 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

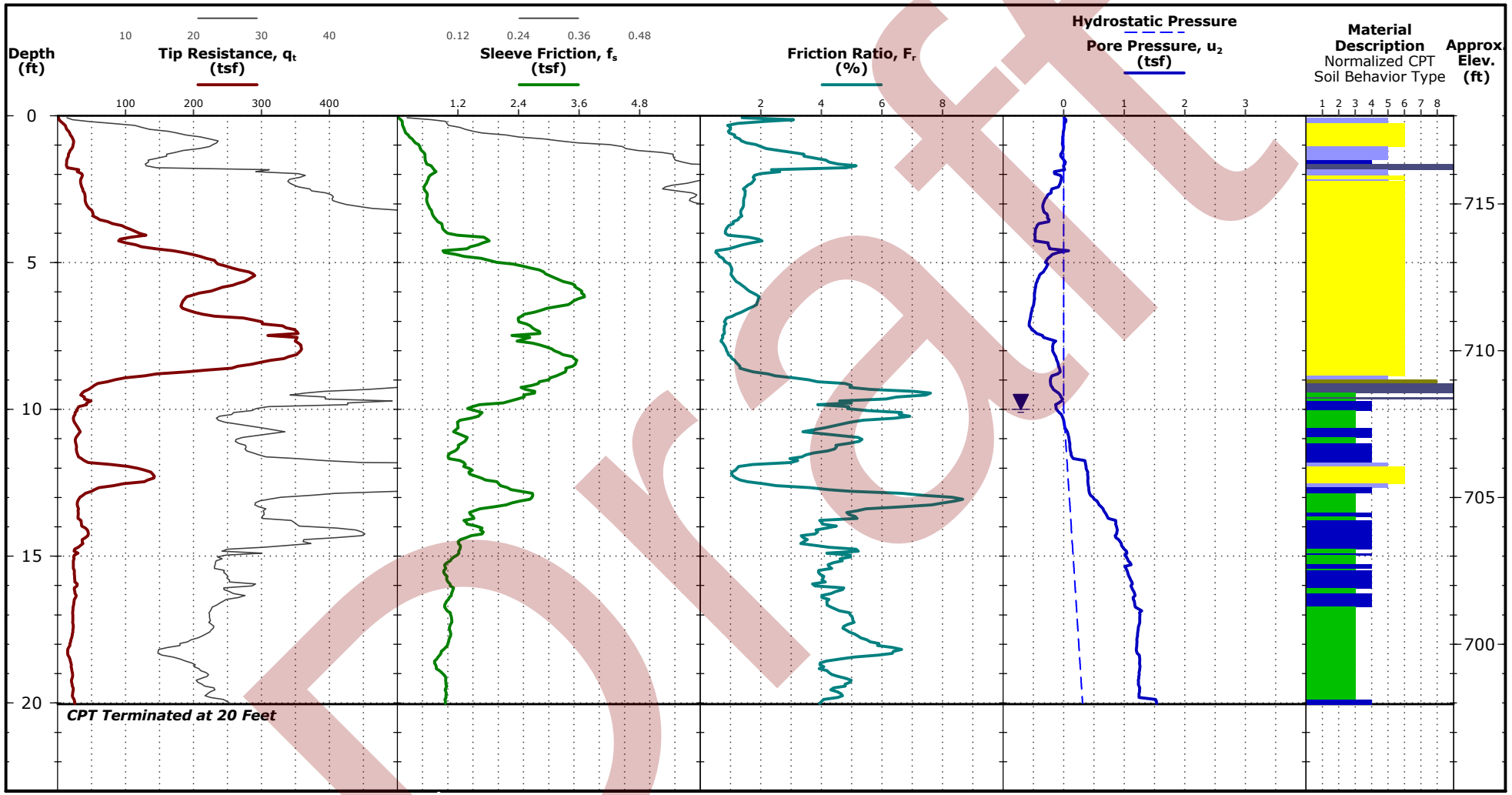
CPT Sounding ID CPT-16

Latitude: 41.8677° Longitude: -83.9665°

Terracon
2204 Yankee St
Niles, MI

Elevation: 718 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

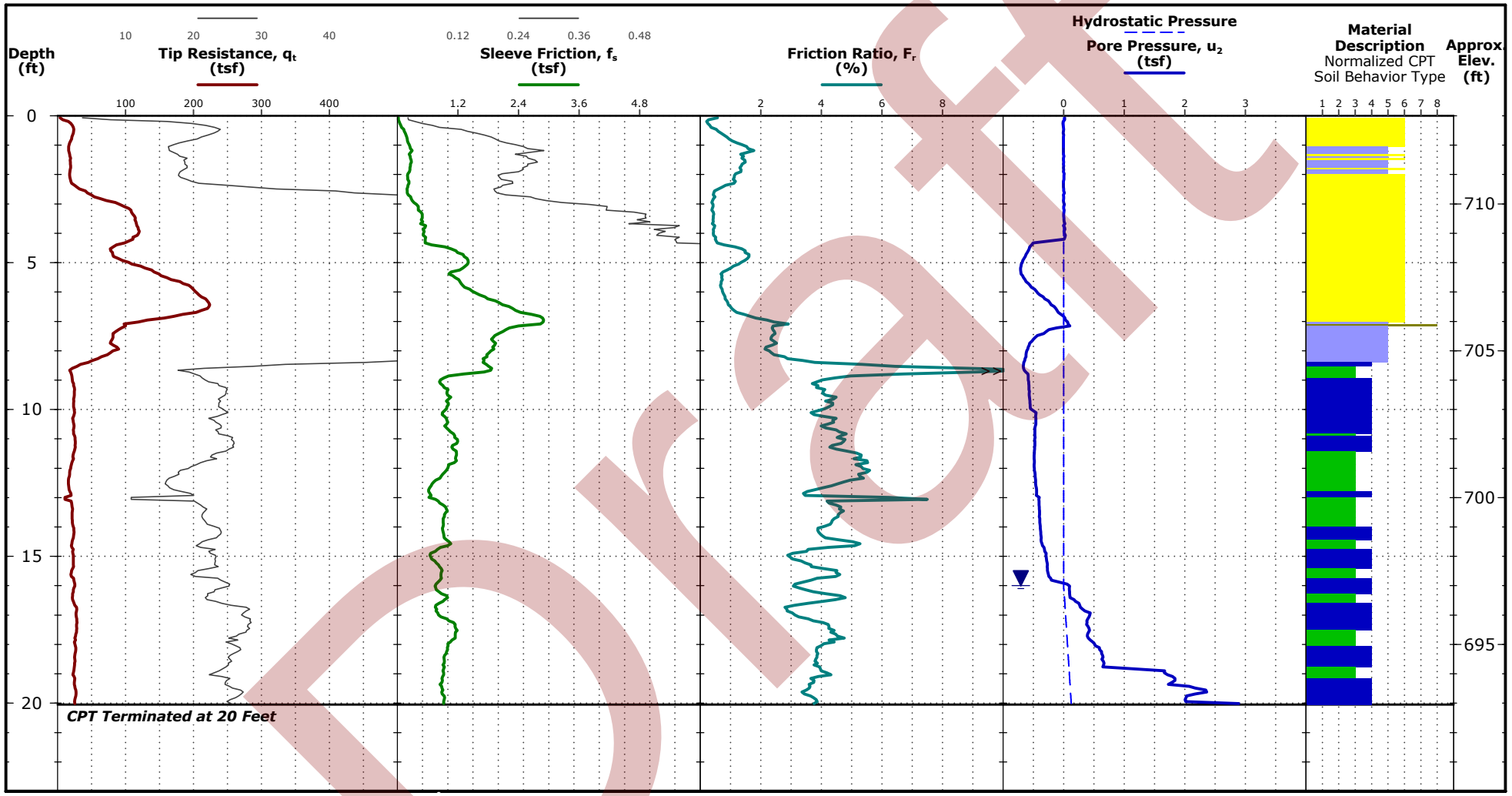
CPT Sounding ID CPT-19

Latitude: 41.8627° Longitude: -83.9583°

Elevation: 713 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/8/2025
CPT Completed: 7/8/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

16 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

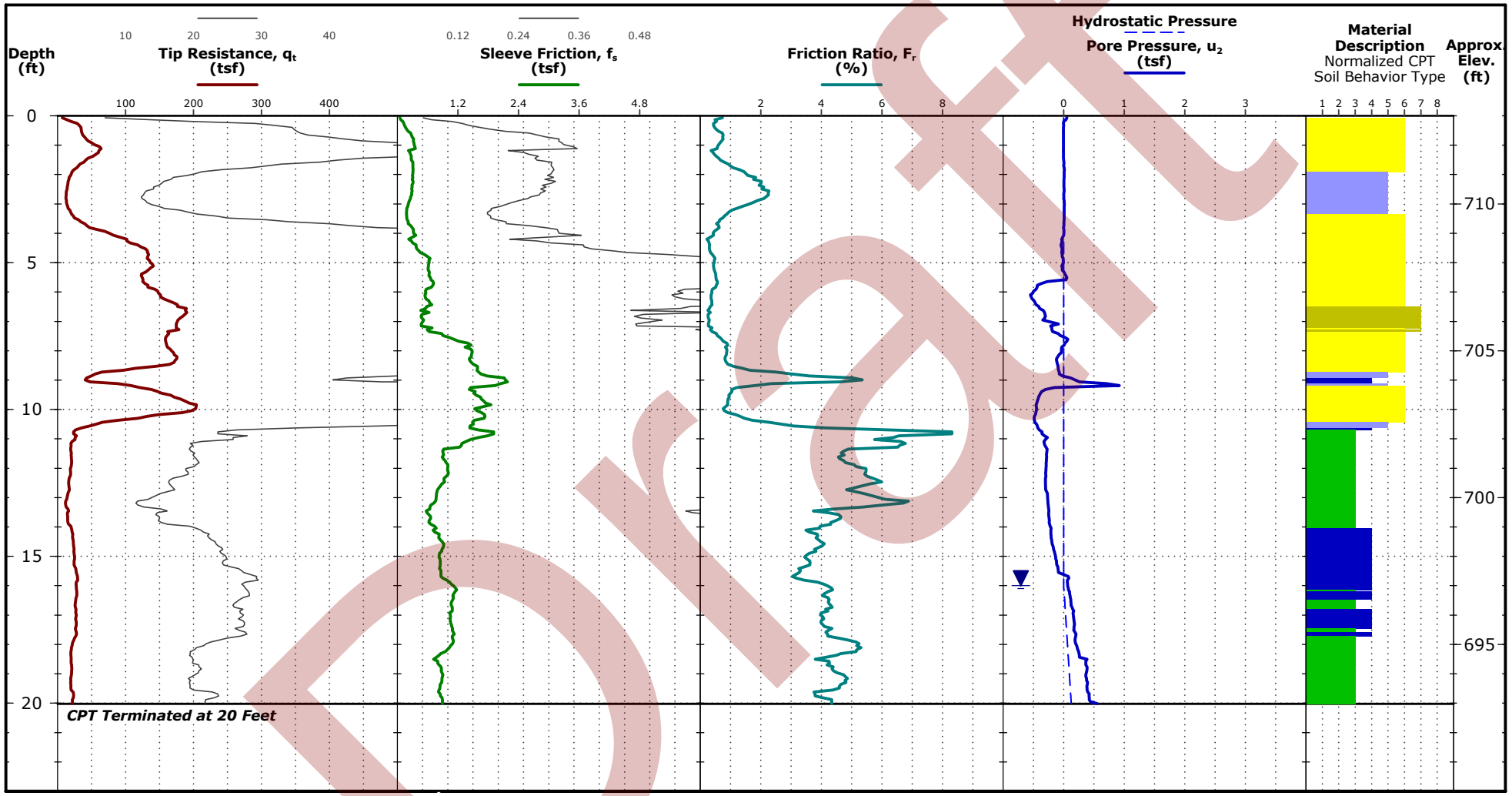
CPT Sounding ID CPT-21

Latitude: 41.8552° Longitude: -83.9664°

Terracon
2204 Yankee St
Niles, MI

Elevation: 713 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/8/2025
CPT Completed: 7/8/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

16 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

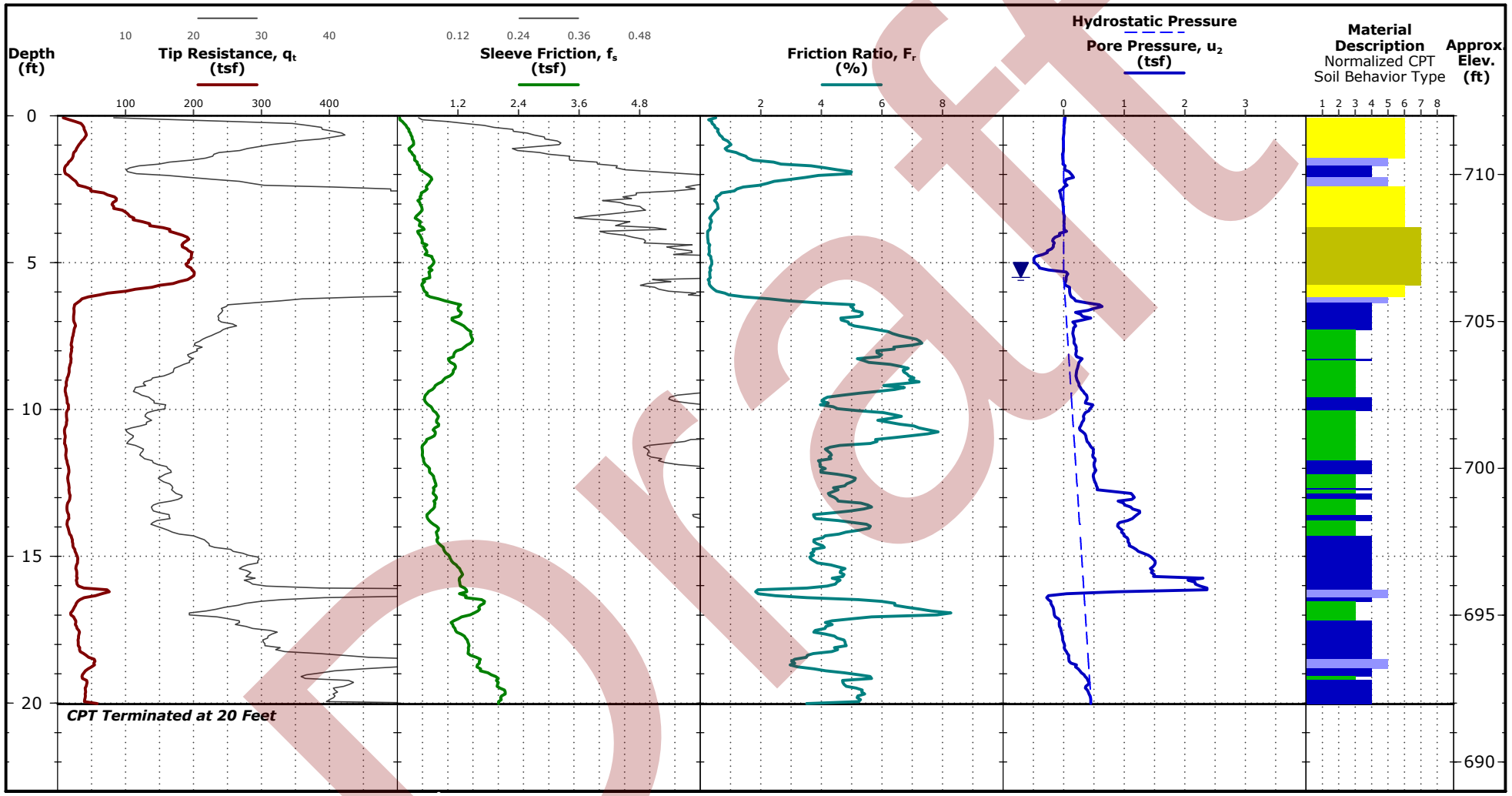
CPT Sounding ID CPT-22

Latitude: 41.8595° Longitude: -83.9658°

Elevation: 712 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/8/2025
CPT Completed: 7/8/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

5.5 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

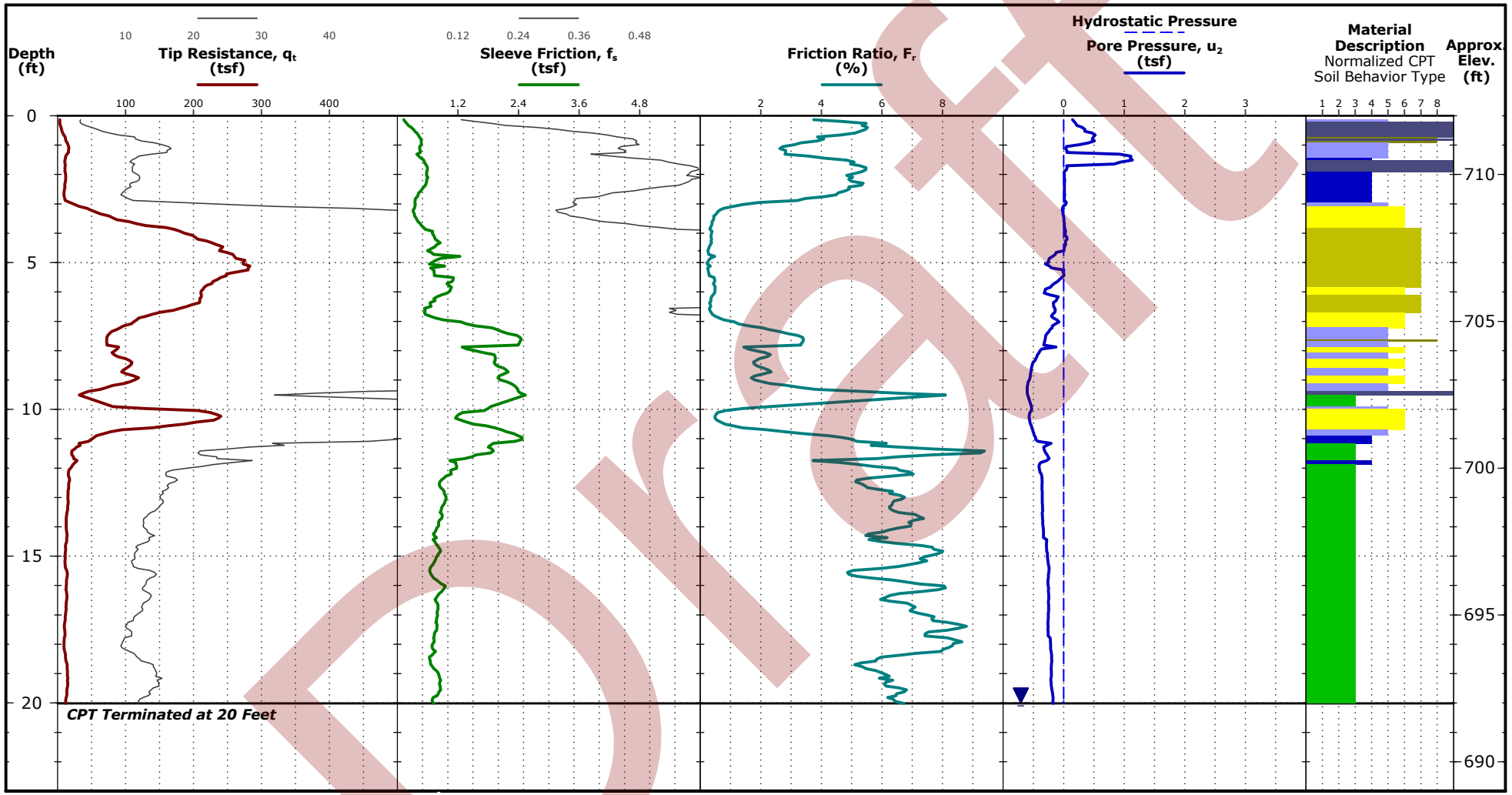
CPT Sounding ID CPT-24

Latitude: 41.8572° Longitude: -83.9623°

Elevation: 712 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 20 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

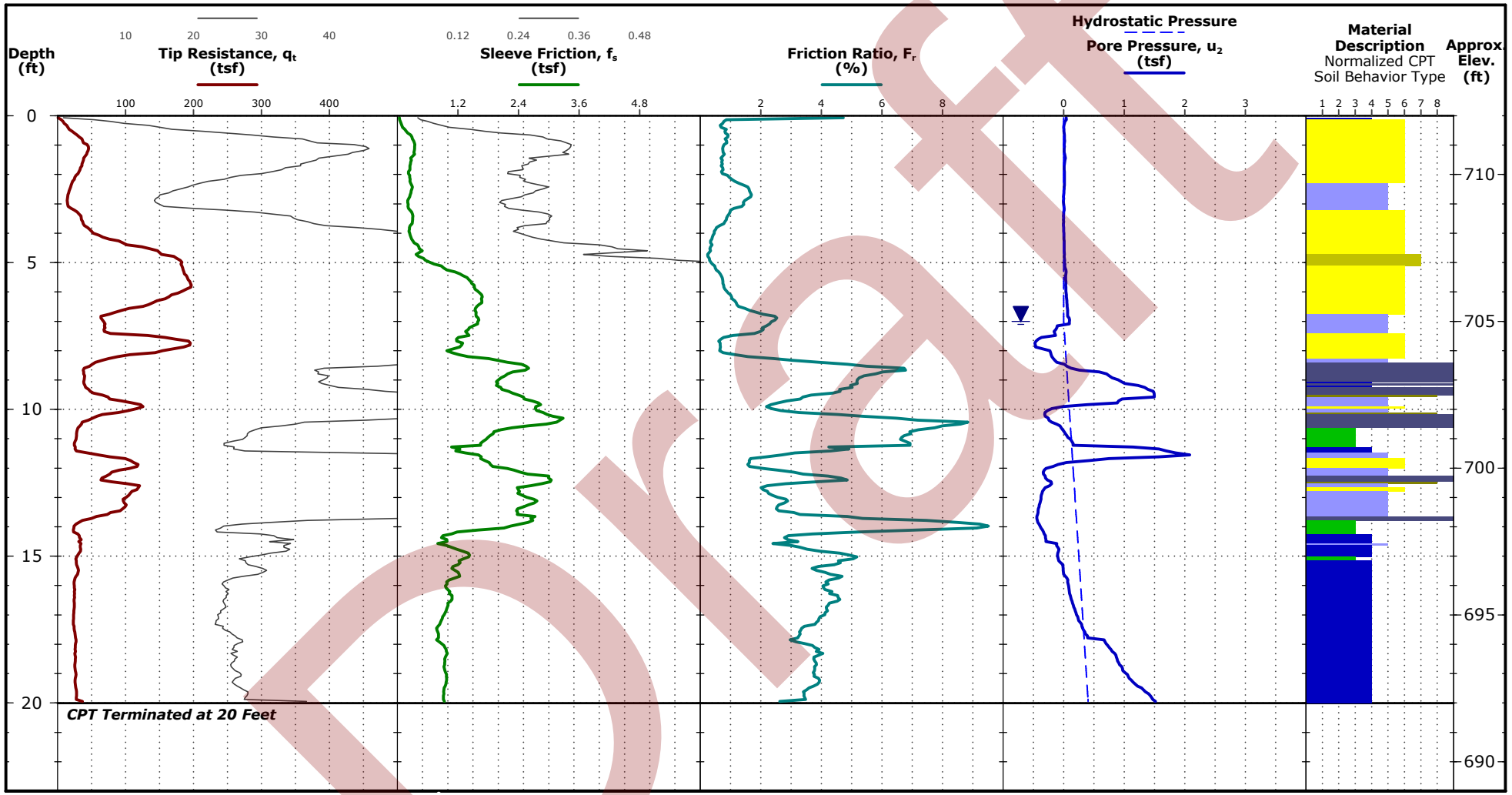
CPT Sounding ID CPT-27

Latitude: 41.8558° Longitude: -83.9527°

Terracon
2204 Yankee St
Niles, MI

Elevation: 712 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/11/2025
CPT Completed: 7/11/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 7 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

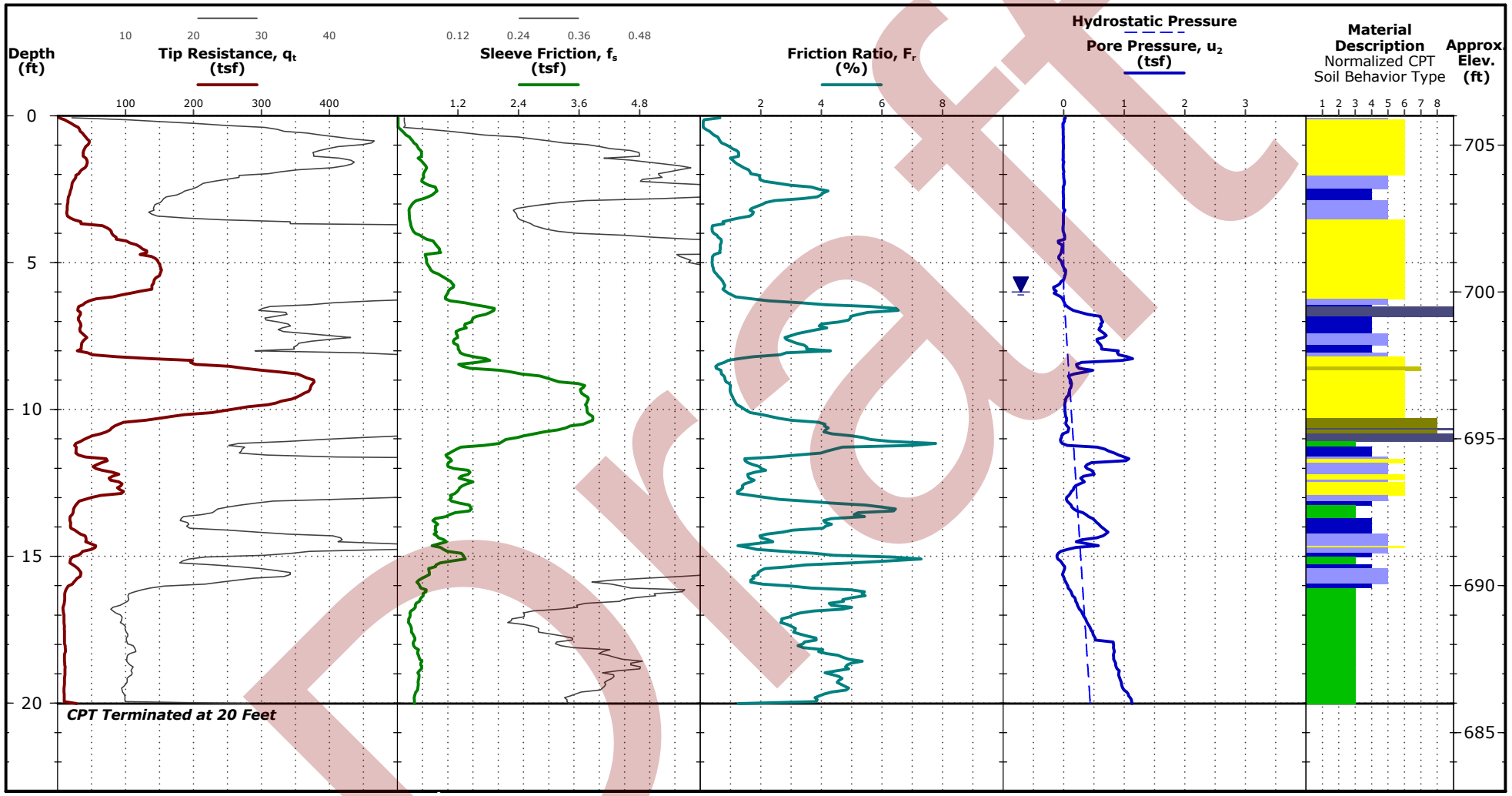
CPT Sounding ID CPT-29

Latitude: 41.8518° Longitude: -83.9446°

Elevation: 706 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/11/2025
CPT Completed: 7/11/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

6 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

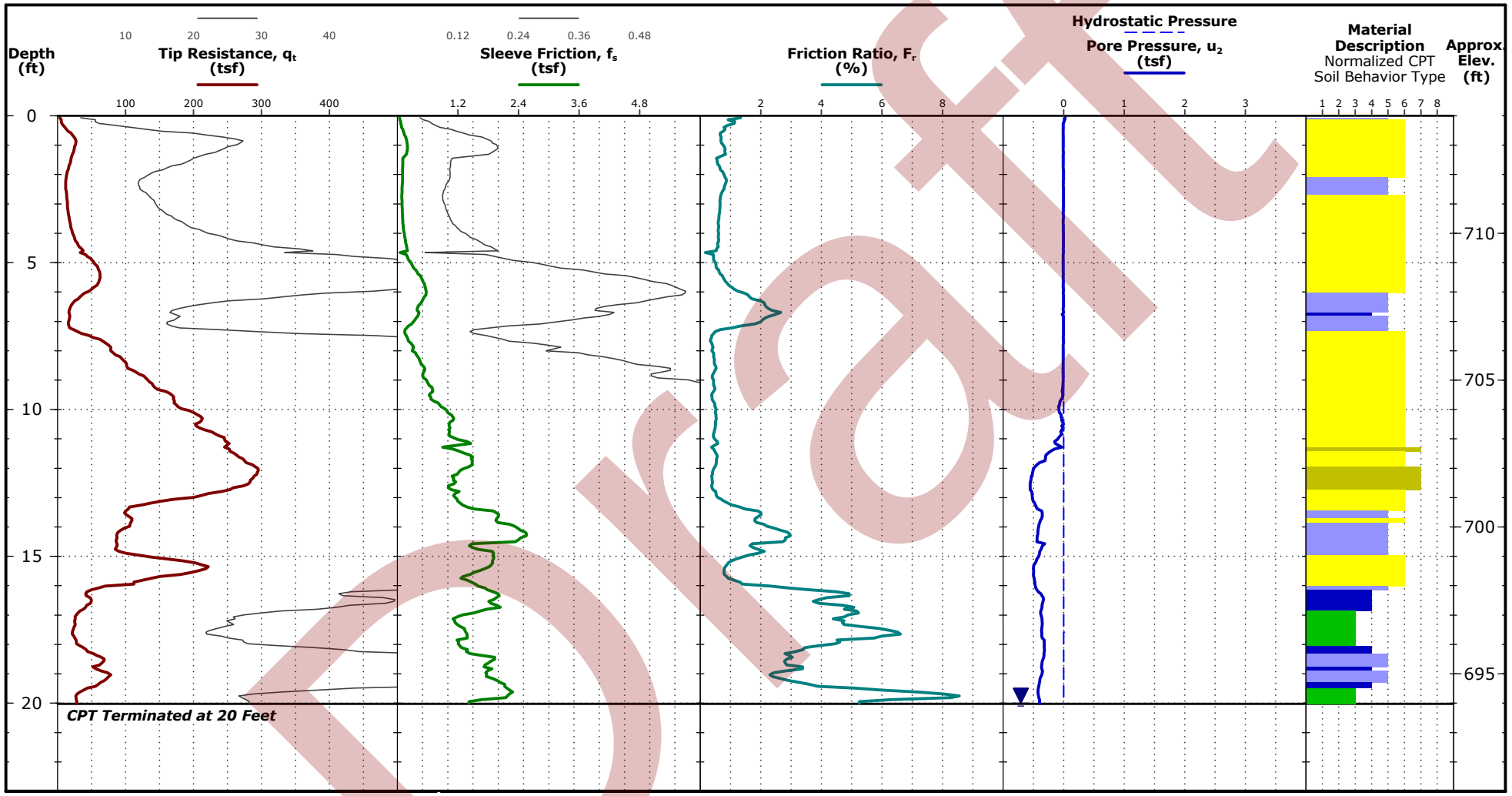
CPT Sounding ID CPT-31

Latitude: 41.8495° Longitude: -83.9586°

Elevation: 714 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 20 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

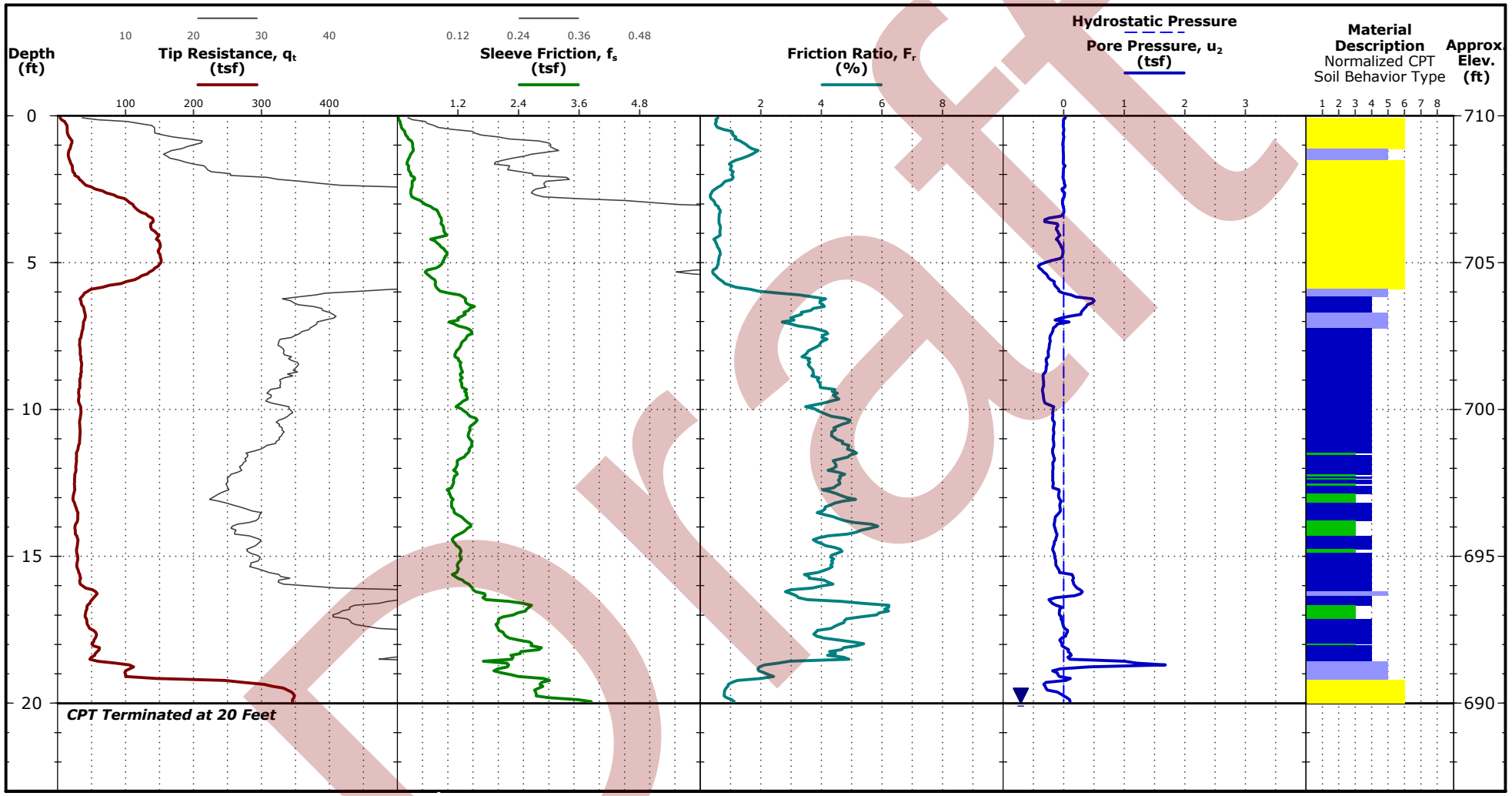
CPT Sounding ID CPT-32

Latitude: 41.8532° Longitude: -83.9687°

Elevation: 710 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/8/2025
CPT Completed: 7/8/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

20 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

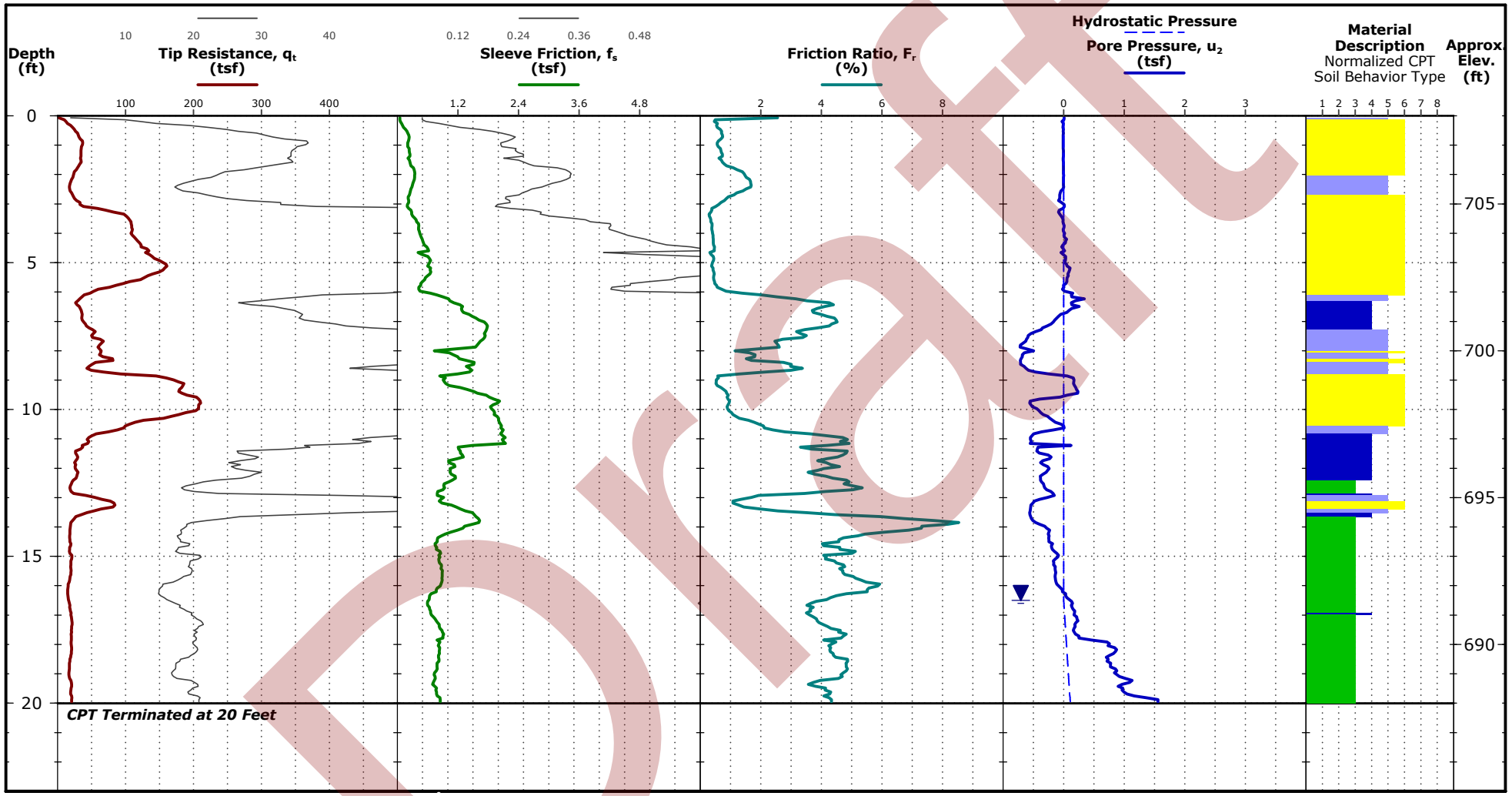
CPT Sounding ID CPT-35

Latitude: 41.8481° Longitude: -83.9651°

Terracon
2204 Yankee St
Niles, MI

Elevation: 708 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

16.5 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

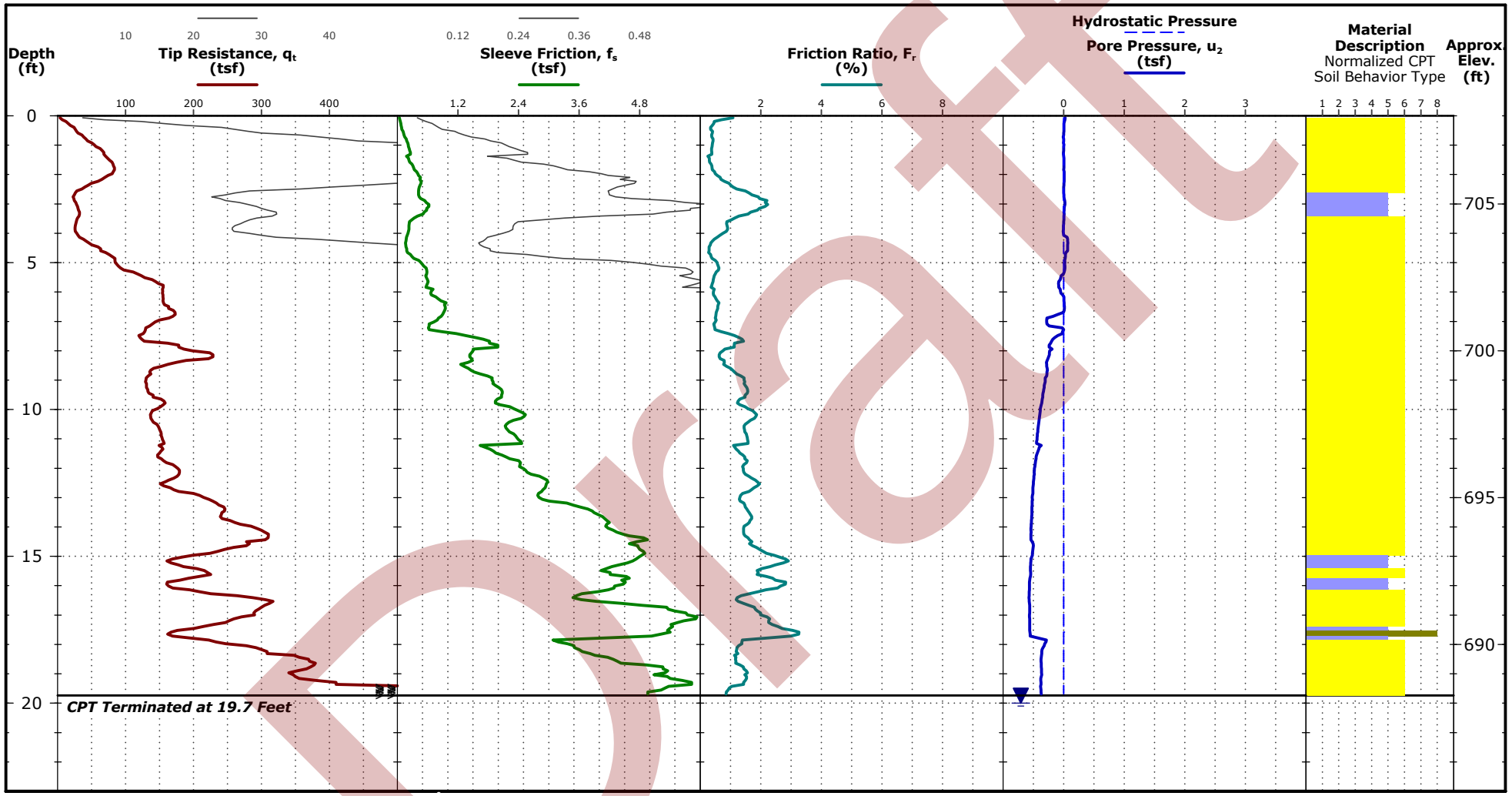
CPT Sounding ID CPT-37

Latitude: 41.8455° Longitude: -83.9589°

Elevation: 708 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/11/2025
CPT Completed: 7/11/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

20 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

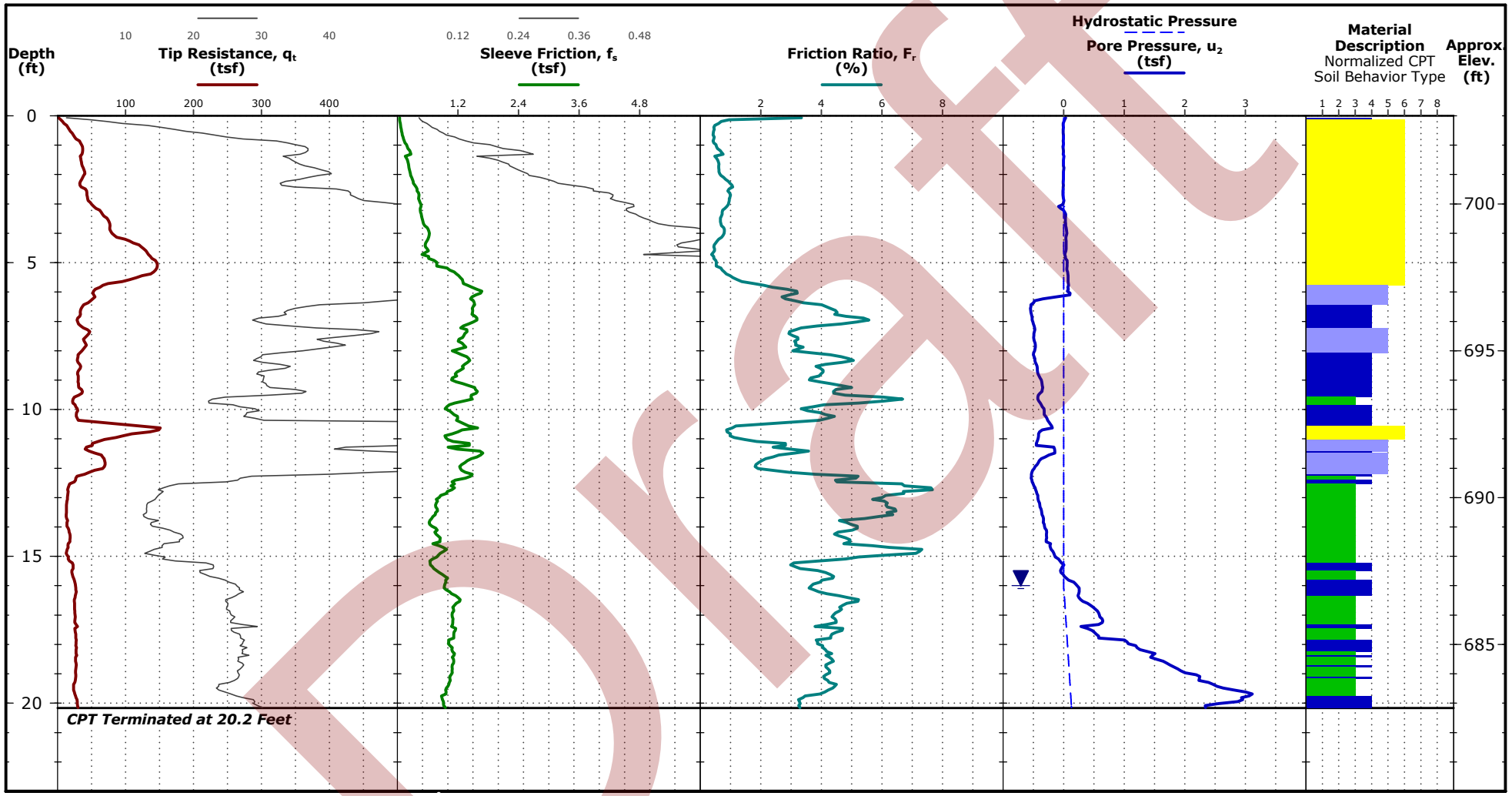
CPT Sounding ID CPT-39

Latitude: 41.8378° Longitude: -83.9527°

Terracon
2204 Yankee St
Niles, MI

Elevation: 703 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

16 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

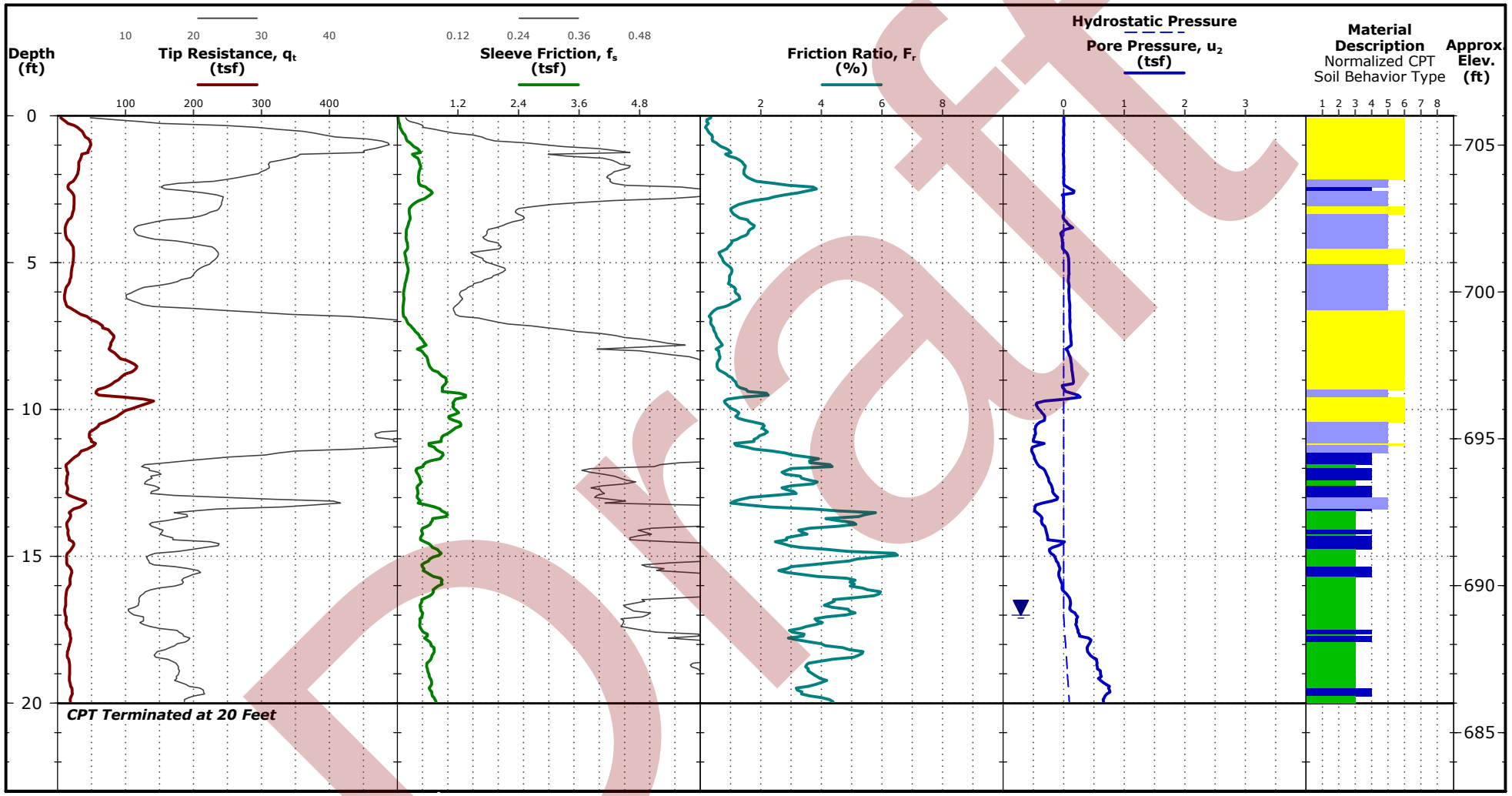
CPT Sounding ID CPT-41

Latitude: 41.8399° Longitude: -83.9662°

Terracon
2204 Yankee St
Niles, MI

Elevation: 706 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

17 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

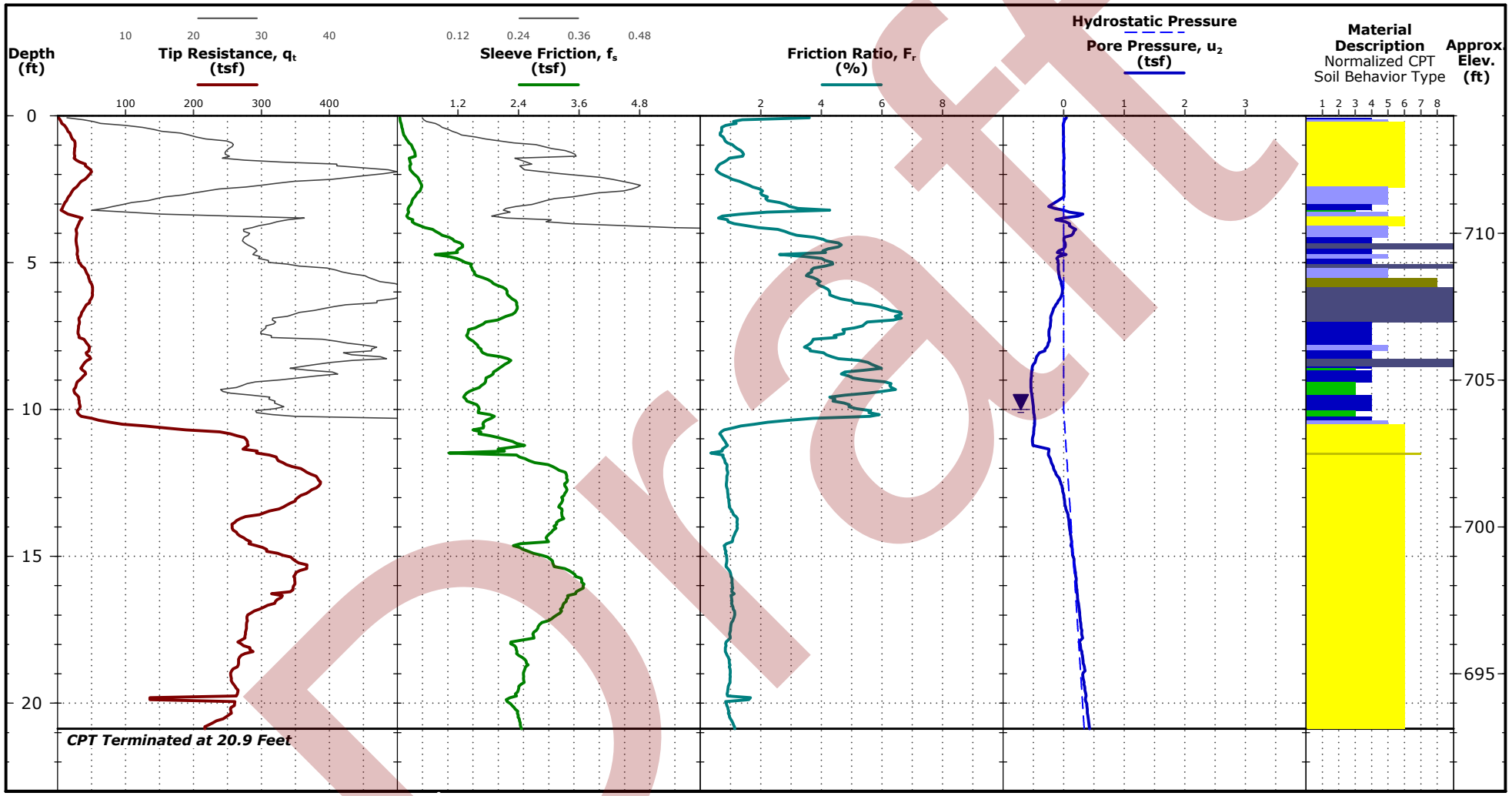
CPT Sounding ID CPT-43

Latitude: 41.8388° Longitude: -83.9760°

Terracon
2204 Yankee St
Niles, MI

Elevation: 714 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

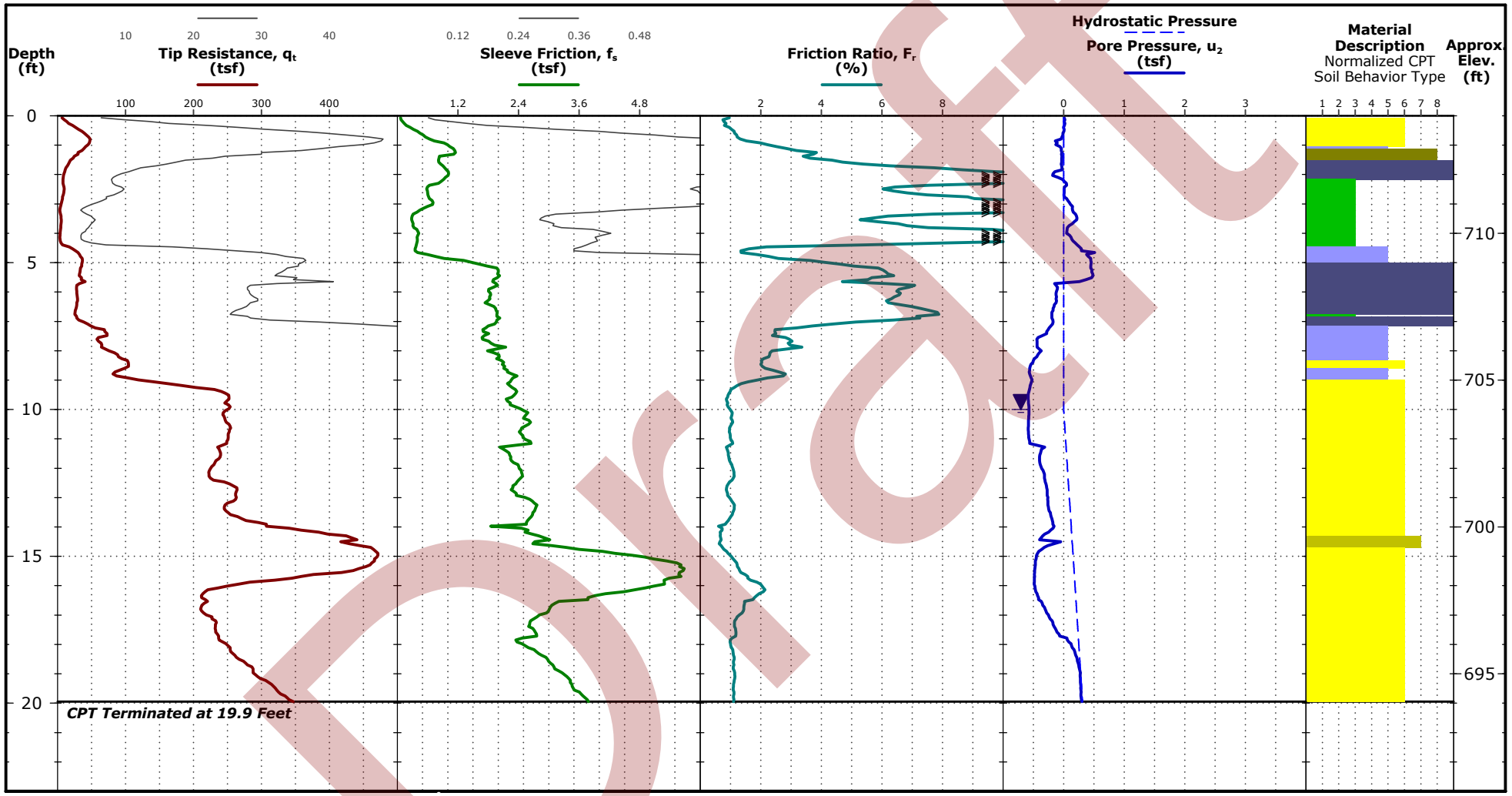
CPT Sounding ID CPT-46

Latitude: 41.8336° Longitude: -83.9832°

Elevation: 714 (ft) +/-
Elevation Reference: Elevation from Google Earth

Terracon
2204 Yankee St
Niles, MI

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

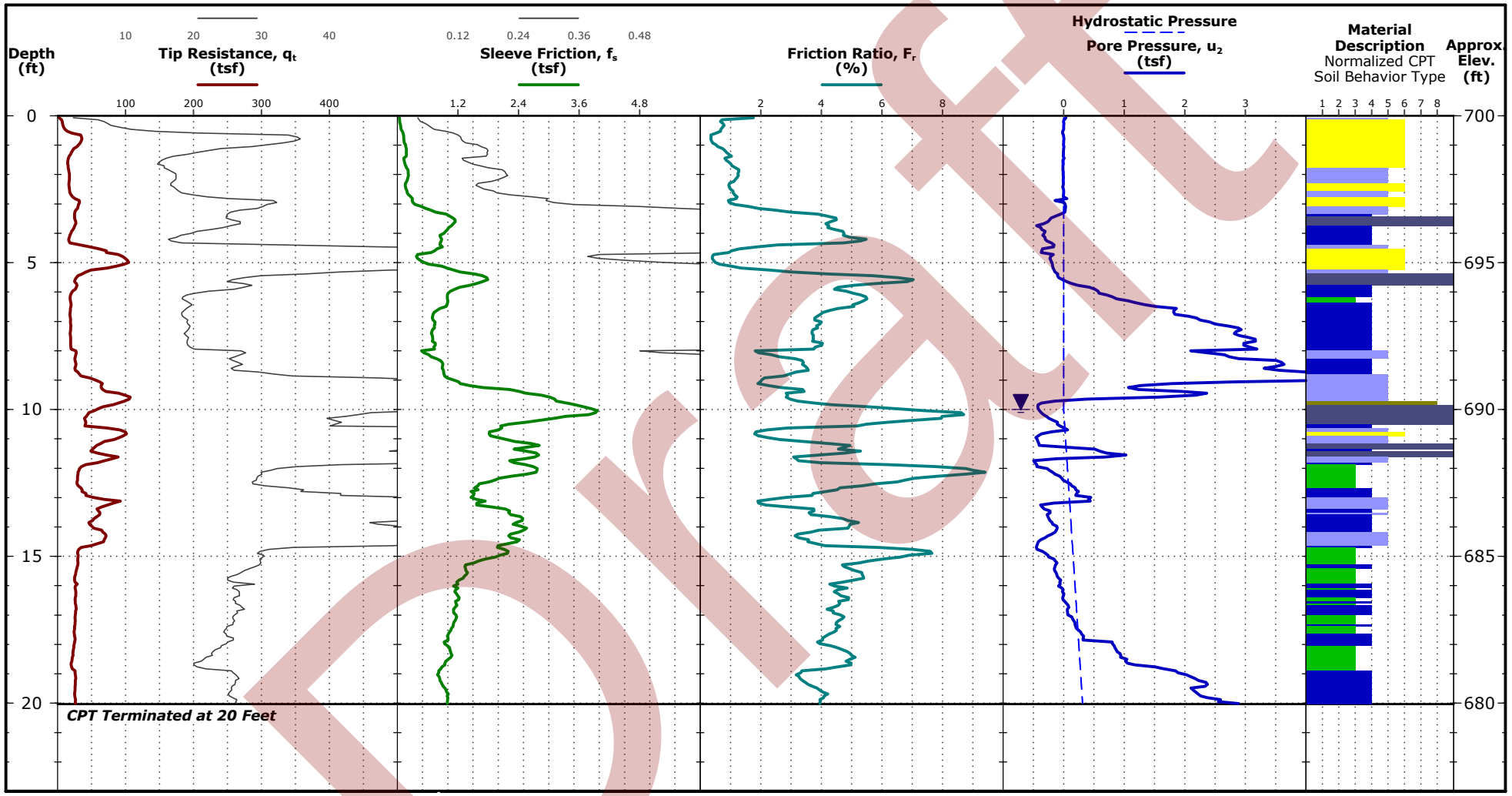
CPT Sounding ID CPT-48

Latitude: 41.8361° Longitude: -83.9463°

Terracon
2204 Yankee St
Niles, MI

Elevation: 700 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

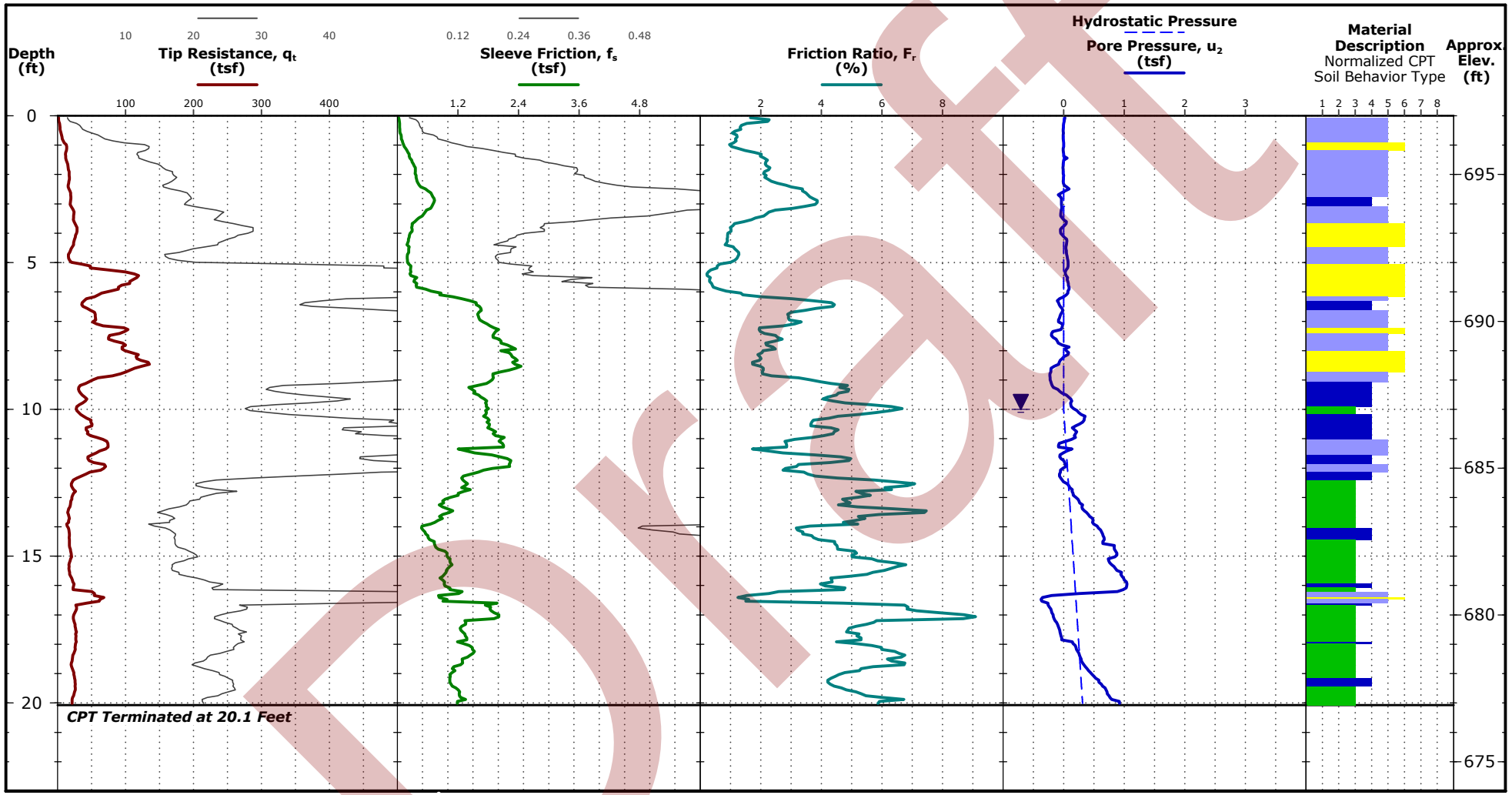
CPT Sounding ID CPT-51

Latitude: 41.8311° Longitude: -83.9491°

Terracon
2204 Yankee St
Niles, MI

Elevation: 697 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

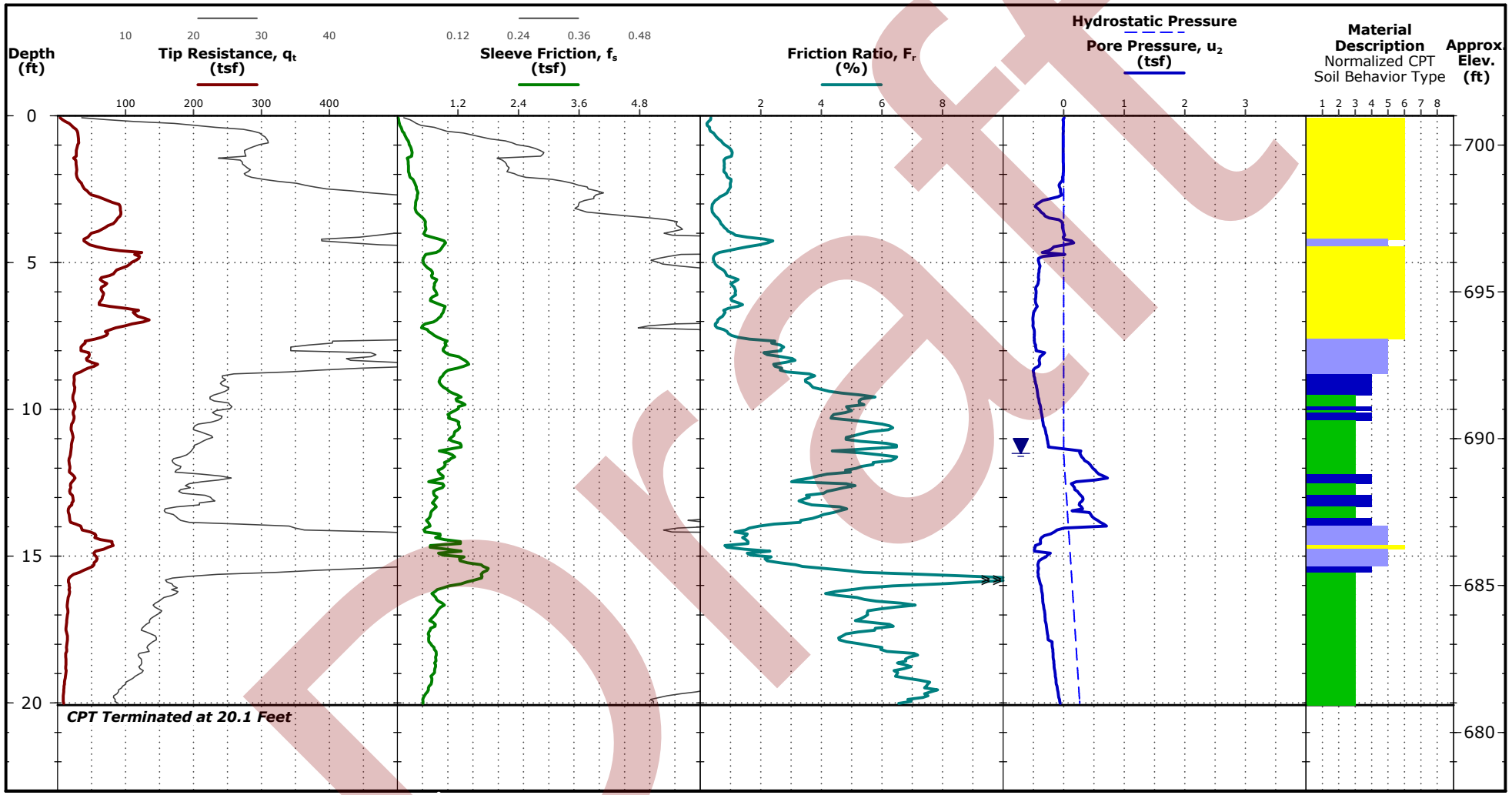
CPT Sounding ID CPT-52

Latitude: 41.8323° Longitude: -83.9567°

Terracon
2204 Yankee St
Niles, MI

Elevation: 701 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

11.5 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

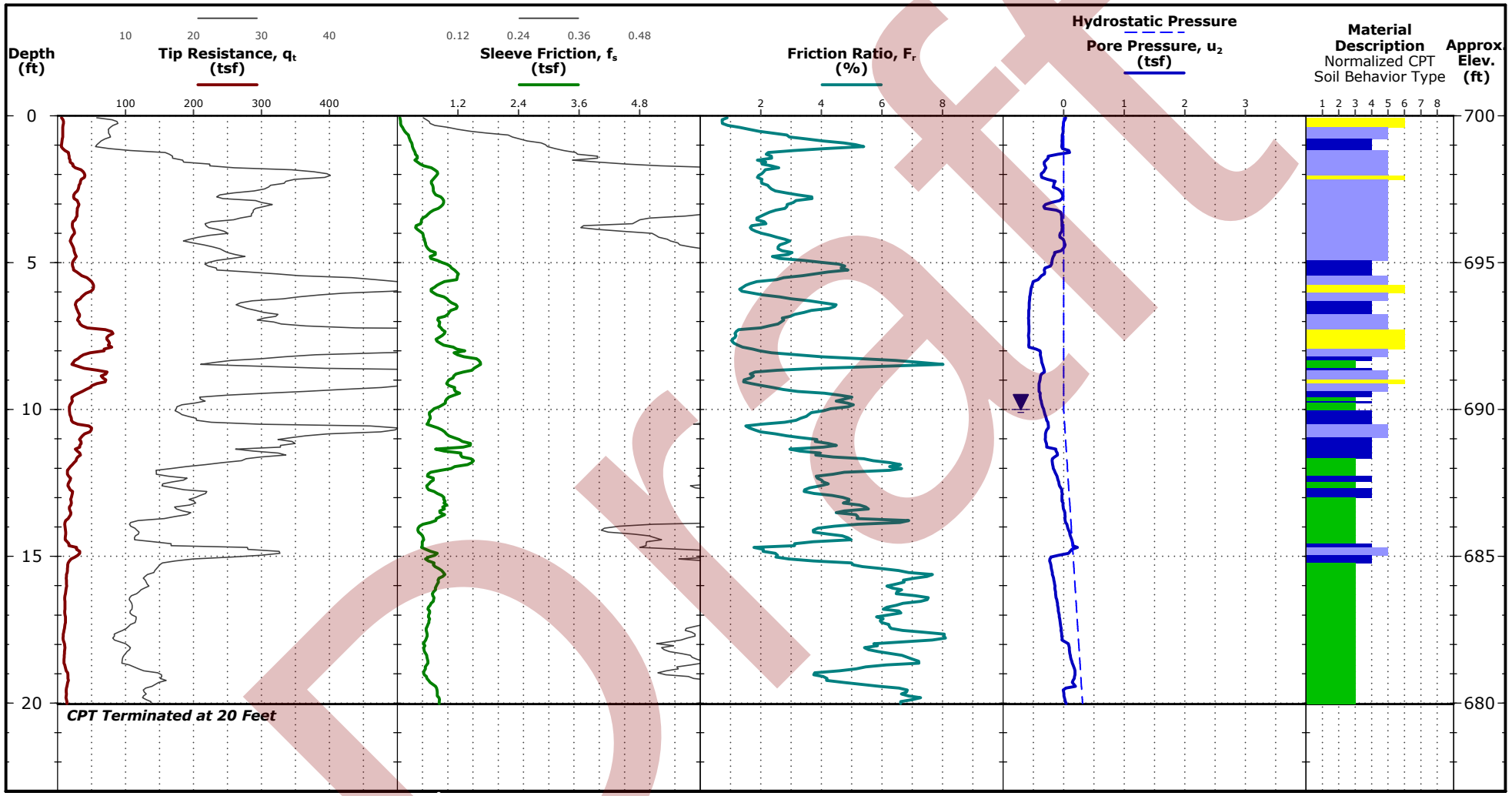
CPT Sounding ID CPT-54

Latitude: 41.8265° Longitude: -83.9569°

Terracon
2204 Yankee St
Niles, MI

Elevation: 700 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 5886 with net area ratio of .836

U_2 pore pressure transducer location

Manufactured by Geotech A.B.- Calibrated 3/4/2025

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

▼ 10 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

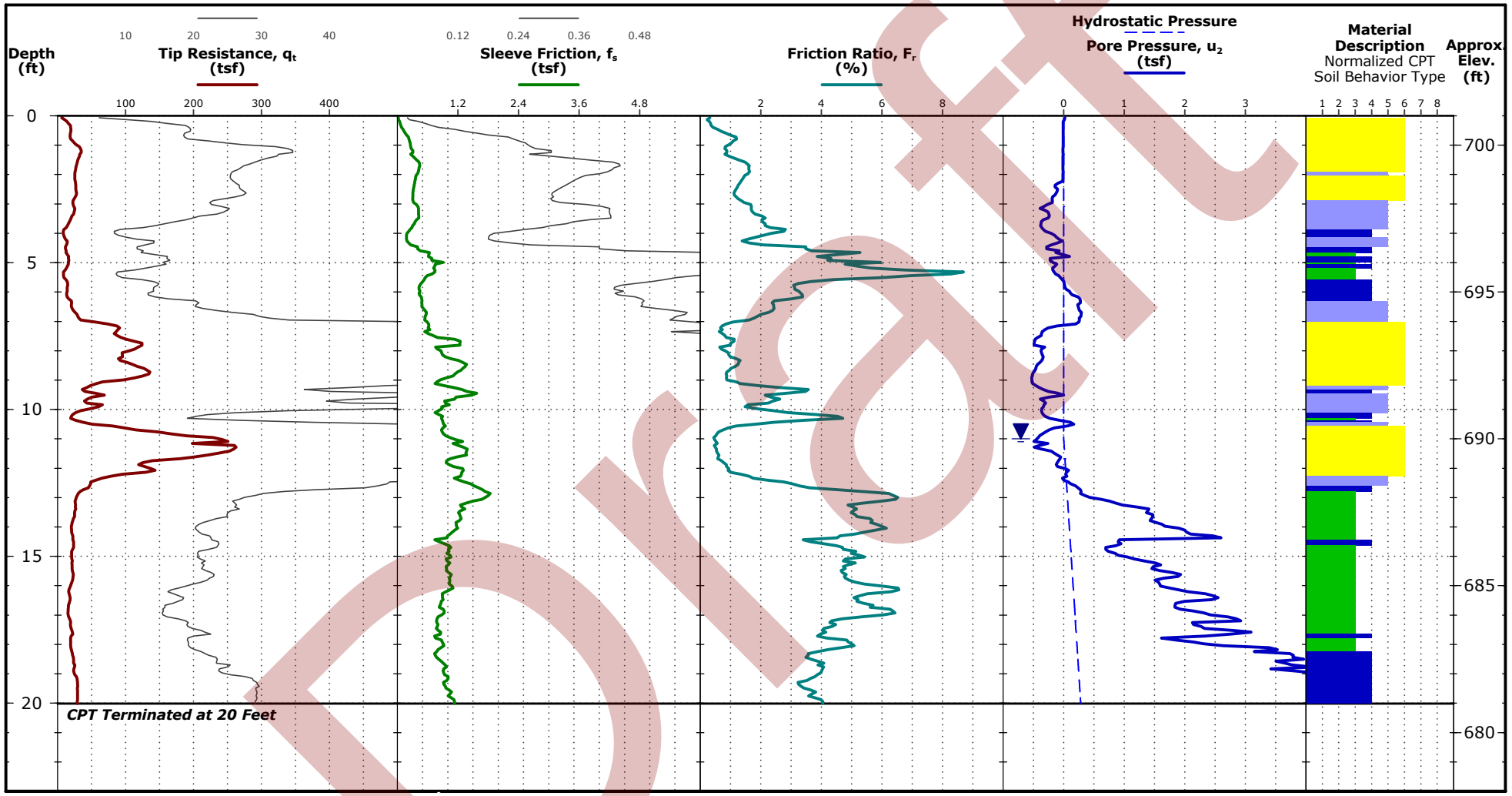
CPT Sounding ID CPT-55

Latitude: 41.8286° Longitude: -83.9536°

Terracon
2204 Yankee St
Niles, MI

Elevation: 701 (ft) +/-
Elevation Reference: Elevation from Google Earth

CPT Started: 7/10/2025
CPT Completed: 7/10/2025



Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data, if any.

See Supporting Information for explanation of symbols and abbreviations.

Notes

Test Location: See Exploration Plan

CPT Equipment

CPT Rig: Vertek S4

Operator: E. King

CPT sensor calibration reports available upon request

Probe No. 6031 with net area ratio of .844

Manufactured by Geotech A.B.- Calibrated 7/9/2024

Tip and sleeve areas of 15 cm^2 and 225 cm^2

Water Level Observation

11 ft estimated water depth

(used in normalizations and correlations)

Normalized Soil Behavior Type
(Robertson 1990)

1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-1

Location: See Exploration Plan

Latitude: 41.8822° Longitude: -83.9885°

Depth (Ft.) Approximate Elevation: 760 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 759										
2		**SILTY SAND (SM)**, light brown 6.5 753.5										
		SANDY SILT (ML), with occasional clay seams, brown 8.5 751.5										
		Test Pit Terminated at 8.5 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-10-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-10-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-6

Location: See Exploration Plan

Latitude: 41.8816° Longitude: -83.9779°

Depth (Ft.) Approximate Elevation: 741 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 740										
2		**SANDY SILT (ML)**, brown 6.5 734.5										
		SILT (ML), with occasional gravel and cobbles, gray 8.0 733										
		Test Pit Terminated at 8 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-10-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-10-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-9

Location: See Exploration Plan

Latitude: 41.8779° Longitude: -83.9726°

Depth (Ft.) Approximate Elevation: 723 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 722										
2		**SANDY SILT (ML)**, brown 6.5 716.5										
		SANDY SILT (ML), gray 7.5 715.5										
		Test Pit Terminated at 7.5 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-10-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-10-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

2204 Yankee St
Niles, MI

Test Pit Log No. TP-11

Location: See Exploration Plan

Latitude: 41.8724° Longitude: -83.9724°

Depth (Ft.) Approximate Elevation: 721 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.7										
2		6.0										
		7.5										

0.7 — 8" Topsoil — 720.3

6.0 — **SANDY SILT (ML)**, brown — 715

7.5 — **SANDY SILT (ML)**, with occasional gravel and cobbles, gray — 713.5

Test Pit Terminated at 7.5 Feet

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-11-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-11-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-14

Location: See Exploration Plan

Latitude: 41.8723° Longitude: -83.9558°

Depth (Ft.) Approximate Elevation: 713 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 712										
2		**SANDY SILT (ML)**, brown 6.5 706.5										
		7.0 **SANDY SILT (ML)**, with occasional gravel and cobbles, gray 706										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-11-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-11-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-15

Location: See Exploration Plan

Latitude: 41.8689° Longitude: -83.9590°

Depth (Ft.) Approximate Elevation: 716 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 715										
2		**SILTY SAND (SM)**, fine to medium grained, brown 5.0 711	▽									
		POORLY GRADED SAND WITH GRAVEL (SP), fine to medium grained, brown 7.0 709										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 5' while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-11-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-11-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-16

Location: See Exploration Plan

Latitude: 41.8677° Longitude: -83.9665°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		0.7 / 717.3 8" Topsoil										
2		6.5 / 711.5 **SANDY SILT (ML)**, light brown										
		8.5 / 709.5 **SANDY SILT (ML)**, gray										
		Test Pit Terminated at 8.5 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-10-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-10-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-19

Location: See Exploration Plan

Latitude: 41.8627° Longitude: -83.9583°

Depth (Ft.) Approximate Elevation: 713 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 712										
2		**SILTY SAND (SM)**, fine to medium grained, brown 4.5 708.5	▽									
		5.0 **SANDY SILT (ML)**, gray 708 ***Test Pit Terminated at 5 Feet***										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 3' while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Started
07-09-2025

Test Pit Completed
07-09-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-23

Location: See Exploration Plan

Latitude: 41.8571° Longitude: -83.9641°

Depth (Ft.) Approximate Elevation: 711 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 710										
2		**SILTY SAND (SM)**, fine to medium grained, dark brown 3.0 708	▽									
		POORLY GRADED SAND (SP), fine to medium grained, brown 5.5 705.5										
		Test Pit Terminated at 5.5 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 3' while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-08-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-08-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-29

Location: See Exploration Plan

Latitude: 41.8518° Longitude: -83.9446°

Depth (Ft.) Approximate Elevation: 706 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 — 705										
2		**SILTY SAND (SM)**, fine to medium grained, dark brown 3.5 — 702.5										
		POORLY GRADED SAND (SP), fine to medium grained, brown 7.0 — 699										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
07-08-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
07-08-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-36

Location: See Exploration Plan

Latitude: 41.8467° Longitude: -83.9539°

Depth (Ft.) Approximate Elevation: 707 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 (706)										
2		**SILTY SAND (SM)**, light brown 3.5 (703.5)	▽									
		4.0 **POORLY GRADED SAND (SP)**, light brown (703)										
		SANDY SILT (ML), brown 6.5 (700.5)										
3		7.0 **SILTY CLAY (CL)**, gray (700)										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 3.5' while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
06-18-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
06-18-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-44

Location: See Exploration Plan

Latitude: 41.8352° Longitude: -83.9751°

Depth (Ft.) Approximate Elevation: 709 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 708										
2		**SILTY SAND (SM)**, light brown 6.5 / 702.5										
3		7.0 **SILTY CLAY (CL-ML)**, gray / 702										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
06-17-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
06-17-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-47

Location: See Exploration Plan

Latitude: 41.8343° Longitude: -83.9874°

Depth (Ft.) Approximate Elevation: 718 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 / 717										
2		**SILTY SAND (SM)**, light brown 5.5 / 712.5										
3		**SILTY CLAY (CL-ML)**, gray 7.0 / 711										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
06-18-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
06-18-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-51

Location: See Exploration Plan

Latitude: 41.8311° Longitude: -83.9491°

Depth (Ft.) Approximate Elevation: 697 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		12" Topsoil 1.0 — 696										
3		**SANDY LEAN CLAY (CL)**, brown 3.5 — 693.5	▽									
		4.0 **POORLY GRADED SAND (SP)**, gray — 693										
		SILTY CLAY (CL-ML), gray 7.0 — 690										
		Test Pit Terminated at 7 Feet										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
▽ 3.5' while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Logged by
J. Korbar

Test Pit Started
06-17-2025

Abandonment Method
Test pit backfilled in lifts with spoils

Test Pit Completed
06-17-2025

Rouget Road Solar Facility (Design Level)
Near the Intersection of US-223 and Myers Highway | Adrian, MI
Terracon Project No. CK245217

Terracon
2204 Yankee St
Niles, MI

Test Pit Log No. TP-54

Location: See Exploration Plan

Latitude: 41.8265° Longitude: -83.9569°

Depth (Ft.) Approximate Elevation: 700 (Ft.)

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Recovery (In.)	Field Test Results	HP (tsf)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)
1		16" Topsoil 1.3 — 698.7										
2		**SANDY SILT (ML)**, brown 6.5 — 693.5 7.0 **SANDY SILT (ML)**, gray — 693 ***Test Pit Terminated at 7 Feet***										

5

Draft

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Elevation from Google Earth

Water Level Observations
Groundwater not encountered while excavating

Excavator
Mead Bros / Jimmy

Operator
D. Childers

Notes

Advancement Method
Excavator

Abandonment Method
Test pit backfilled in lifts with spoils

Logged by
J. Korbar

Test Pit Started
07-09-2025

Test Pit Completed
07-09-2025

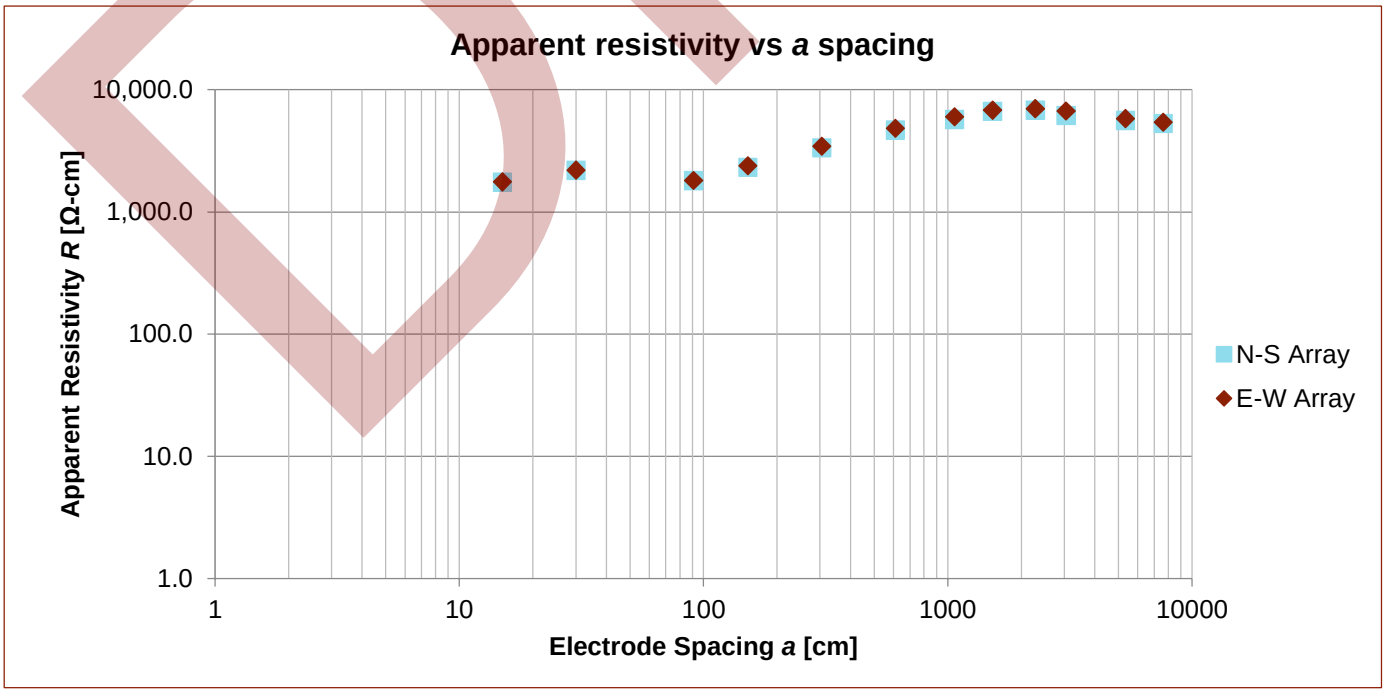
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-01 (41.8821, -83.9885)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/15/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	13.821	1750	13.868	1760
1	30	3	8	10.421	2180	10.444	2190
3	91	3	8	3.109	1800	3.118	1810
5	152	3	8	2.408	2310	2.476	2380
10	305	6	15	1.741	3350	1.786	3440
20	610	6	15	1.221	4680	1.260	4830
35	1067	12	30	0.850	5710	0.896	6020
50	1524	12	30	0.691	6620	0.709	6790
75	2286	12	30	0.473	6800	0.486	6980
100	3048	12	30	0.321	6150	0.348	6670
175	5334	12	30	0.167	5600	0.173	5800
250	7620	12	30	0.110	5270	0.113	5410



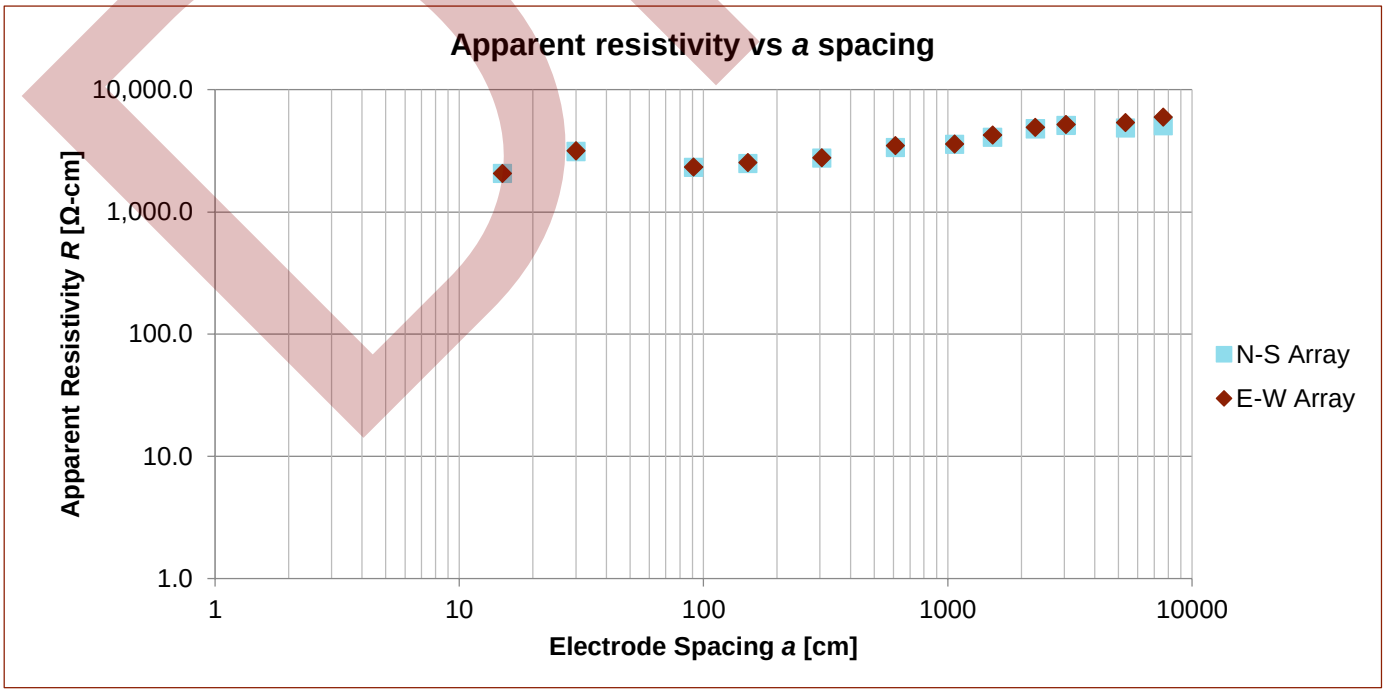
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-04 (41.8784, -83.9801)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	16.2	2060	16.2	2060
1	30	3	8	14.8	3110	15.0	3150
3	91	3	8	3.984	2310	4.023	2330
5	152	3	8	2.594	2490	2.624	2520
10	305	6	15	1.434	2760	1.445	2780
20	610	6	15	0.875	3360	0.906	3480
35	1067	12	30	0.530	3560	0.535	3590
50	1524	12	30	0.426	4080	0.444	4250
75	2286	12	30	0.333	4780	0.342	4910
100	3048	12	30	0.267	5110	0.271	5190
175	5334	12	30	0.145	4860	0.160	5360
250	7620	12	30	0.106	5080	0.125	5980



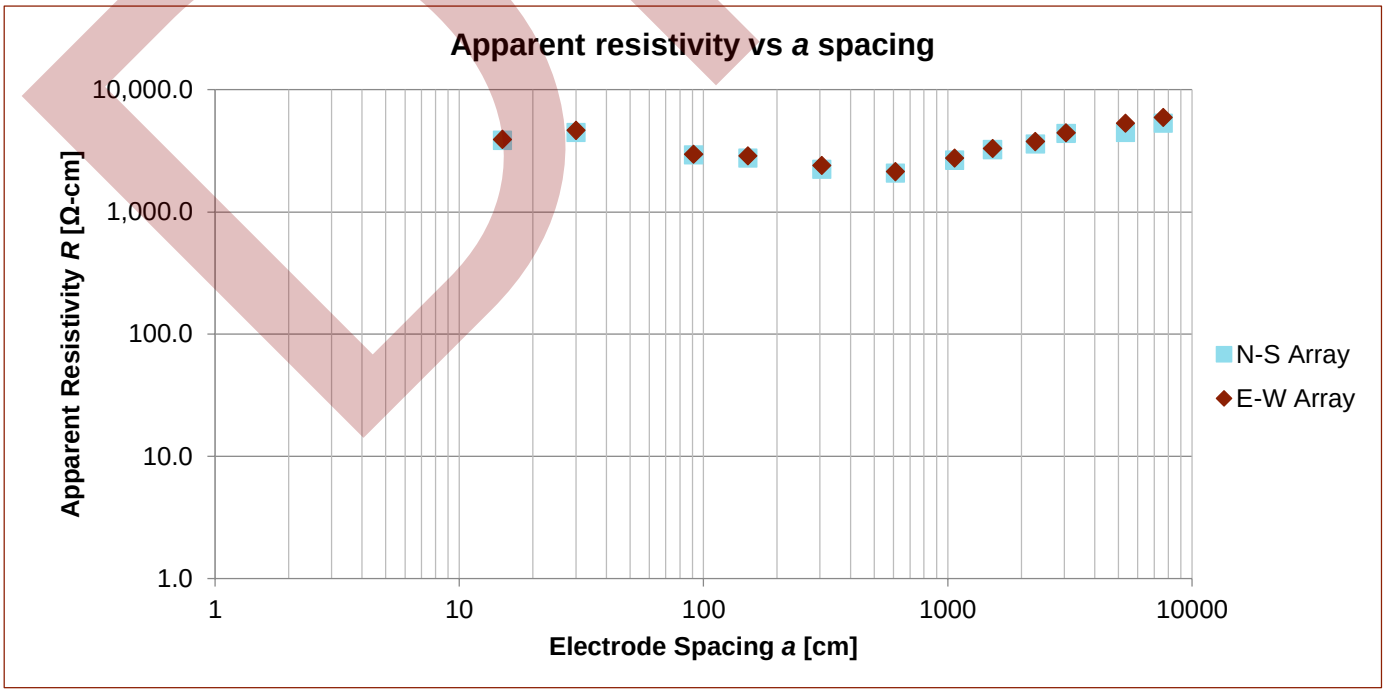
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-06 (41.8815, -83.9778)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	30.3	3840	30.9	3920
1	30	3	8	21.3	4460	22.1	4630
3	91	3	8	5.033	2920	5.104	2960
5	152	3	8	2.881	2760	3.005	2880
10	305	6	15	1.166	2240	1.245	2400
20	610	6	15	0.539	2070	0.555	2130
35	1067	12	30	0.395	2650	0.411	2760
50	1524	12	30	0.337	3230	0.344	3300
75	2286	12	30	0.249	3580	0.262	3760
100	3048	12	30	0.228	4370	0.232	4440
175	5334	12	30	0.133	4460	0.158	5300
250	7620	12	30	0.111	5310	0.124	5940



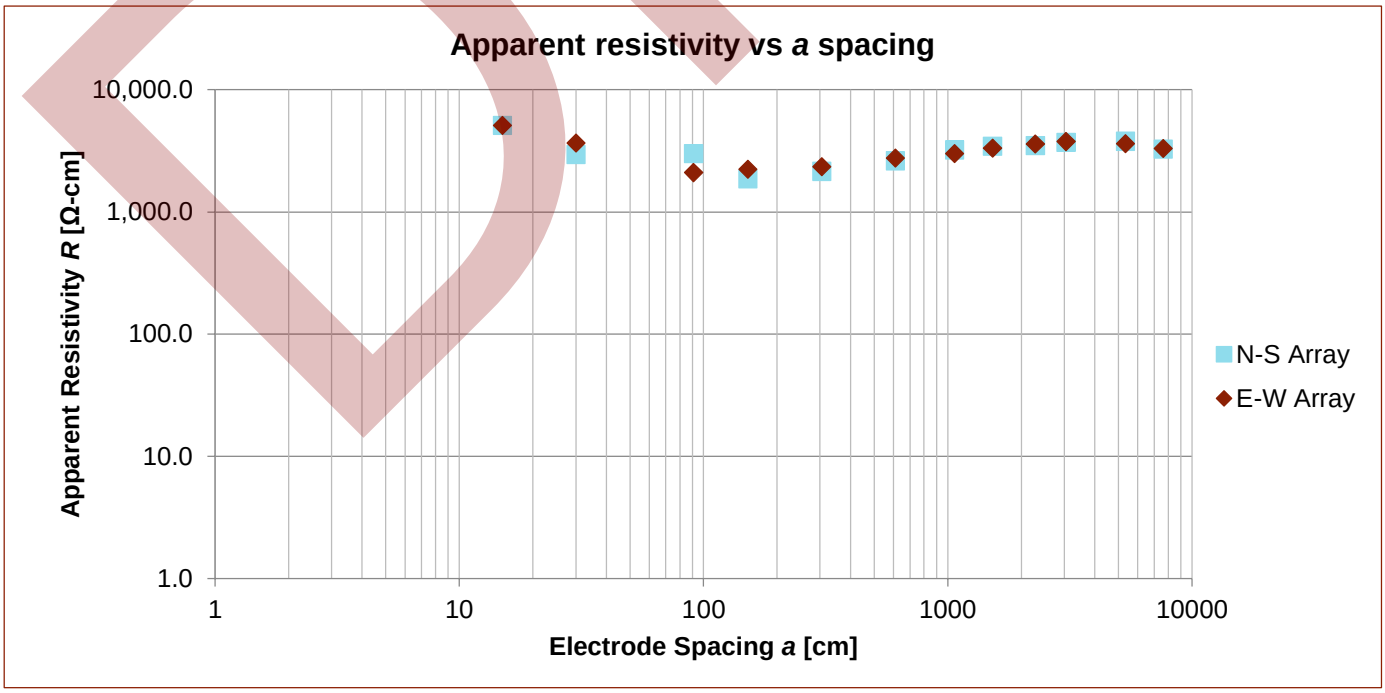
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-08 (41.8800, -83.9708)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/25/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	40.2	5100	40.2	5100
1	30	3	8	14.1	2950	17.4	3650
3	91	3	8	5.159	2990	3.604	2090
5	152	3	8	1.936	1860	2.333	2240
10	305	6	15	1.113	2140	1.218	2340
20	610	6	15	0.684	2620	0.720	2760
35	1067	12	30	0.478	3210	0.445	2990
50	1524	12	30	0.360	3450	0.348	3330
75	2286	12	30	0.242	3480	0.249	3580
100	3048	12	30	0.193	3700	0.196	3750
175	5334	12	30	0.113	3790	0.108	3620
250	7620	12	30	0.068	3260	0.069	3300



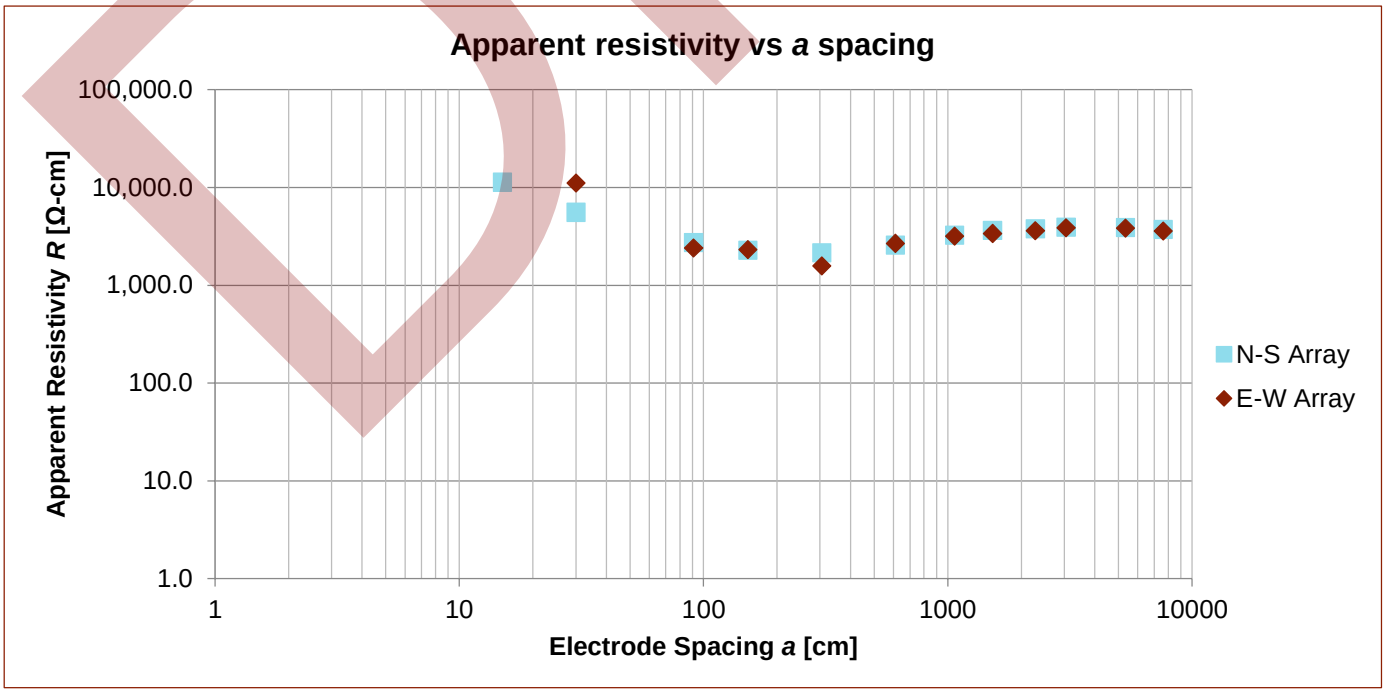
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-11 (41.8723, -83.9723)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/25/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Shortest interval in east-west direction could not obtain a reading due to poor contact with soil		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	89.2	11320		0
1	30	3	8	26.5	5550	52.6	11030
3	91	3	8	4.728	2740	4.135	2400
5	152	3	8	2.376	2280	2.406	2310
10	305	6	15	1.117	2150	0.814	1570
20	610	6	15	0.671	2570	0.699	2680
35	1067	12	30	0.482	3240	0.472	3170
50	1524	12	30	0.379	3630	0.353	3380
75	2286	12	30	0.264	3790	0.252	3620
100	3048	12	30	0.205	3930	0.201	3850
175	5334	12	30	0.116	3890	0.114	3820
250	7620	12	30	0.078	3730	0.075	3590



Draft

FIELD ELECTRICAL RESISTIVITY TEST DATA

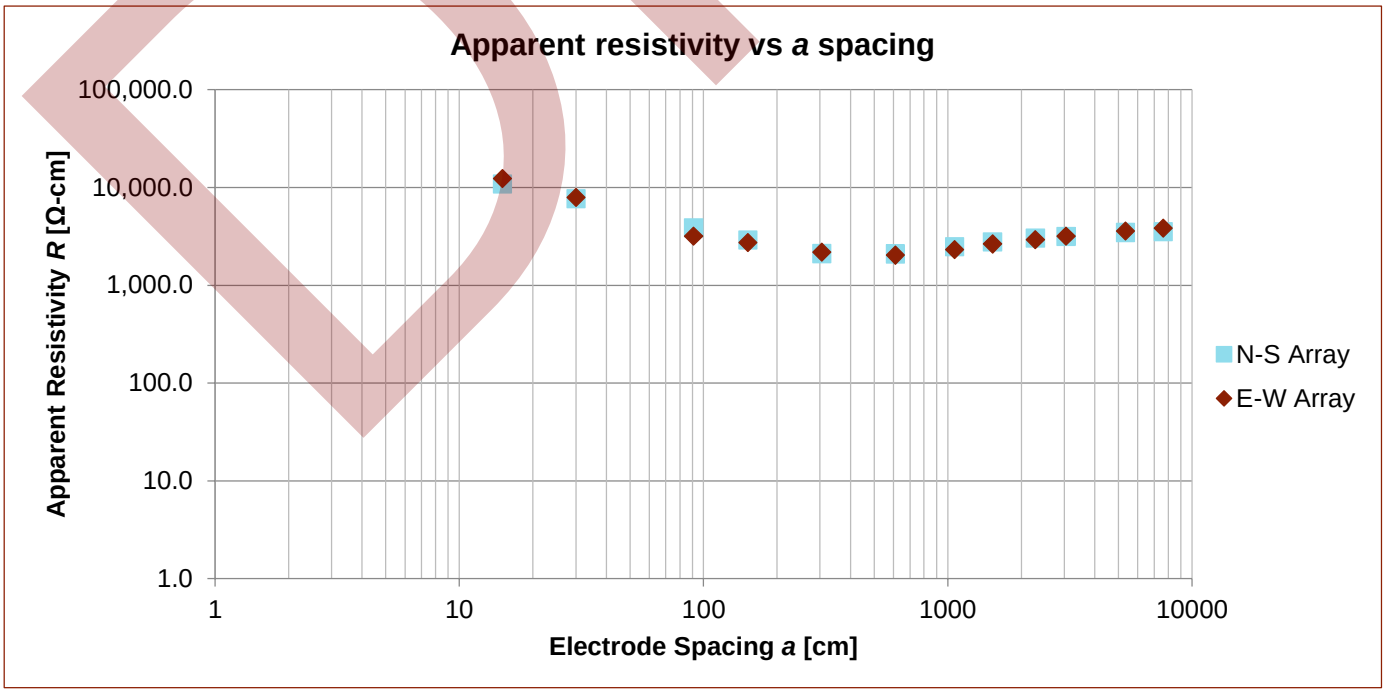
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-12 (41.8747, -83.9612)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/26/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	85.1	10800	97.4	12360
1	30	3	8	36.7	7690	37.7	7900
3	91	3	8	6.648	3850	5.467	3170
5	152	3	8	3.024	2900	2.852	2740
10	305	6	15	1.094	2110	1.135	2180
20	610	6	15	0.546	2090	0.529	2030
35	1067	12	30	0.370	2480	0.344	2310
50	1524	12	30	0.289	2770	0.275	2640
75	2286	12	30	0.211	3030	0.204	2930
100	3048	12	30	0.164	3140	0.165	3160
175	5334	12	30	0.103	3450	0.107	3590
250	7620	12	30	0.074	3540	0.080	3830



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FIELD ELECTRICAL RESISTIVITY TEST DATA

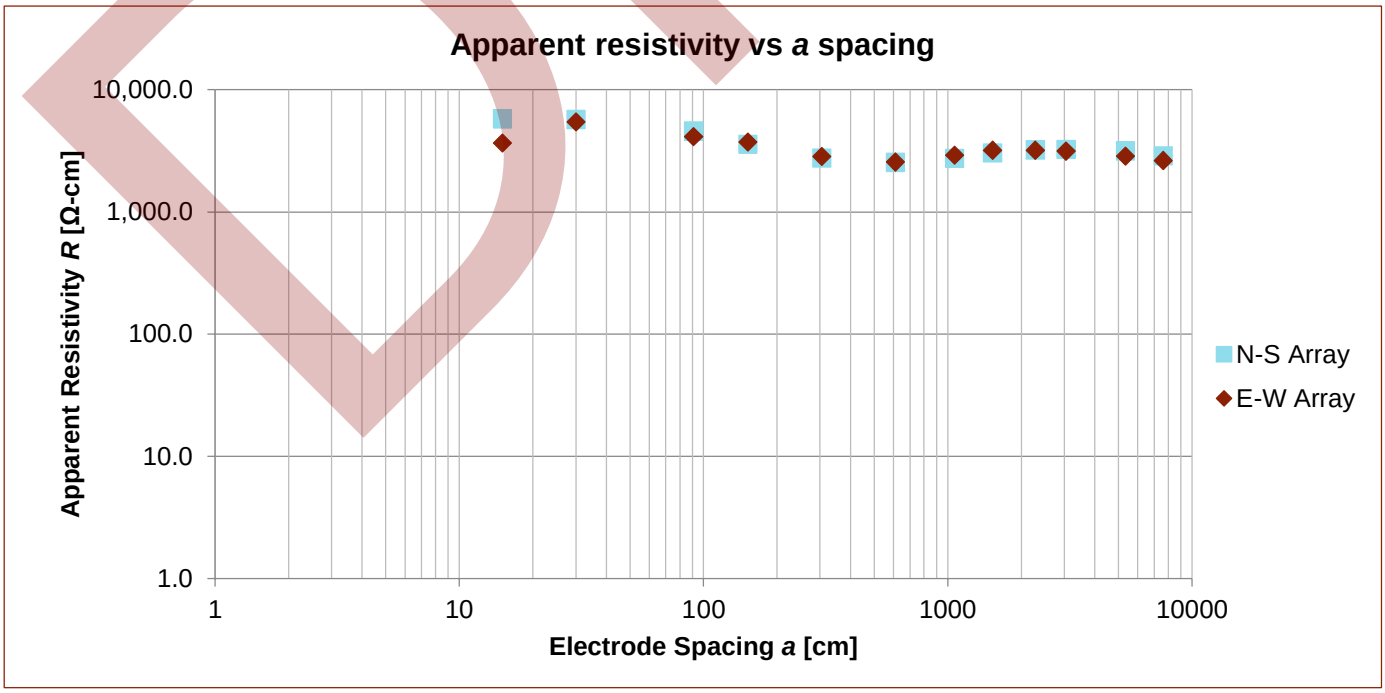
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-14 (41.8723, -83.9557)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/26/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	45.4	5760	28.8	3660
1	30	3	8	27.2	5700	26.0	5450
3	91	3	8	7.937	4600	7.109	4120
5	152	3	8	3.709	3560	3.868	3710
10	305	6	15	1.432	2760	1.478	2840
20	610	6	15	0.663	2540	0.665	2550
35	1067	12	30	0.410	2750	0.432	2900
50	1524	12	30	0.316	3030	0.333	3190
75	2286	12	30	0.224	3220	0.223	3200
100	3048	12	30	0.169	3240	0.164	3140
175	5334	12	30	0.094	3150	0.085	2850
250	7620	12	30	0.060	2870	0.055	2630



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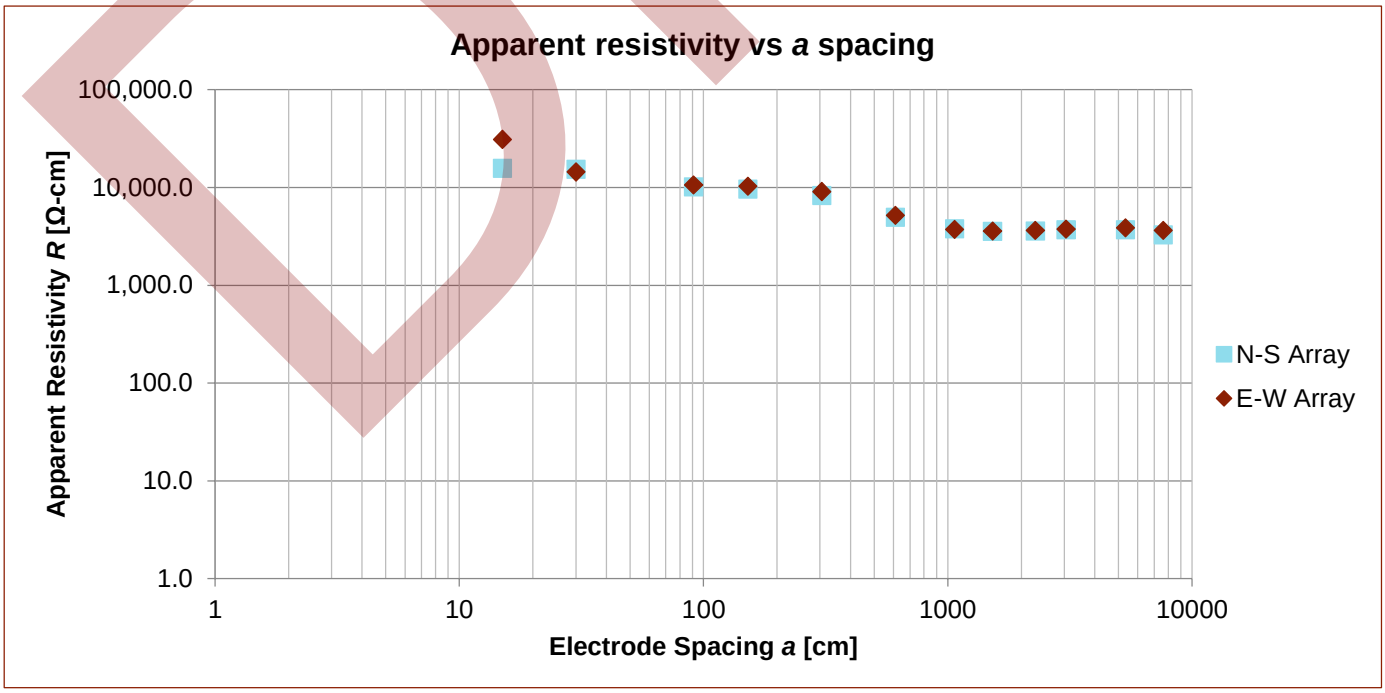
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-15 (41.8688, -83.9589)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/26/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	123.6	15680	244.2	30990
1	30	3	8	73.1	15320	68.5	14360
3	91	3	8	17.486	10130	18.287	10600
5	152	3	8	10.014	9610	10.683	10250
10	305	6	15	4.296	8270	4.704	9050
20	610	6	15	1.289	4950	1.350	5180
35	1067	12	30	0.565	3790	0.554	3720
50	1524	12	30	0.371	3550	0.376	3600
75	2286	12	30	0.249	3580	0.254	3650
100	3048	12	30	0.193	3700	0.196	3750
175	5334	12	30	0.110	3690	0.115	3850
250	7620	12	30	0.068	3260	0.076	3640



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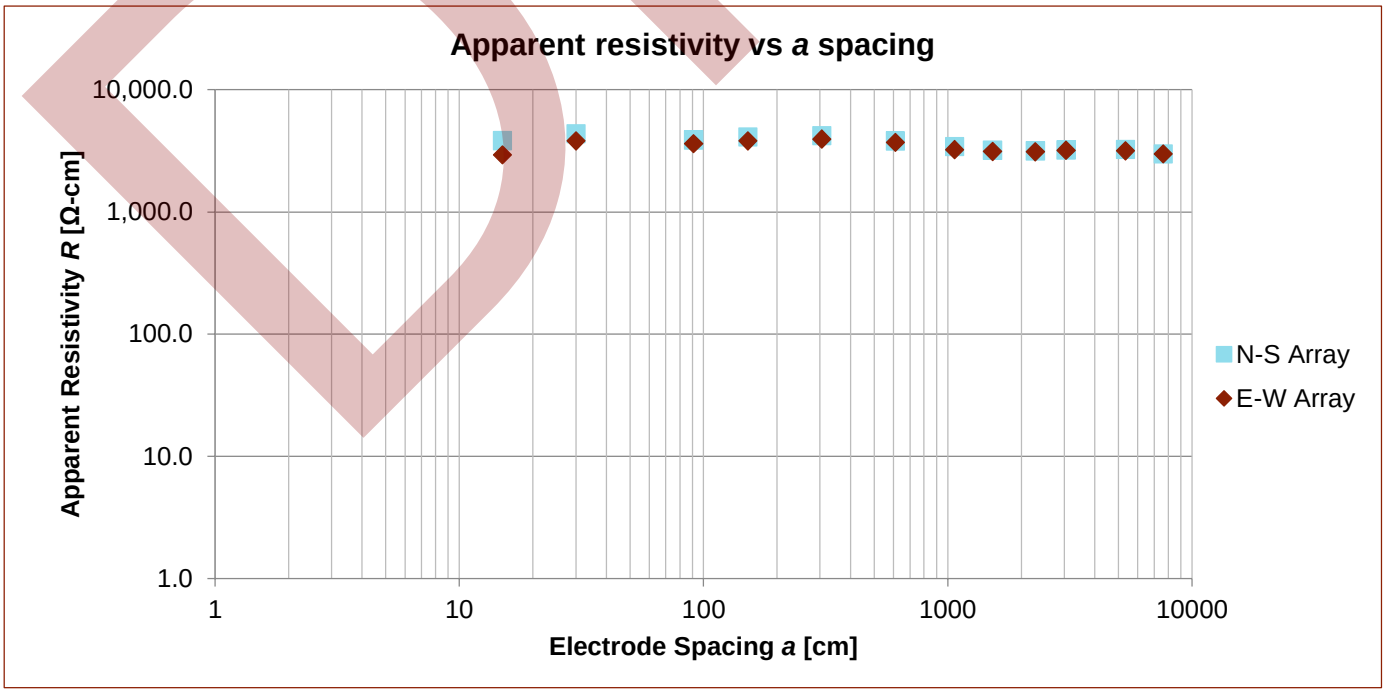
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-16 (41.8677, -83.9664)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/27/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	30.1	3820	23.0	2920
1	30	3	8	20.8	4360	18.2	3810
3	91	3	8	6.697	3880	6.212	3600
5	152	3	8	4.272	4100	3.963	3800
10	305	6	15	2.187	4210	2.053	3950
20	610	6	15	0.992	3810	0.963	3690
35	1067	12	30	0.511	3430	0.481	3230
50	1524	12	30	0.334	3200	0.326	3120
75	2286	12	30	0.219	3150	0.216	3100
100	3048	12	30	0.168	3220	0.167	3200
175	5334	12	30	0.097	3250	0.094	3150
250	7620	12	30	0.062	2970	0.062	2970



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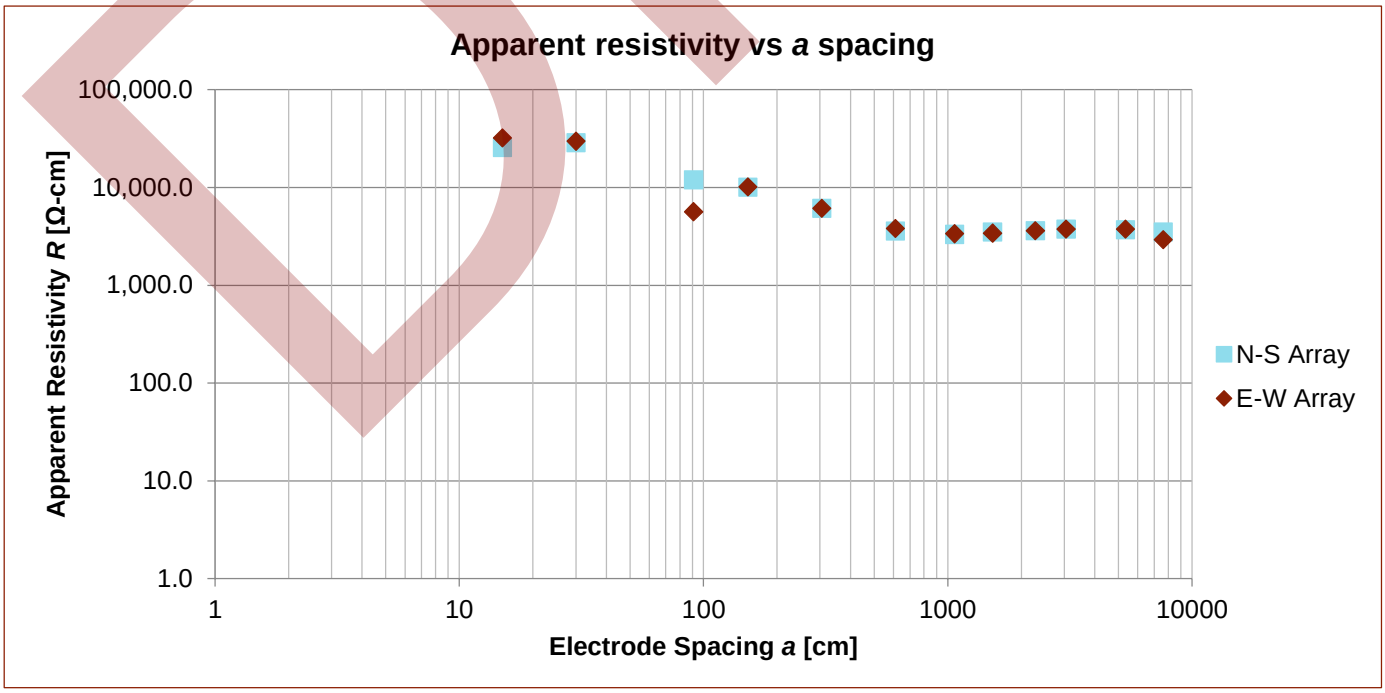
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-18 (41.8636, -83.9647)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/8/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	201.5	25570	253.0	32100
1	30	3	8	136.0	28510	141.1	29580
3	91	3	8	20.700	11990	9.727	5640
5	152	3	8	10.512	10090	10.543	10120
10	305	6	15	3.178	6120	3.177	6110
20	610	6	15	0.933	3580	0.991	3800
35	1067	12	30	0.494	3320	0.502	3370
50	1524	12	30	0.367	3520	0.355	3400
75	2286	12	30	0.252	3620	0.252	3620
100	3048	12	30	0.195	3740	0.195	3740
175	5334	12	30	0.110	3690	0.112	3750
250	7620	12	30	0.073	3500	0.061	2920



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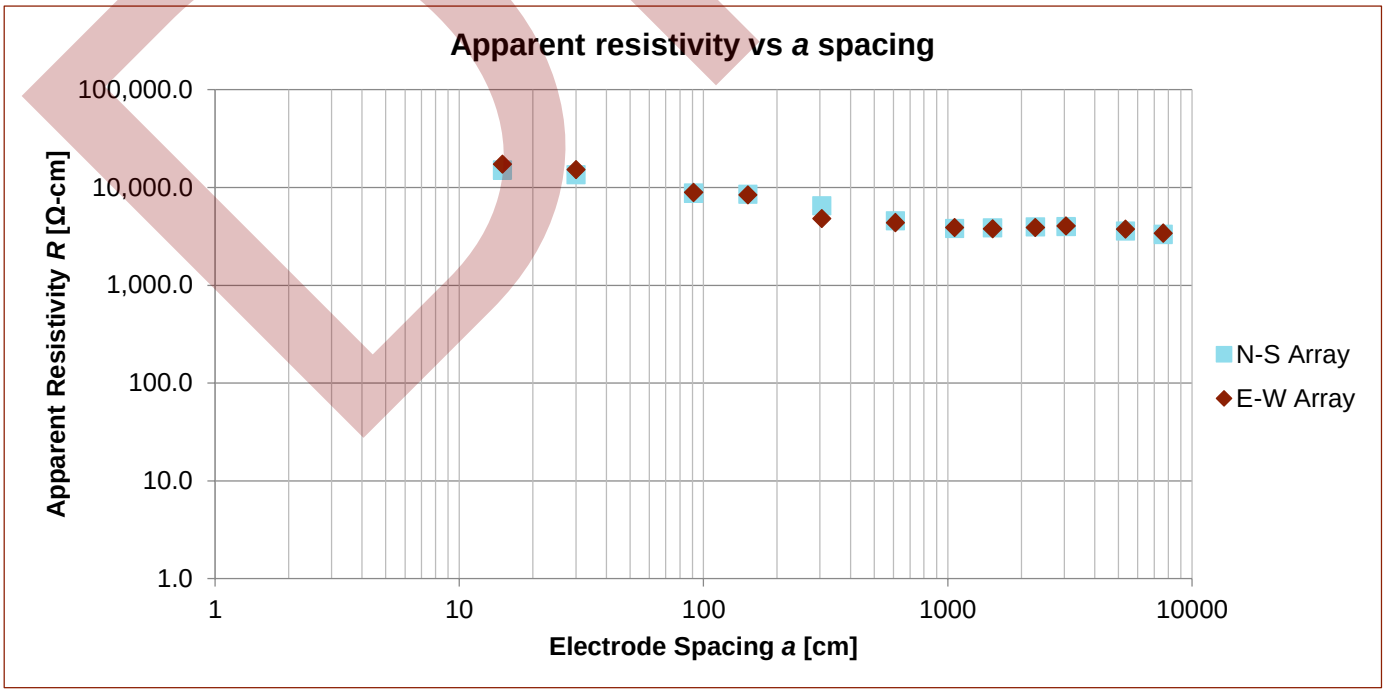
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-19 (41.8627, -83.9582)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/8/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	118.4	15020	135.7	17220
1	30	3	8	64.4	13500	73.0	15300
3	91	3	8	15.100	8750	15.339	8890
5	152	3	8	8.878	8520	8.718	8370
10	305	6	15	3.375	6500	2.502	4810
20	610	6	15	1.192	4570	1.139	4370
35	1067	12	30	0.568	3810	0.578	3880
50	1524	12	30	0.403	3860	0.393	3770
75	2286	12	30	0.275	3950	0.271	3890
100	3048	12	30	0.208	3980	0.210	4020
175	5334	12	30	0.107	3590	0.112	3750
250	7620	12	30	0.069	3300	0.071	3400



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FIELD ELECTRICAL RESISTIVITY TEST DATA

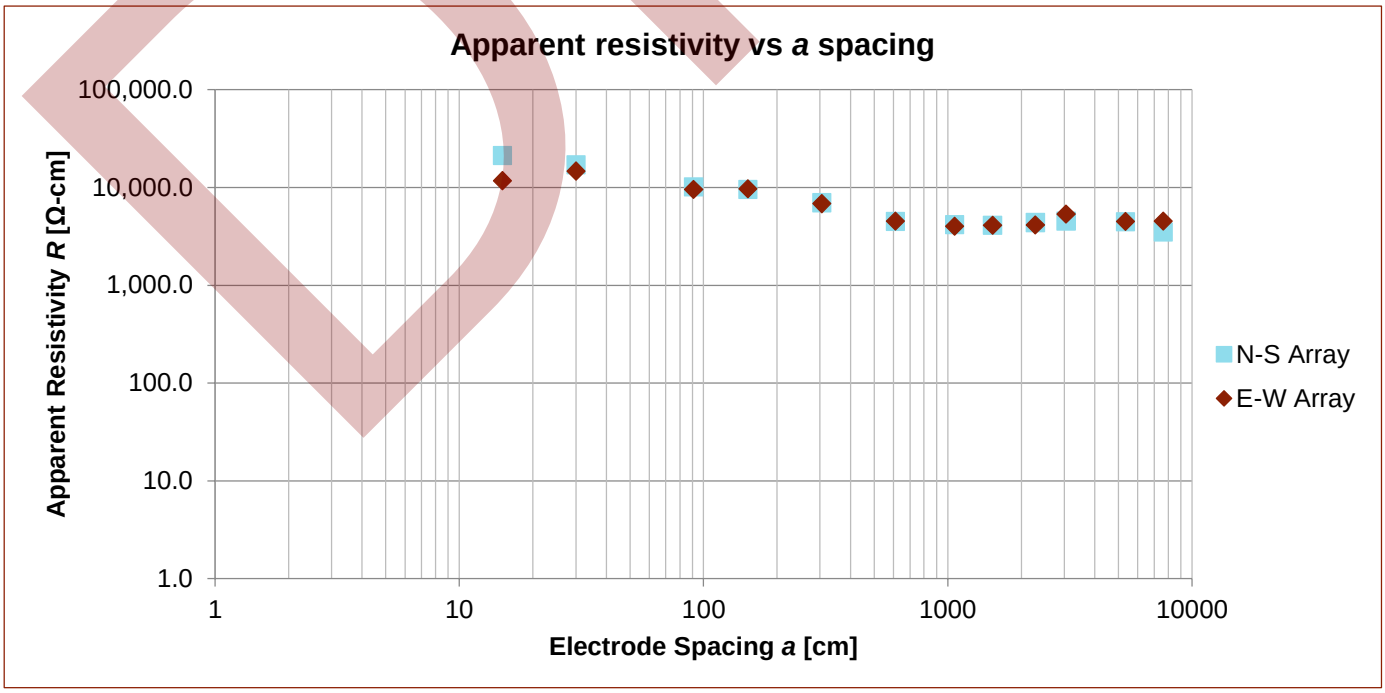
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-22 (41.8594, -83.9658)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/8/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	166.5	21130	92.5	11740
1	30	3	8	81.2	17020	70.0	14670
3	91	3	8	17.437	10100	16.433	9520
5	152	3	8	9.916	9520	10.130	9720
10	305	6	15	3.636	7000	3.553	6840
20	610	6	15	1.170	4490	1.185	4550
35	1067	12	30	0.617	4140	0.595	3990
50	1524	12	30	0.427	4090	0.428	4100
75	2286	12	30	0.304	4370	0.286	4110
100	3048	12	30	0.237	4540	0.277	5310
175	5334	12	30	0.133	4460	0.134	4490
250	7620	12	30	0.073	3500	0.095	4550



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FIELD ELECTRICAL RESISTIVITY TEST DATA

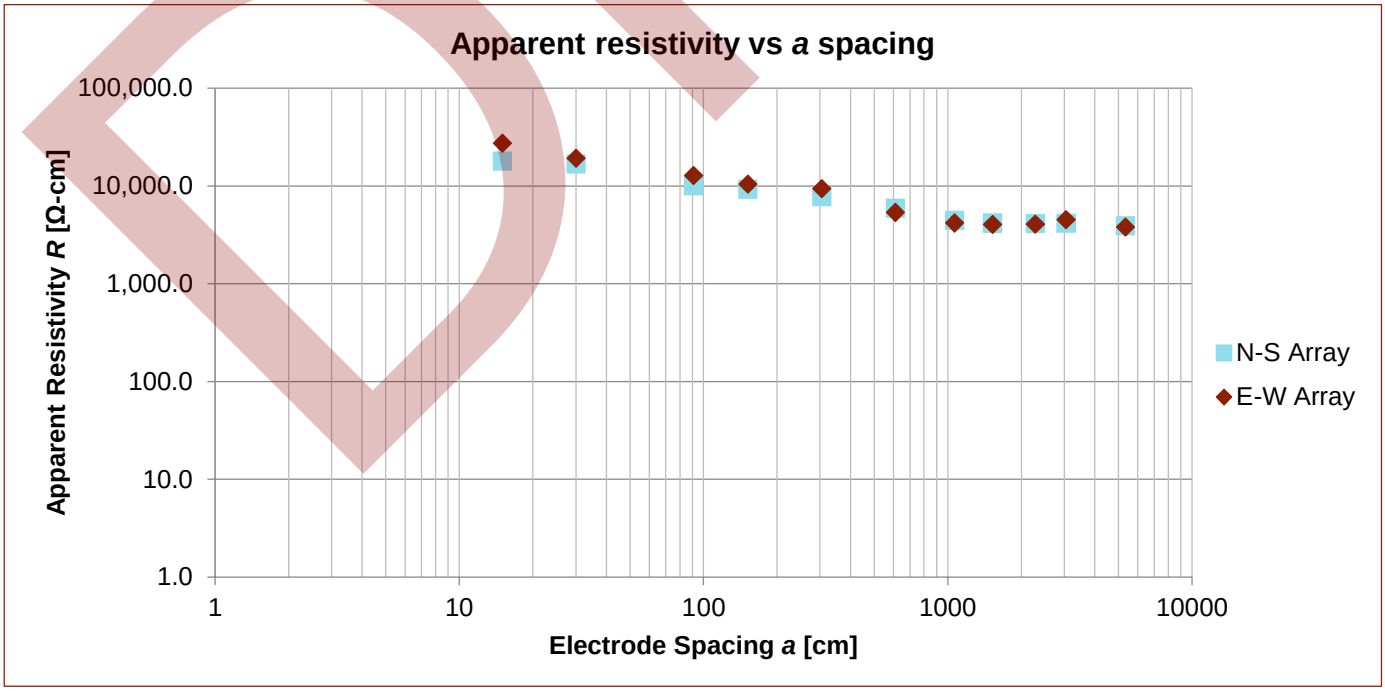
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-24 (41.8572, -83.9623)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/10/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	141.7	17980	216.8	27510
1	30	3	8	80.4	16850	92.4	19370
3	91	3	8	17.467	10120	22.100	12800
5	152	3	8	9.713	9320	10.914	10470
10	305	6	15	4.069	7830	4.908	9450
20	610	6	15	1.554	5960	1.399	5370
35	1067	12	30	0.666	4470	0.623	4180
50	1524	12	30	0.436	4180	0.423	4050
75	2286	12	30	0.287	4120	0.284	4080
100	3048	12	30	0.217	4160	0.237	4540
175	5334	12	30	0.117	3920	0.114	3820
		12					



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FIELD ELECTRICAL RESISTIVITY TEST DATA

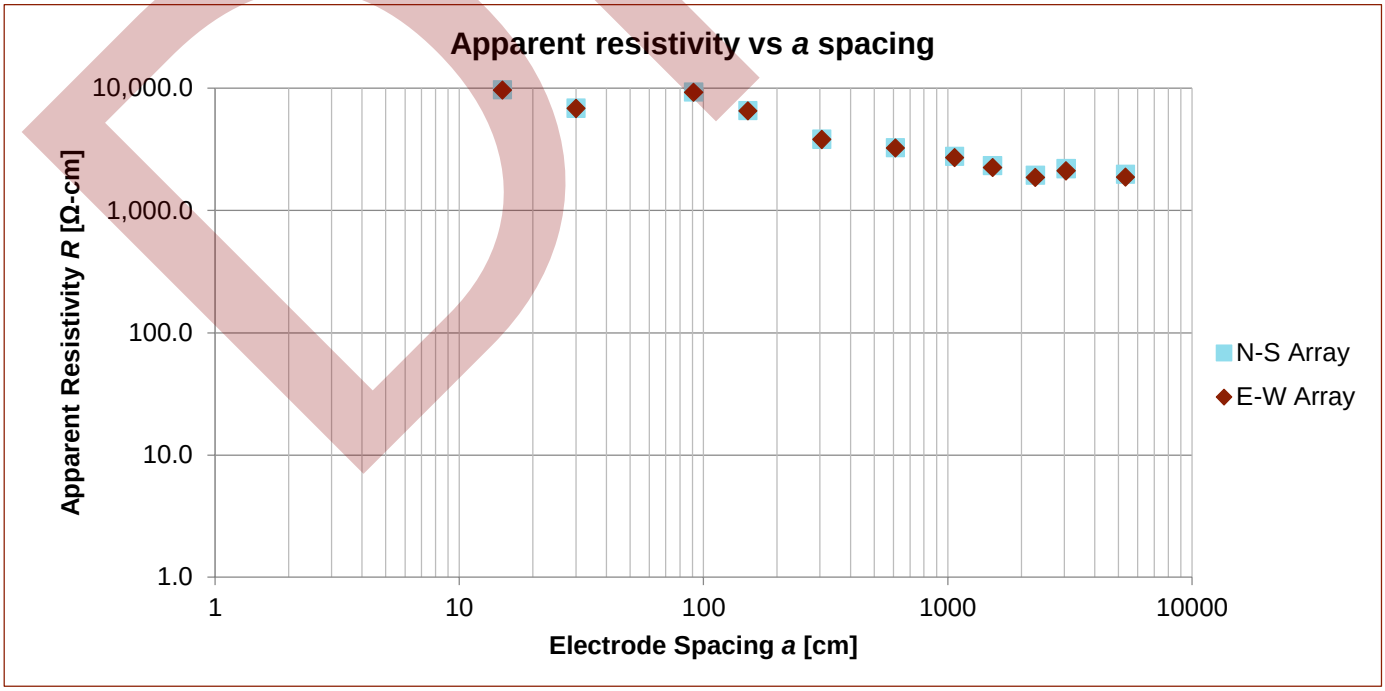
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-26 (41.8593, -83.9529)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/15/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	76.4	9690	76.2	9670
1	30	3	8	32.9	6900	32.7	6850
3	91	3	8	16.124	9340	16.007	9270
5	152	3	8	6.830	6550	6.799	6520
10	305	6	15	1.996	3840	1.981	3810
20	610	6	15	0.853	3270	0.849	3260
35	1067	12	30	0.414	2780	0.405	2720
50	1524	12	30	0.244	2340	0.235	2250
75	2286	12	30	0.136	1950	0.130	1870
100	3048	12	30	0.115	2200	0.110	2110
175	5334	12	30	0.059	1980	0.056	1880



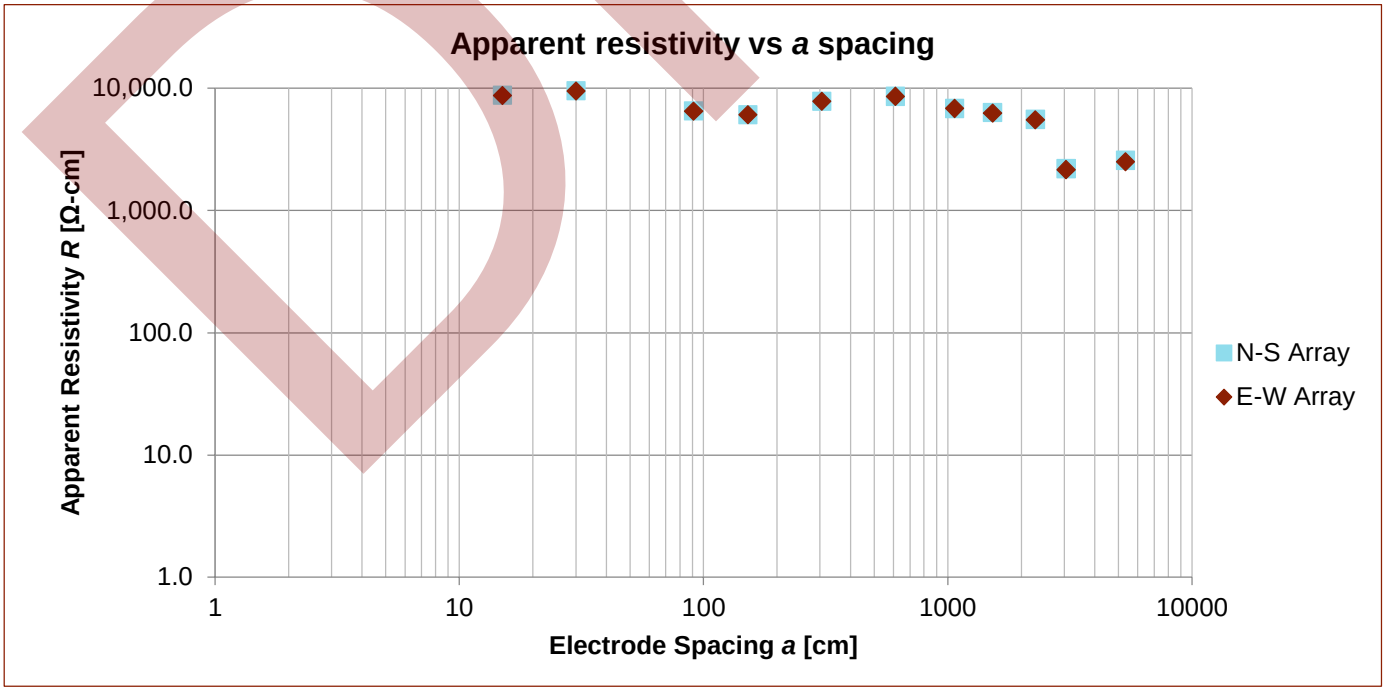
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-28 (41.8519, -83.9515)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	69.3	8790	69.1	8770
1	30	3	8	45.6	9560	45.2	9470
3	91	3	8	11.245	6520	11.194	6490
5	152	3	8	6.355	6100	6.343	6090
10	305	6	15	4.062	7820	4.059	7810
20	610	6	15	2.244	8610	2.235	8580
35	1067	12	30	1.022	6860	1.019	6840
50	1524	12	30	0.662	6340	0.655	6280
75	2286	12	30	0.389	5590	0.383	5500
100	3048	12	30	0.115	2200	0.113	2160
175	5334	12	30	0.077	2580	0.075	2510



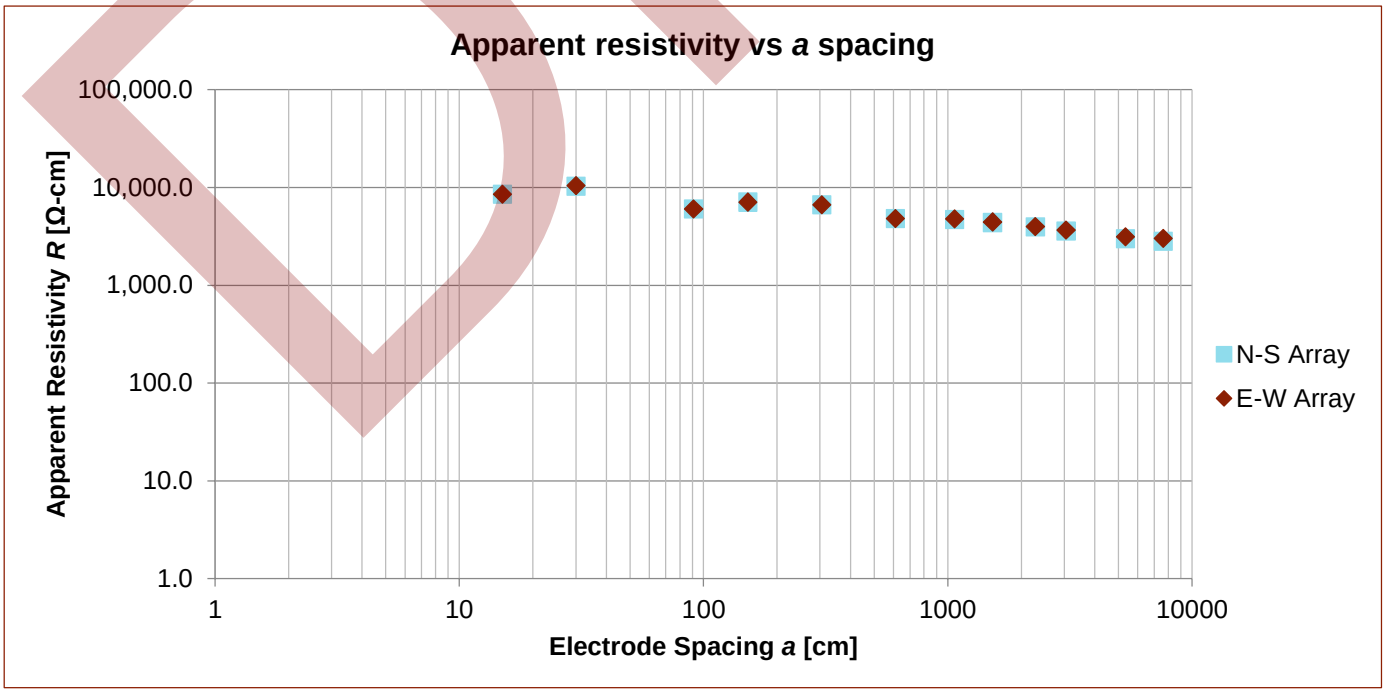
Draft

FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-29 (41.8518, -83.9446)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	67.1	8510	67.2	8530
1	30	3	8	49.2	10310	49.6	10400
3	91	3	8	10.408	6030	10.421	6040
5	152	3	8	7.389	7090	7.391	7090
10	305	6	15	3.433	6610	3.441	6620
20	610	6	15	1.251	4800	1.255	4820
35	1067	12	30	0.702	4710	0.709	4760
50	1524	12	30	0.456	4370	0.461	4420
75	2286	12	30	0.274	3940	0.276	3970
100	3048	12	30	0.187	3580	0.191	3660
175	5334	12	30	0.089	2980	0.093	3120
250	7620	12	30	0.059	2820	0.063	3020



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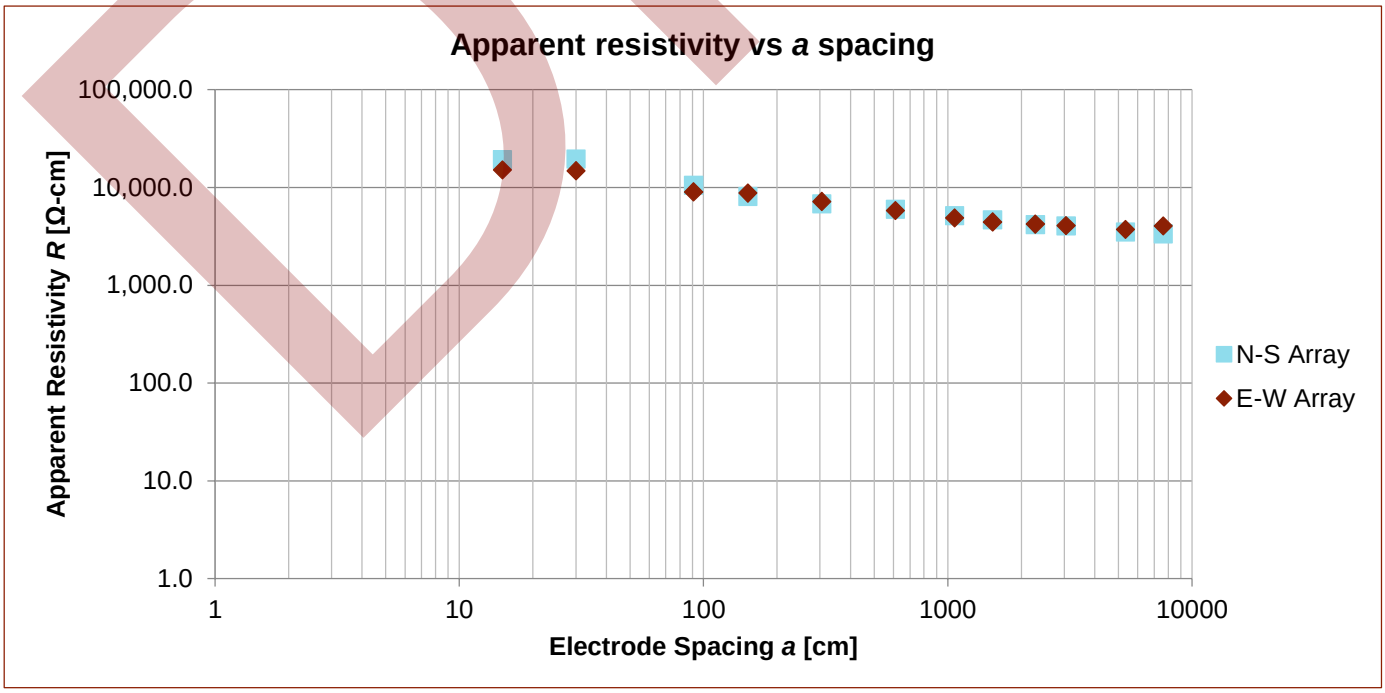
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-32 (41.8531, -83.9686)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/8/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	150.9	19150	119.4	15150
1	30	3	8	93.3	19560	70.9	14860
3	91	3	8	18.072	10470	15.600	9040
5	152	3	8	8.394	8060	9.108	8740
10	305	6	15	3.530	6790	3.738	7190
20	610	6	15	1.559	5980	1.520	5830
35	1067	12	30	0.765	5140	0.729	4890
50	1524	12	30	0.486	4660	0.462	4430
75	2286	12	30	0.288	4140	0.294	4220
100	3048	12	30	0.210	4020	0.212	4060
175	5334	12	30	0.105	3520	0.111	3720
250	7620	12	30	0.070	3350	0.084	4020



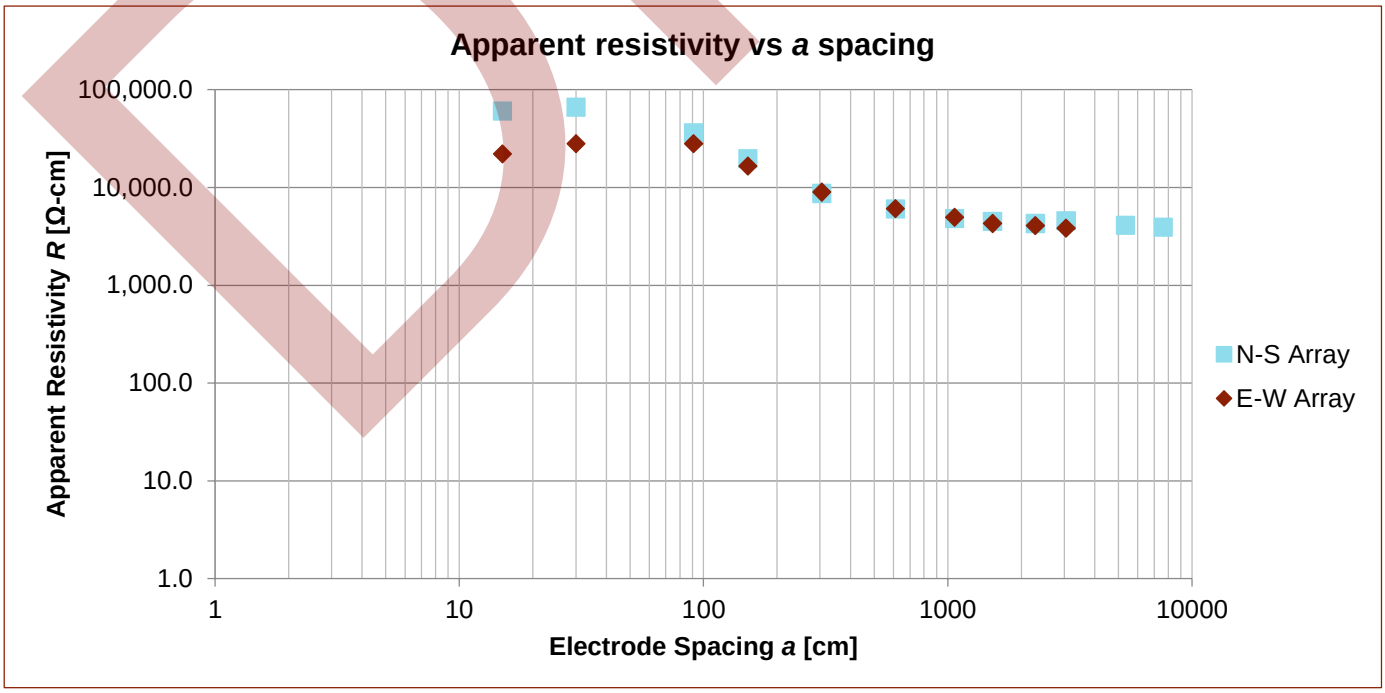
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-35 (41.8480, -83.9650)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	July 9/10, 2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited space on E-W line		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	474.1	60160	173.1	21960
1	30	3	8	315.1	66050	133.4	27960
3	91	3	8	62.400	36160	48.300	27990
5	152	3	8	20.500	19670	17.192	16500
10	305	6	15	4.524	8710	4.640	8930
20	610	6	15	1.570	6020	1.584	6080
35	1067	12	30	0.714	4790	0.738	4950
50	1524	12	30	0.470	4500	0.447	4280
75	2286	12	30	0.297	4270	0.282	4050
100	3048	12	30	0.239	4580	0.200	3830
175	5334	12	30	0.122	4090	---	#VALUE!
250	7620	12	30	0.082	3930	---	#VALUE!



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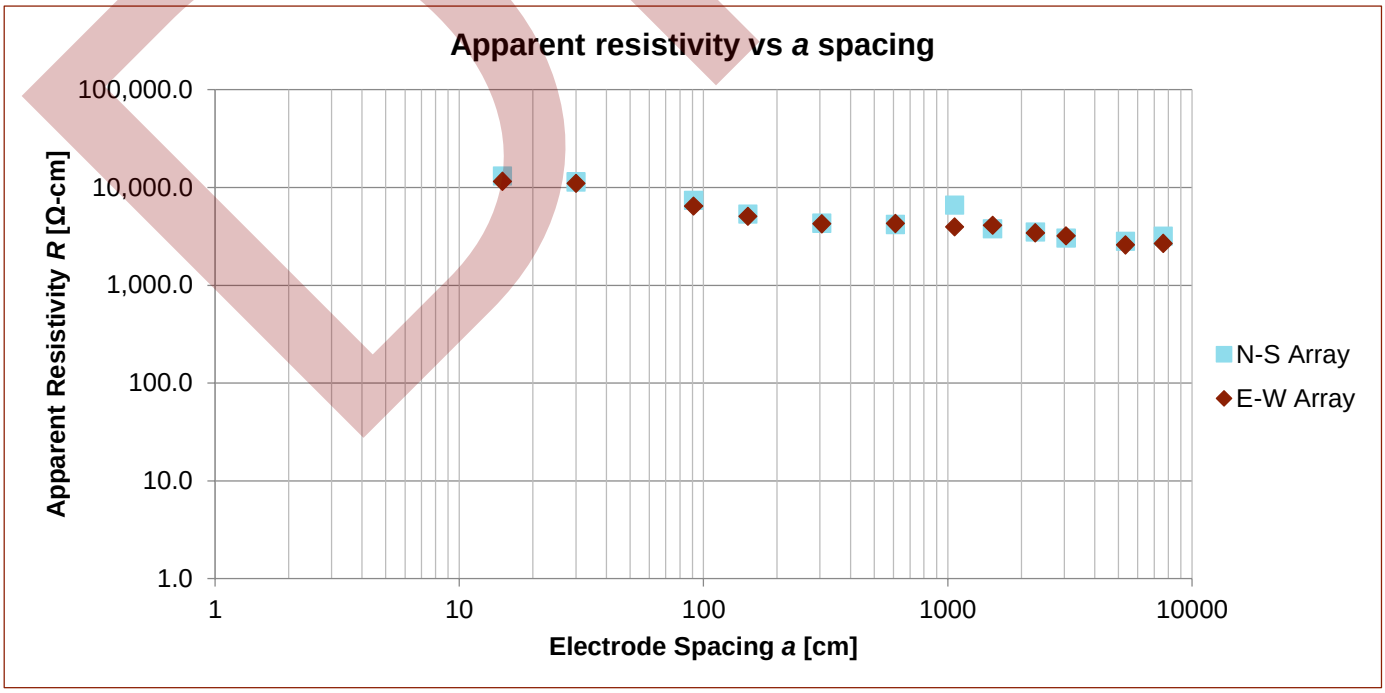
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-36 (41.8466, -83.9539)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/10/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	102.9	13060	91.3	11580
1	30	3	8	54.5	11420	52.5	11000
3	91	3	8	12.806	7420	11.144	6460
5	152	3	8	5.530	5310	5.270	5060
10	305	6	15	2.237	4300	2.208	4250
20	610	6	15	1.091	4190	1.114	4270
35	1067	12	30	0.978	6570	0.588	3950
50	1524	12	30	0.396	3790	0.426	4080
75	2286	12	30	0.245	3520	0.239	3430
100	3048	12	30	0.158	3030	0.167	3200
175	5334	12	30	0.084	2820	0.077	2580
250	7620	12	30	0.066	3160	0.056	2680



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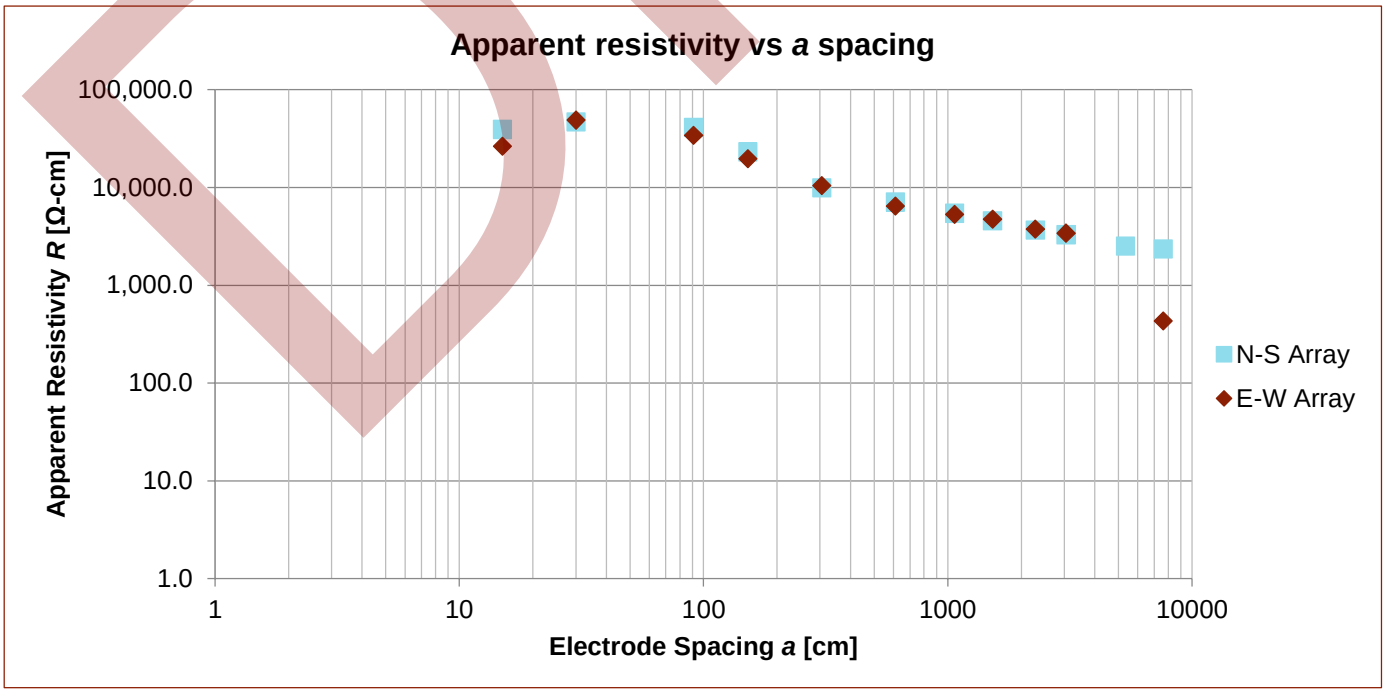
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-40 (41.8443, -83.9598)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/8/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/10/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	307.5	39020	208.4	26440
1	30	3	8	222.7	46680	232.1	48650
3	91	3	8	71.300	41310	59.000	34190
5	152	3	8	24.100	23130	20.600	19770
10	305	6	15	5.145	9900	5.412	10420
20	610	6	15	1.847	7090	1.684	6460
35	1067	12	30	0.812	5450	0.787	5280
50	1524	12	30	0.478	4580	0.495	4740
75	2286	12	30	0.256	3680	0.261	3750
100	3048	12	30	0.172	3290	0.178	3410
175	5334	12	30	0.075	2510	---	#VALUE!
250	7620	12	30	0.049	2350	0.009	430



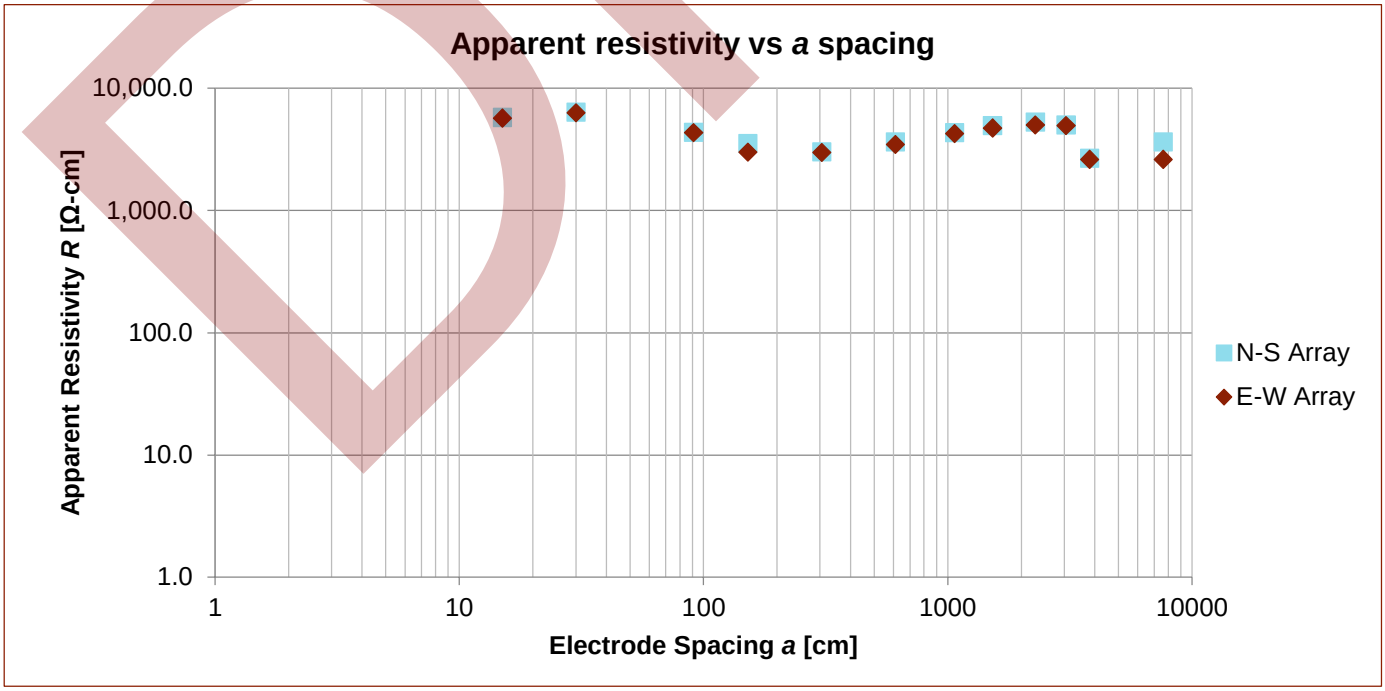
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-43 (41.8387, -83.9760)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited by space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	45.6	5790	44.9	5700
1	30	3	8	30.5	6390	30.0	6290
3	91	3	8	7.531	4360	7.488	4340
5	152	3	8	3.684	3540	3.126	3000
10	305	6	15	1.566	3010	1.556	2990
20	610	6	15	0.948	3640	0.906	3480
35	1067	12	30	0.647	4340	0.635	4260
50	1524	12	30	0.517	4950	0.495	4740
75	2286	12	30	0.369	5300	0.350	5030
100	3048	12	30	0.262	5020	0.259	4960
125	3810	12	30	0.112	2680	0.110	2630
250	7620	12	30	0.076	3640	0.055	2630



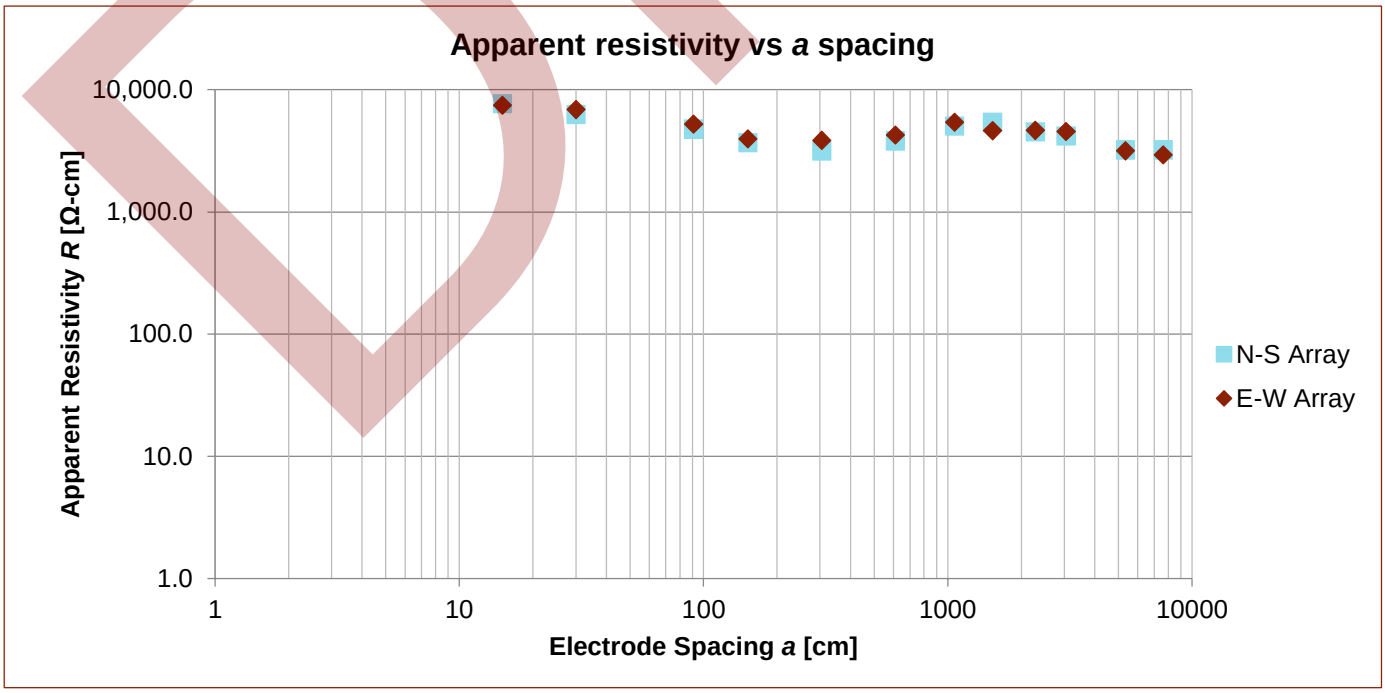
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-44 (41.8352, -83.9751)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	D. Kampf and A. Brooks
Test Date	7/14/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	60.4	7660	58.6	7440
1	30	3	8	29.9	6270	32.8	6880
3	91	3	8	8.219	4760	9.024	5230
5	152	3	8	3.826	3670	4.122	3960
10	305	6	15	1.642	3160	2.008	3860
20	610	6	15	0.992	3810	1.111	4260
35	1067	12	30	0.752	5050	0.806	5410
50	1524	12	30	0.562	5390	0.481	4610
75	2286	12	30	0.314	4510	0.323	4640
100	3048	12	30	0.219	4190	0.237	4540
175	5334	12	30	0.096	3220	0.094	3150
250	7620	12	30	0.067	3210	0.061	2920



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FIELD ELECTRICAL RESISTIVITY TEST DATA

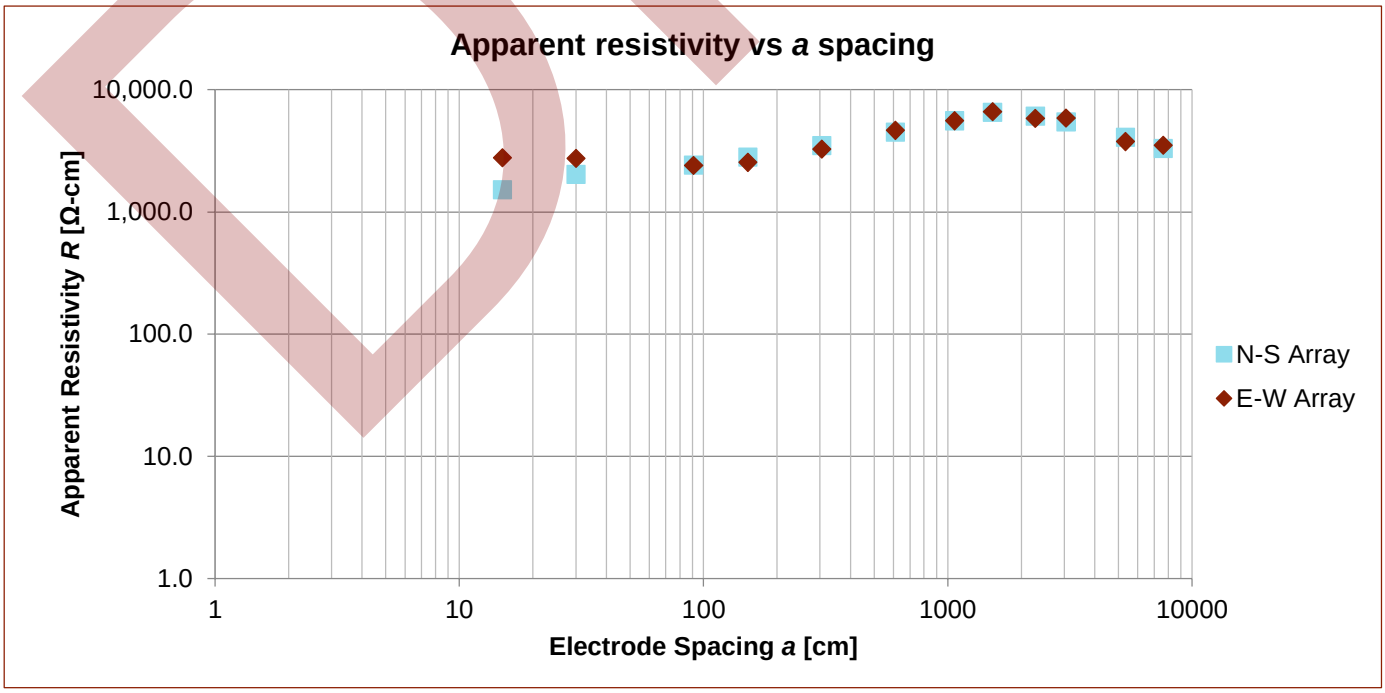
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-47 (41.8342, -83.9873)		
Instrument	Mini Res Ultra	**Weather**	Cloudy
Serial #	330	**Ground Cond.**	Moist agricultural field
Cal. Check	6/18/2025	**Tested By**	D. Childers and A. Brooks
Test Date	6/18/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	12.0	1520	21.9	2780
1	30	3	8	9.6	2020	13.1	2740
3	91	3	8	4.157	2410	4.136	2400
5	152	3	8	2.914	2800	2.645	2540
10	305	6	15	1.814	3490	1.694	3260
20	610	6	15	1.169	4490	1.212	4650
35	1067	12	30	0.827	5550	0.826	5550
50	1524	12	30	0.681	6530	0.688	6590
75	2286	12	30	0.423	6080	0.405	5820
100	3048	12	30	0.283	5420	0.307	5880
175	5334	12	30	0.122	4090	0.112	3750
250	7620	12	30	0.069	3300	0.073	3500



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FIELD ELECTRICAL RESISTIVITY TEST DATA

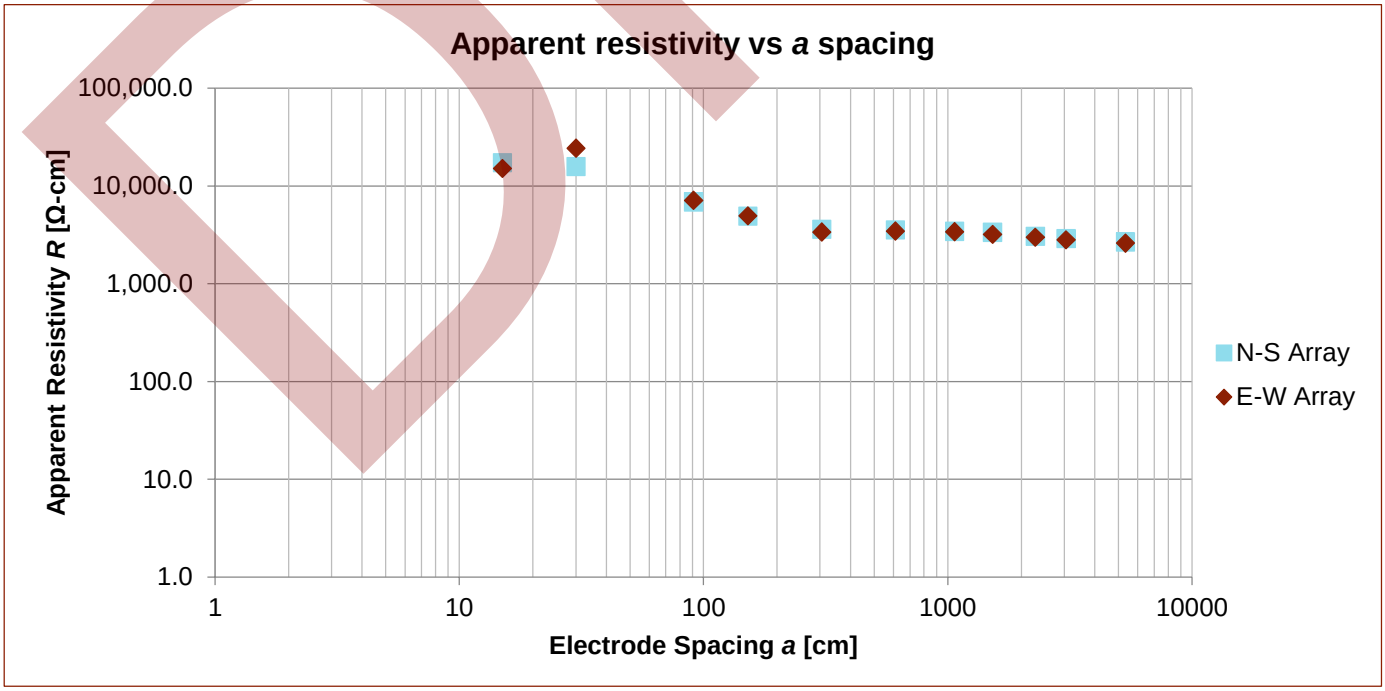
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-49 (41.8352, -83.9441)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/15/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Under power lines and limited space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	136.1	17270	119.4	15150
1	30	3	8	75.4	15810	116.9	24500
3	91	3	8	11.884	6890	12.334	7150
5	152	3	8	5.139	4930	5.186	4980
10	305	6	15	1.884	3630	1.764	3390
20	610	6	15	0.928	3560	0.904	3470
35	1067	12	30	0.513	3440	0.509	3420
50	1524	12	30	0.351	3360	0.335	3210
75	2286	12	30	0.213	3060	0.209	3000
100	3048	12	30	0.152	2910	0.147	2820
175	5334	12	30	0.080	2680	0.078	2610



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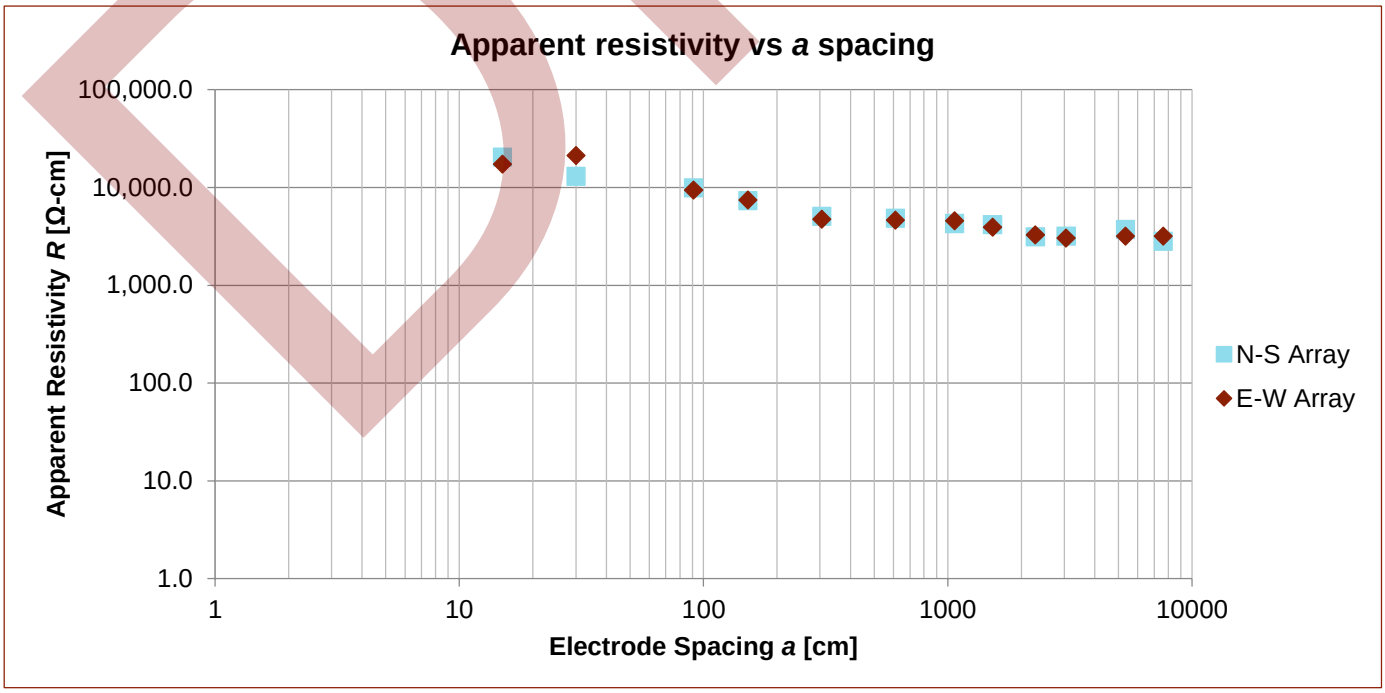
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-51 (41.8311, -83.9490)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/16/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi a R}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	161.4	20480	135.9	17240
1	30	3	8	61.9	12980	101.3	21230
3	91	3	8	17.130	9930	16.216	9400
5	152	3	8	7.657	7350	7.760	7450
10	305	6	15	2.622	5050	2.467	4750
20	610	6	15	1.265	4850	1.206	4630
35	1067	12	30	0.639	4290	0.679	4560
50	1524	12	30	0.434	4160	0.409	3920
75	2286	12	30	0.217	3120	0.227	3260
100	3048	12	30	0.165	3160	0.158	3030
175	5334	12	30	0.111	3720	0.095	3180
250	7620	12	30	0.059	2820	0.066	3160



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FIELD ELECTRICAL RESISTIVITY TEST DATA

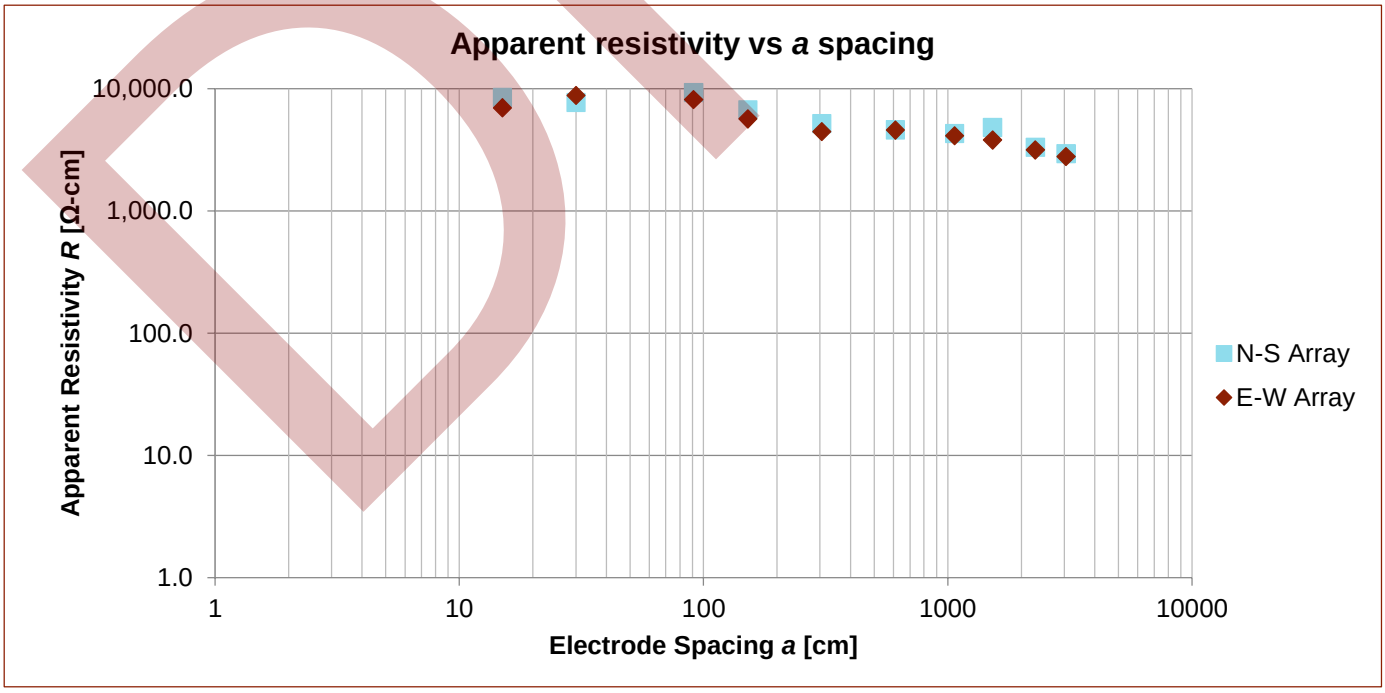
Rouget Road Solar | Adrian, Michigan

July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-52 (41.8323, -83.9566)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/16/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts	Limited space in N-S & E-W		

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	66.8	8480	54.9	6970
1	30	3	8	36.8	7710	42.1	8820
3	91	3	8	16.026	9290	13.993	8110
5	152	3	8	6.956	6680	5.911	5670
10	305	6	15	2.689	5170	2.316	4460
20	610	6	15	1.200	4600	1.192	4570
35	1067	12	30	0.639	4290	0.615	4130
50	1524	12	30	0.504	4830	0.397	3800
75	2286	12	30	0.231	3320	0.219	3150
100	3048	12	30	0.153	2930	0.145	2780



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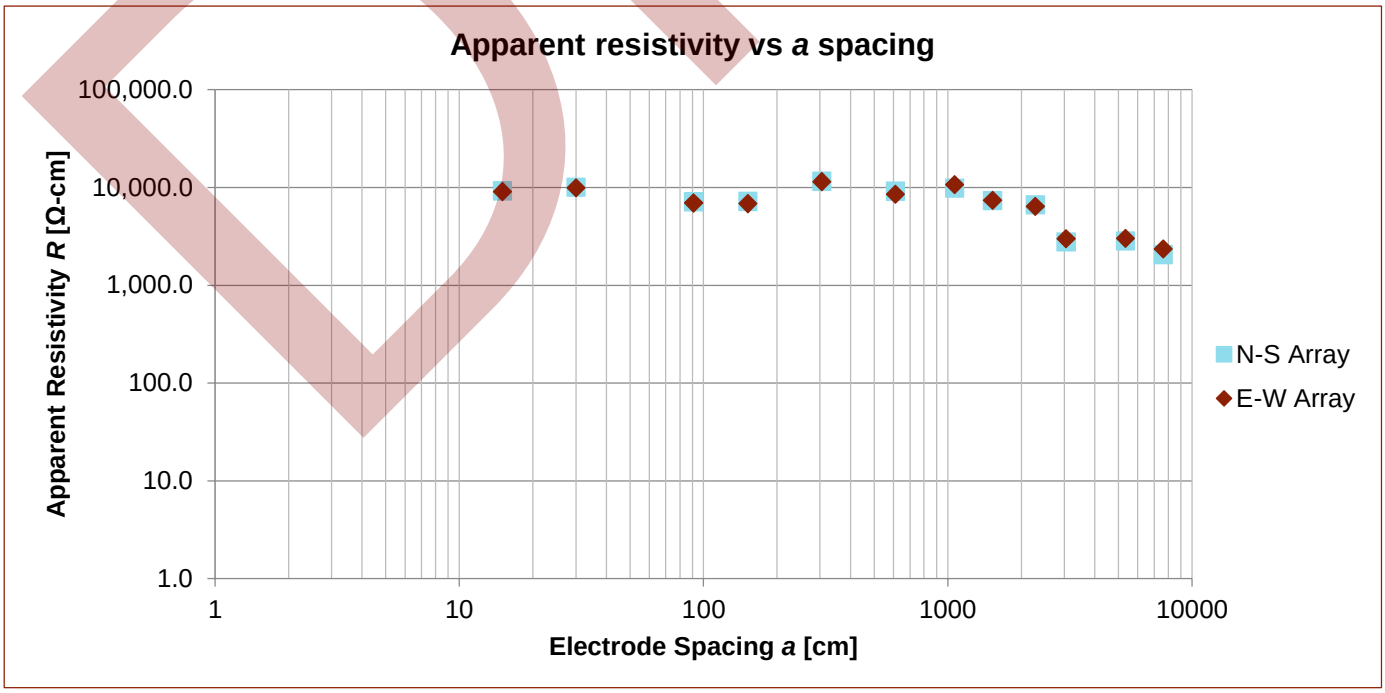
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-54 (41.8264, -83.9569)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/15/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi a R}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	72.4	9190	71.8	9110
1	30	3	8	47.9	10040	47.2	9890
3	91	3	8	12.339	7150	11.985	6940
5	152	3	8	7.468	7170	7.112	6830
10	305	6	15	6.022	11590	5.966	11480
20	610	6	15	2.376	9120	2.222	8530
35	1067	12	30	1.468	9860	1.588	10660
50	1524	12	30	0.769	7370	0.772	7400
75	2286	12	30	0.461	6620	0.445	6390
100	3048	12	30	0.145	2780	0.156	2990
175	5334	12	30	0.085	2850	0.090	3020
250	7620	12	30	0.043	2060	0.049	2350



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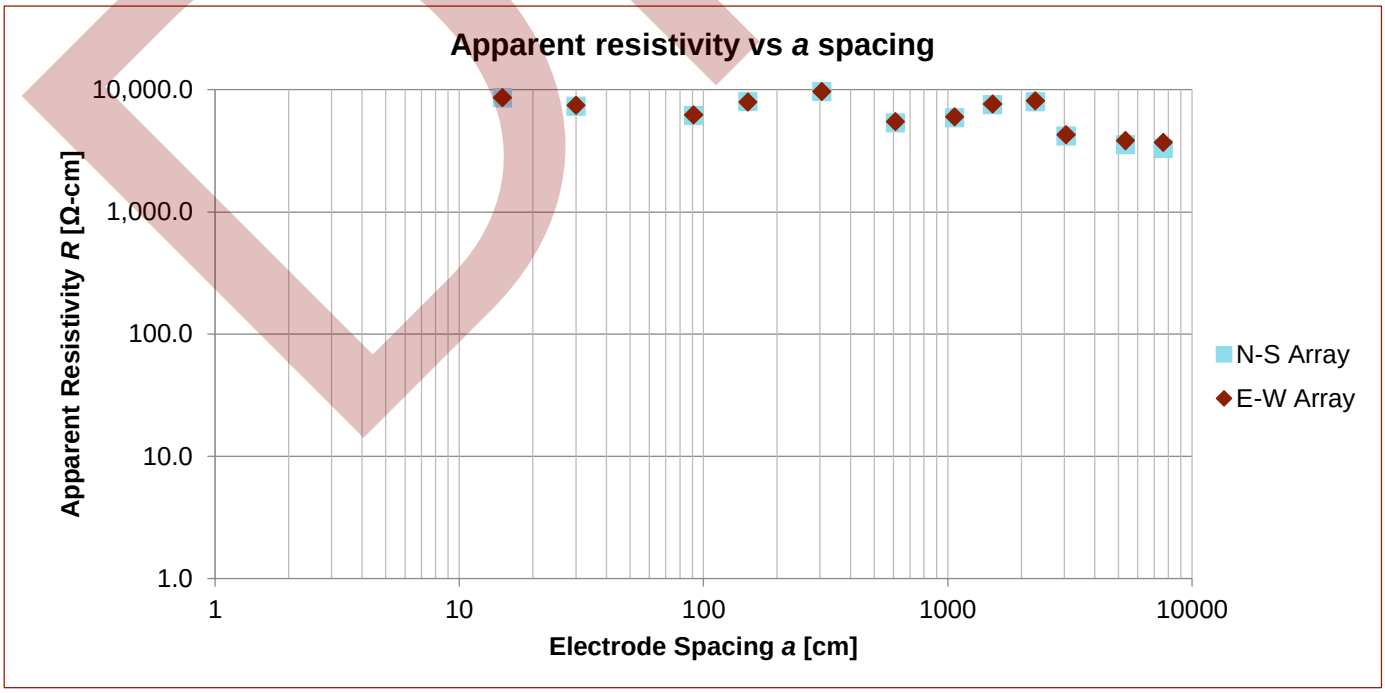
FIELD ELECTRICAL RESISTIVITY TEST DATA

Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-56 (41.8284, -83.9499)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	7/10/2025	**Tested By**	A. Brooks & J. Korbar
Test Date	7/15/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012)
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi a R}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	67.5	8560	68.1	8640
1	30	3	8	34.9	7320	35.5	7440
3	91	3	8	10.624	6160	10.714	6210
5	152	3	8	8.318	7980	8.226	7890
10	305	6	15	5.008	9640	5.019	9660
20	610	6	15	1.395	5350	1.429	5480
35	1067	12	30	0.881	5910	0.893	6000
50	1524	12	30	0.789	7560	0.795	7620
75	2286	12	30	0.552	7930	0.563	8090
100	3048	12	30	0.218	4180	0.223	4270
175	5334	12	30	0.106	3550	0.114	3820
250	7620	12	30	0.069	3300	0.077	3690



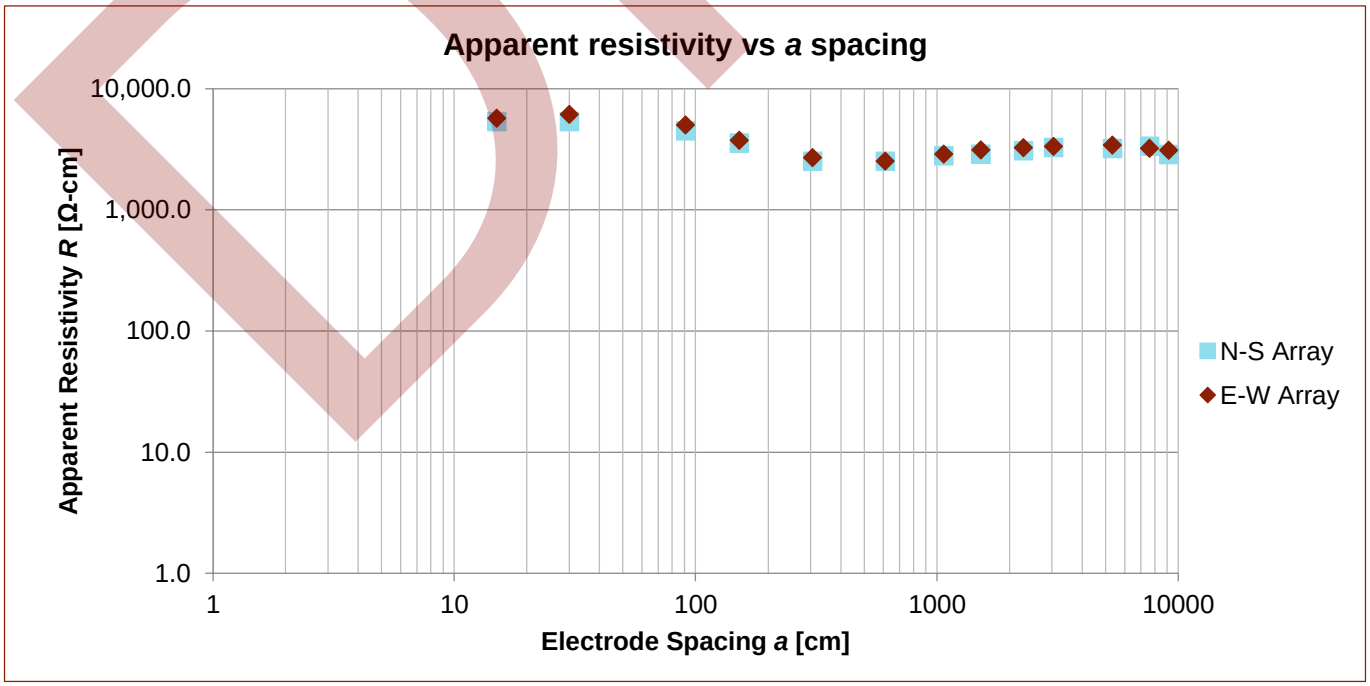
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FIELD ELECTRICAL RESISTIVITY TEST DATA
Rouget Road Solar | Adrian, Michigan
July 29, 2025 | Terracon Project No. CK245217

Array Loc.	ER-SS-2 (41.8752, -83.9641)		
Instrument	Mini Res Ultra	**Weather**	Clear
Serial #	330	**Ground Cond.**	Dry, agricultural field
Cal. Check	6/25/2025	**Tested By**	D. Kampf and J. Korbar
Test Date	6/27/2025	**Method**	Wenner 4-pin (ASTM G57-06 (2012); IEEE 81-2012
Notes & Conflicts			

Apparent resistivity ρ is calculated as : $\rho = \dfrac{4\pi aR}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$

Electrode Spacing *a*		Electrode Depth *b*		N-S Test		E-W Test	
[feet]	[centimeters]	[inches]	[centimeters]	Measured Resistance *R*	Apparent Resistivity ρ	Measured Resistance *R*	Apparent Resistivity ρ
				Ω	[Ω-cm]	Ω	[Ω-cm]
0.5	15	3	8	42.3	5370	44.9	5700
1	30	3	8	25.5	5350	29.2	6120
3	91	3	8	7.767	4500	8.680	5030
5	152	3	8	3.711	3560	3.907	3750
10	305	6	15	1.311	2520	1.404	2700
20	610	6	15	0.657	2520	0.656	2520
35	1067	12	30	0.417	2800	0.429	2880
50	1524	12	30	0.302	2890	0.326	3120
75	2286	12	30	0.215	3090	0.226	3250
100	3048	12	30	0.171	3280	0.174	3330
175	5334	12	30	0.096	3220	0.102	3420
250	7620	12	30	0.070	3350	0.067	3210
300	9144	12	30	0.05	2870	0.05	3100



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http://www.geothermusa.com

June 16, 2025

Terracon
2204 Yankee Street
Niles, Michigan 49120
Attn: Dave Kampf

Thermal Resistivity Report
Rouget Road Solar – Adrian, MI (Project No. CK245217)

The following is the report of thermal dryout characterization tests conducted on fourteen (14) bulk samples of native soil from the referenced project sent to our laboratory.

Thermal Resistivity Tests: The samples were tested at the 'as received' moisture content and at 90% of the standard Proctor dry density ***provided by Terracon***. The tests were conducted in accordance with the **IEEE standard 442-2017**. The results are tabulated below and the thermal dry out curves are presented in **Figures 1 to 14**.

Sample ID, Description, Thermal Resistivity, Moisture Content and Density

Sample ID	Depth (ft)	Effort (%)	Description (Terracon)	Thermal Resistivity (°C-cm/W)		Moisture Content (%)	Dry Density (lb/ft³)
				Wet	Dry		
PLT-1	1 - 4	90	Sand	56	200	18	110
PLT-6	1 - 4	90	Sandy Clay	51	183	19	99
PLT-11	1 - 4	90	Clayey Sand	48	156	14	106
PLT-14	1 - 4	90	Sandy Clay	49	162	20	104
PLT-19	1 - 4	90	Silty Sand	47	157	23	110
PLT-29	1 - 4	90	Sand	58	223	17	105
PLT-30	1 - 4	90	Sand	59	249	25	104
PLT-36	1 - 4	90	Sand	54	232	12	107

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Sample ID, Description, Thermal Resistivity, Moisture Content and Density

Sample ID	Depth (ft)	Effort (%)	Description (Terracon)	Thermal Resistivity (°C-cm/W)		Moisture Content (%)	Dry Density (lb/ft^3)
				Wet	Dry		
PLT-40	1 - 4	90	Sand	58	237	12	102
PLT-44	1 - 4	90	Sand	51	215	18	107
PLT-47	1 - 4	90	Silty Sand	53	198	22	100
PLT-49	1 - 4	90	Clayey Sand	49	139	15	111
PLT-54	1 - 4	90	Sandy Clay	55	149	16	106
SS-2	1 - 4	90	Sand	63	203	11	109

Comments: The thermal characteristic depicted in the dryout curves apply for the soils at their respective test dry density.

Please contact us if you have any questions or if we can be of further assistance.

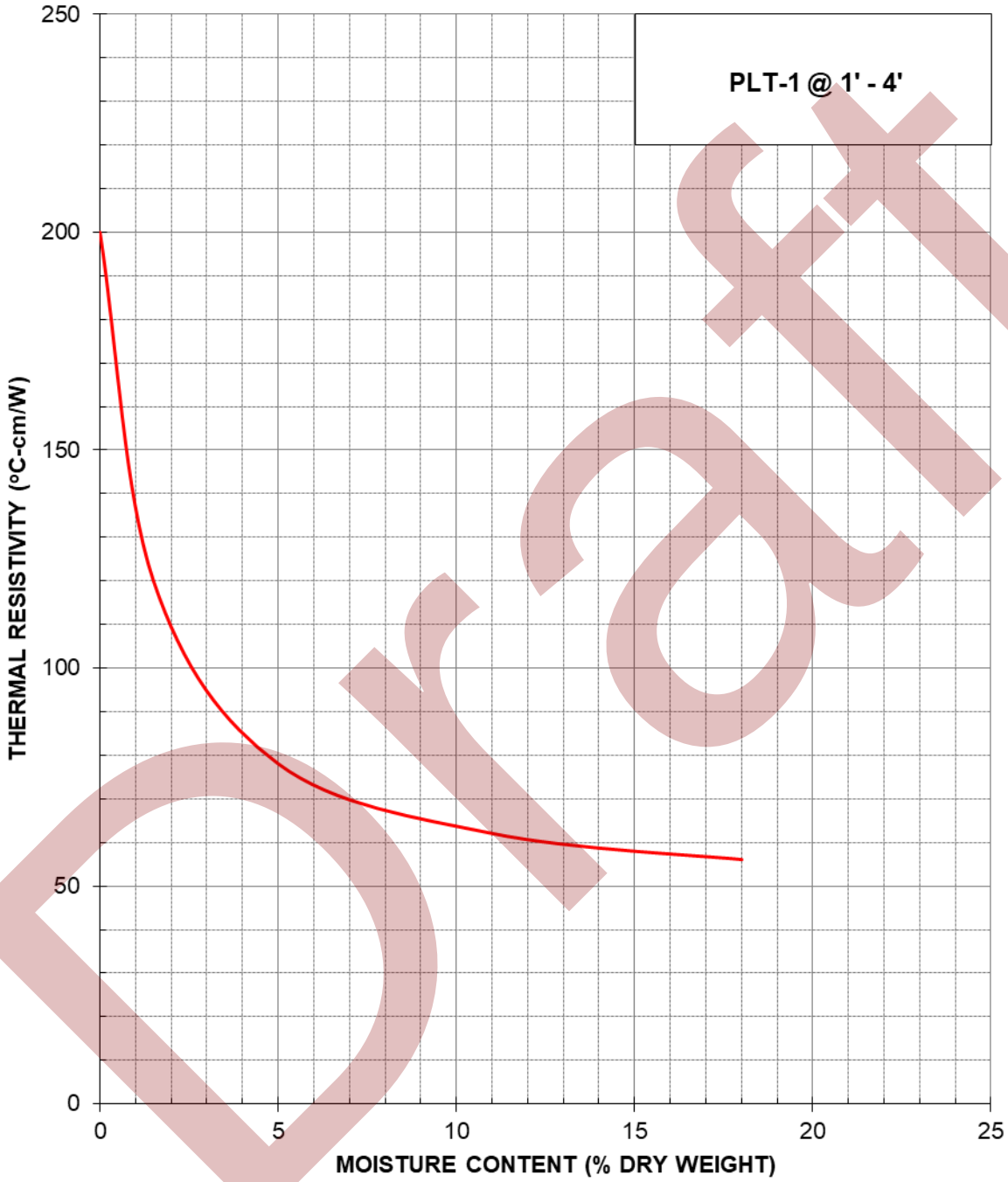
Geotherm USA, LLC

Nimesh Patel

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Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

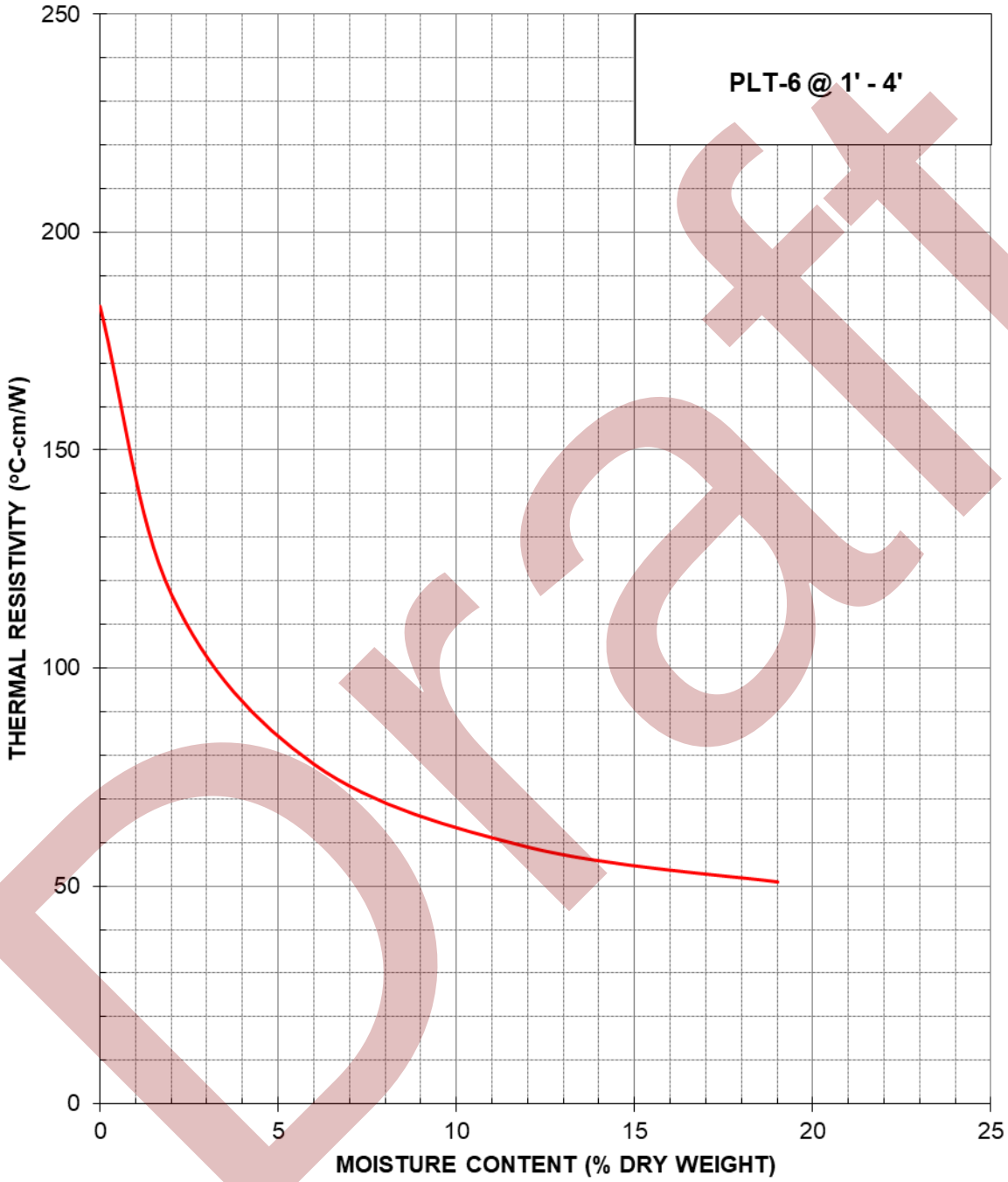
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

June 2025 **Figure 1**

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THERMAL DRYOUT CURVE



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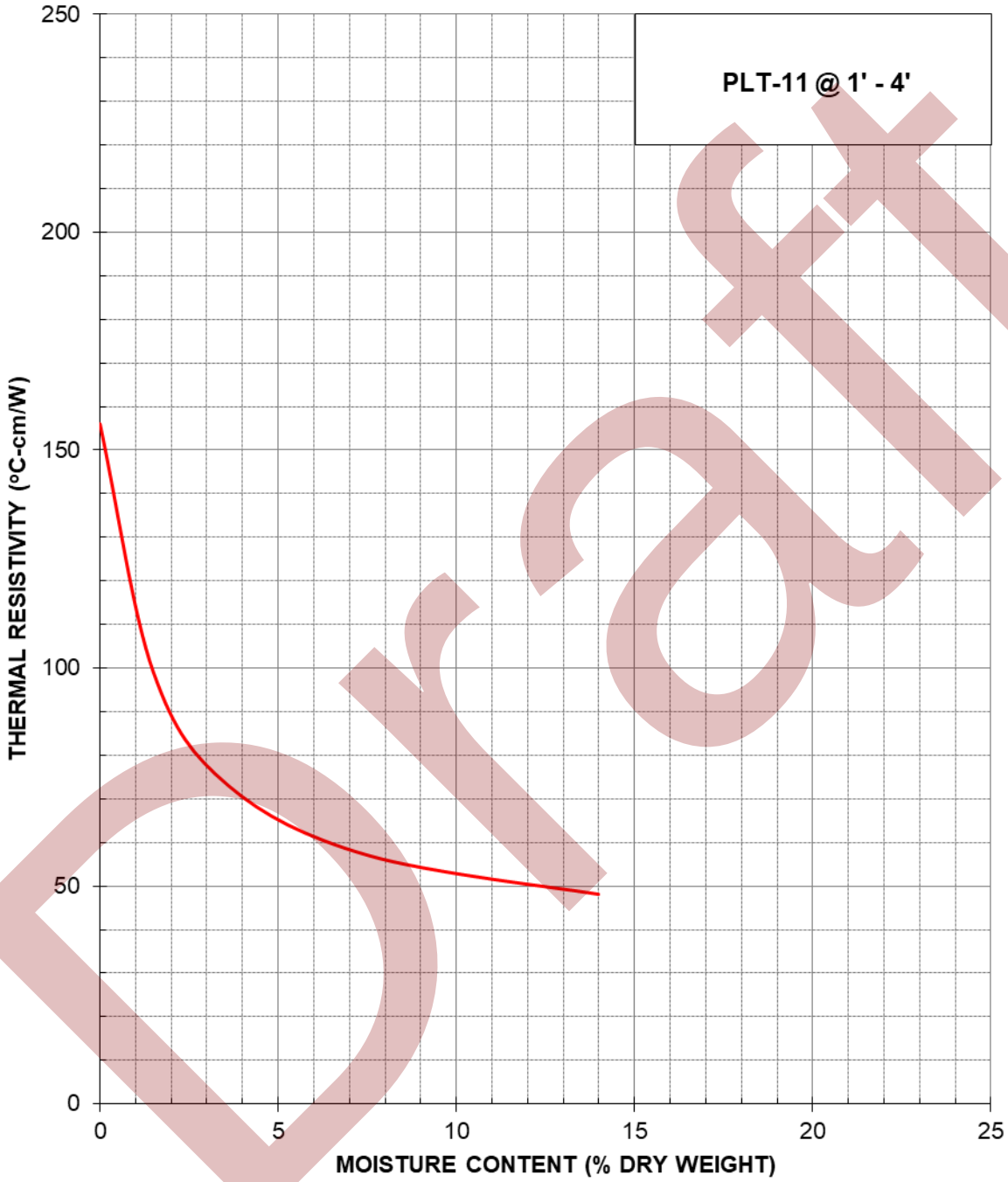
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

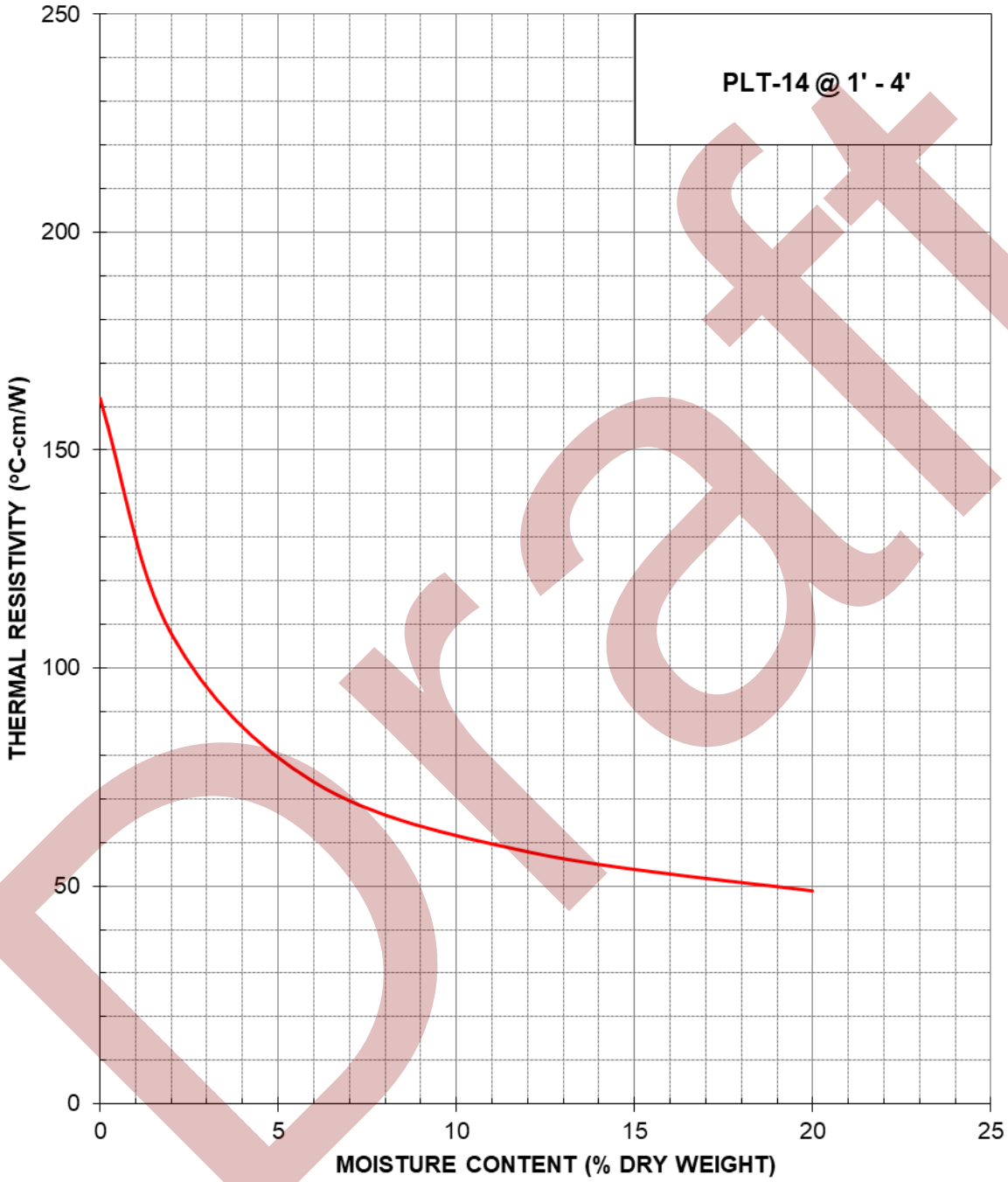
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Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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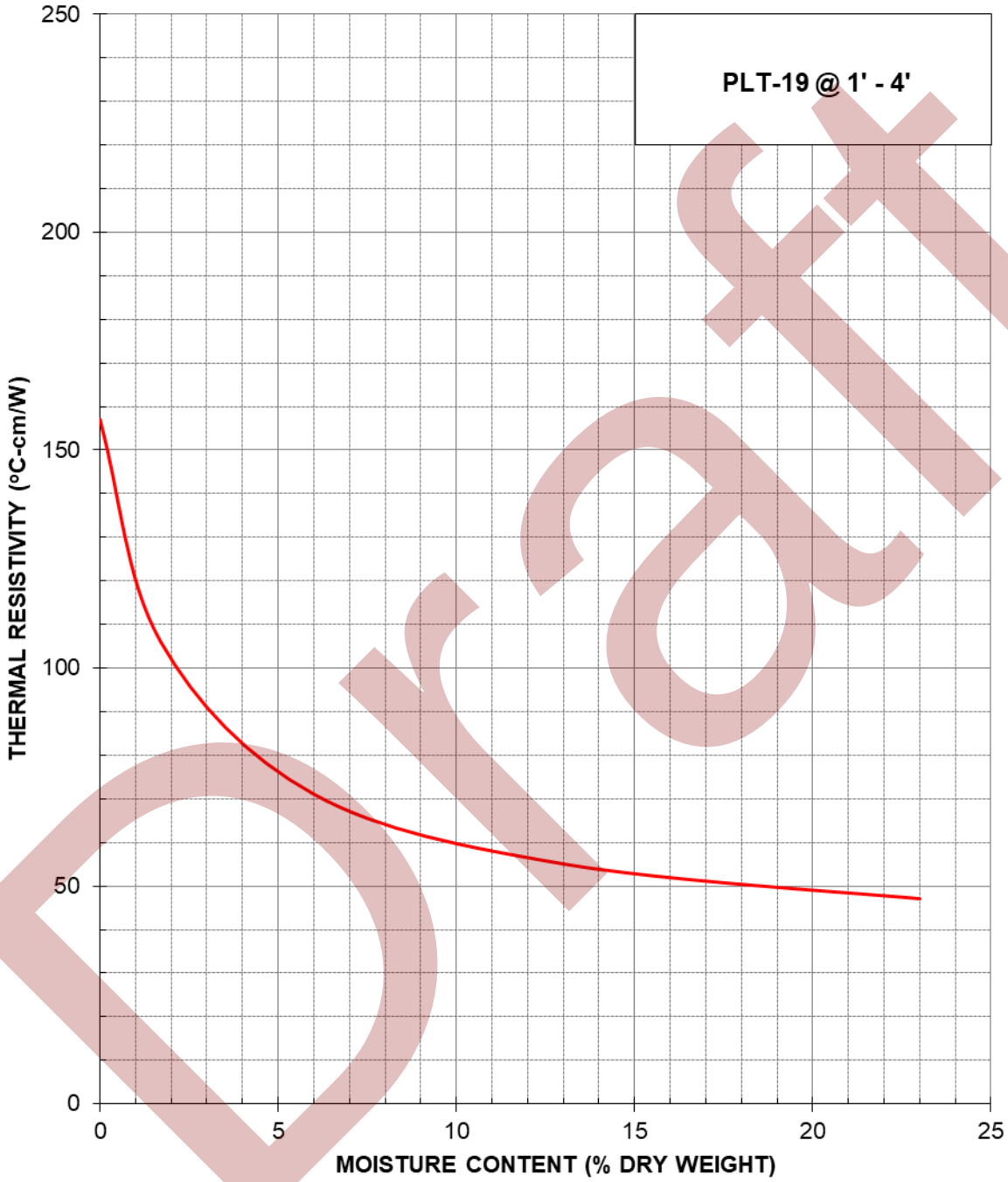
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

June 2025 **Figure 4**

Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

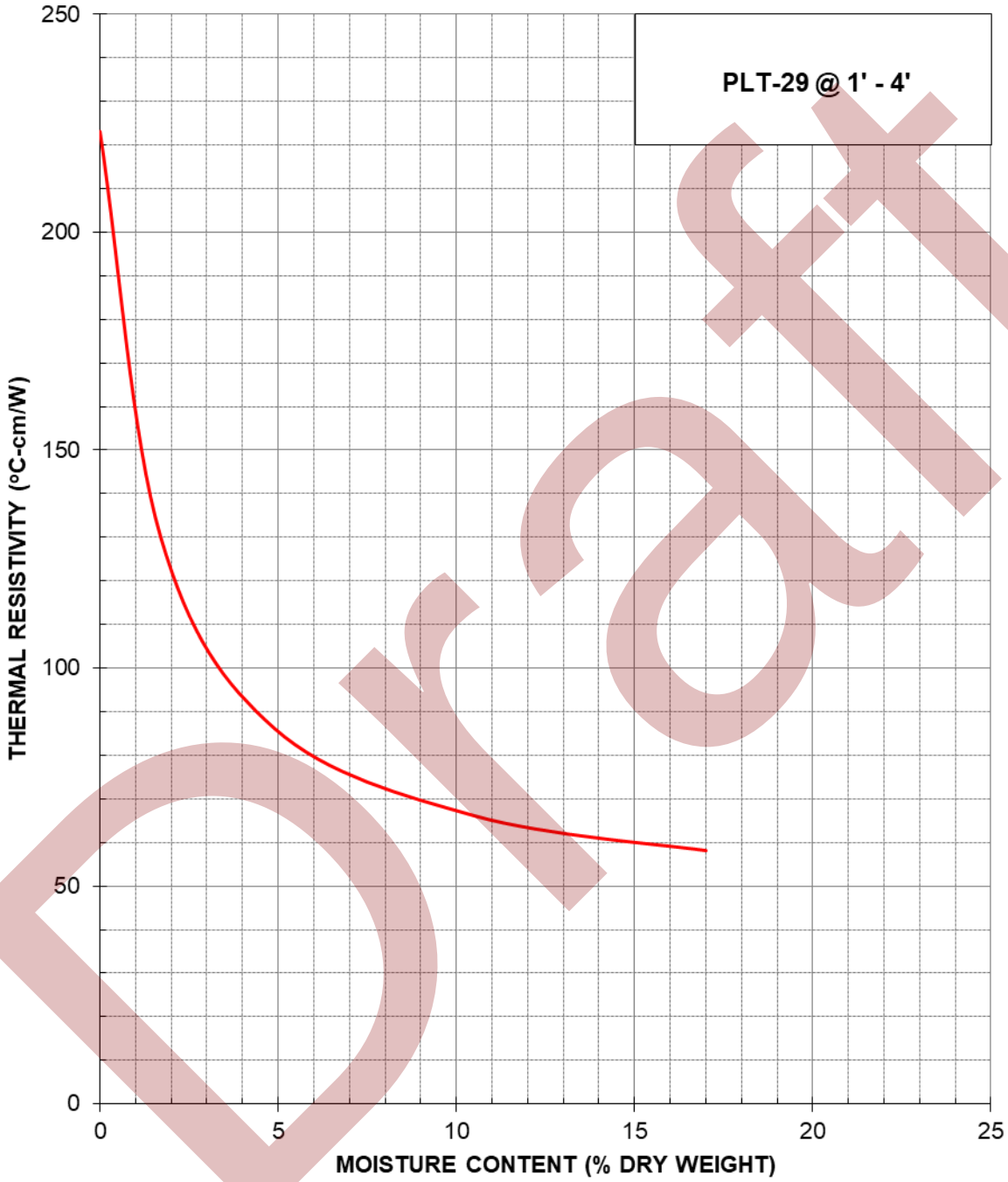
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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Rouget Road Solar – Adrian, MI

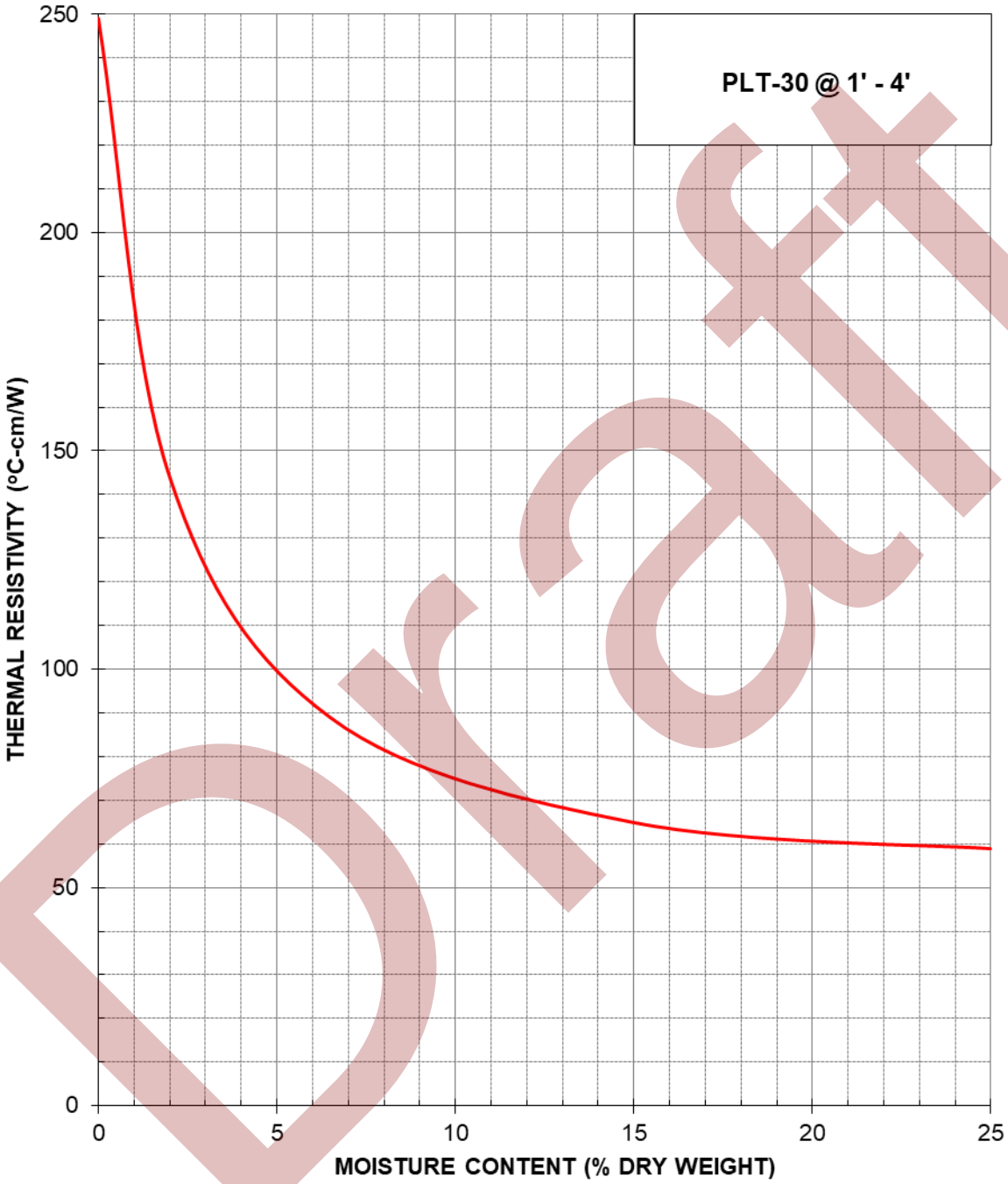
Thermal Resistivity Report

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Figure 6

Geotherm

THERMAL DRYOUT CURVE



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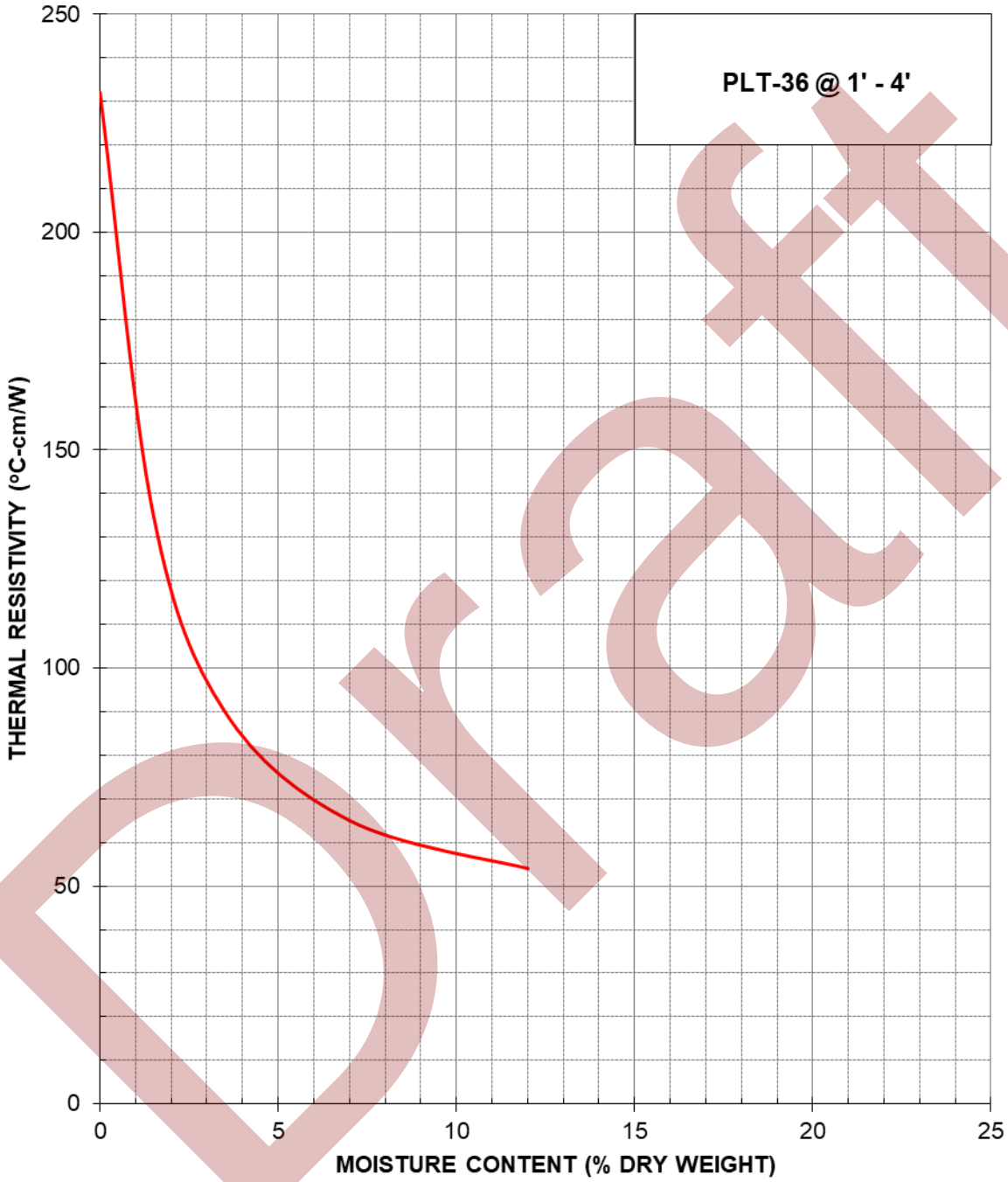
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Figure 7

Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

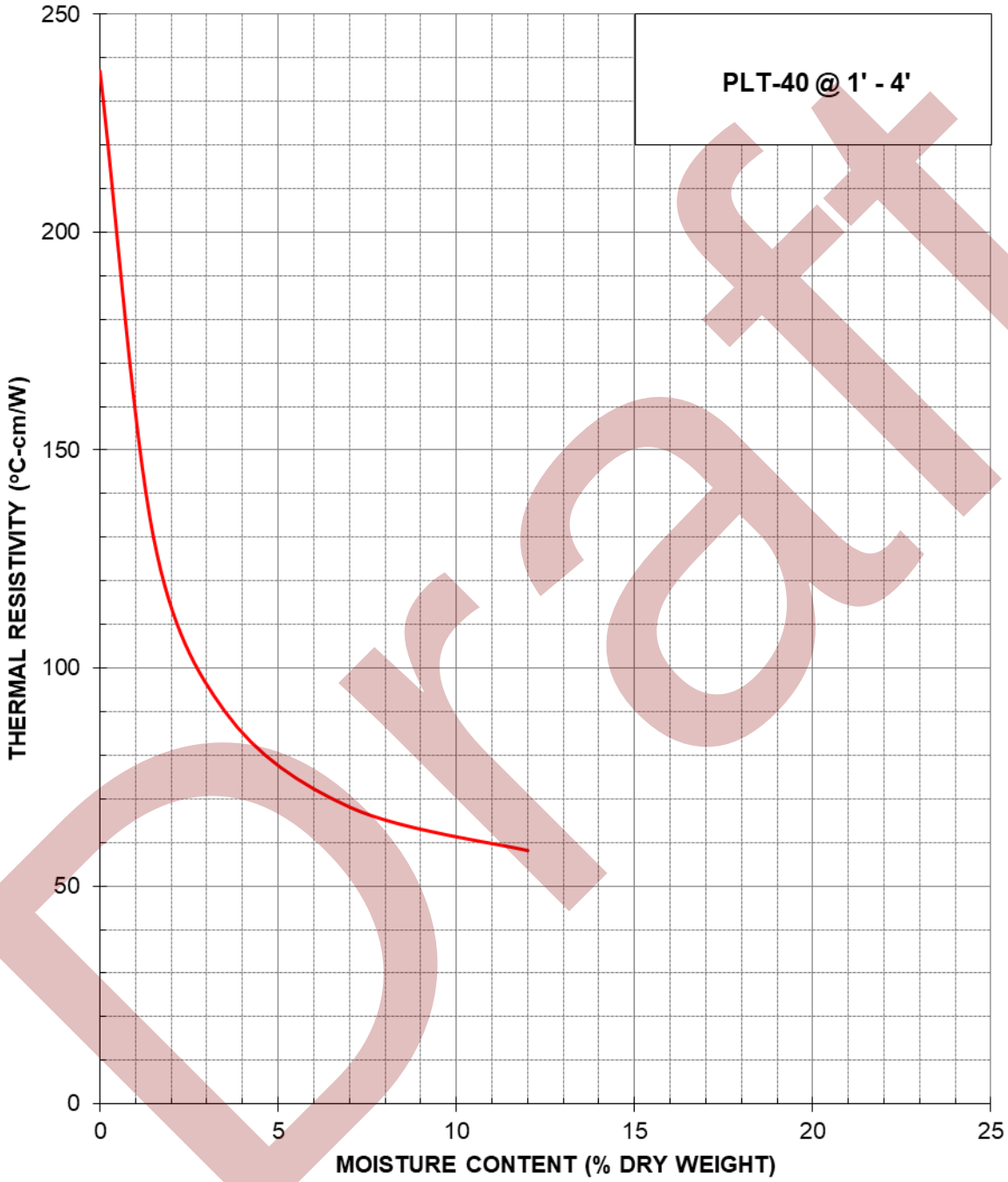
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Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

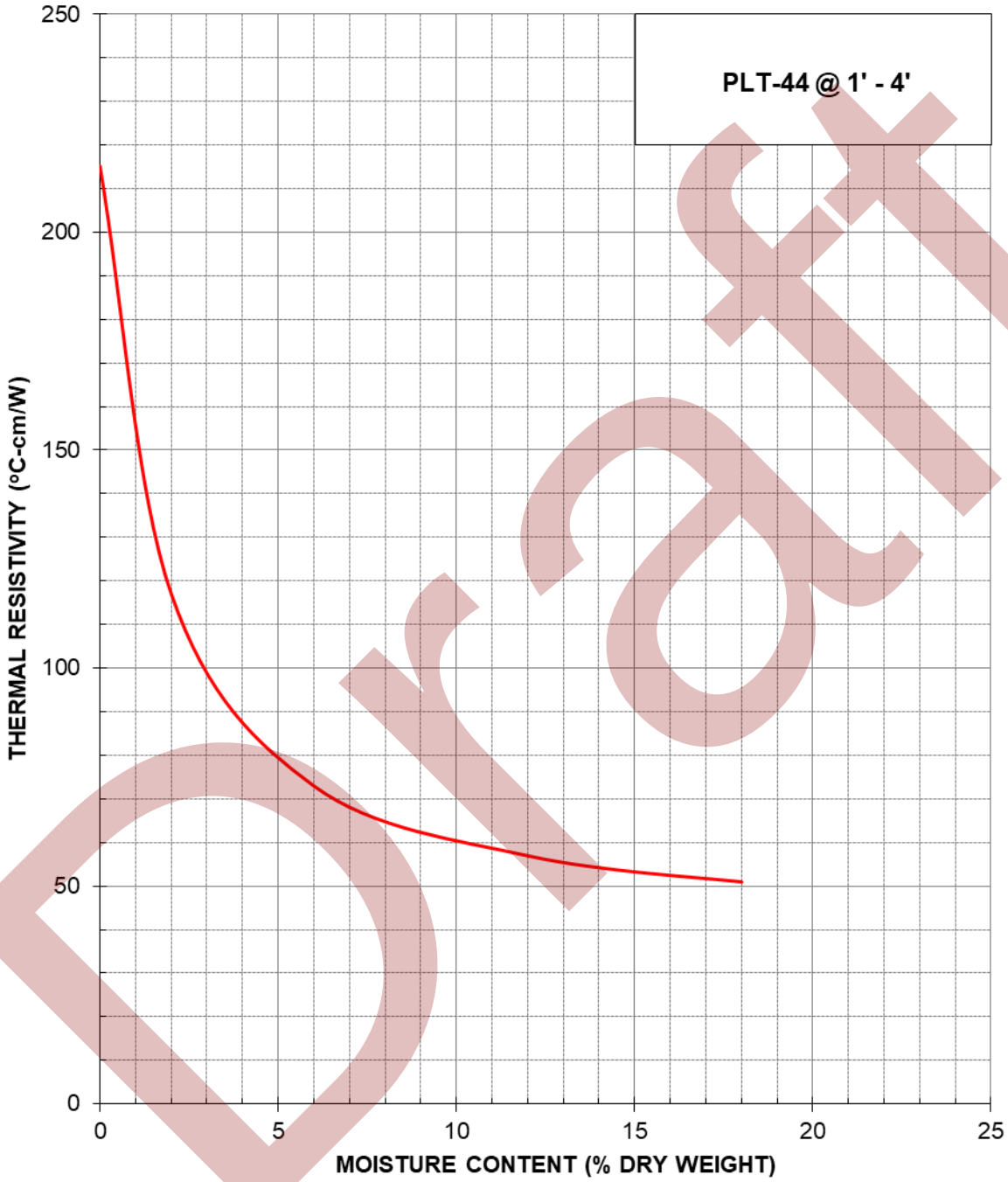
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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Rouget Road Solar – Adrian, MI

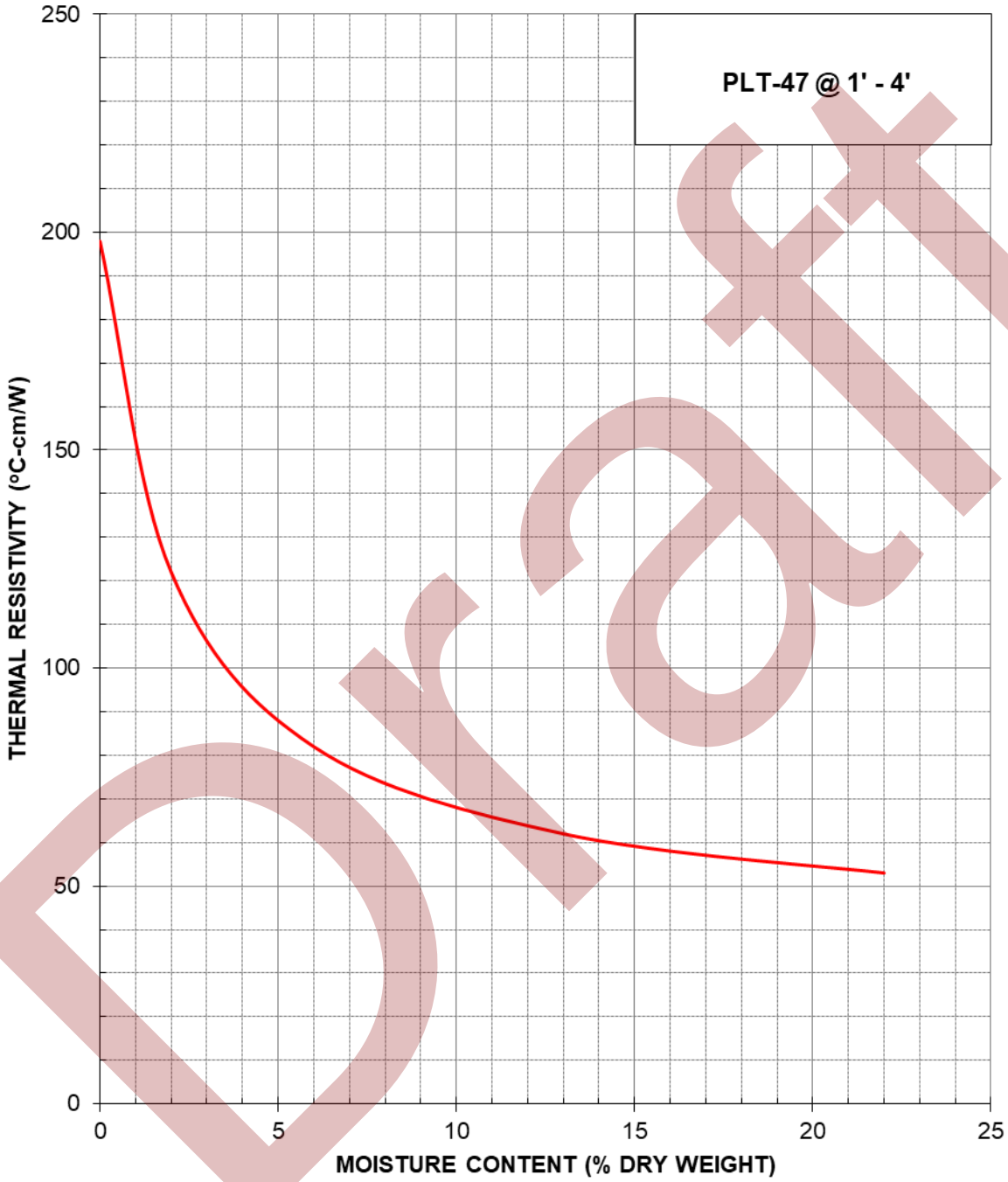
Thermal Resistivity Report

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Figure 10

Geotherm

THERMAL DRYOUT CURVE



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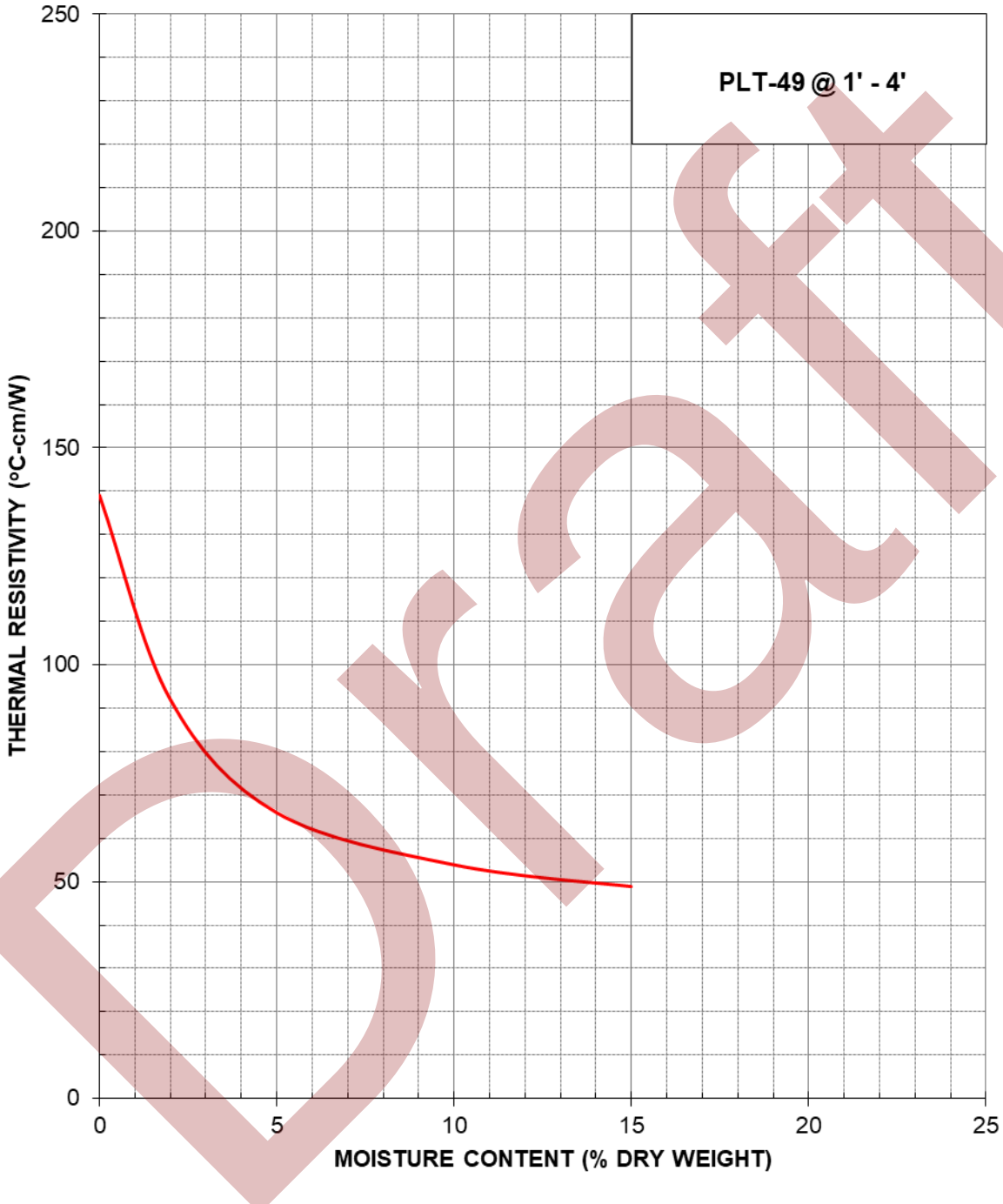
Rouget Road Solar – Adrian, MI

Thermal Resistivity Report

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Geotherm

THERMAL DRYOUT CURVE



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Terracon (Project No. CK245217)

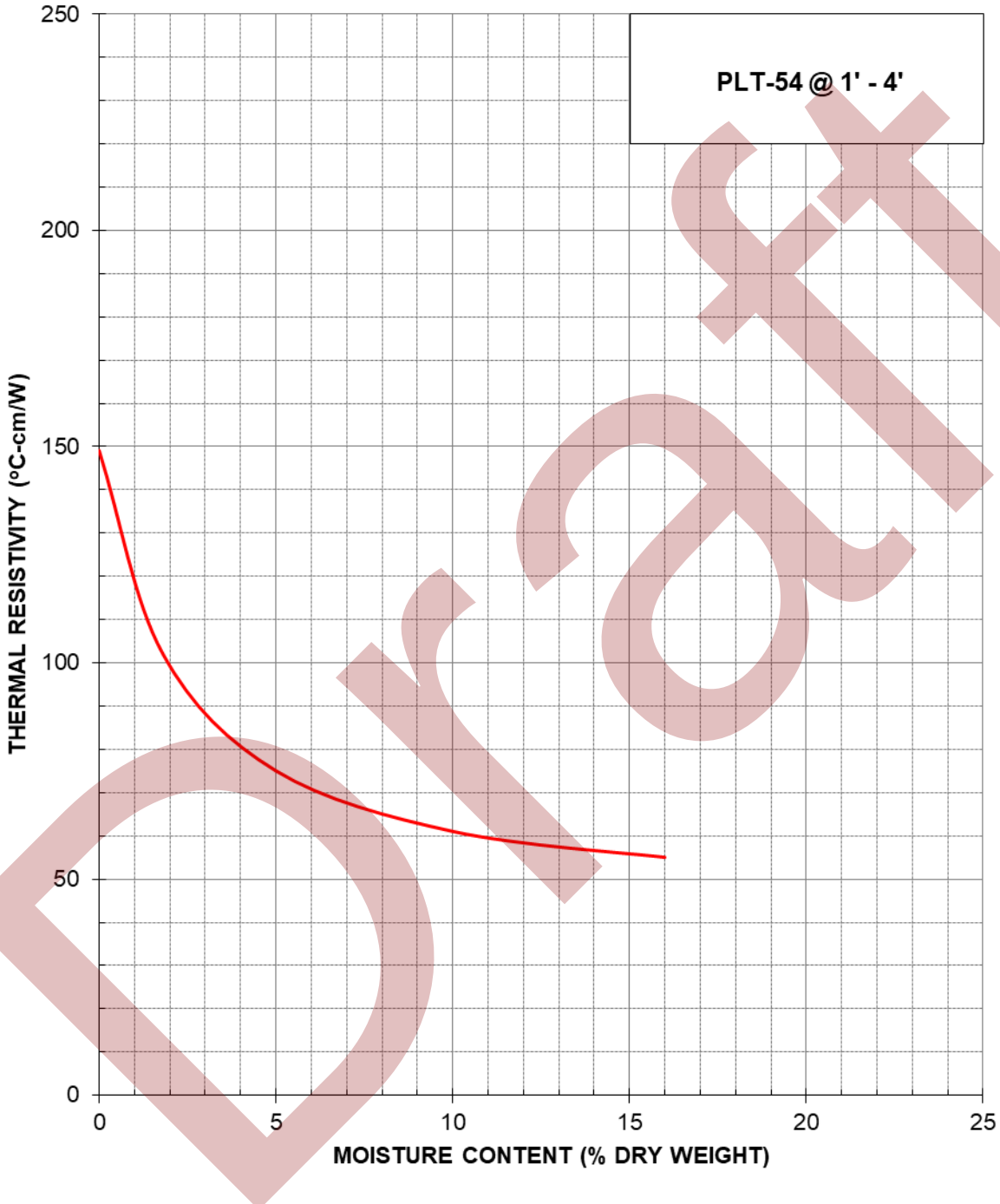
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Thermal Resistivity Report

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THERMAL DRYOUT CURVE



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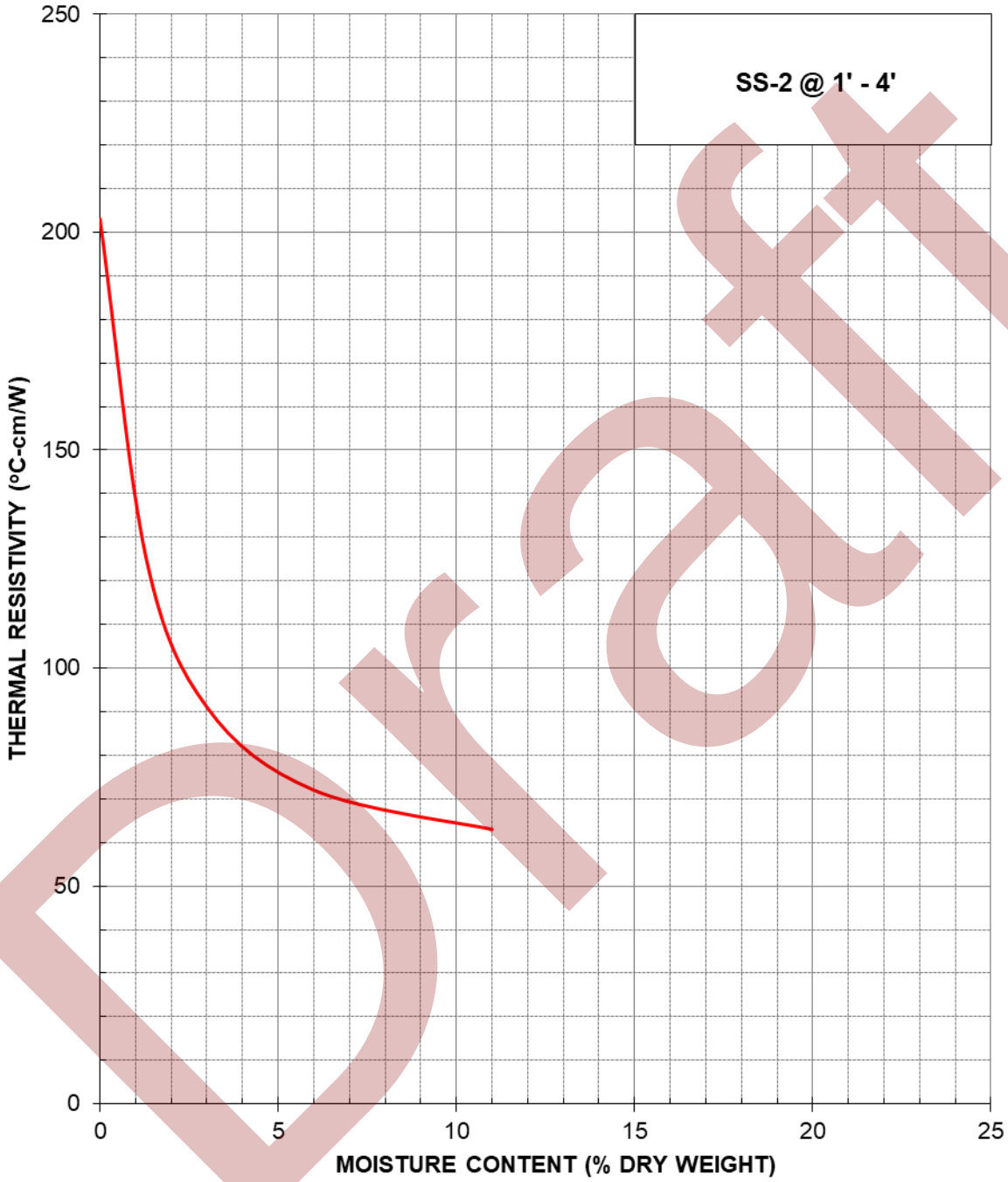
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Figure 13

Geotherm

THERMAL DRYOUT CURVE



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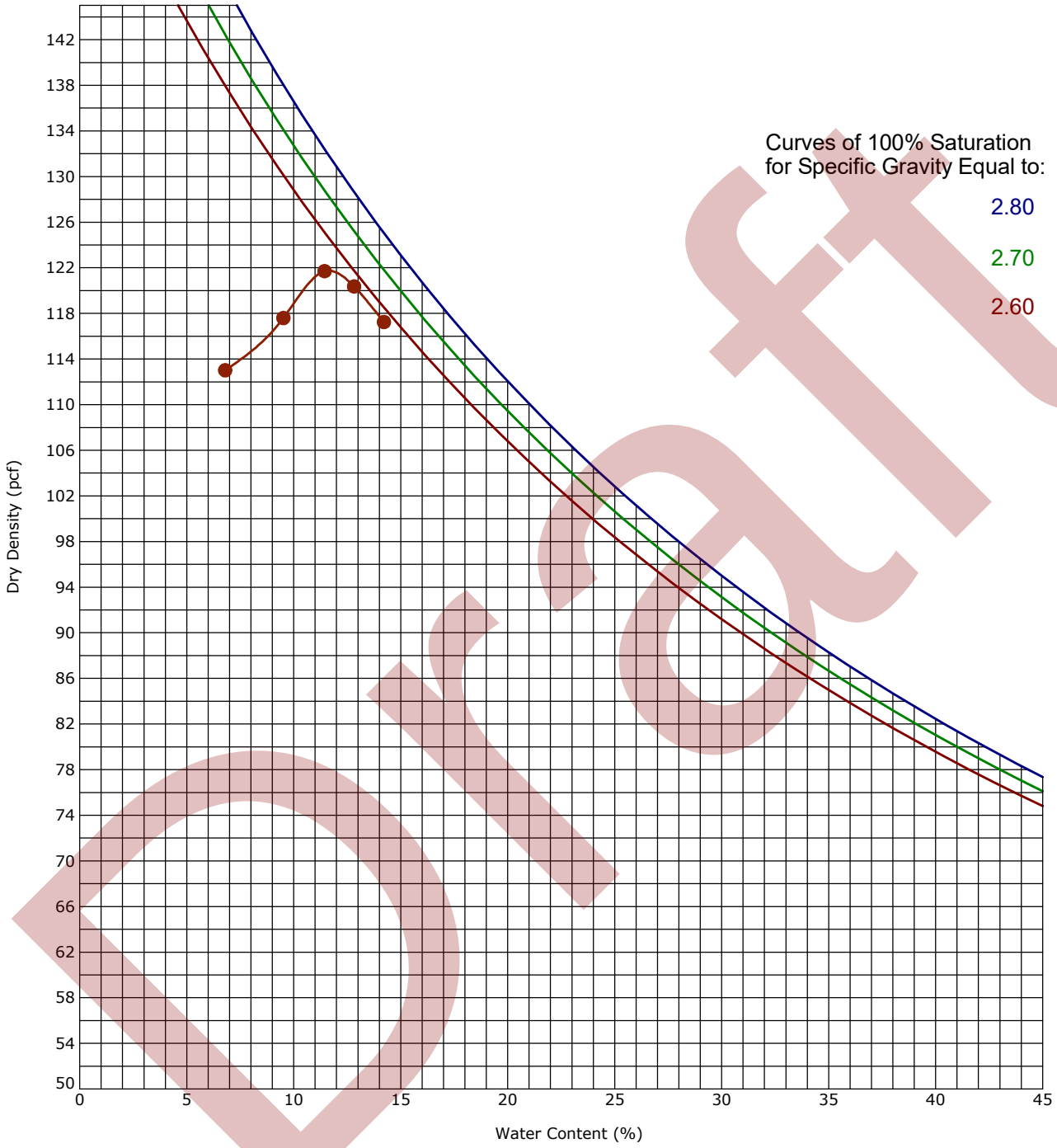
June 2025

Figure 14

Terracon
2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



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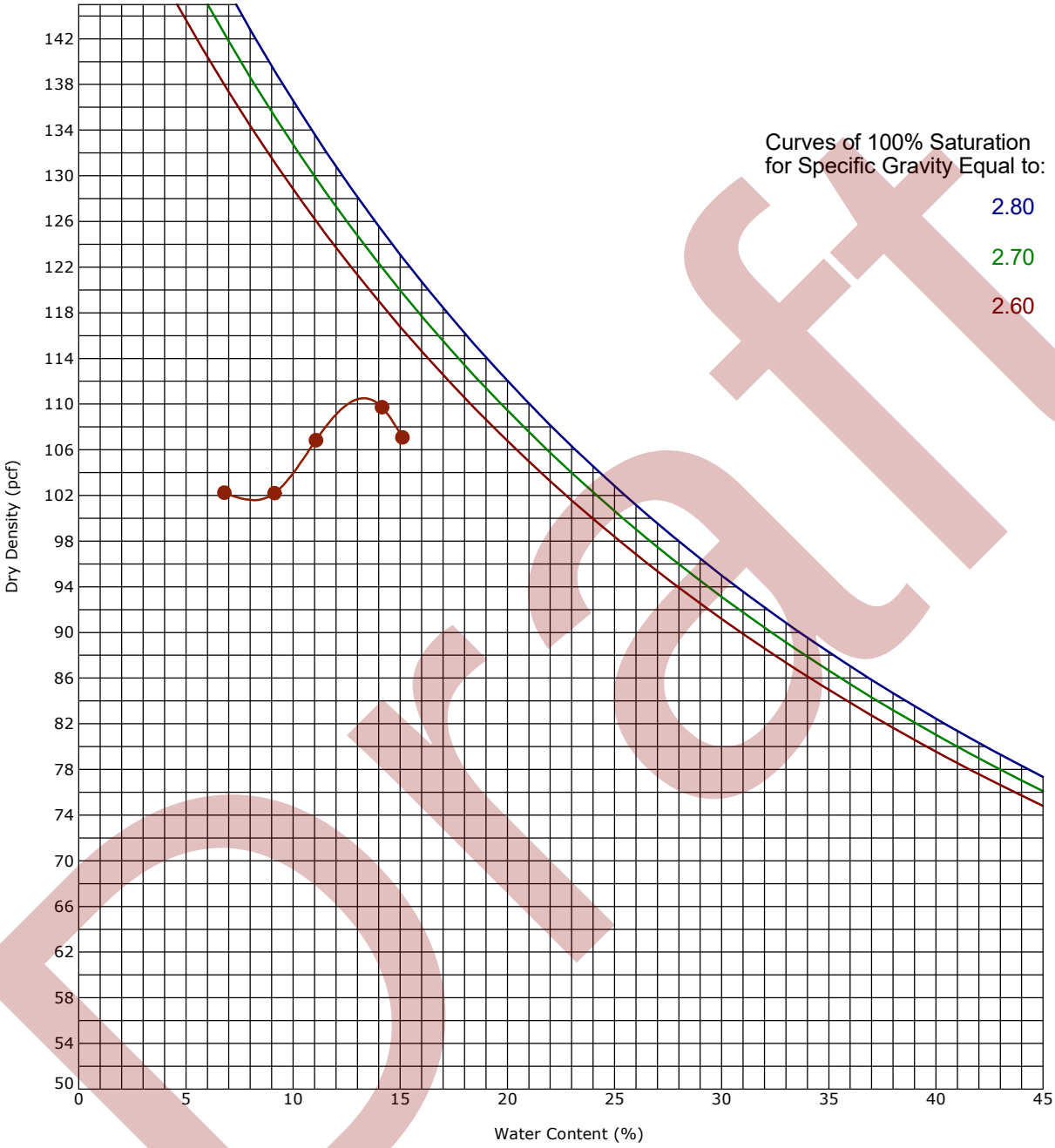
Boring ID	Depth (Ft)	Description of Materials
B-1	1 - 4	SANDY LEAN CLAY

Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	121.5	11.5

2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-6	1 - 4	SANDY LEAN CLAY WITH GRAVEL

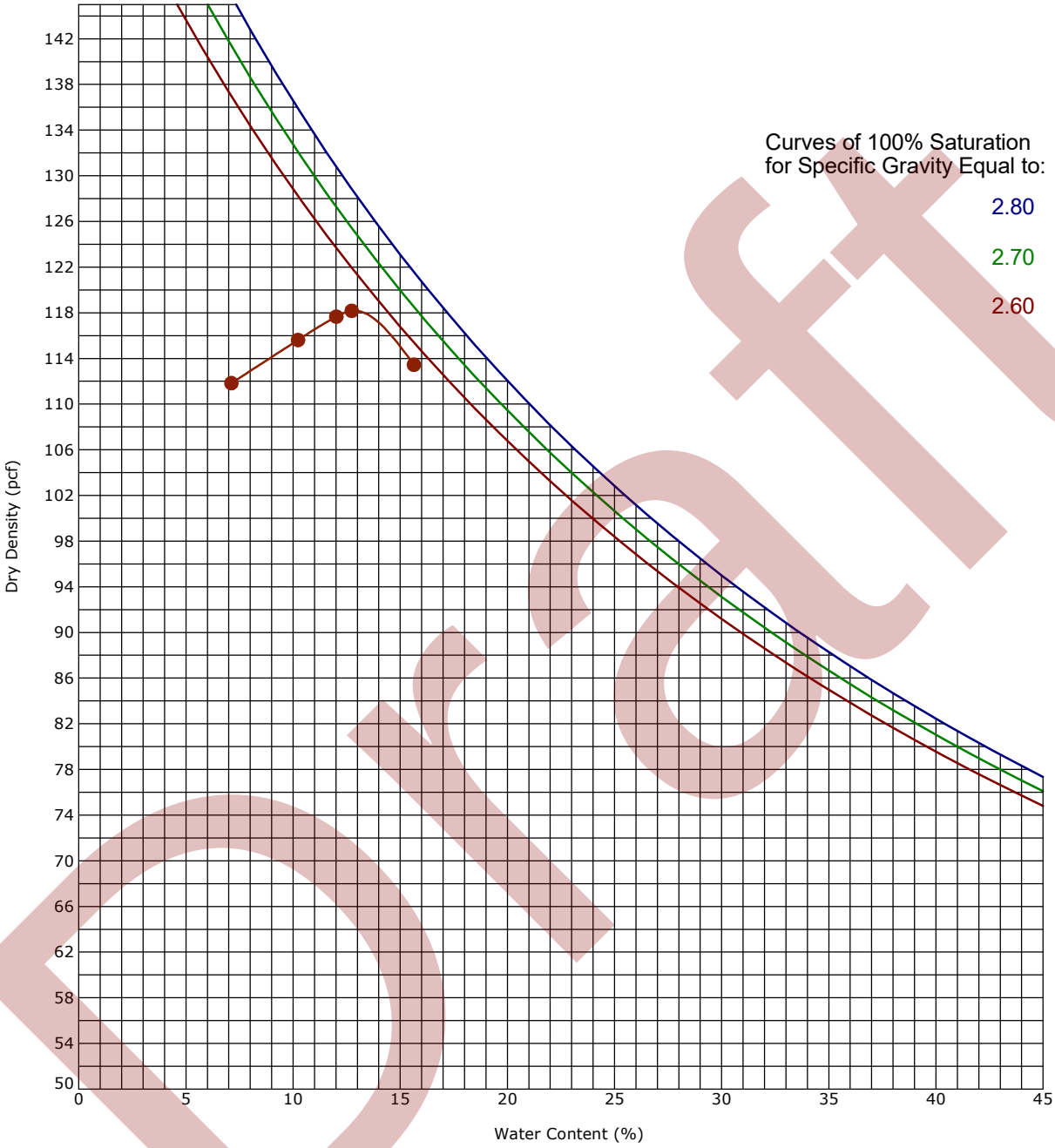
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	110.5	13.5

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Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-11	1 - 4	SANDY LEAN CLAY

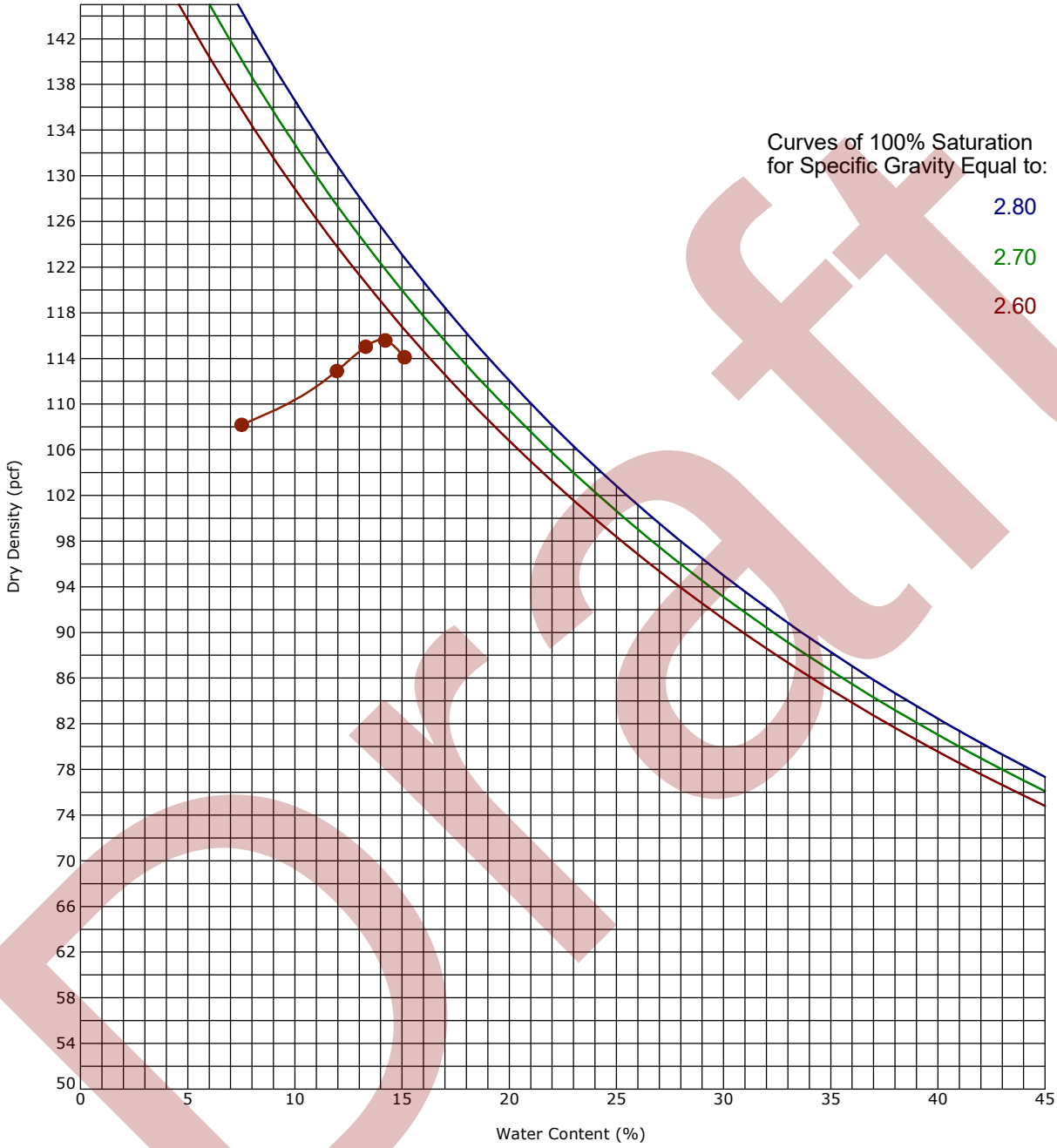
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	118.0	13.0

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Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
CPT-14	1 - 4	SANDY LEAN CLAY

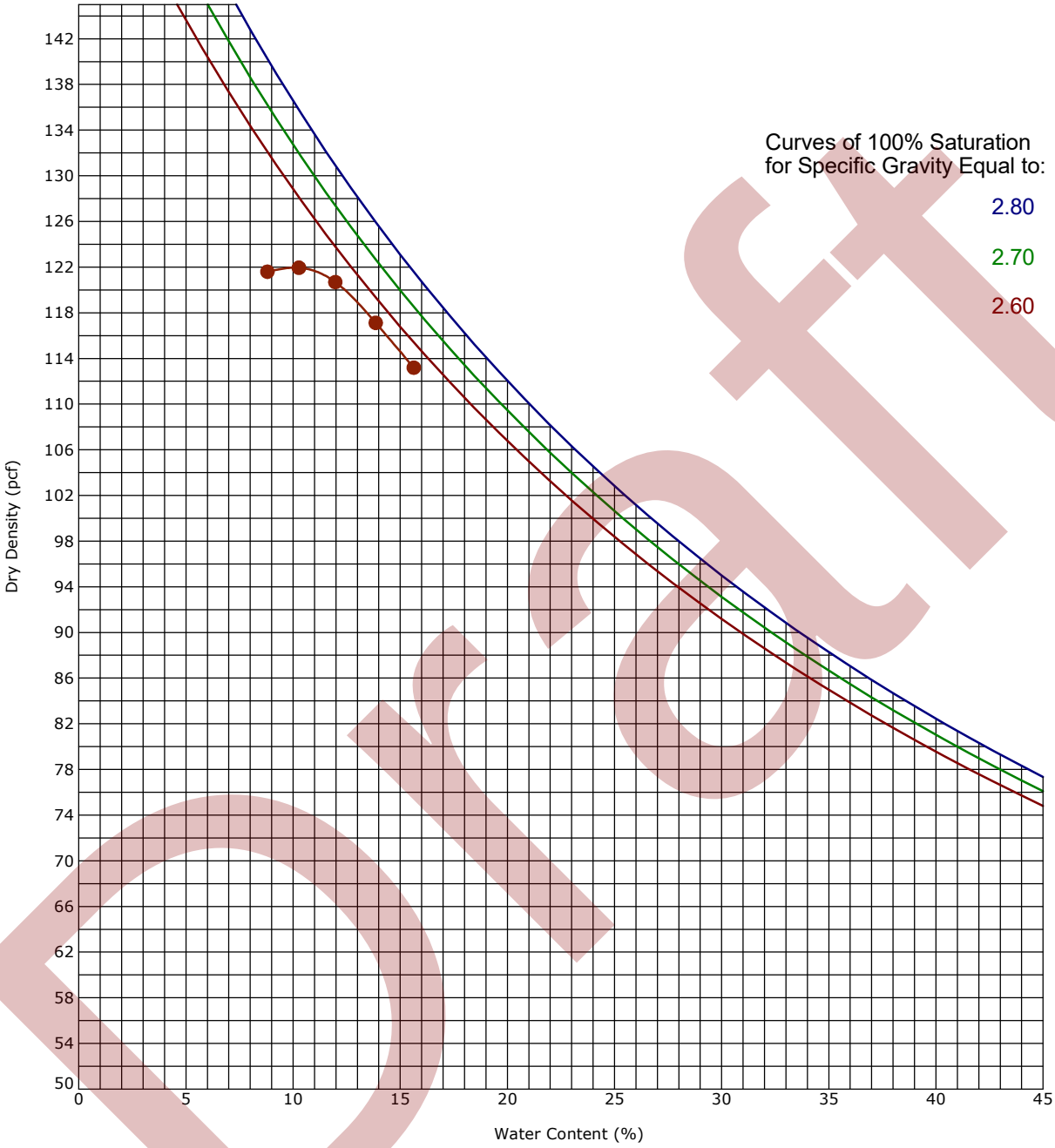
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	115.5	14.0

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2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
CPT-19	1 - 4	SILTY SAND

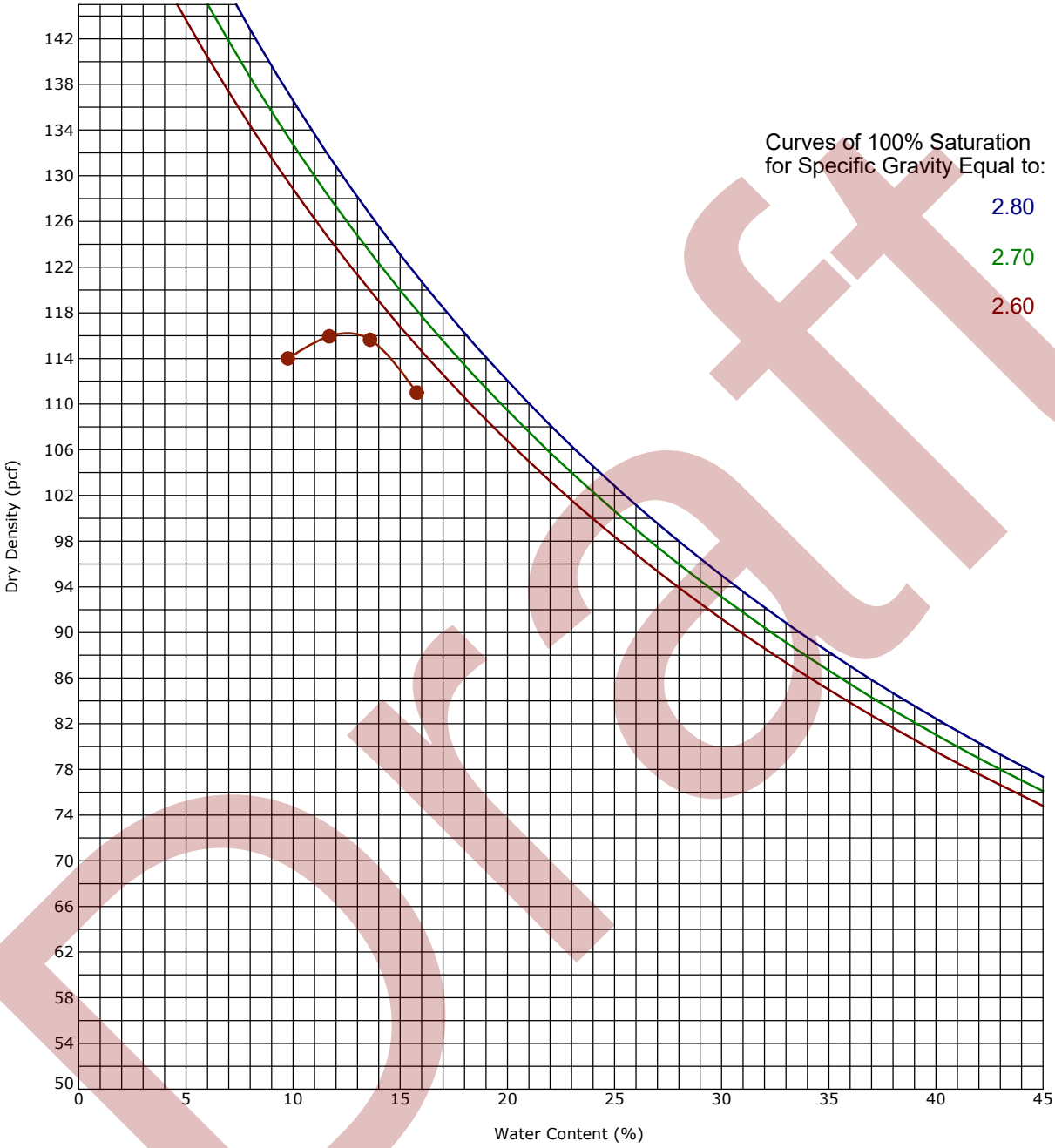
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	122.0	10.0

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2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
CPT-29	1 - 4	SILTY SAND

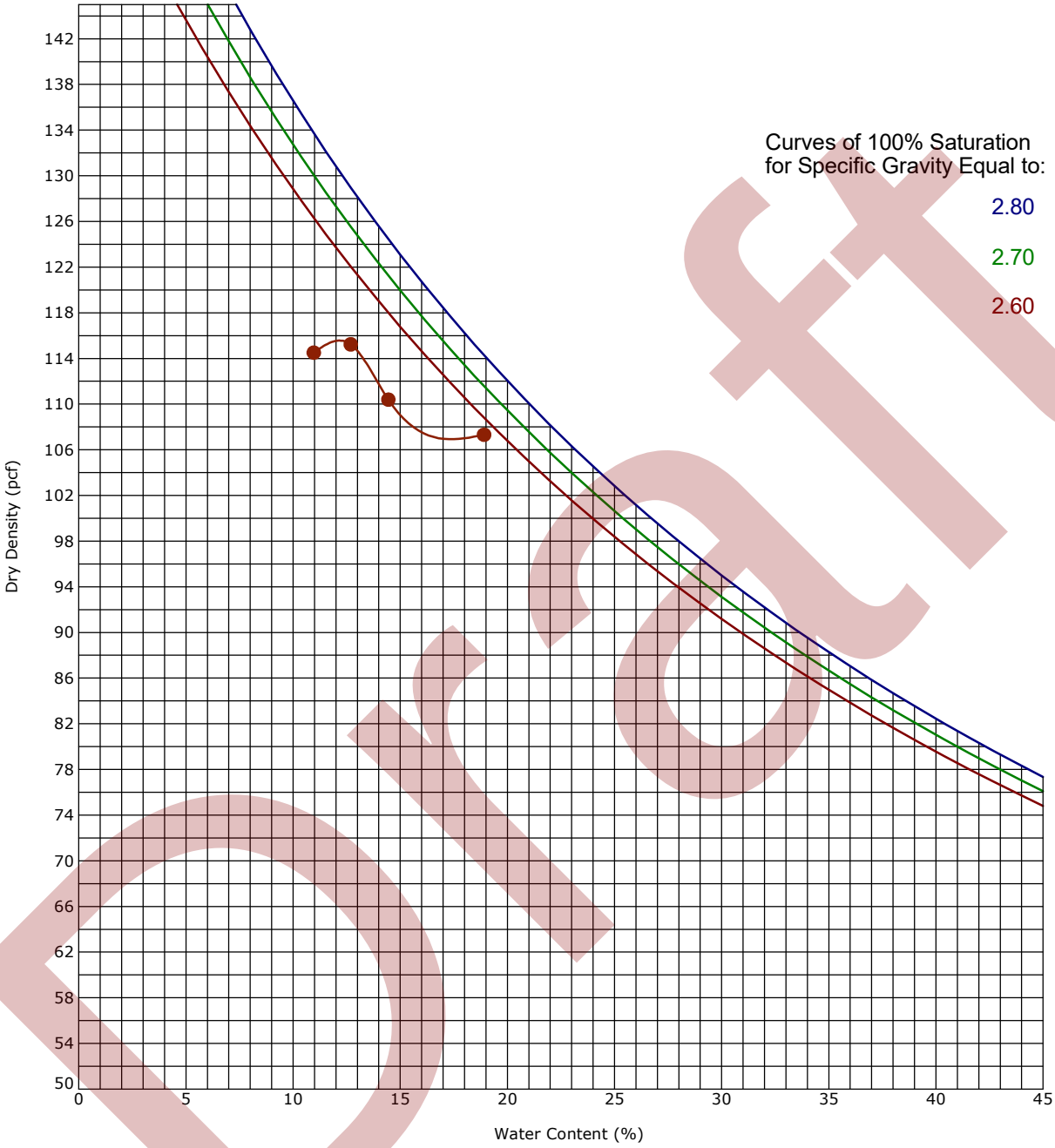
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	116.0	12.5

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2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-30	1 - 4	CLAYEY SAND WITH GRAVEL

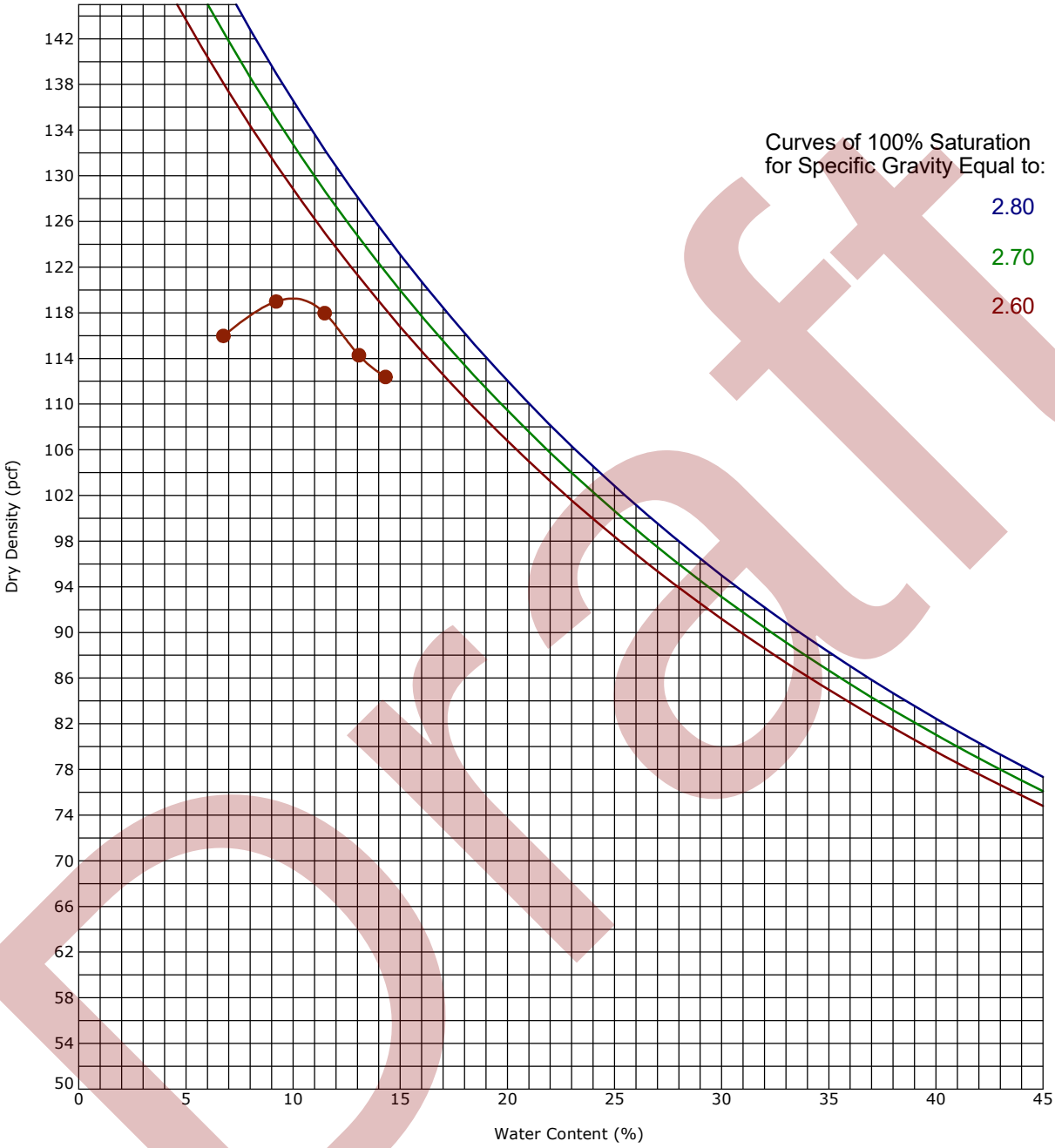
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	115.5	12.0

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2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-36	1 - 4	SANDY LEAN CLAY

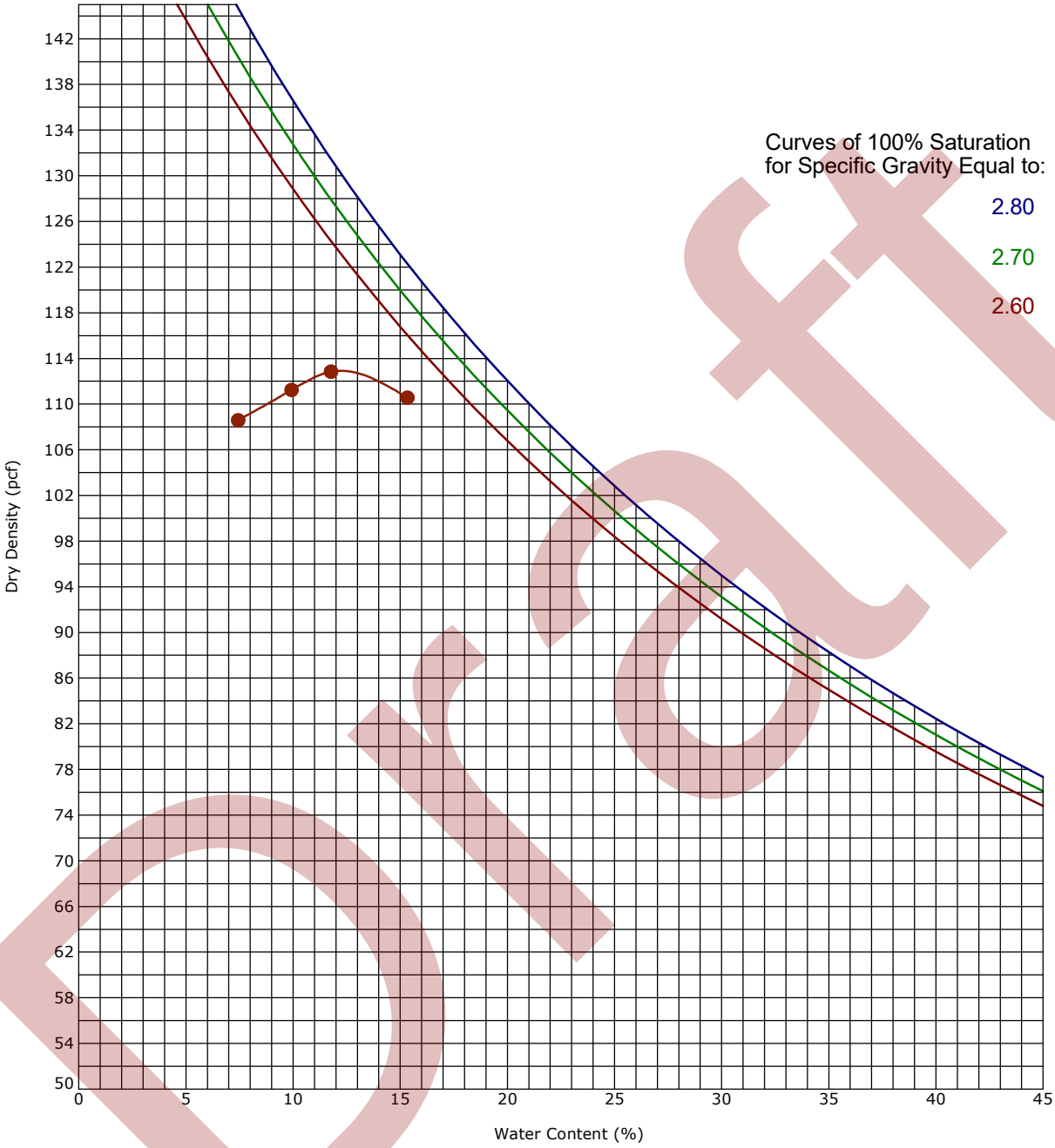
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	119.0	10.0

Draft

2204 Yankee St
Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-40	1 - 4	POORLY GRADED SAND WITH CLAY

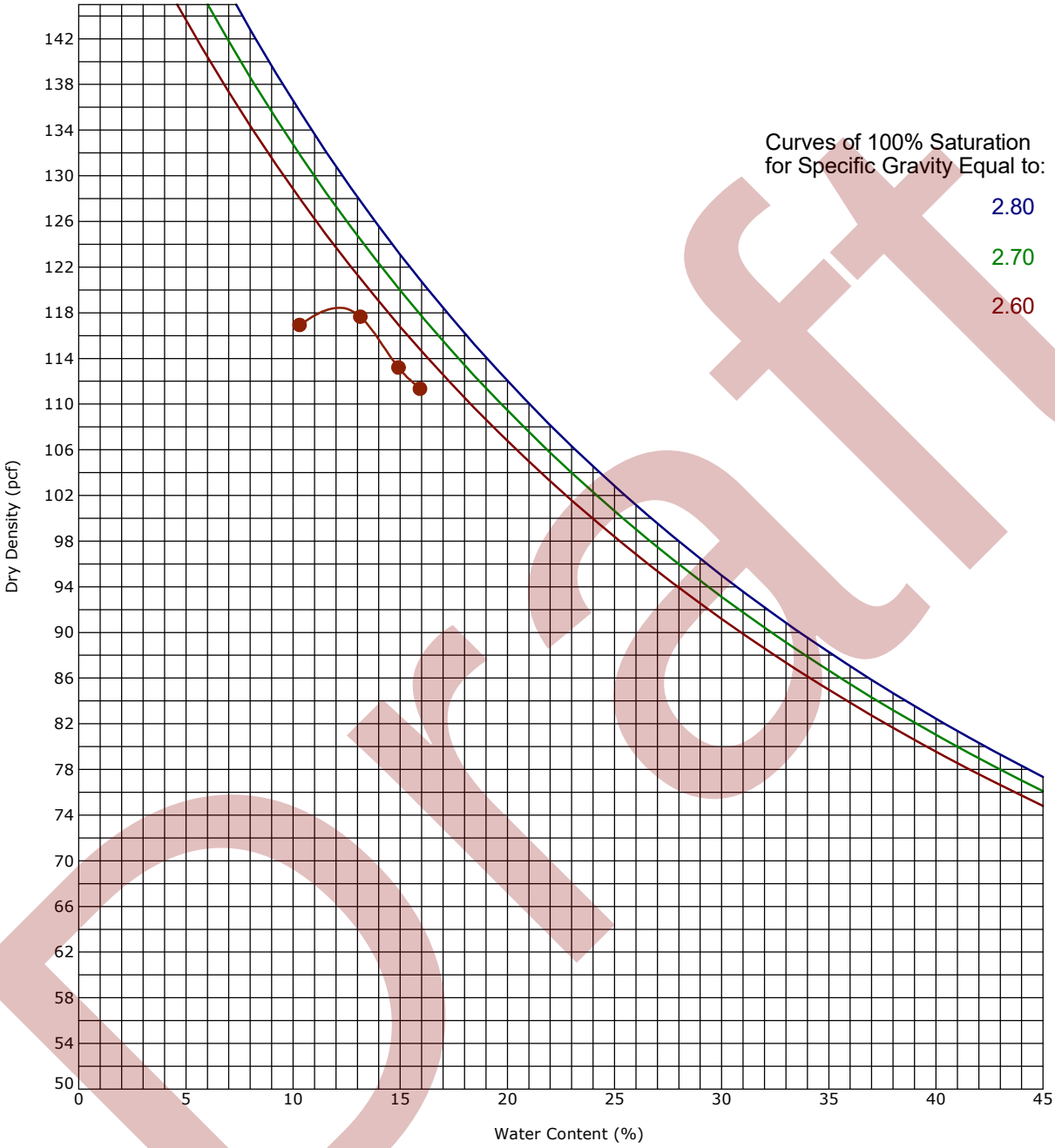
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	113.0	12.0

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Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-44	1 - 4	SANDY LEAN CLAY

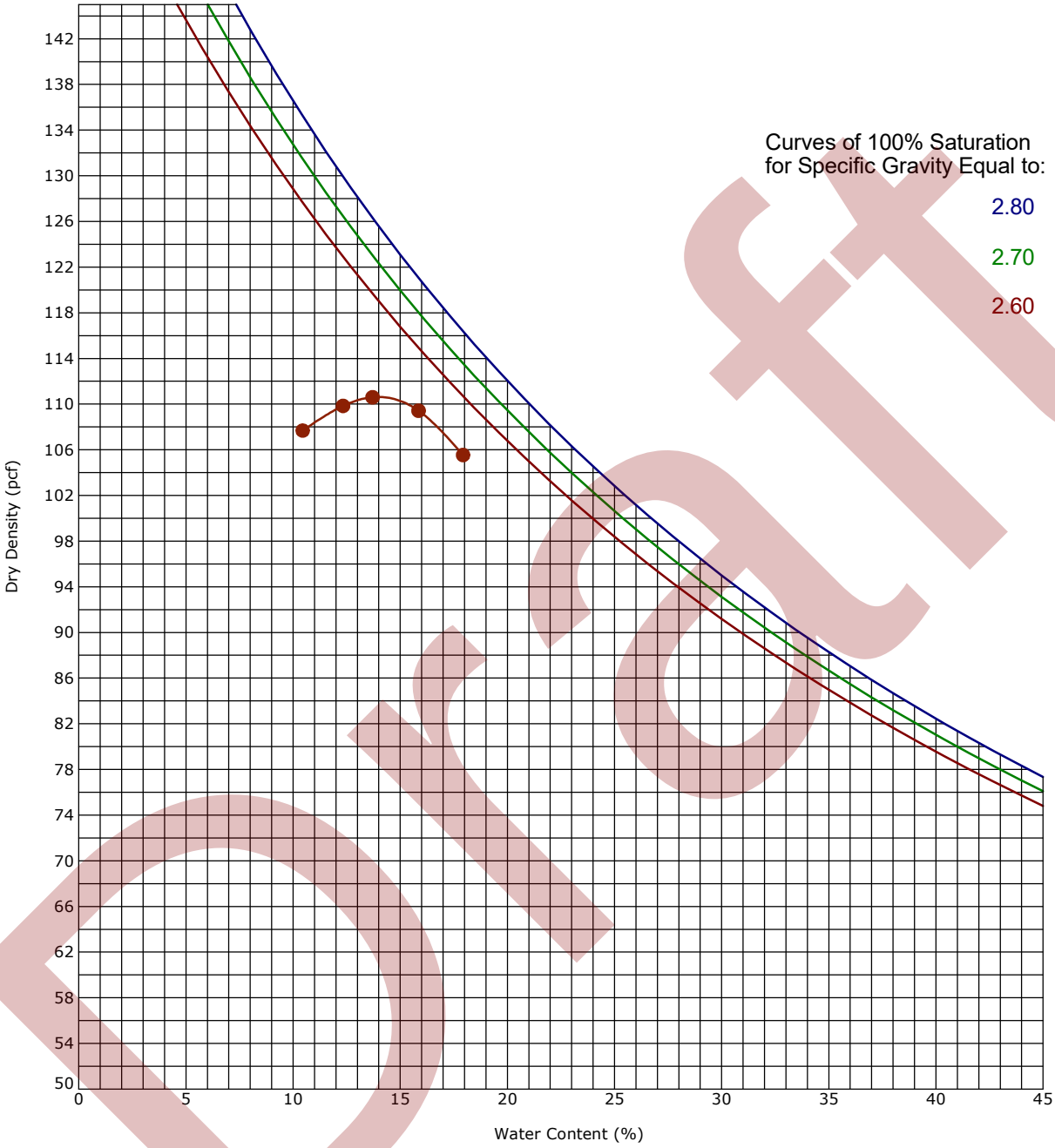
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	118.5	12.0

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Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-47	1 - 4	SANDY LEAN CLAY

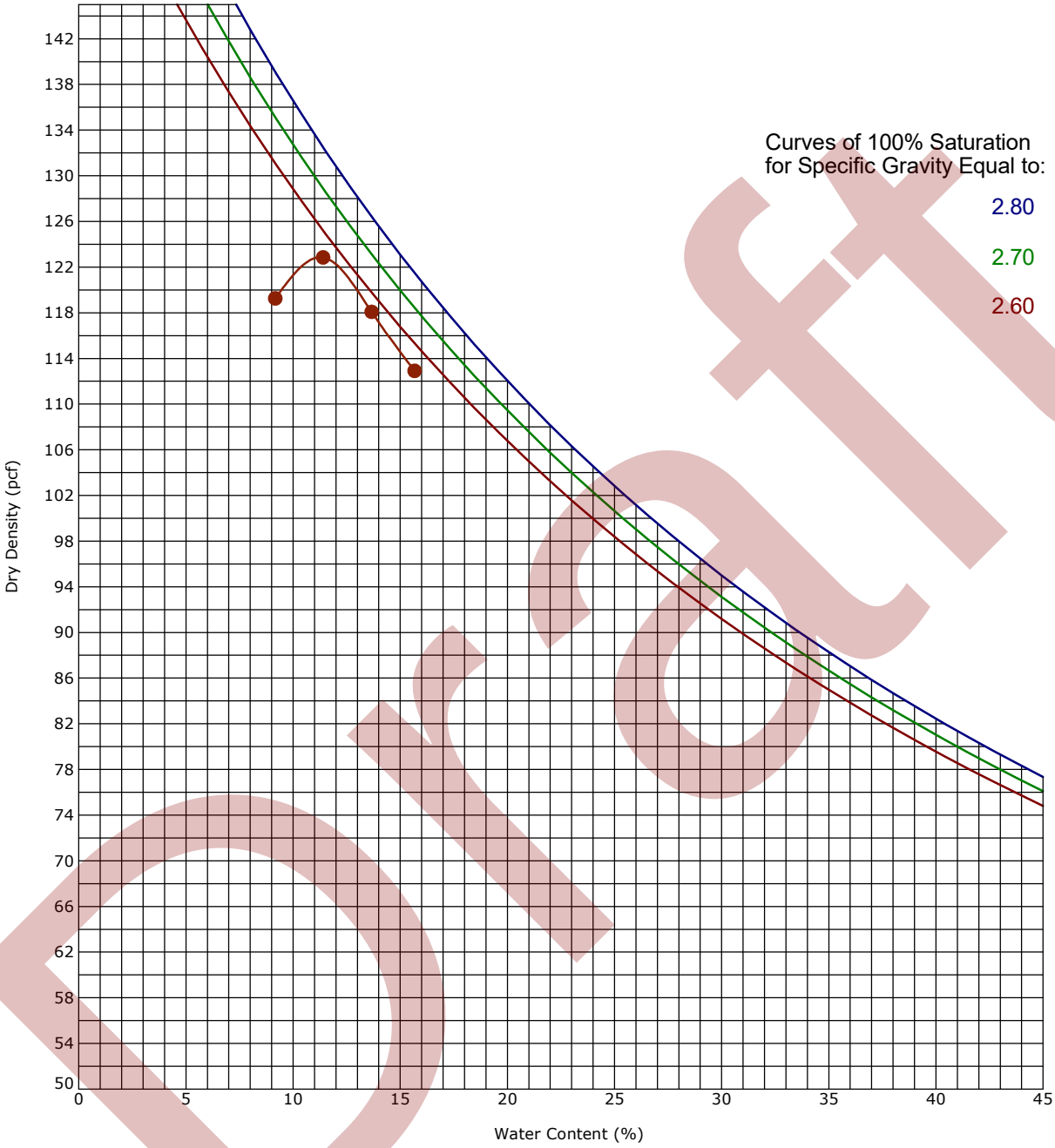
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	110.5	14.0

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Niles, MI

Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
B-49	1 - 4	SILTY SAND

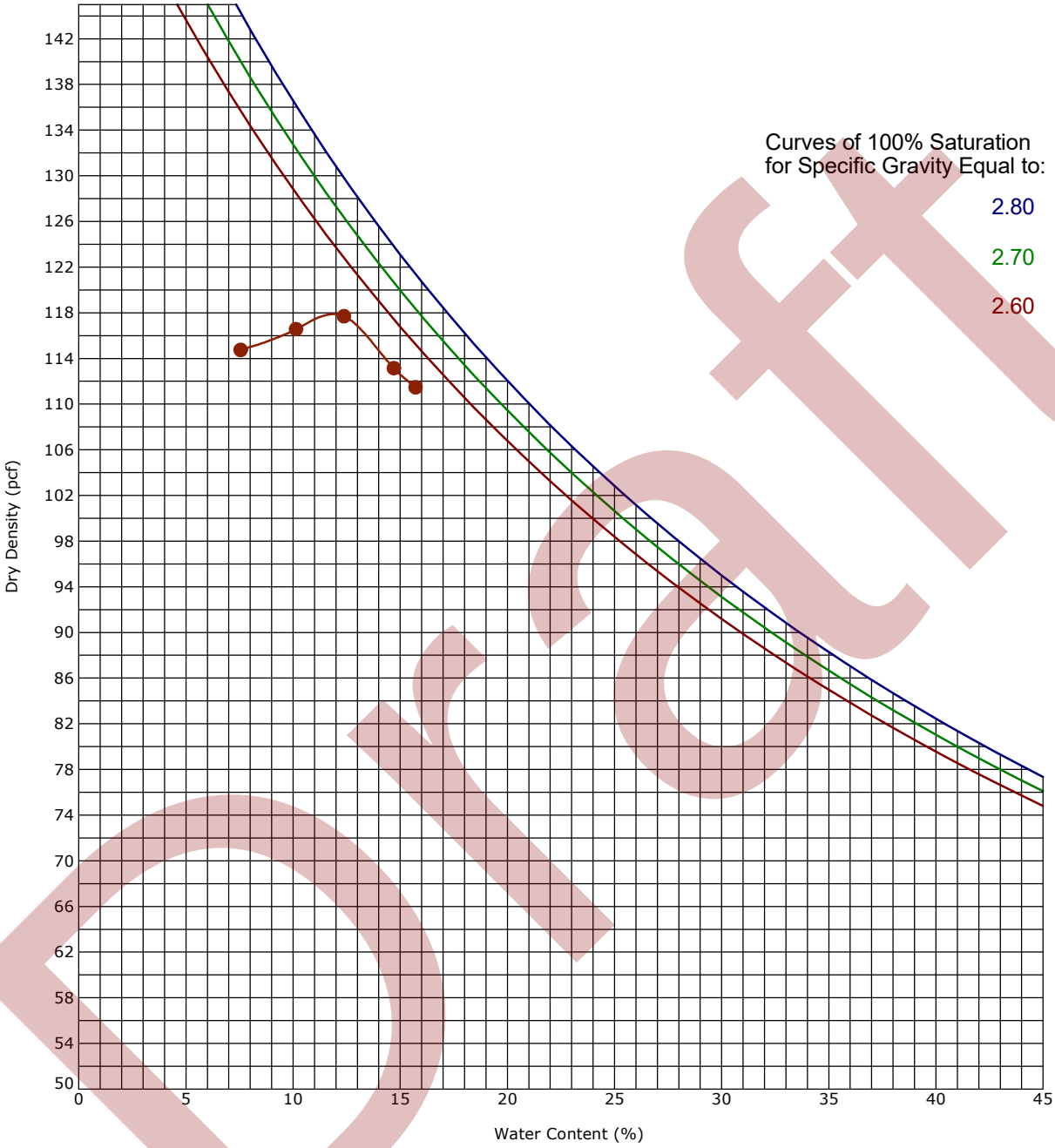
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	123.0	11.5

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Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
CPT-54	1 - 4	SANDY LEAN CLAY

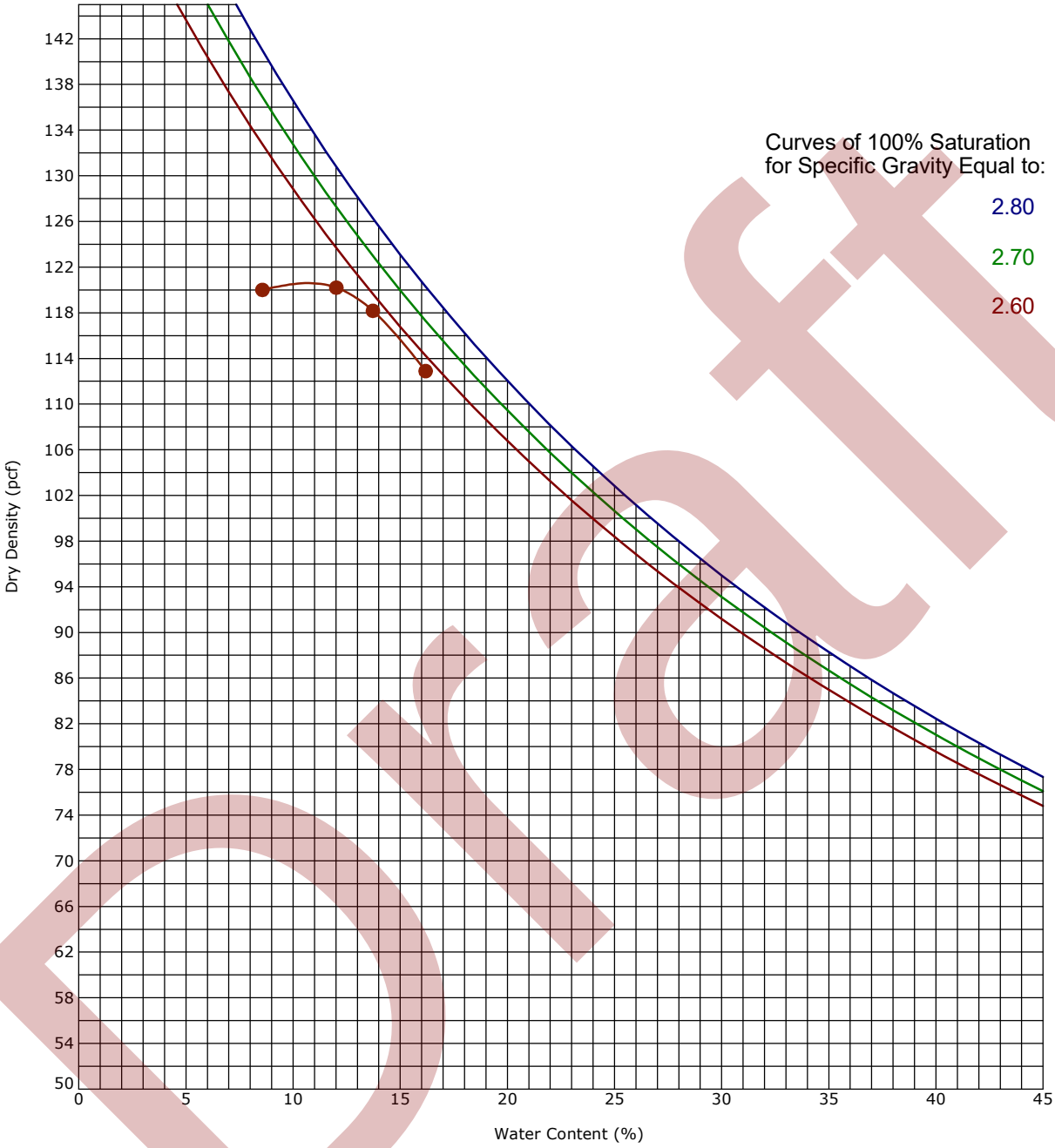
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	118.0	12.0

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Moisture-Density Relationship

ASTM D698-Method A



Boring ID	Depth (Ft)	Description of Materials
SS-2	1 - 4	CLAYEY SAND

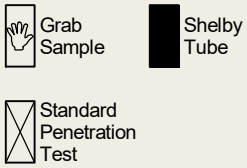
Fines (%)	Fraction > mm size	LL	PL	PI	Test Method	Maximum Dry Density (pcf)	Optimum Water Content (%)
	0.0				ASTM D698-Method A	120.5	10.5

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Terracon
2204 Yankee St
Niles, MI

General Notes

Sampling



Water Level



Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

Field Tests

N	Standard Penetration Test Resistance (Blows/Ft.)
(HP)	Hand Penetrometer
(T)	Torvane
(DCP)	Dynamic Cone Penetrometer
UC	Unconfined Compressive Strength
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

Descriptive Soil Classification

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

Location And Elevation Notes

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

Strength Terms

Relative Density of Coarse-Grained Soils
(More than 50% retained on No. 200 sieve.)
Density determined by Standard Penetration Resistance

Relative Density	Standard Penetration or N-Value (Blows/Ft.)
Very Loose	0 - 3
Loose	4 - 9
Medium Dense	10 - 29
Dense	30 - 50
Very Dense	> 50

Consistency of Fine-Grained Soils
(50% or more passing the No. 200 sieve.)
Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance

Consistency	Unconfined Compressive Strength Qu (tsf)	Standard Penetration or N-Value (Blows/Ft.)
Very Soft	less than 0.25	0 - 1
Soft	0.25 to 0.50	2 - 4
Medium Stiff	0.50 to 1.00	5 - 8
Stiff	1.00 to 2.00	9 - 15
Very Stiff	2.00 to 4.00	16 - 30
Hard	> 4.00	> 30

Relevance of Exploration and Laboratory Test Results

Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

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CPT GENERAL NOTES

DESCRIPTION OF MEASUREMENTS AND CALIBRATIONS

To be reported per ASTM D5778:

Uncorrected Tip Resistance, q_c
Measured force acting on the cone divided by the cone's projected area

Corrected Tip Resistance, q_t
Cone resistance corrected for porewater and net area ratio effects
$q_t = q_c + u_2(1 - a)$
Where a is the net area ratio, a lab calibration of the cone typically between 0.70 and 0.85

Pore Pressure, u
Pore pressure measured during penetration
u_1 - sensor on the face of the cone
u_2 - sensor on the shoulder (more common)

Sleeve Friction, f_s
Frictional force acting on the sleeve divided by its surface area

Normalized Friction Ratio, F_r
The ratio as a percentage of f_s to q_t, accounting for overburden pressure

To be reported per ASTM D7400, if collected:

Shear Wave Velocity, V_s
Measured in a Seismic CPT and provides direct measure of soil stiffness

DESCRIPTION OF GEOTECHNICAL CORRELATIONS

Normalized Tip Resistance, Q_{tn}
$Q_{tn} = ((q_t - \sigma_{v0})/P_a)(P_a/\sigma'_{v0})^n$
$n = 0.381(I_c) + 0.05(\sigma'_{v0}/P_a) - 0.15$

Over Consolidation Ratio, OCR
$OCR\ (1) = 0.25(Q_{tn})^{1.25}$
$OCR\ (2) = 0.33(Q_{tn})$

Undrained Shear Strength, S_u
$S_u = Q_{tn} \times \sigma'_{v0}/N_{kt}$
N_{kt} is a soil-specific factor (shown on S_u plot)

Sensitivity, S_t
$S_t = (q_t - \sigma_{v0}/N_{kt}) \times (1/f_s)$

Effective Friction Angle, ϕ'
$\phi'\ (1) = \tan^{-1}(0.373[\log(q_t/\sigma'_{v0}) + 0.29])$
$\phi'\ (2) = 17.6 + 11[\log(Q_{tn})]$

Unit Weight, γ
$\gamma = (0.27[\log(F_r)]+0.36[\log(q_t/atm)]+1.236) \times \gamma_{water}$
σ_{v0} is taken as the incremental sum of the unit weights

Small Strain Shear Modulus, G_0
$G_0\ (1) = \rho V_s^2$
$G_0\ (2) = 0.015 \times 10^{(0.55Ic + 1.68)}(q_t - \sigma_{v0})$

Soil Behavior Type Index, I_c
$I_c = [(3.47 - \log(Q_{tn}))^2 + (\log(F_r) + 1.22)^2]^{0.5}$

SPT N_{60}
$N_{60} = (q_t/atm) / 10^{(1.1268 - 0.2817Ic)}$

Elastic Modulus, E_s (assumes $q/q_{ultimate} \sim 0.3$, i.e. FS = 3)
$E_s\ (1) = 2.6\psi G_0$ where $\psi = 0.56 - 0.33\log Q_{tn,clean\ sand}$
$E_s\ (2) = G_0$
$E_s\ (3) = 0.015 \times 10^{(0.55Ic + 1.68)}(q_t - \sigma_{v0})$
$E_s\ (4) = 2.5q_t$

Constrained Modulus, M
$M = \alpha_M(q_t - \sigma_{v0})$
For $I_c > 2.2$ (fine-grained soils)
$\alpha_M = Q_{tn}$ with maximum of 14
For $I_c < 2.2$ (coarse-grained soils)
$\alpha_M = 0.0188 \times 10^{(0.55Ic + 1.68)}$

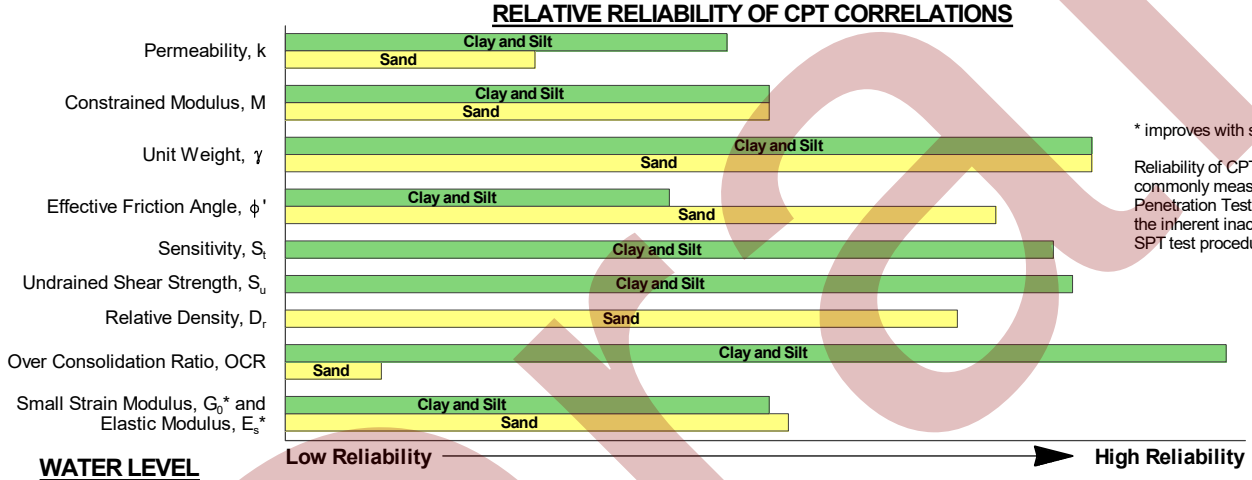
Hydraulic Conductivity, k
For $1.0 < I_c < 3.27$ $k = 10^{(0.952 - 3.04Ic)}$
For $3.27 < I_c < 4.0$ $k = 10^{(-4.52 - 1.37Ic)}$

Relative Density, D_r
$D_r = (Q_{tn} / 350)^{0.5} \times 100$

REPORTED PARAMETERS

CPT logs as provided, at a minimum, report the data as required by ASTM D5778 and ASTM D7400 (if applicable). This minimum data include q_t, f_s, and u. Other correlated parameters may also be provided. These other correlated parameters are interpretations of the measured data based upon published and reliable references, but they do not necessarily represent the actual values that would be derived from direct testing to determine the various parameters. To this end, more than one correlation to a given parameter may be provided. The following chart illustrates estimates of reliability associated with correlated parameters based upon the literature referenced below.

RELATIVE RELIABILITY OF CPT CORRELATIONS



* improves with seismic V_s measurements

Reliability of CPT-predicted N_{60} values as commonly measured by the Standard Penetration Test (SPT) is not provided due to the inherent inaccuracy associated with the SPT test procedure.

WATER LEVEL

The groundwater level at the CPT location is used to normalize the measurements for vertical overburden pressures and as a result influences the normalized soil behavior type classification and correlated soil parameters. The water level may either be "measured" or "estimated:"

Measured - Depth to water directly measured in the field

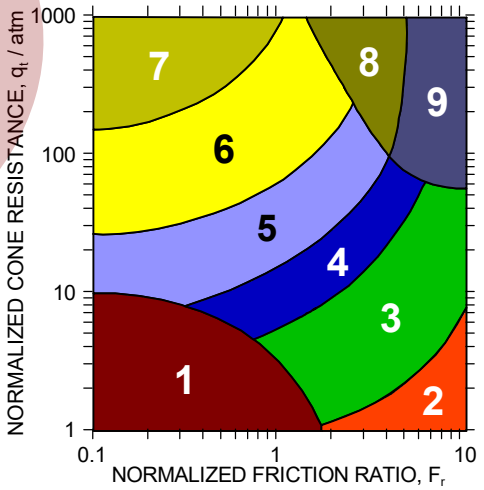
Estimated - Depth to water interpolated by the practitioner using pore pressure measurements in coarse grained soils and known site conditions

While groundwater levels displayed as "measured" more accurately represent site conditions at the time of testing than those "estimated," in either case the groundwater should be further defined prior to construction as groundwater level variations will occur over time.

CONE PENETRATION SOIL BEHAVIOR TYPE

The estimated stratigraphic profiles included in the CPT logs are based on relationships between corrected tip resistance (q_t), friction resistance (f_s), and porewater pressure (u_2). The normalized friction ratio (F_r) is used to classify the soil behavior type.

Typically, silts and clays have high F_r values and generate large excess penetration porewater pressures; sands have lower F_r's and do not generate excess penetration porewater pressures. The adjacent graph (Robertson *et al.*) presents the soil behavior type correlation used for the logs. This normalized SBT chart, generally considered the most reliable, does not use pore pressure to determine SBT due to its lack of repeatability in onshore CPTs.



1 Sensitive, fine grained
2 Organic soils - clay
3 Clay - silty clay to clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to dense sand
8 Very stiff sand to clayey sand
9 Very stiff fine grained

atm = atmospheric pressure = 101 kPa = 1.05 tsf

REFERENCES

Kulhawy, F.H., Mayne, P.W., (1997). "Manual on Estimating Soil Properties for Foundation Design," Electric Power Research Institute, Palo Alto, CA.

Mayne, P.W., (2013). "Geotechnical Site Exploration in the Year 2013," Georgia Institue of Technology, Atlanta, GA.

Robertson, P.K., Cabal, K.L. (2012). "Guide to Cone Penetration Testing for Geotechnical Engineering," Signal Hill, CA.

Schmertmann, J.H., (1970). "Static Cone to Compute Static Settlement over Sand," *Journal of the Soil Mechanics and Foundations Division*, 96(SM3), 1011-1043.

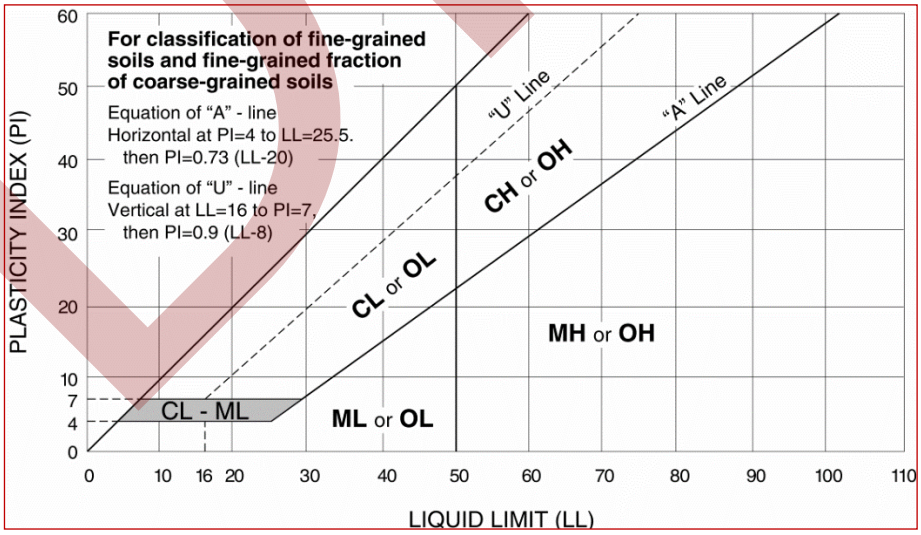
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Terracon

Unified Soil Classification System

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Soil Classification	
				Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu≥4 and 1≤Cc≤3 [E]	GW	Well-graded gravel [F]
			Cu<4 and/or [Cc<1 or Cc>3.0] [E]	GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F, G, H]
			Fines classify as CL or CH	GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu≥6 and 1≤Cc≤3 [E]	SW	Well-graded sand [I]
			Cu<6 and/or [Cc<1 or Cc>3.0] [E]	SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH	SM	Silty sand [G, H, I]
			Fines classify as CL or CH	SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots above "A" line [J]	CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]	ML	Silt [K, L, M]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OL	Organic clay [K, L, M, N]
					Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line	CH	Fat clay [K, L, M]
			PI plots below "A" line	MH	Elastic silt [K, L, M]
		Organic:	$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OH	Organic clay [K, L, M, P]
					Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.
[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
[E] $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
[F] If soil contains ≥ 15% sand, add "with sand" to group name.
[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
[H] If fines are organic, add "with organic fines" to group name.
[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.
[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
[N] PI ≥ 4 and plots on or above "A" line.
[O] PI < 4 or plots below "A" line.
[P] PI plots on or above "A" line.
[Q] PI plots below "A" line.



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Appendix C – Pile Load Testing

Contents:

Test Pile Installation Details
Pile Load Testing Descriptions
Test Pile Driving Records (8 pages)
Lateral Load Testing Results (56 pages)
Tension Load Test Results (56 pages)
Compression Load Test Results (15 pages)

Note: All attachments are one page unless noted above.

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Test Pile Installation Details

We completed a full-scale pile load testing program that included testing during the design level exploration in July 2025. The design level pile installation program included:

- Directing the installation of groups of two to three test piles at each of 28 locations
- Performing full-scale testing under axial tensile loads for two or three test piles in each group (56 tests).
- Performing full-scale testing under lateral loads for two or three test piles in each group (56 tests).
- Performing full-scale testing under axial compressive loads for one test pile at 16 locations (15 tests).

A summary of the total drive times and load test results is provided in the report text in the **Pile Load Testing Results** section of the report text and the raw data is provided later in this section.

Pile Location Procedures

The test locations were established in the field by using a hand-held GPS (accurate to about 20 feet) and existing site features as reference points. The mapped test locations should be considered accurate only to the degree implied by the means and methods used to define them.

Test Pile Installation

The test piles consisted of wide-flange, bare steel W6x9 sections. The pile identification system for each location begins with "PLT" and is followed by the number corresponding to the test pile group location and a letter identifying the pile. The "A" piles were installed to 7 feet below grade and the "B" piles were installed to 10 feet below grade. "C" piles were installed 7 10 feet below grade and were solely for compression load testing.

The piles were advanced between June 30 July 2, 2025 for the design level pile load testing program. The piles were advanced with a track mounted Vermeer PD10 equipped with a hydraulic hammer to embedment depths ranging from approximately 7 to 10 feet below the ground surface (bgs). All the driven piles were installed into the soils at the base of the oversized predrilled holes (approximately 12 inches in diameter and about 2 feet deep).

The tables provided later in this section include the incremental driving time (in seconds) per foot of pile embedment.

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Testing Under Axial Tensile ("pull-out") Load

We performed testing under axial tensile load for the piles at each location using the procedures generally outlined below.

56 piles, two piles at each PLT location, were tested under axial tensile ("pull-out") load. The test piles with the designations "A" and "B" were tested under axial tensile load with the designation "A" being embedded 7 feet below the ground surface and the designation "B" being embedded 10 feet below the ground surface. The "pull-out" load reaction was supported using an excavator supported at an appropriate lateral distance from the post.

Axial loads were applied to the test pile using a hydraulic pump and 10-kip pull cylinder. Connections to the test posts were made using an 8-ton plate clamp (vertical) designed for connection to W-sections.

The hydraulic pull cylinder and load cell were connected to the excavator and loaded until a deflection of about 1 inch or a maximum of 15,000 pounds was achieved. Following this final loading, the load was reduced back to 0 pounds and the final displacement readings were recorded. Each load increment was sustained for about 30 seconds and the stabilized deflection reading of both indicator gauges were recorded.

Deflections were measured with digital gauges and loads were measured with a Digital Dynamometer 25-kip electronic load cell. The gauges and load cell were read, and the data was recorded manually by Terracon field personnel.

Testing Under Lateral Load

After testing under axial tensile load, the piles at each location were then tested under lateral load as described below. The piles were connected to the excavator to provide a reaction for the load and tested in the strong axis direction.

For lateral testing, the piles were pulled toward the excavator and deflections of each pile were measured. The load for the lateral tests was applied at about 2 feet above the ground surface against the strong axis of the posts. The loads were applied in 500-pound increments in 5 cycles from 0 pounds to a lateral load of 7,000 pounds or until a deflection of about 2 inches was achieved. The limit of soil capacity during the lateral test is defined as movement in excess of 1-inch at 6 inches above the ground surface. Each load increment was held for at least 1 minute and the stabilized deflection reading of both indicator gauge was recorded.

Deflections were measured with digital gauges and loads were measured with a Digital Dynamometer 25-kip electronic load cell. The gauges and load cell were read, and the data was recorded manually by Terracon field personnel.

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Testing Under Axial Compressive Load

Fifteen (15) piles were tested under axial compressive load. Test piles with the designation "C" were tested under axial compressive load and were embedded to depths of 7 feet below the ground surface.

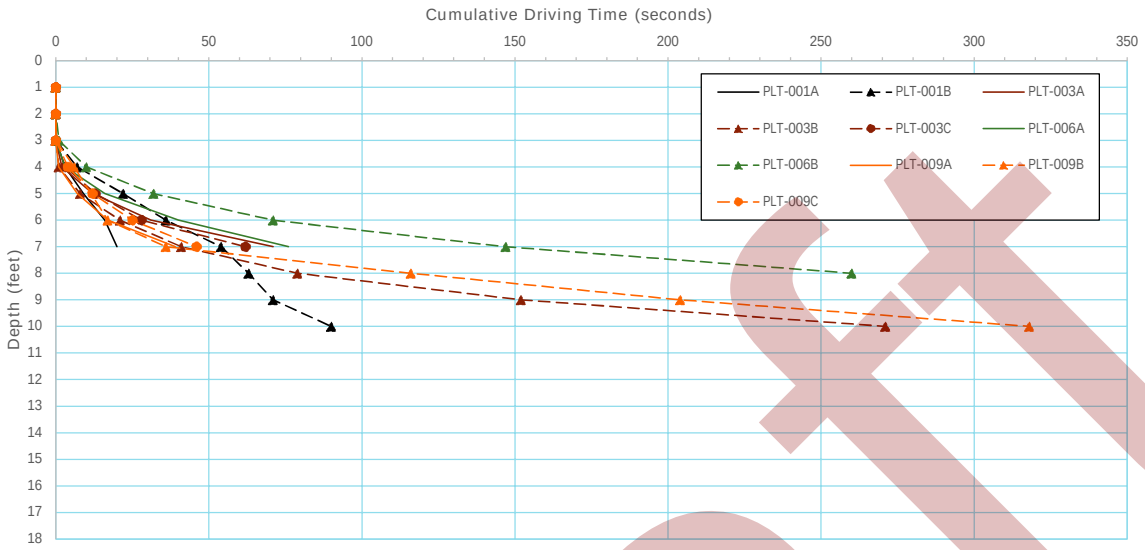
We performed tests under axial compressive loads as generally described below. An excavator was mobilized to the site to provide a reaction for the applied vertical compression test loads. A load cell on the top of the pile, a hydraulic cylinder (jack) was placed above the load cell and under excavator bucket.

The loads were applied in approximately 500-pound increments up to a maximum load of 15,000 pounds, which is the maximum safe working load of our equipment. Each load increment was held for about 30 seconds and the stabilized deflection reading of both indicator gauges were recorded.

Deflections were measured with digital gauges and loads were measured with a 25-kip electronic load cell. The gauges and load cell were read, and the data was recorded manually by Terracon field personnel.

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TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

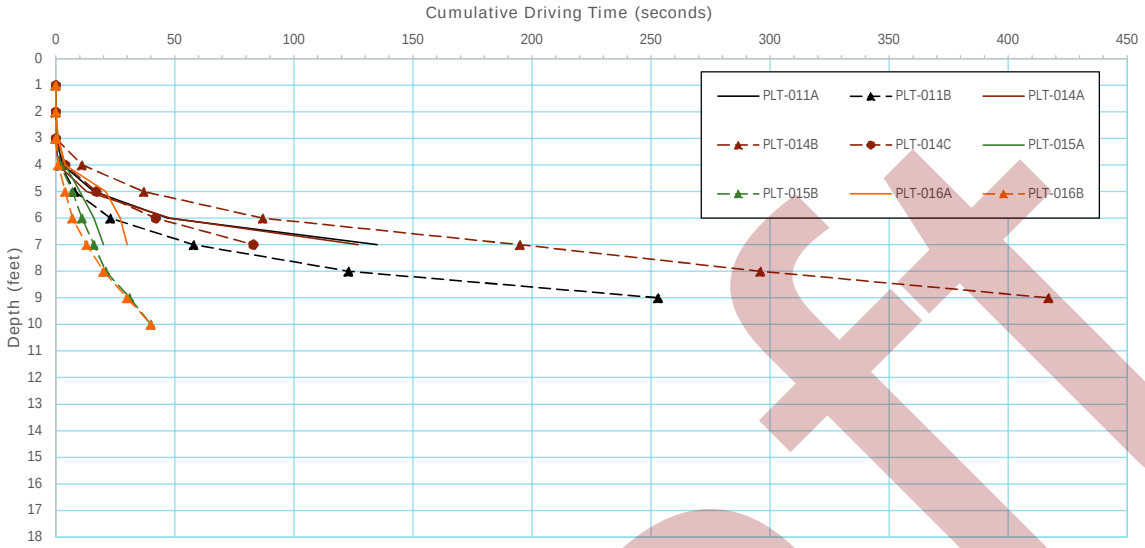


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-001A	PLT-001B	PLT-003A	PLT-003B	PLT-003C	PLT-006A	PLT-006B	PLT-009A	PLT-009B	PLT-009C
1	0' to 1'	0	0	0	0	0	0	0	0	0	0
2	1' to 2'	0	0	0	0	0	0	0	0	0	0
3	2' to 3'	0	0	0	0	0	0	1	0	0	0
4	3' to 4'	3	7	2	1	3	3	10	1	6	4
5	4' to 5'	9	22	12	8	13	16	32	7		12
6	5' to 6'	16	36	31	21	28	40	71	17	17	25
7	6' to 7'	20	54	71	41	62	76	147	39	36	46
8	7' to 8'		63		79			260		116	
9	8' to 9'		71		152					204	
10	9' to 10'		90		271					318	
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	9.8	7	7	7.5	7	10	7
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	7.8	5	5	5.5	5	8	5
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Refusal	N	N	N	Y	N	N	Y	N	N	N
	Total Drive Time (sec)	20	90	71	271	62	76	260	39	318	46
	Average (sec/ft)	4.0	11.3	14.2	34.7	12.4	15.2	47.3	7.8	39.8	9.2

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

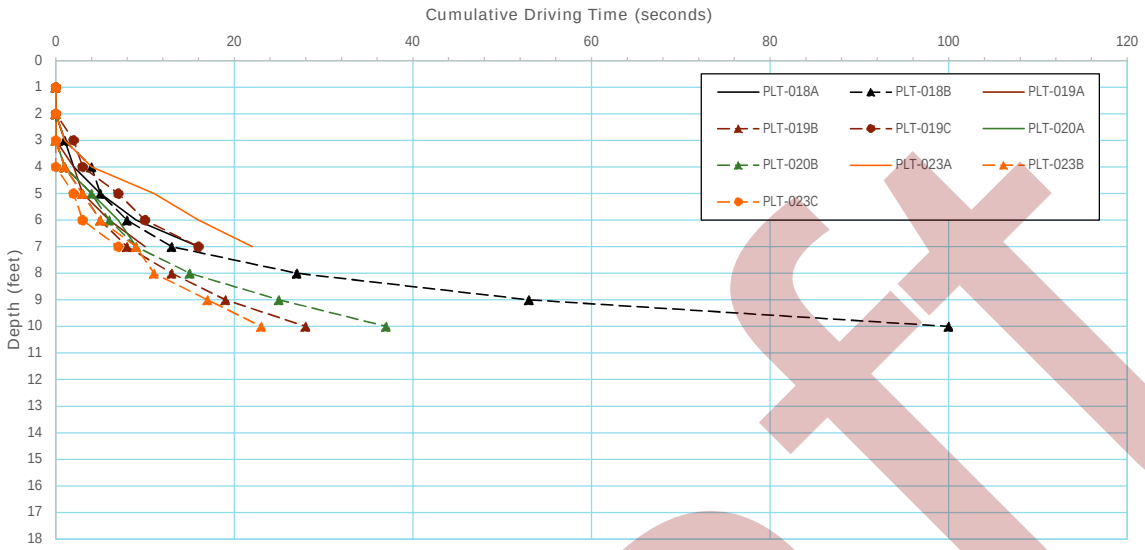


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-011A	PLT-011B	PLT-014A	PLT-014B	PLT-014C	PLT-015A	PLT-015B	PLT-016A	PLT-016B	
1	0' to 1'	0	0	0	0	0	0	0	0	0	
2	1' to 2'	0	0	0	0	0	0	0	0	0	
3	2' to 3'	0	0	0	0	0	1	0	1	0	
4	3' to 4'	3	2	1	11	4	4	2	4	1	
5	4' to 5'	16	8	13	37	17	10	7	21	4	
6	5' to 6'	47	23	48	87	42	16	11	27	7	
7	6' to 7'	135	58	127	195	83	20	16	30	13	
8	7' to 8'		123		296			21		20	
9	8' to 9'		253		417			31		30	
10	9' to 10'							40		40	
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	8.9	7	8.5	7	7	10	7	10	
	Embedment Depth Below Adfreeze Predrill (feet)	5	6.9	5	6.5	5	5	8	5	8	
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Refusal	N	Y	N	Y	N	N	N	N	N	
	Total Drive Time (sec)	135	253	127	417	83	20	40	30	40	
	Average (sec/ft)	27.0	36.7	25.4	64.2	16.6	4.0	5.0	6.0	5.0	

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

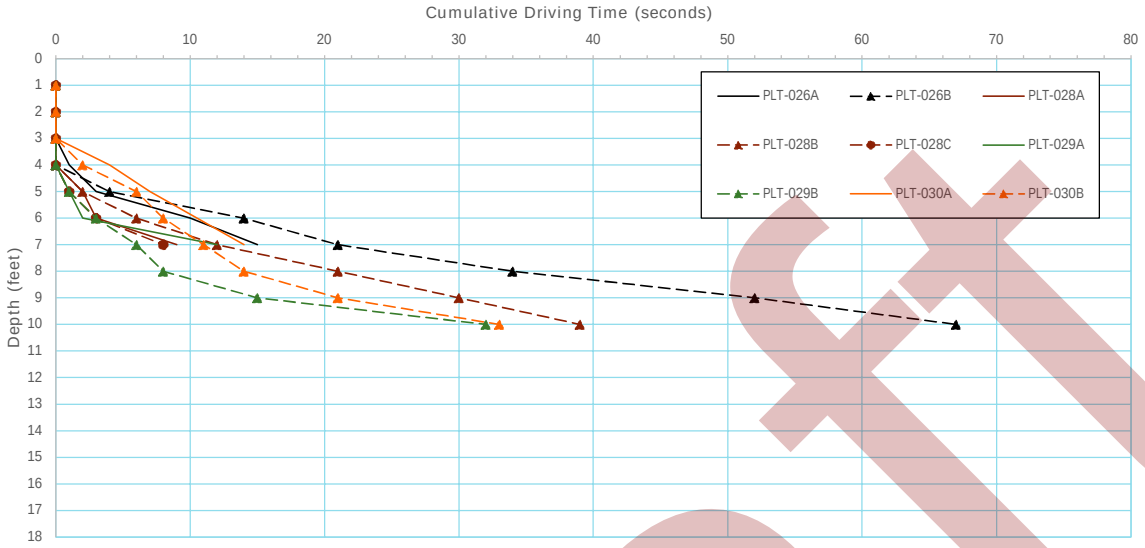


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-018A	PLT-018B	PLT-019A	PLT-019B	PLT-019C	PLT-020A	PLT-020B	PLT-023A	PLT-023B	PLT-023C
1	0' to 1'	0	0	0	0	0	0	0	0	0	0
2	1' to 2'	0	0	0	0	0	0	0	0	0	0
3	2' to 3'	1	1	0	0	2	0	0	1	0	0
4	3' to 4'	2	4	2	1	3	1	1	4	1	0
5	4' to 5'	5	5	3	3	7	4	4	11	3	2
6	5' to 6'	9	8	6	5	10	7	6	16	5	3
7	6' to 7'	16	13	10	8	16	9	9	22	9	7
8	7' to 8'		27		13			15		11	
9	8' to 9'		53		19			25		17	
10	9' to 10'		100		28			37		23	
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	10	7	7	10	7	10	7
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	8	5	5	8	5	8	5
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Refusal	N	N	N	N	N	N	N	N	N	N
	Total Drive Time (sec)	16	100	10	28	16	9	37	22	23	7
	Average (sec/ft)	3.2	12.5	2.0	3.5	3.2	1.8	4.6	4.4	2.9	1.4

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

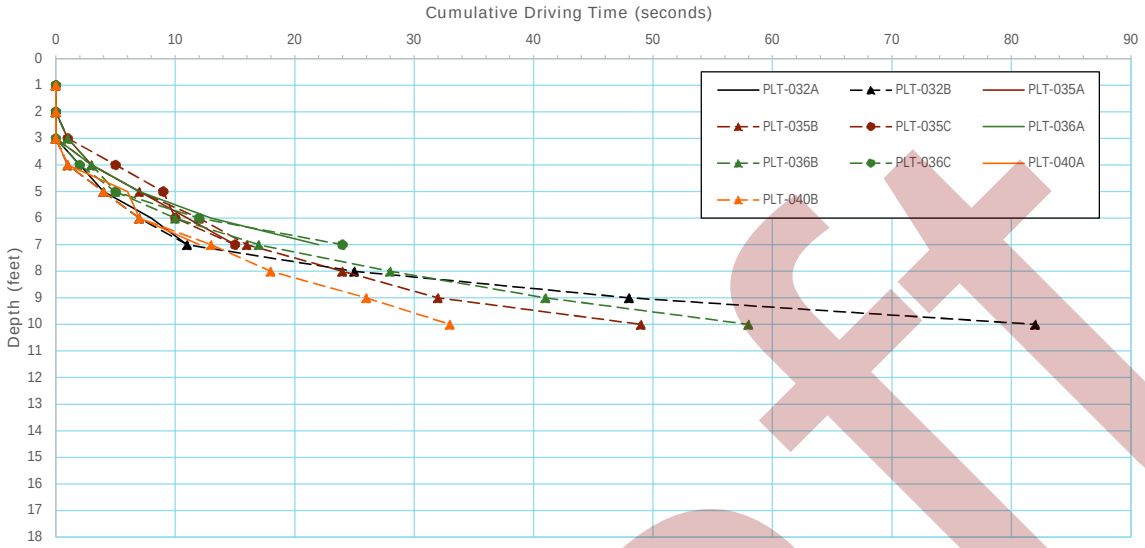


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-026A	PLT-026B	PLT-028A	PLT-028B	PLT-028C	PLT-029A	PLT-029B	PLT-030A	PLT-030B	
1	0' to 1'	0	0	0	0	0	0	0	0	0	
2	1' to 2'	0	0	0	0	0	0	0	0	0	
3	2' to 3'	0	0	0	0	0	0	0	0	0	
4	3' to 4'	1	0	0	0	0	0	0	4	2	
5	4' to 5'	3	4	2	2	1	1	1	7	6	
6	5' to 6'	10	14	3	6	3	2	3		8	
7	6' to 7'	15	21	9	12	8	12	6	14	11	
8	7' to 8'		34		21			8		14	
9	8' to 9'		52		30			15		21	
10	9' to 10'		67		39			32		33	
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	10	7	7	10	7	10	
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	8	5	5	8	5	8	
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Refusal	N	N	N	N	N	N	N	N	N	
	Total Drive Time (sec)	15	67	9	39	8	12	32	14	33	
	Average (sec/ft)	3.0	8.4	1.8	4.9	1.6	2.4	4.0	2.8	4.1	

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

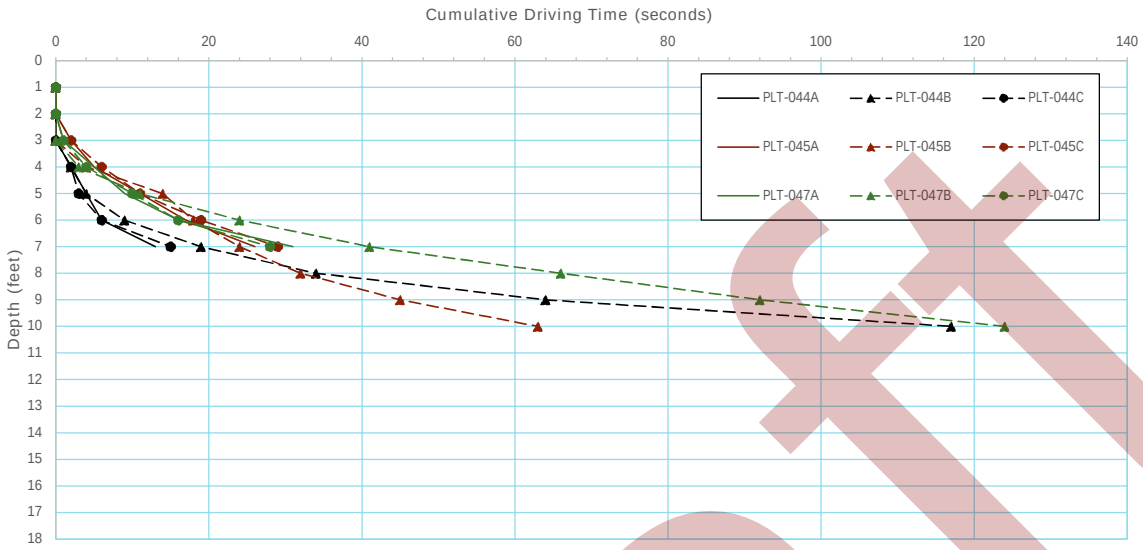


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-032A	PLT-032B	PLT-035A	PLT-035B	PLT-035C	PLT-036A	PLT-036B	PLT-036C	PLT-040A	PLT-040B
1	0' to 1'	0	0	0	0	0	0	0	0	0	0
2	1' to 2'	0	0	0	0	0	0	0	0	0	0
3	2' to 3'	0	0	1	0	1	0	1	0	0	0
4	3' to 4'	2	1	3	3	5	3	3	2	1	1
5	4' to 5'	4	4	7	7	9	7	5	5	6	4
6	5' to 6'	8	7	11	12	10	13	10	12	7	7
7	6' to 7'	11	11	15	16	15	22	17	24	12	13
8	7' to 8'		25		24			28			18
9	8' to 9'		48		32			41			26
10	9' to 10'		82		49			58			33
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	10	7	7	10	7	7	10
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	8	5	5	8	5	5	8
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Refusal	N	N	N	N	N	N	N	N	N	N
	Total Drive Time (sec)	11	82	15	49	15	22	58	24	12	33
	Average (sec/ft)	2.2	10.3	3.0	6.1	3.0	4.4	7.3	4.8	2.4	4.1

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

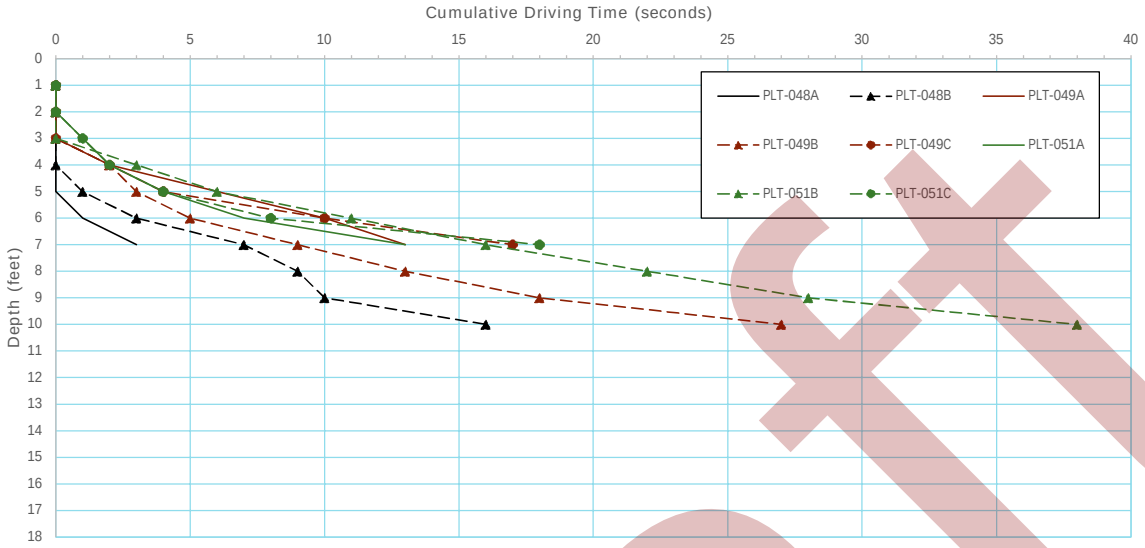


	Depth Range (feet)	Cumulative Driving Time, seconds								
		PLT-044A	PLT-044B	PLT-044C	PLT-045A	PLT-045B	PLT-045C	PLT-047A	PLT-047B	PLT-047C
1	0' to 1'	0	0	0	0	0	0	0	0	0
2	1' to 2'	0	0	0	0	0	0	0	0	0
3	2' to 3'	0	0	0	2	0	2	1	0	1
4	3' to 4'	2	2	2	5	4	6	5	3	4
5	4' to 5'	4	4	3	11	14	11	9	11	10
6	5' to 6'	6	9	6	17	18	19	16	24	16
7	6' to 7'	13	19	15	26	24	29	31	41	28
8	7' to 8'		34			32			66	
9	8' to 9'		64			45			92	
10	9' to 10'		117			63			124	
11	10' to 11'									
12	11' to 12'									
13	12' to 13'									
14	13' to 14'									
15	14' to 15'									
16	15' to 16'									
17	16' to 17'									
18	17' to 18'									
	Pile Tip Depth (feet)	7	10	7	7	10	7	7	10	7
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	5	8	5	5	8	5
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Refusal	N	N	N	N	N	N	N	N	N
	Total Drive Time (sec)	13	117	15	26	63	29	31	124	28
	Average (sec/ft)	2.6	14.6	3.0	5.2	7.9	5.8	6.2	15.5	5.6

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217

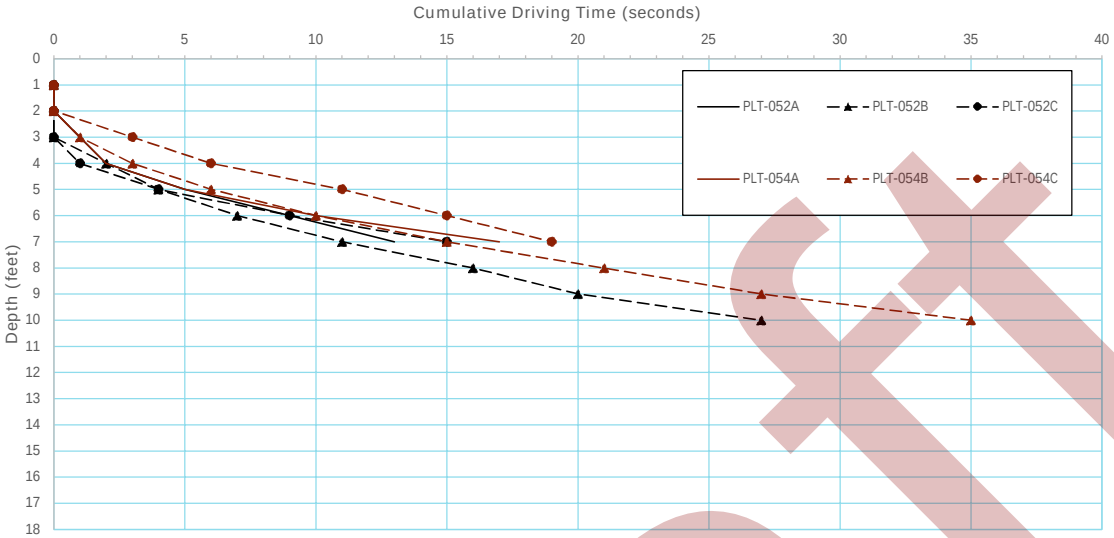


	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-048A	PLT-048B	PLT-049A	PLT-049B	PLT-049C	PLT-051A	PLT-051B	PLT-051C		
1	0' to 1'	0	0	0	0	0	0	0	0		
2	1' to 2'	0	0	0	0	0	0	0	0		
3	2' to 3'	0	0	0	0	0	1	0	1		
4	3' to 4'	0	0	2	2	2	2	3	2		
5	4' to 5'	0	1	6	3	4	4	6	4		
6	5' to 6'	1	3	10	5	10	7	11	8		
7	6' to 7'	3	7	13	9	17	13	16	18		
8	7' to 8'		9		13			22			
9	8' to 9'		10		18			28			
10	9' to 10'		16		27			38			
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	10	7	7	10	7		
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	8	5	5	8	5		
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	Refusal	N	N	N	N	N	N	N	N		
	Total Drive Time (sec)	3	16	13	27	17	13	38	18		
	Average (sec/ft)	0.6	2.0	2.6	3.4	3.4	2.6	4.8	3.6		

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

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TEST PILE DRIVING RECORDS
Rouget Road Solar - Adrian, MI
Terracon Project No. CK245217



	Depth Range (feet)	Cumulative Driving Time, seconds									
		PLT-052A	PLT-052B	PLT-052C	PLT-054A	PLT-054B	PLT-054C				
1	0' to 1'	0	0	0	0	0	0				
2	1' to 2'	0	0	0	0	0	0				
3	2' to 3'	1	0	0	1	1	3				
4	3' to 4'	2	2	1	2	3	6				
5	4' to 5'	5	4	4	5	6	11				
6	5' to 6'	9	7	9	10	10	15				
7	6' to 7'	13	11	15	17	15	19				
8	7' to 8'		16			21					
9	8' to 9'		20			27					
10	9' to 10'		27			35					
11	10' to 11'										
12	11' to 12'										
13	12' to 13'										
14	13' to 14'										
15	14' to 15'										
16	15' to 16'										
17	16' to 17'										
18	17' to 18'										
	Pile Tip Depth (feet)	7	10	7	7	10	7				
	Embedment Depth Below Adfreeze Predrill (feet)	5	8	5	5	8	5				
	Undersize Predrill Hole Diameter (in)	N/A	N/A	N/A	N/A	N/A	N/A				
	Refusal	N	N	N	N	N	N				
	Total Drive Time (sec)	13	27	15	17	35	19				
	Average (sec/ft)	2.6	3.4	3.0	3.4	4.4	3.8				

NOTES:
Piles were advanced with a track mounted Vermeer PD-10 hammer.
Piles encountered refusal if the drive times exceeded 120 seconds of driving for 1 foot of embedment.
Legend for Pile Designations:
A = axial tension and lateral load test pile with target embedment of 7 feet
B = axial tension and lateral load test pile with target embedment of 10 feet
C = compression load test pile with target embedment of 7 feet

Draft

Lateral Load Test Results for PLT-001A

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-001A
Latitude [deg.]:	41.88216
Longitude [deg.]:	-83.98853
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	20

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.109	
14%	1,000	0.188	
21%	1,500	0.348	
0%	0	0.015	
21%	1,500	0.355	
29%	2,000	0.516	
36%	2,500	0.754	
0%	0	0.118	
36%	2,500	0.764	
43%	3,000	1.094	
50%	3,500	1.430	
0%	0	0.441	
50%	3,500	1.525	
57%	4,000	2.031	
0%	0	0.818	



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Lateral Load Test Results for PLT-001B

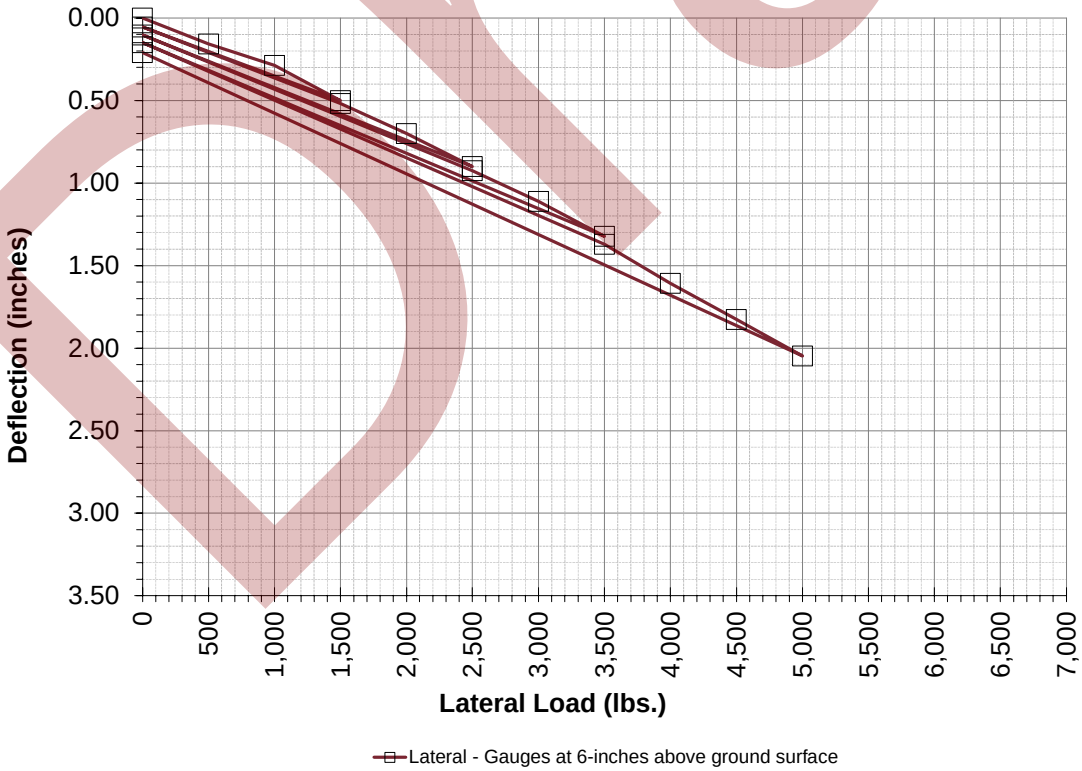
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-001B
Latitude [deg.]:	41.88216
Longitude [deg.]:	-83.98853
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	90

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.158	
14%	1,000	0.288	
21%	1,500	0.501	
0%	0	0.054	
21%	1,500	0.519	
29%	2,000	0.700	
36%	2,500	0.900	
0%	0	0.103	
36%	2,500	0.926	
43%	3,000	1.112	
50%	3,500	1.323	
0%	0	0.150	
50%	3,500	1.372	
57%	4,000	1.609	
64%	4,500	1.828	
71%	5,000	2.048	
0%	0	0.210	



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Lateral Load Test Results for PLT-003A

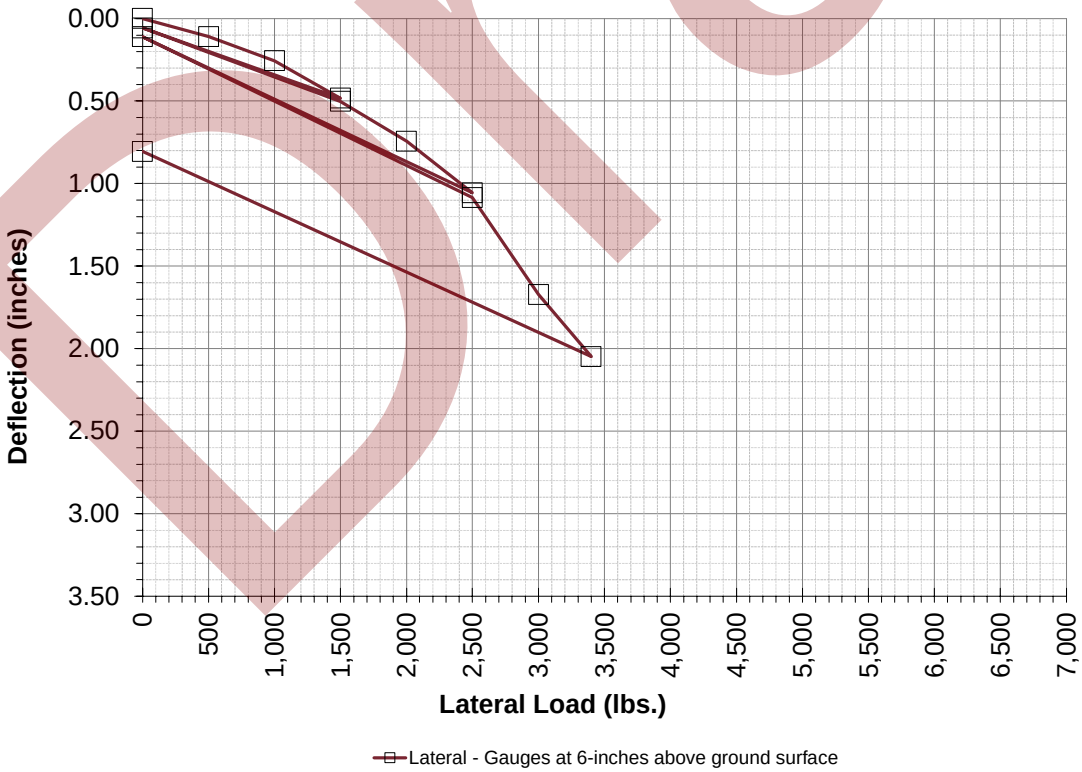
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-003A
Latitude [deg.]:	41.87986
Longitude [deg.]:	-83.98439
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	71

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.109	
14%	1,000	0.255	
21%	1,500	0.482	
0%	0	0.057	
21%	1,500	0.502	
29%	2,000	0.744	
36%	2,500	1.056	
0%	0	0.110	
36%	2,500	1.085	
43%	3,000	1.672	
49%	3,400	2.049	
0%	0	0.806	



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Lateral Load Test Results for PLT-003B

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-003B
Latitude [deg.]:	41.87986
Longitude [deg.]:	-83.98439
Pile Type:	W6x9
Pile Embedment Depth [in.]:	118
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	271

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.072	
14%	1,000	0.146	
21%	1,500	0.450	
0%	0	0.031	
21%	1,500	0.459	
29%	2,000	0.682	
36%	2,500	0.885	
0%	0	0.078	
36%	2,500	0.937	
43%	3,000	1.152	
50%	3,500	1.413	
0%	0	0.138	
50%	3,500	1.465	
57%	4,000	1.613	
64%	4,500	2.013	
0%	0	0.208	



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Lateral Load Test Results for PLT-006A

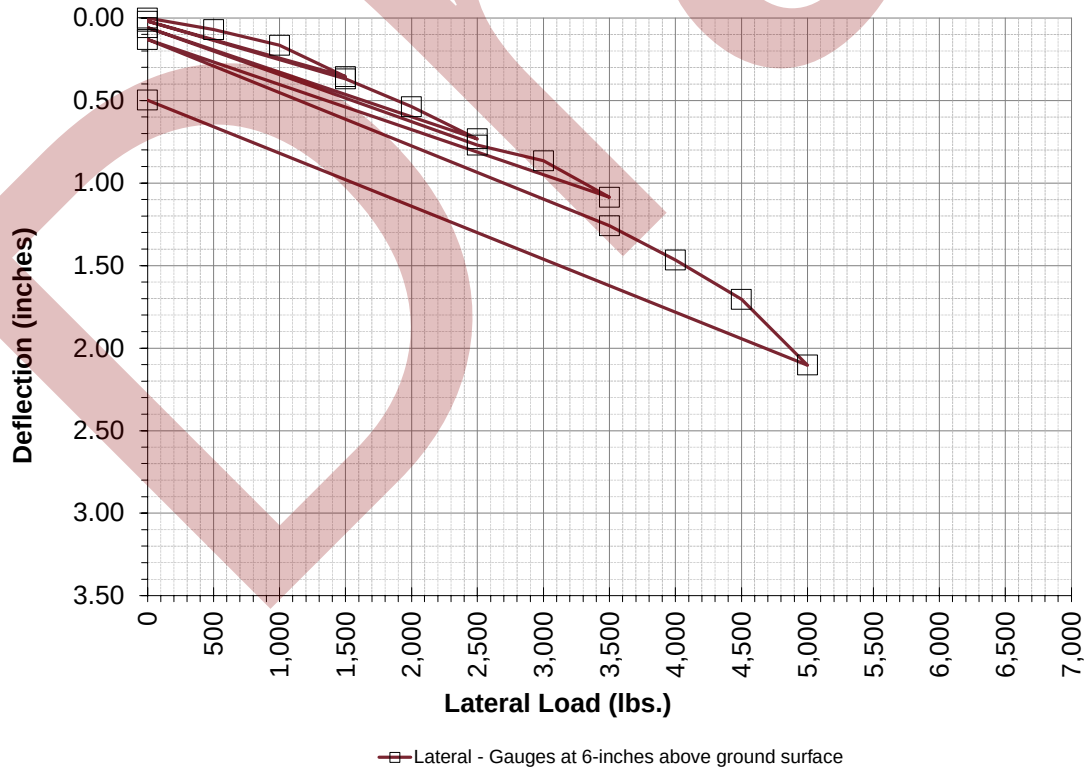
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-006A
Latitude [deg.]:	41.88158
Longitude [deg.]:	-83.97789
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	76

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.070	
14%	1,000	0.167	
21%	1,500	0.356	
0%	0	0.020	
21%	1,500	0.368	
29%	2,000	0.537	
36%	2,500	0.733	
0%	0	0.058	
36%	2,500	0.770	
43%	3,000	0.865	
50%	3,500	1.087	
0%	0	0.130	
50%	3,500	1.259	
57%	4,000	1.466	
64%	4,500	1.705	
71%	5,000	2.103	
0%	0	0.498	



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Lateral Load Test Results for PLT-006B

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-006B
Latitude [deg.]:	41.88158
Longitude [deg.]:	-83.97789
Pile Type:	W6x9
Pile Embedment Depth [in.]:	90
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	260

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.114	
14%	1,000	0.254	
21%	1,500	0.414	
0%	0	0.046	
21%	1,500	0.438	
29%	2,000	0.598	
36%	2,500	0.811	
0%	0	0.101	
36%	2,500	0.832	
43%	3,000	0.992	
50%	3,500	1.211	
0%	0	0.160	
50%	3,500	1.279	
57%	4,000	1.474	
64%	4,500	1.682	
71%	5,000	2.033	
0%	0	0.317	



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Lateral Load Test Results for PLT-009A

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-009A
Latitude [deg.]:	41.87789
Longitude [deg.]:	-83.97265
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	39

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.120	
14%	1,000	0.205	
21%	1,500	0.405	
0%	0	0.034	
21%	1,500	0.430	
29%	2,000	0.610	
36%	2,500	0.869	
0%	0	0.126	
36%	2,500	0.945	
43%	3,000	1.100	
50%	3,500	1.659	
0%	0	0.363	
50%	3,500	1.699	
57%	4,000	2.022	
0%	0	0.570	



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Lateral Load Test Results for PLT-009B

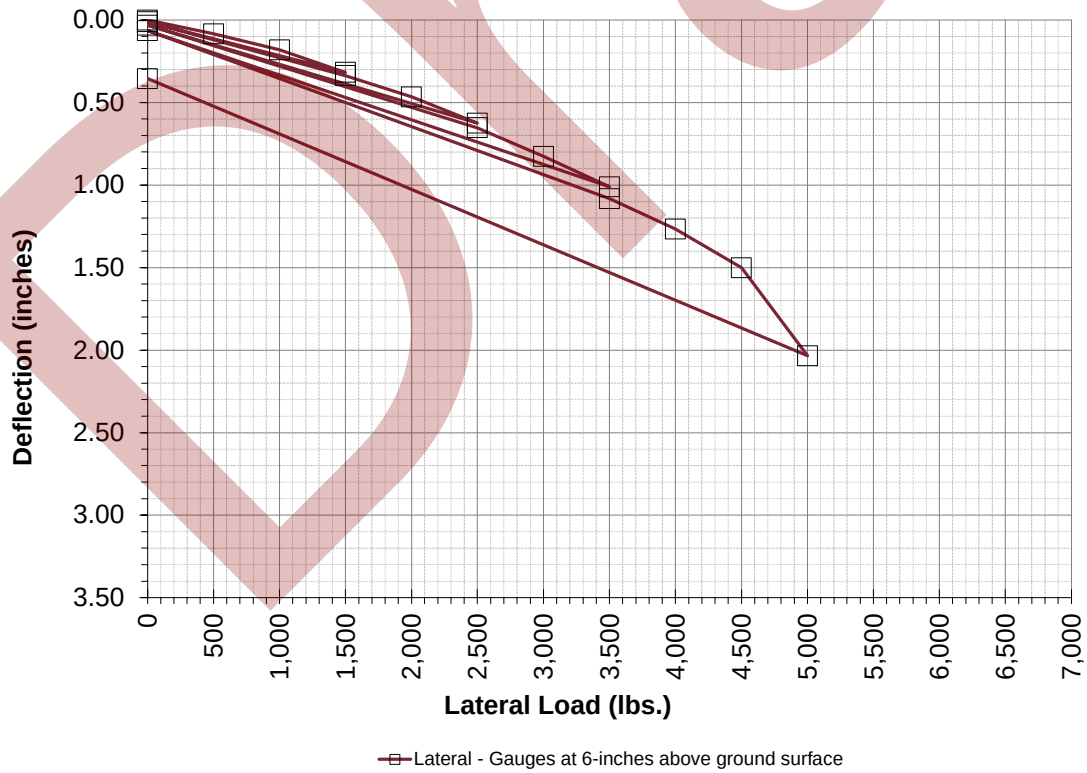
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-009B
Latitude [deg.]:	41.87789
Longitude [deg.]:	-83.97265
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	318

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.085	
14%	1,000	0.180	
21%	1,500	0.318	
0%	0	0.011	
21%	1,500	0.337	
29%	2,000	0.467	
36%	2,500	0.625	
0%	0	0.031	
36%	2,500	0.653	
43%	3,000	0.826	
50%	3,500	1.010	
0%	0	0.066	
50%	3,500	1.082	
57%	4,000	1.267	
64%	4,500	1.501	
71%	5,000	2.035	
0%	0	0.356	



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Lateral Load Test Results for PLT-011A

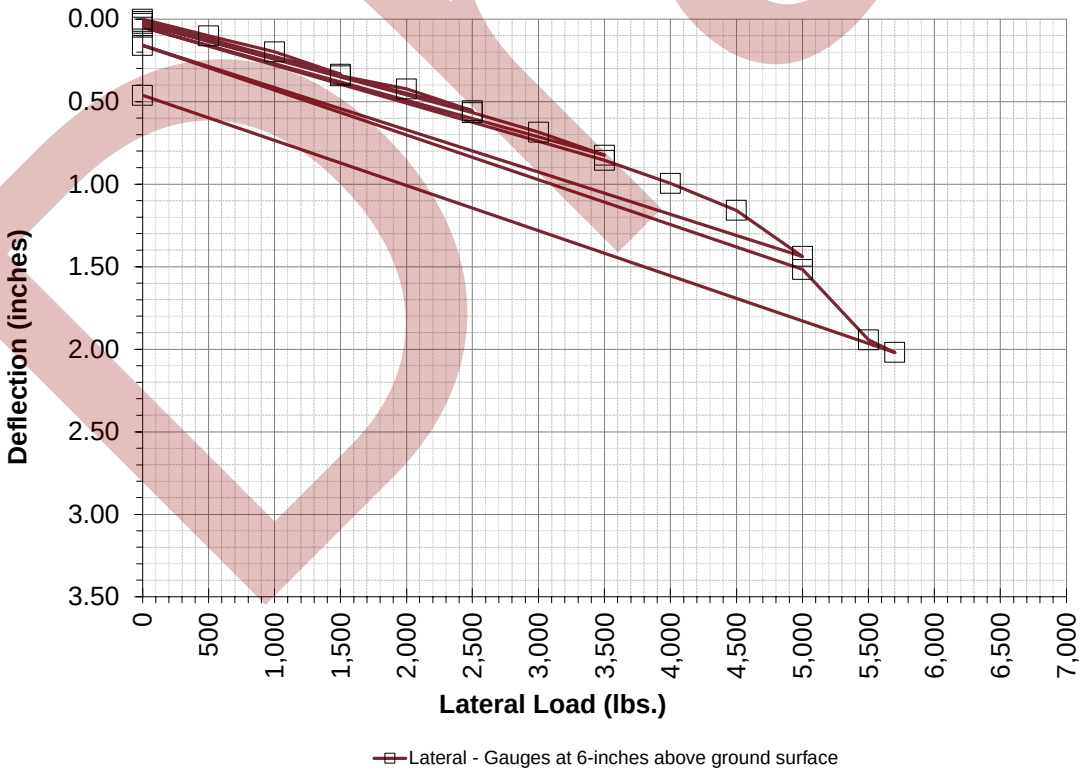
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-011A
Latitude [deg.]:	41.87236
Longitude [deg.]:	-83.97238
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	135

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.102	
14%	1,000	0.199	
21%	1,500	0.334	
0%	0	0.015	
21%	1,500	0.344	
29%	2,000	0.424	
36%	2,500	0.555	
0%	0	0.027	
36%	2,500	0.567	
43%	3,000	0.686	
50%	3,500	0.826	
0%	0	0.050	
50%	3,500	0.855	
57%	4,000	0.995	
64%	4,500	1.160	
71%	5,000	1.438	
0%	0	0.160	
71%	5,000	1.518	
79%	5,500	1.943	
81%	5,700	2.020	
0%	0	0.462	



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Lateral Load Test Results for PLT-011B

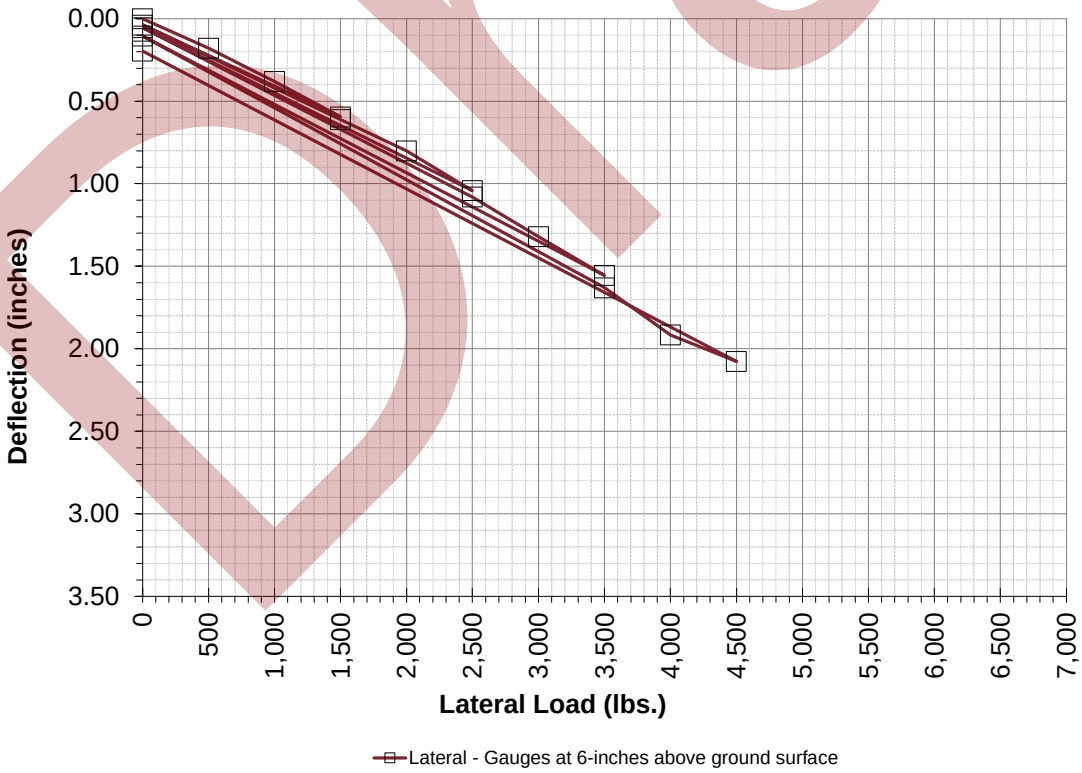
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-011B
Latitude [deg.]:	41.87236
Longitude [deg.]:	-83.97238
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	253

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.179	
14%	1,000	0.381	
21%	1,500	0.595	
0%	0	0.038	
21%	1,500	0.611	
29%	2,000	0.802	
36%	2,500	1.040	
0%	0	0.055	
36%	2,500	1.080	
43%	3,000	1.320	
50%	3,500	1.555	
0%	0	0.104	
50%	3,500	1.629	
57%	4,000	1.916	
64%	4,500	2.076	
0%	0	0.196	



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Lateral Load Test Results for PLT-014A

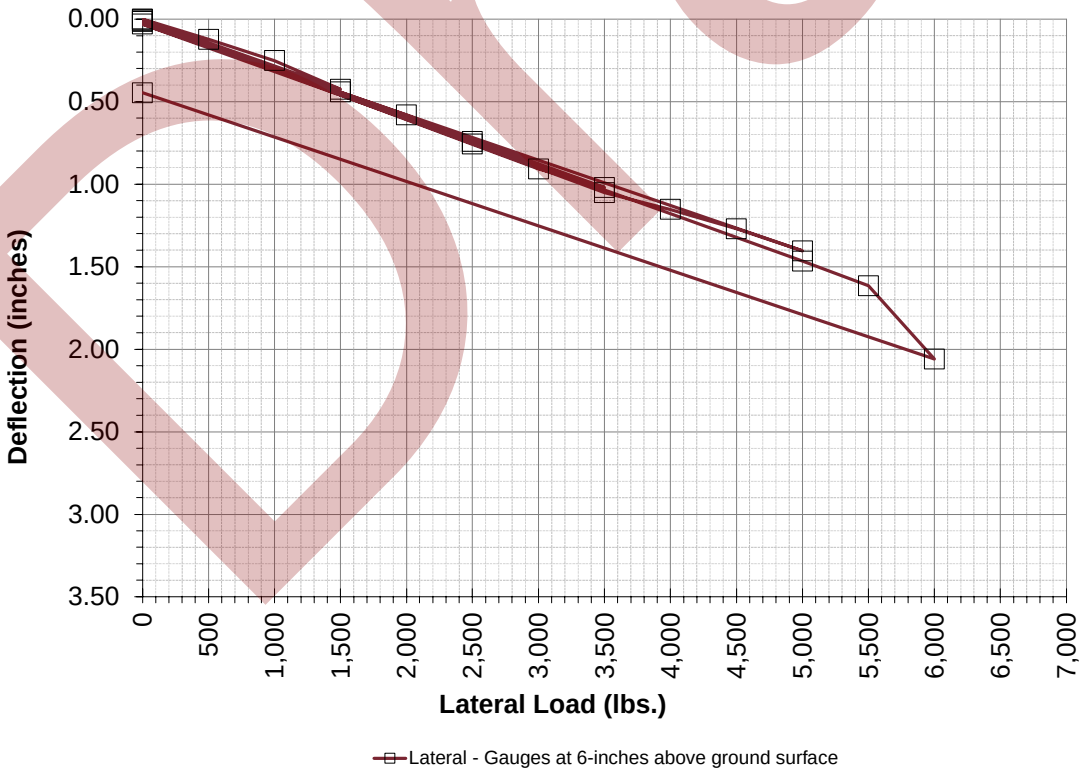
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-014A
Latitude [deg.]:	41.87234
Longitude [deg.]:	-83.95579
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	127

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.124	
14%	1,000	0.252	
21%	1,500	0.425	
0%	0	0.002	
21%	1,500	0.442	
29%	2,000	0.581	
36%	2,500	0.741	
0%	0	0.011	
36%	2,500	0.758	
43%	3,000	0.908	
50%	3,500	1.021	
0%	0	0.016	
50%	3,500	1.051	
57%	4,000	1.153	
64%	4,500	1.270	
71%	5,000	1.404	
0%	0	0.031	
71%	5,000	1.467	
79%	5,500	1.616	
86%	6,000	2.060	
0%	0	0.447	



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Lateral Load Test Results for PLT-014B

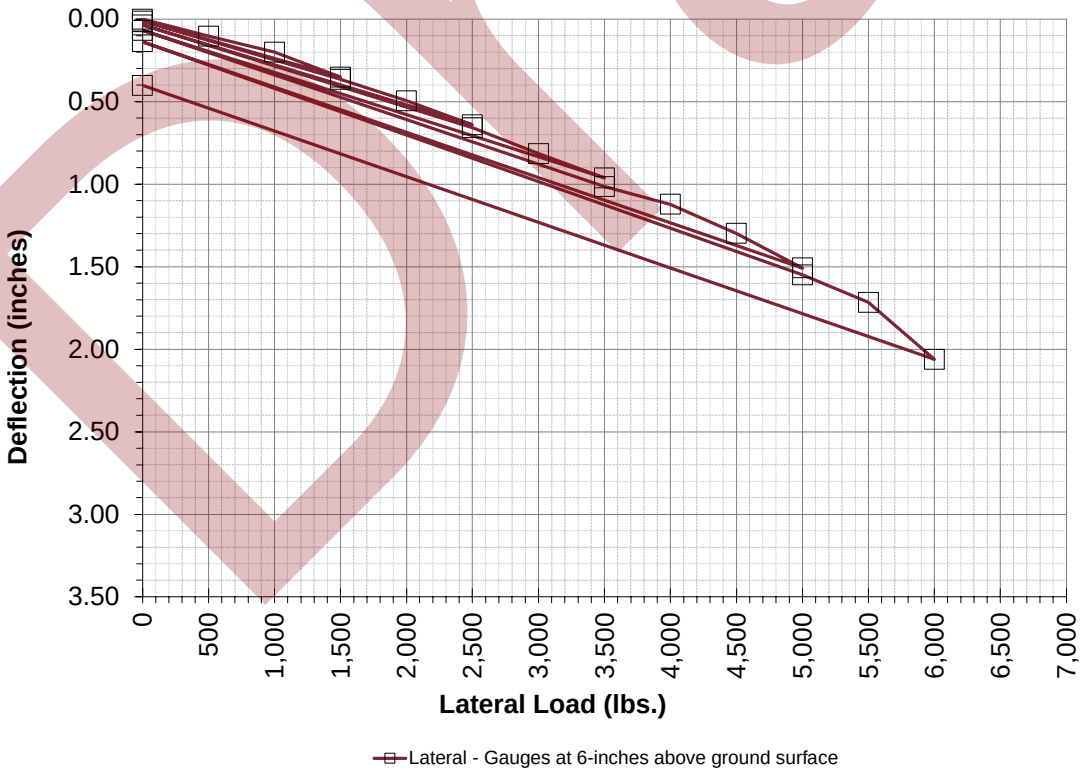
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-014B
Latitude [deg.]:	41.87234
Longitude [deg.]:	-83.95579
Pile Type:	W6x9
Pile Embedment Depth [in.]:	102
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	417

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.104	
14%	1,000	0.200	
21%	1,500	0.351	
0%	0	0.013	
21%	1,500	0.365	
29%	2,000	0.496	
36%	2,500	0.640	
0%	0	0.036	
36%	2,500	0.658	
43%	3,000	0.814	
50%	3,500	0.962	
0%	0	0.069	
50%	3,500	1.015	
57%	4,000	1.122	
64%	4,500	1.299	
71%	5,000	1.508	
0%	0	0.138	
71%	5,000	1.550	
79%	5,500	1.717	
86%	6,000	2.062	
0%	0	0.402	



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Lateral Load Test Results for PLT-015A

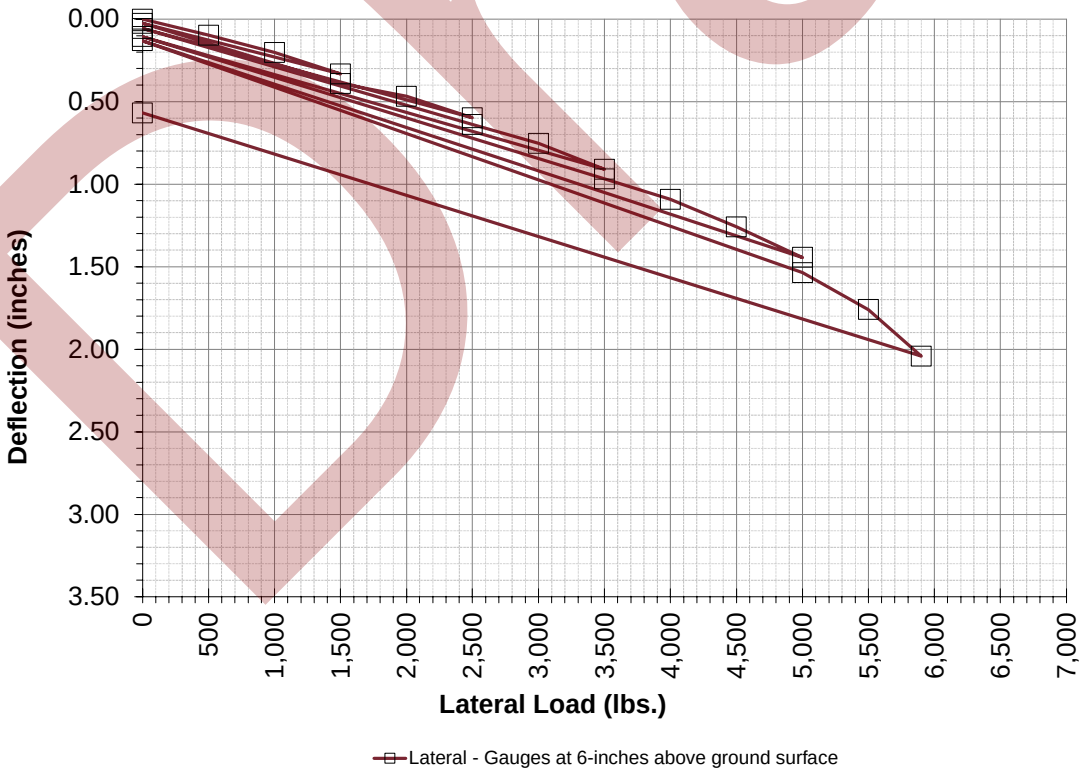
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-015A
Latitude [deg.]:	41.86888
Longitude [deg.]:	-83.95896
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	20

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.098	
14%	1,000	0.203	
21%	1,500	0.333	
0%	0	0.026	
21%	1,500	0.390	
29%	2,000	0.468	
36%	2,500	0.598	
0%	0	0.057	
36%	2,500	0.639	
43%	3,000	0.753	
50%	3,500	0.909	
0%	0	0.107	
50%	3,500	0.968	
57%	4,000	1.092	
64%	4,500	1.259	
71%	5,000	1.444	
0%	0	0.132	
71%	5,000	1.536	
79%	5,500	1.760	
84%	5,900	2.041	
0%	0	0.569	



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Lateral Load Test Results for PLT-015B

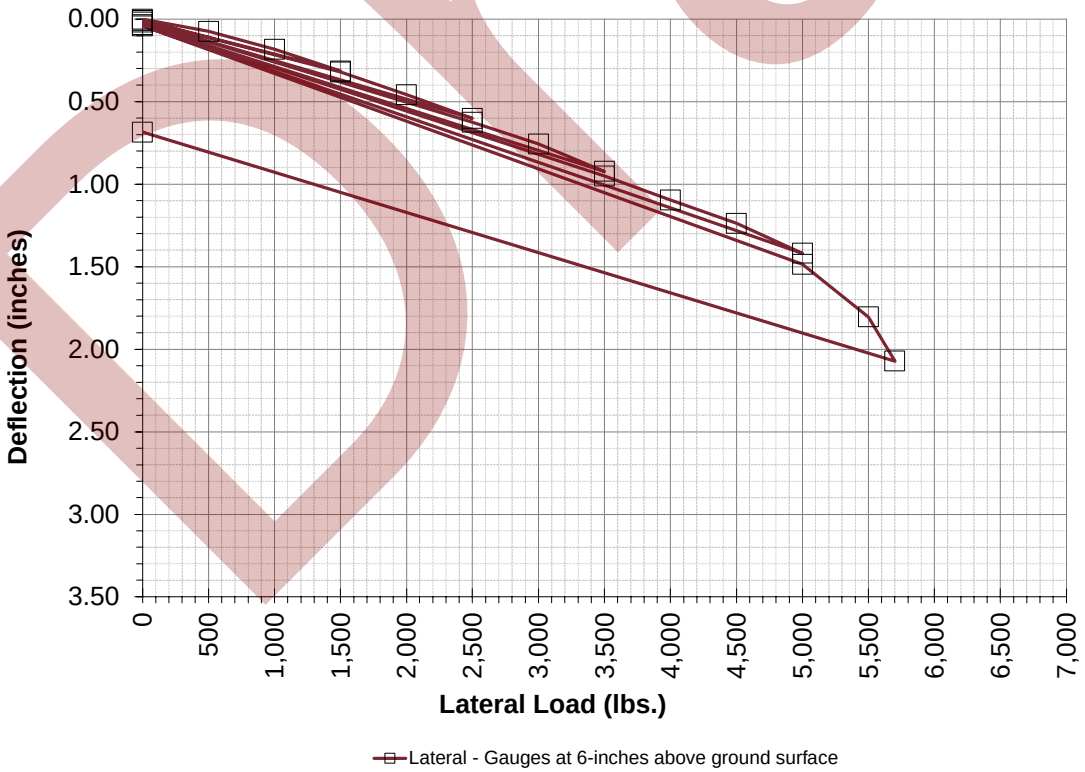
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information	
Pile ID:	PLT-015B
Latitude [deg.]:	41.86888
Longitude [deg.]:	-83.95896
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	40

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.074	
14%	1,000	0.184	
21%	1,500	0.315	
0%	0	0.008	
21%	1,500	0.321	
29%	2,000	0.459	
36%	2,500	0.601	
0%	0	0.018	
36%	2,500	0.624	
43%	3,000	0.756	
50%	3,500	0.923	
0%	0	0.033	
50%	3,500	0.952	
57%	4,000	1.097	
64%	4,500	1.237	
71%	5,000	1.419	
0%	0	0.042	
71%	5,000	1.485	
79%	5,500	1.805	
81%	5,700	2.072	
0%	0	0.684	



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Lateral Load Test Results for PLT-016A

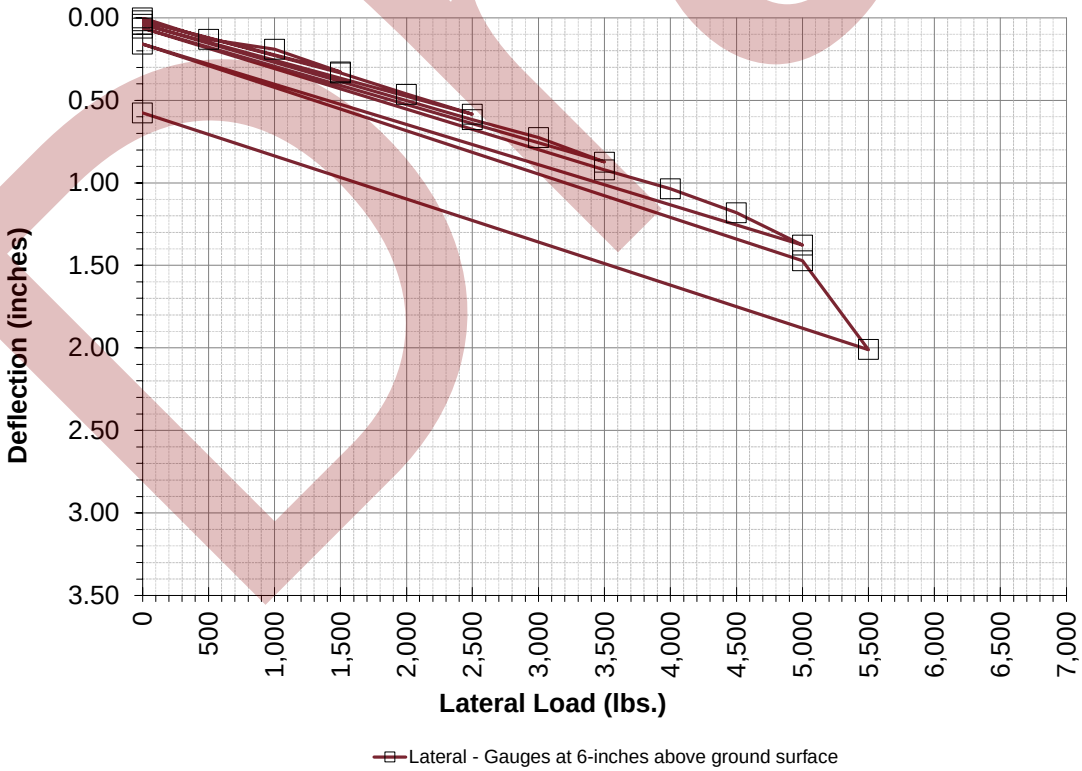
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-016A
Latitude [deg.]:	41.86773
Longitude [deg.]:	-83.96645
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	30

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.131	
14%	1,000	0.191	
21%	1,500	0.328	
0%	0	0.019	
21%	1,500	0.334	
29%	2,000	0.463	
36%	2,500	0.585	
0%	0	0.040	
36%	2,500	0.616	
43%	3,000	0.726	
50%	3,500	0.874	
0%	0	0.063	
50%	3,500	0.922	
57%	4,000	1.035	
64%	4,500	1.182	
71%	5,000	1.377	
0%	0	0.160	
71%	5,000	1.471	
79%	5,500	2.010	
0%	0	0.576	



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Lateral Load Test Results for PLT-016B

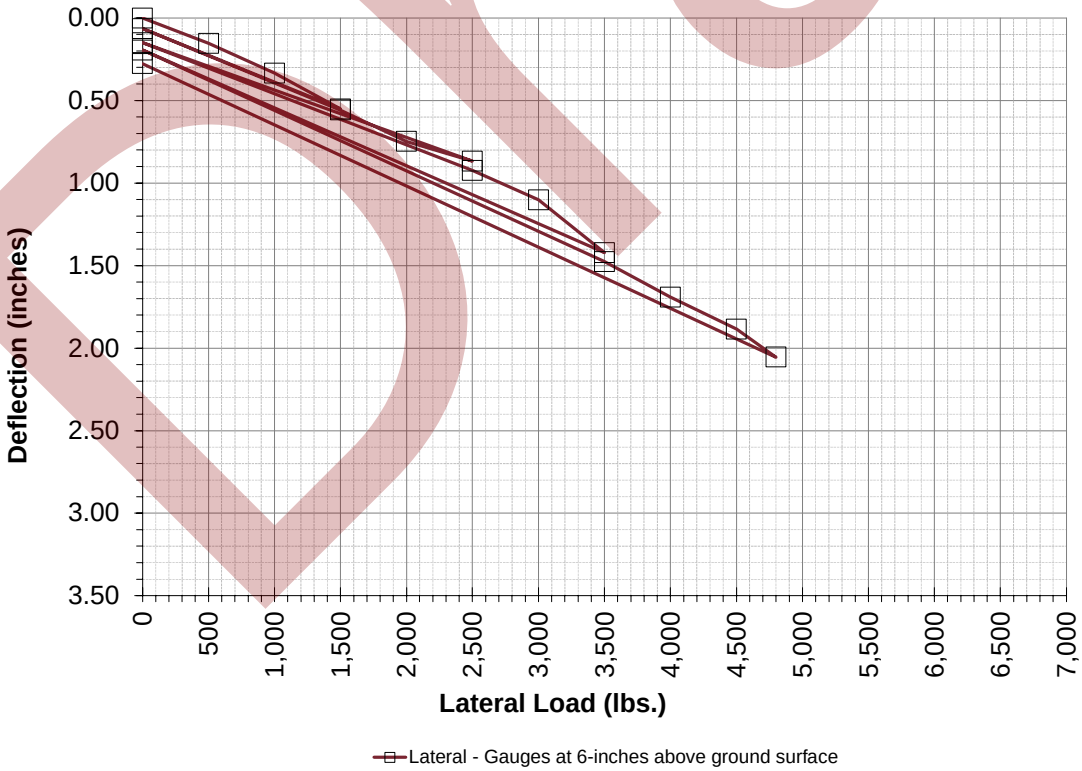
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-016B
Latitude [deg.]:	41.86773
Longitude [deg.]:	-83.96645
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	40

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.154	
14%	1,000	0.334	
21%	1,500	0.551	
0%	0	0.064	
21%	1,500	0.558	
29%	2,000	0.749	
36%	2,500	0.867	
0%	0	0.151	
36%	2,500	0.923	
43%	3,000	1.103	
50%	3,500	1.422	
0%	0	0.196	
50%	3,500	1.476	
57%	4,000	1.692	
64%	4,500	1.885	
69%	4,800	2.055	
0%	0	0.277	



Draft

Lateral Load Test Results for PLT-018A

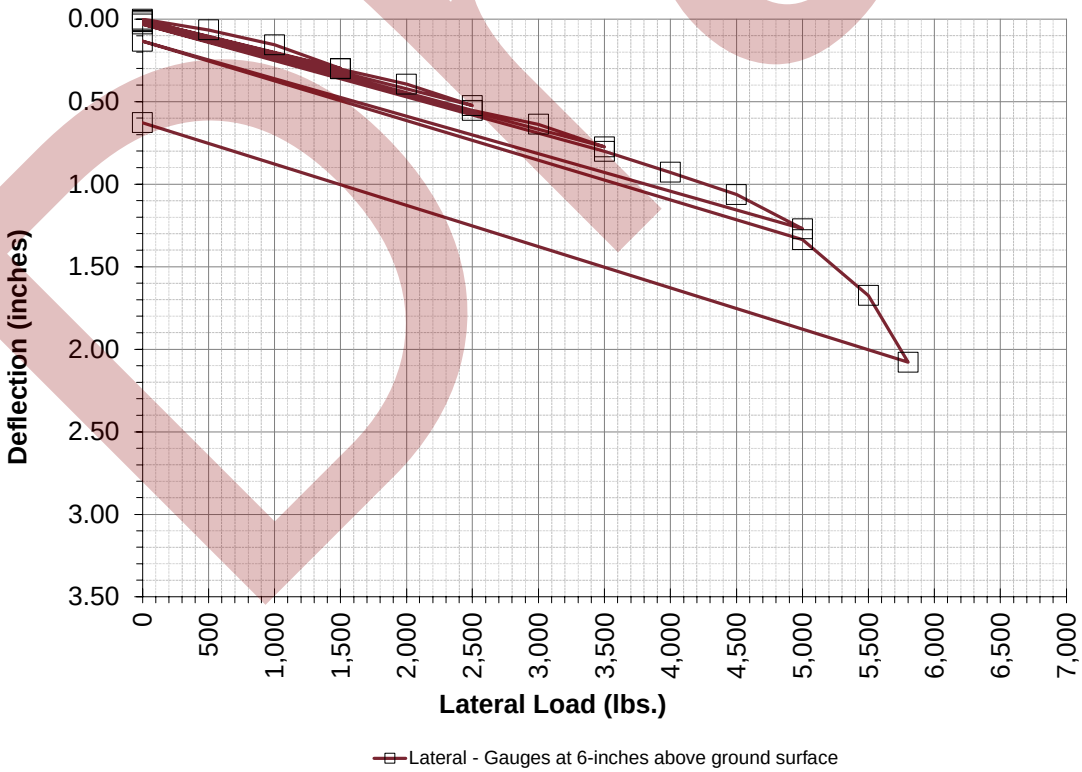
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-018A
Latitude [deg.]:	41.86370
Longitude [deg.]:	-83.96473
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	16

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.066	
14%	1,000	0.155	
21%	1,500	0.300	
0%	0	0.008	
21%	1,500	0.302	
29%	2,000	0.394	
36%	2,500	0.523	
0%	0	0.017	
36%	2,500	0.553	
43%	3,000	0.637	
50%	3,500	0.775	
0%	0	0.030	
50%	3,500	0.801	
57%	4,000	0.929	
64%	4,500	1.063	
71%	5,000	1.271	
0%	0	0.134	
71%	5,000	1.337	
79%	5,500	1.675	
83%	5,800	2.080	
0%	0	0.628	



Draft

Lateral Load Test Results for PLT-018B

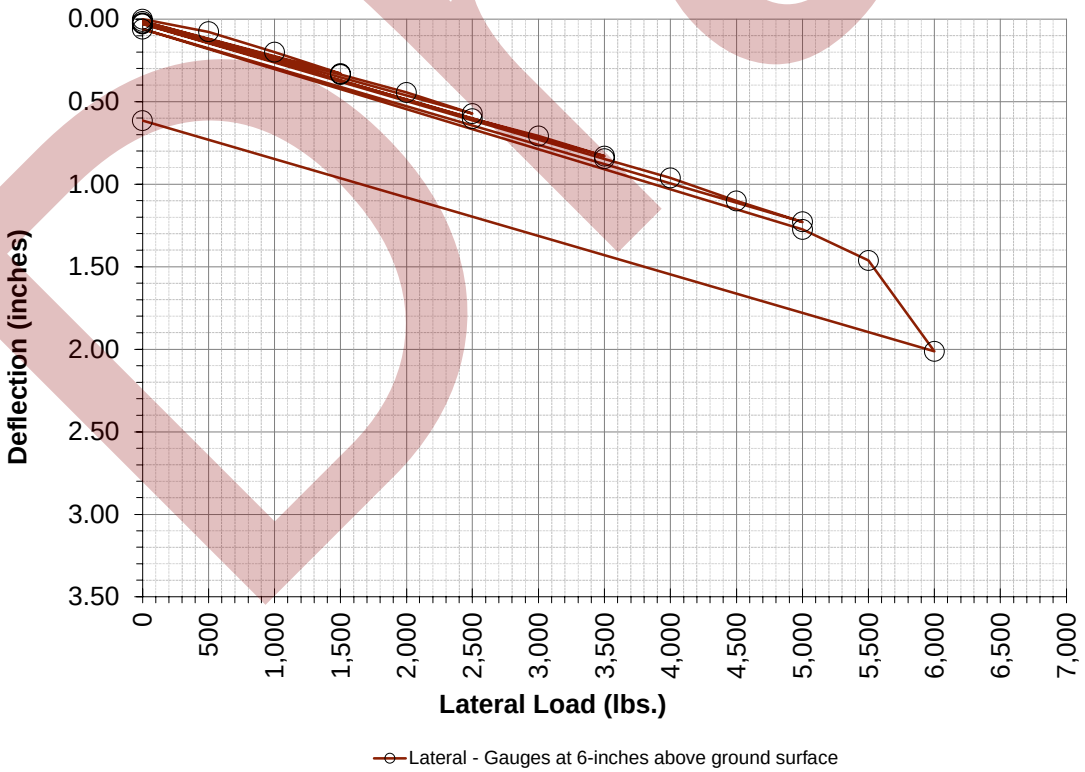
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information	
Pile ID:	PLT-018B
Latitude [deg.]:	41.86370
Longitude [deg.]:	-83.96473
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	100

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.078	
14%	1,000	0.201	
21%	1,500	0.330	
0%	0	0.014	
21%	1,500	0.336	
29%	2,000	0.446	
36%	2,500	0.573	
0%	0	0.025	
36%	2,500	0.604	
43%	3,000	0.709	
50%	3,500	0.830	
0%	0	0.030	
50%	3,500	0.847	
57%	4,000	0.962	
64%	4,500	1.102	
71%	5,000	1.230	
0%	0	0.061	
71%	5,000	1.274	
79%	5,500	1.462	
86%	6,000	2.013	
0%	0	0.616	



Draft

Lateral Load Test Results for PLT-019A

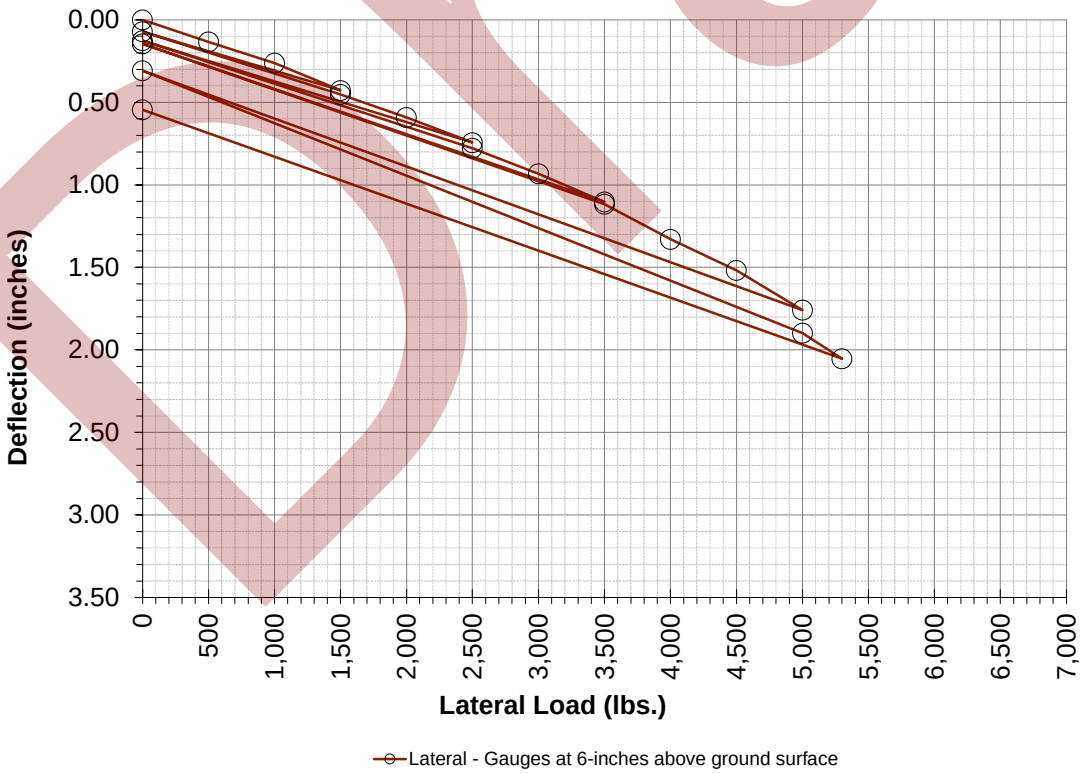
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-019A
Latitude [deg.]:	41.86273
Longitude [deg.]:	-83.95827
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	10

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.134	
14%	1,000	0.262	
21%	1,500	0.428	
0%	0	0.072	
21%	1,500	0.452	
29%	2,000	0.592	
36%	2,500	0.744	
0%	0	0.126	
36%	2,500	0.778	
43%	3,000	0.932	
50%	3,500	1.103	
0%	0	0.147	
50%	3,500	1.118	
57%	4,000	1.330	
64%	4,500	1.518	
71%	5,000	1.760	
0%	0	0.309	
71%	5,000	1.899	
76%	5,300	2.054	
0%	0	0.546	



Draft

Lateral Load Test Results for PLT-019B

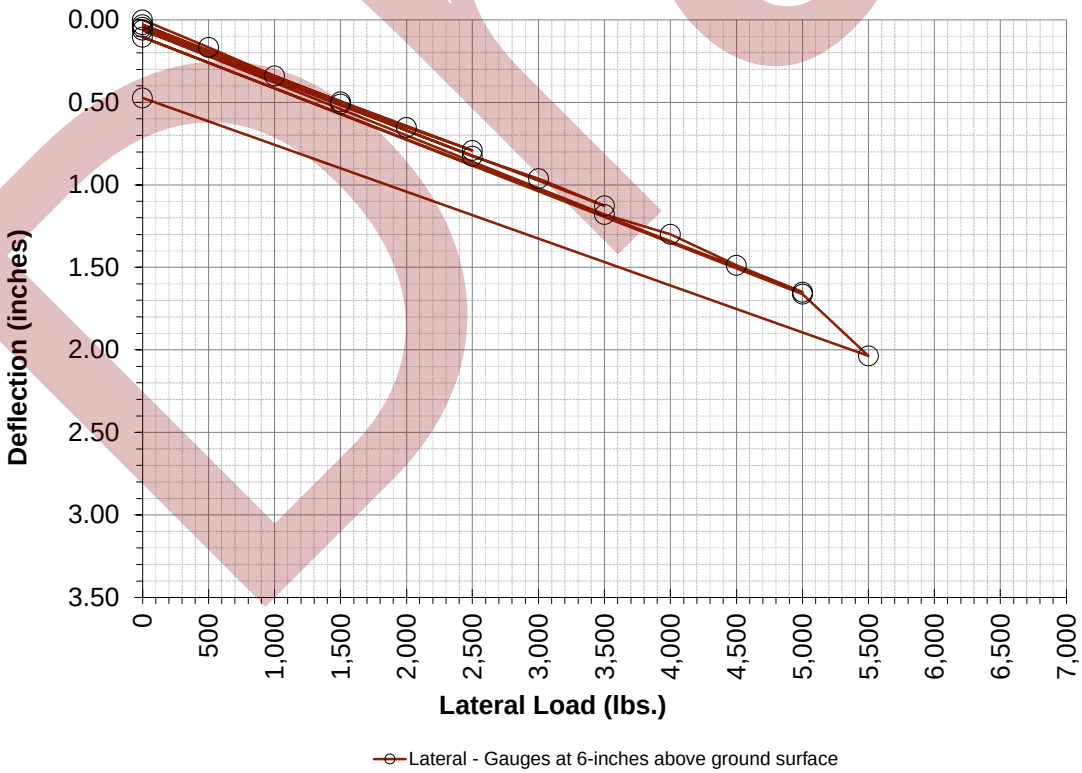
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-019B
Latitude [deg.]:	41.86273
Longitude [deg.]:	-83.95827
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	28

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.168	
14%	1,000	0.339	
21%	1,500	0.496	
0%	0	0.030	
21%	1,500	0.511	
29%	2,000	0.651	
36%	2,500	0.792	
0%	0	0.044	
36%	2,500	0.827	
43%	3,000	0.962	
50%	3,500	1.126	
0%	0	0.062	
50%	3,500	1.179	
57%	4,000	1.299	
64%	4,500	1.488	
71%	5,000	1.650	
0%	0	0.106	
71%	5,000	1.661	
79%	5,500	2.036	
0%	0	0.474	



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Lateral Load Test Results for PLT-020A

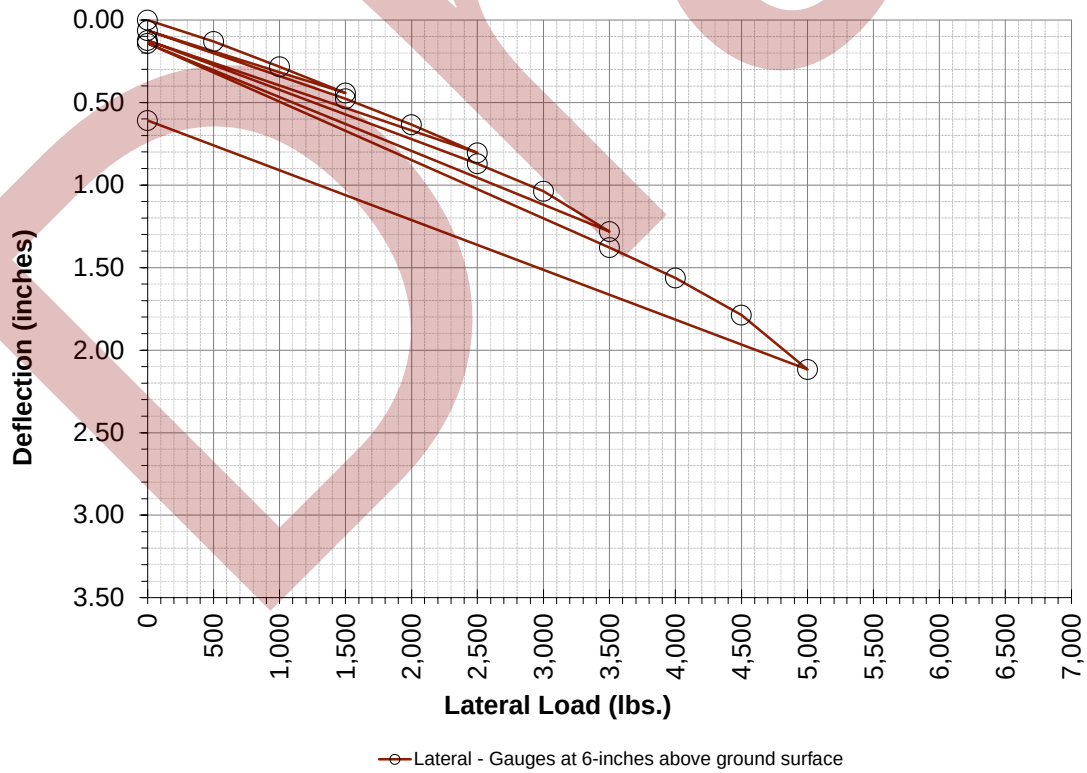
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-020A
Latitude [deg.]:	41.85524
Longitude [deg.]:	-83.96229
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	9

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.131	
14%	1,000	0.283	
21%	1,500	0.443	
0%	0	0.065	
21%	1,500	0.478	
29%	2,000	0.636	
36%	2,500	0.806	
0%	0	0.126	
36%	2,500	0.871	
43%	3,000	1.037	
50%	3,500	1.283	
0%	0	0.143	
50%	3,500	1.379	
57%	4,000	1.563	
64%	4,500	1.788	
71%	5,000	2.118	
0%	0	0.610	



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Lateral Load Test Results for PLT-20B

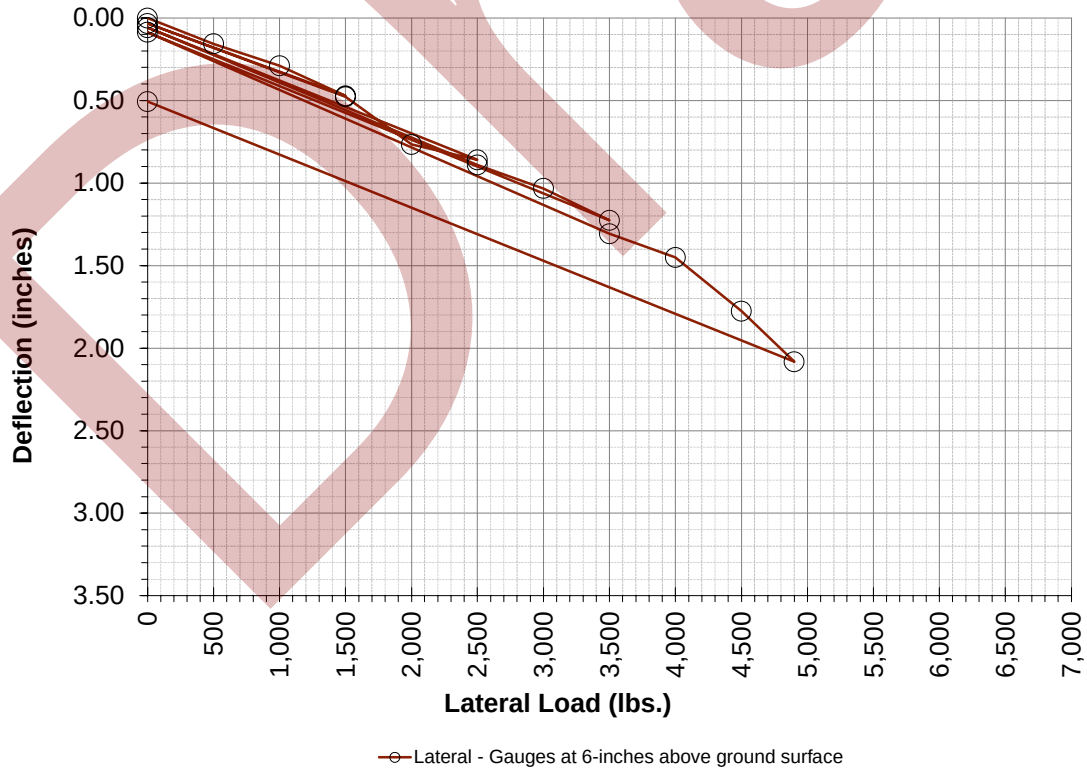
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-20B
Latitude [deg.]:	41.85524
Longitude [deg.]:	-83.96229
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	37

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.157	
14%	1,000	0.289	
21%	1,500	0.472	
0%	0	0.034	
21%	1,500	0.478	
29%	2,000	0.766	
36%	2,500	0.860	
0%	0	0.058	
36%	2,500	0.891	
43%	3,000	1.033	
50%	3,500	1.227	
0%	0	0.087	
50%	3,500	1.309	
57%	4,000	1.452	
64%	4,500	1.775	
70%	4,900	2.083	
0%	0	0.506	



Draft

Lateral Load Test Results for PLT-023A

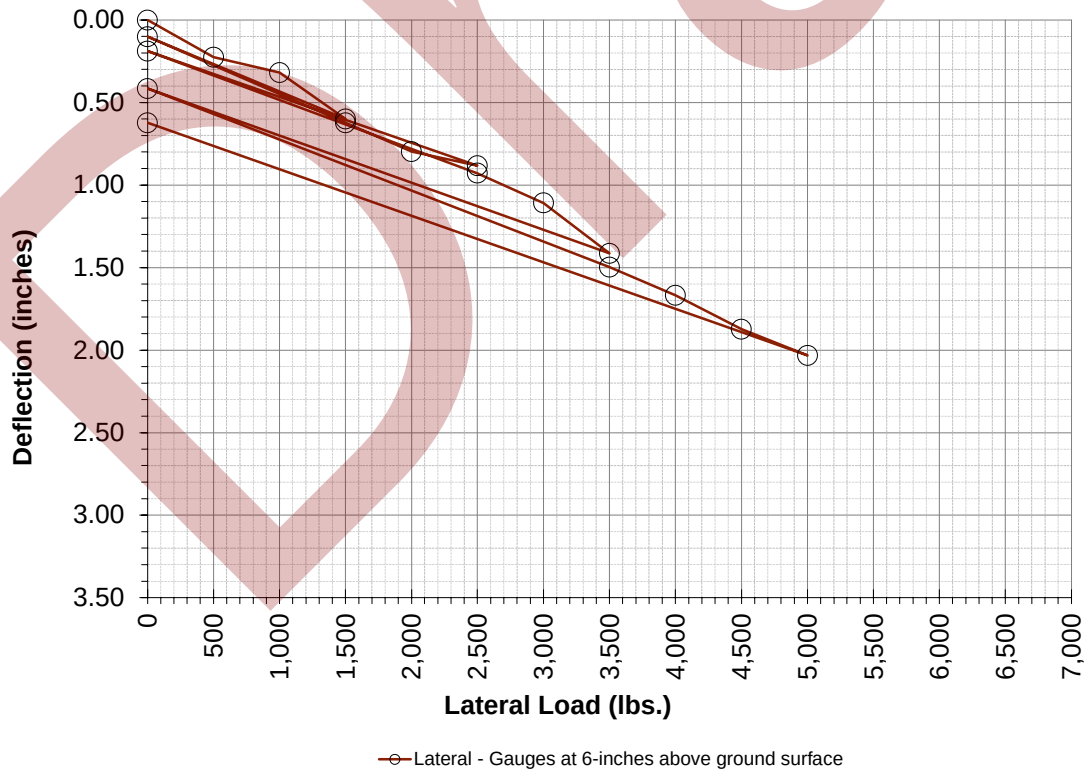
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-023A
Latitude [deg.]:	41.85713
Longitude [deg.]:	-83.96409
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	22

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.225	
14%	1,000	0.319	
21%	1,500	0.600	
0%	0	0.101	
21%	1,500	0.623	
29%	2,000	0.797	
36%	2,500	0.883	
0%	0	0.188	
36%	2,500	0.929	
43%	3,000	1.109	
50%	3,500	1.414	
0%	0	0.417	
50%	3,500	1.497	
57%	4,000	1.667	
64%	4,500	1.873	
71%	5,000	2.032	
0%	0	0.623	



Draft

Lateral Load Test Results for PLT-023B

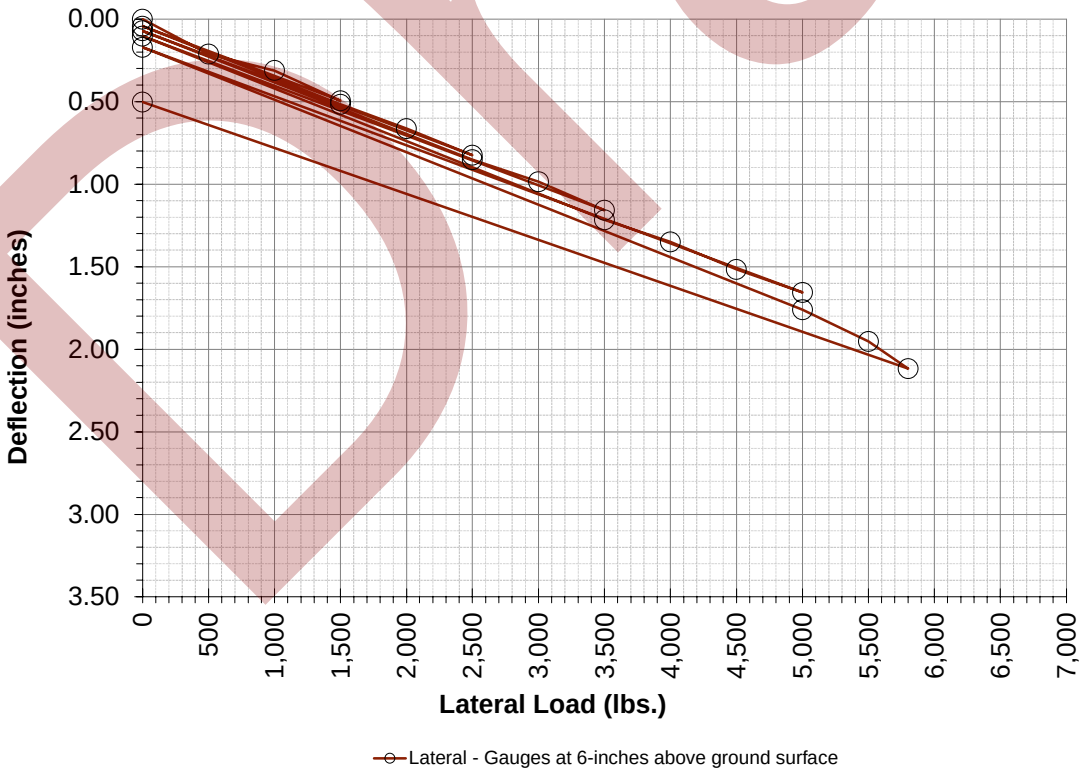
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-023B
Latitude [deg.]:	41.85713
Longitude [deg.]:	-83.96409
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	23

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.212	
14%	1,000	0.312	
21%	1,500	0.494	
0%	0	0.044	
21%	1,500	0.516	
29%	2,000	0.664	
36%	2,500	0.825	
0%	0	0.071	
36%	2,500	0.851	
43%	3,000	0.985	
50%	3,500	1.158	
0%	0	0.103	
50%	3,500	1.216	
57%	4,000	1.351	
64%	4,500	1.517	
71%	5,000	1.656	
0%	0	0.172	
71%	5,000	1.761	
79%	5,500	1.953	
83%	5,800	2.117	
0%	0	0.503	



Draft

Lateral Load Test Results for PLT-026A

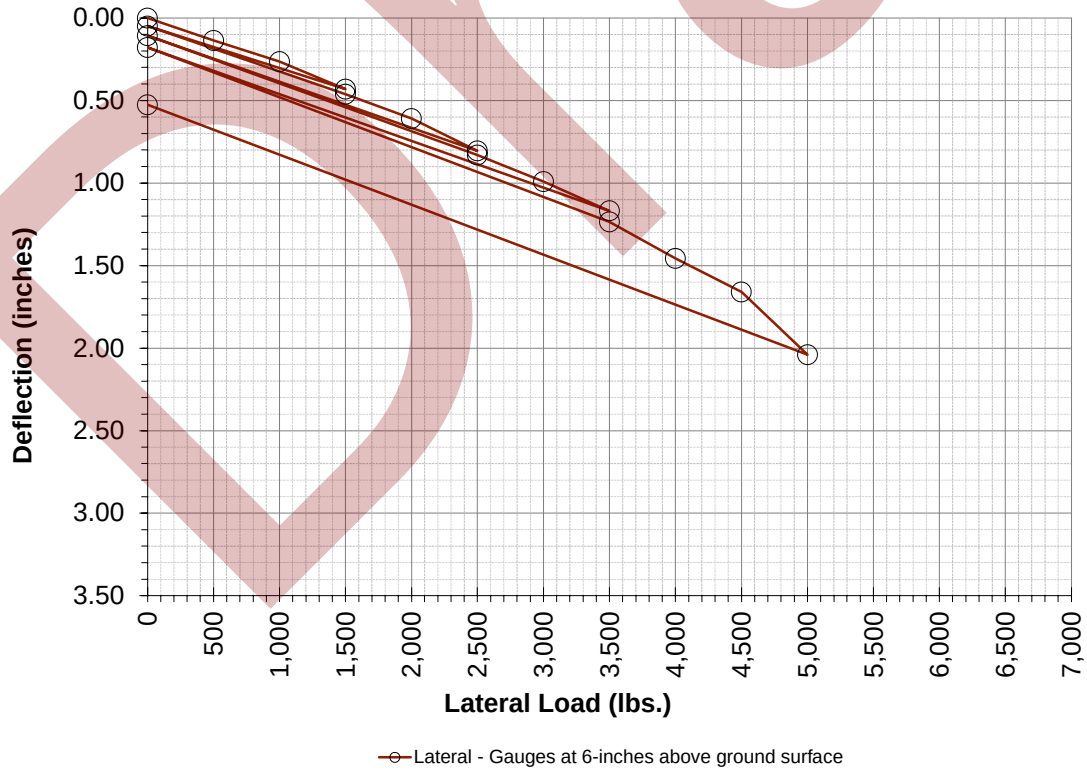
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-026A
Latitude [deg.]:	41.85938
Longitude [deg.]:	-83.95300
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	15

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.137	
14%	1,000	0.265	
21%	1,500	0.430	
0%	0	0.050	
21%	1,500	0.462	
29%	2,000	0.610	
36%	2,500	0.805	
0%	0	0.107	
36%	2,500	0.831	
43%	3,000	0.993	
50%	3,500	1.169	
0%	0	0.178	
50%	3,500	1.235	
57%	4,000	1.456	
64%	4,500	1.661	
71%	5,000	2.040	
0%	0	0.526	



Draft

Lateral Load Test Results for PLT-026B

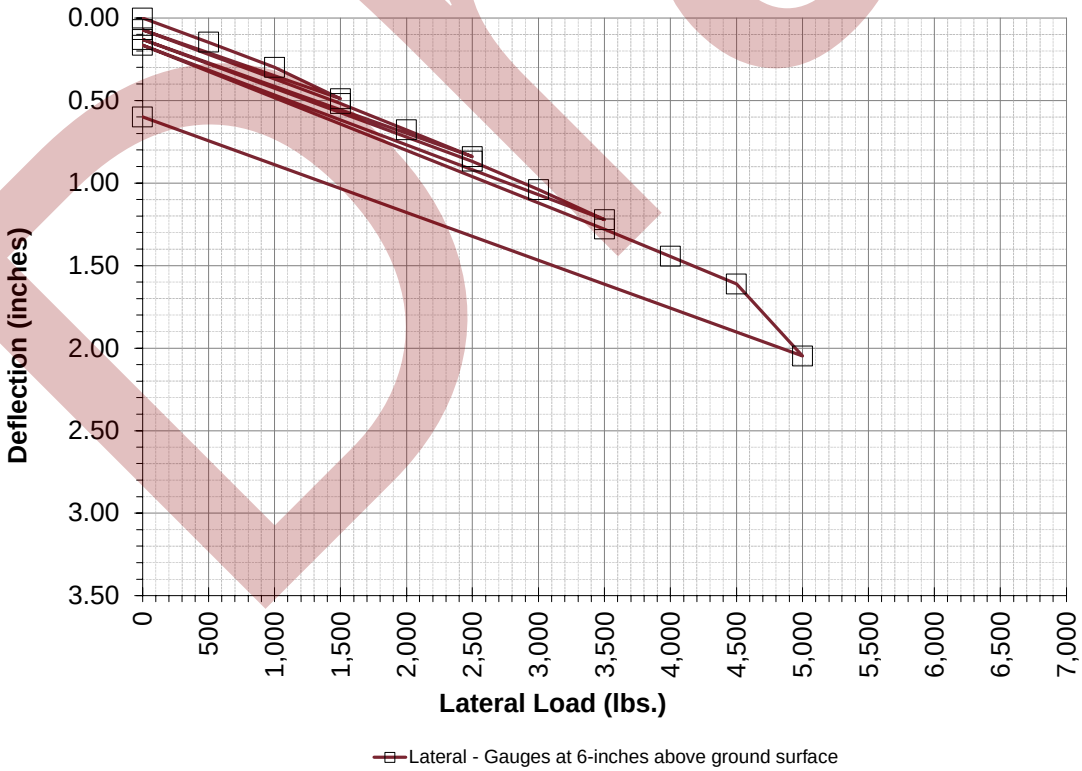
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-026B
Latitude [deg.]:	41.85938
Longitude [deg.]:	-83.95300
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	67

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.147	
14%	1,000	0.298	
21%	1,500	0.489	
0%	0	0.071	
21%	1,500	0.519	
29%	2,000	0.679	
36%	2,500	0.839	
0%	0	0.131	
36%	2,500	0.869	
43%	3,000	1.040	
50%	3,500	1.222	
0%	0	0.166	
50%	3,500	1.279	
57%	4,000	1.444	
64%	4,500	1.612	
71%	5,000	2.047	
0%	0	0.599	



Draft

Lateral Load Test Results for PLT-028A

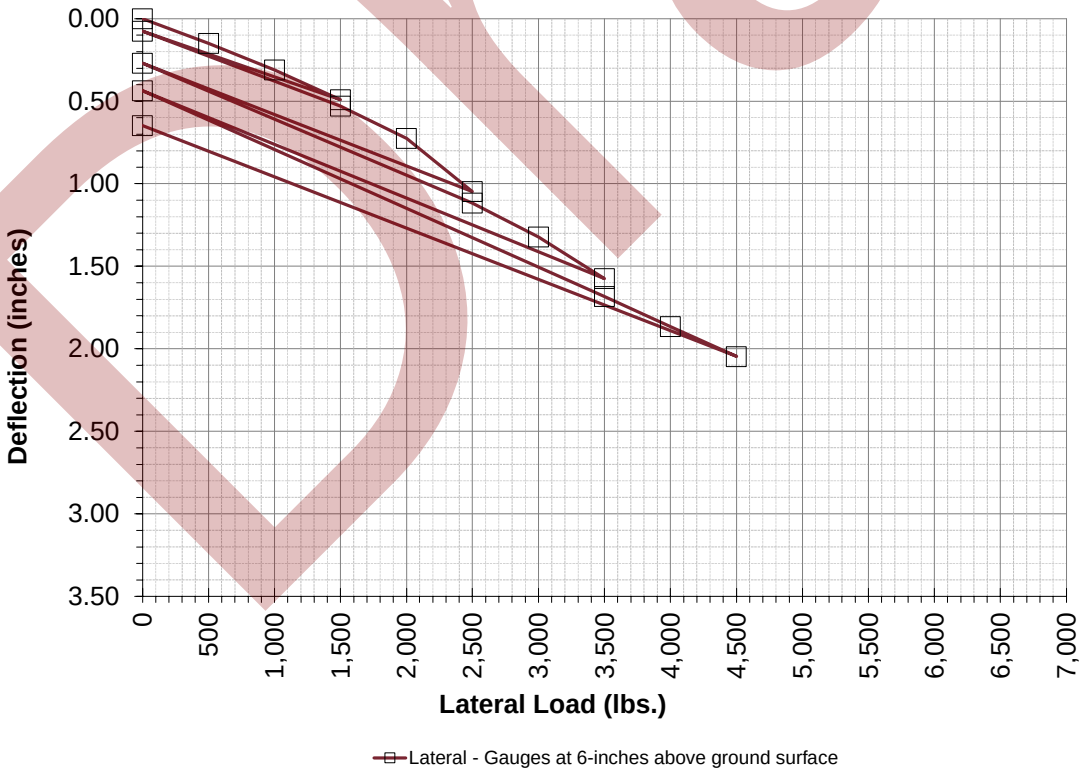
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-028A
Latitude [deg.]:	41.85192
Longitude [deg.]:	-83.95152
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	9

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.150	
14%	1,000	0.310	
21%	1,500	0.490	
0%	0	0.075	
21%	1,500	0.530	
29%	2,000	0.726	
36%	2,500	1.048	
0%	0	0.271	
36%	2,500	1.116	
43%	3,000	1.324	
50%	3,500	1.574	
0%	0	0.437	
50%	3,500	1.683	
57%	4,000	1.865	
64%	4,500	2.047	
0%	0	0.648	



Draft

Lateral Load Test Results for PLT-028B

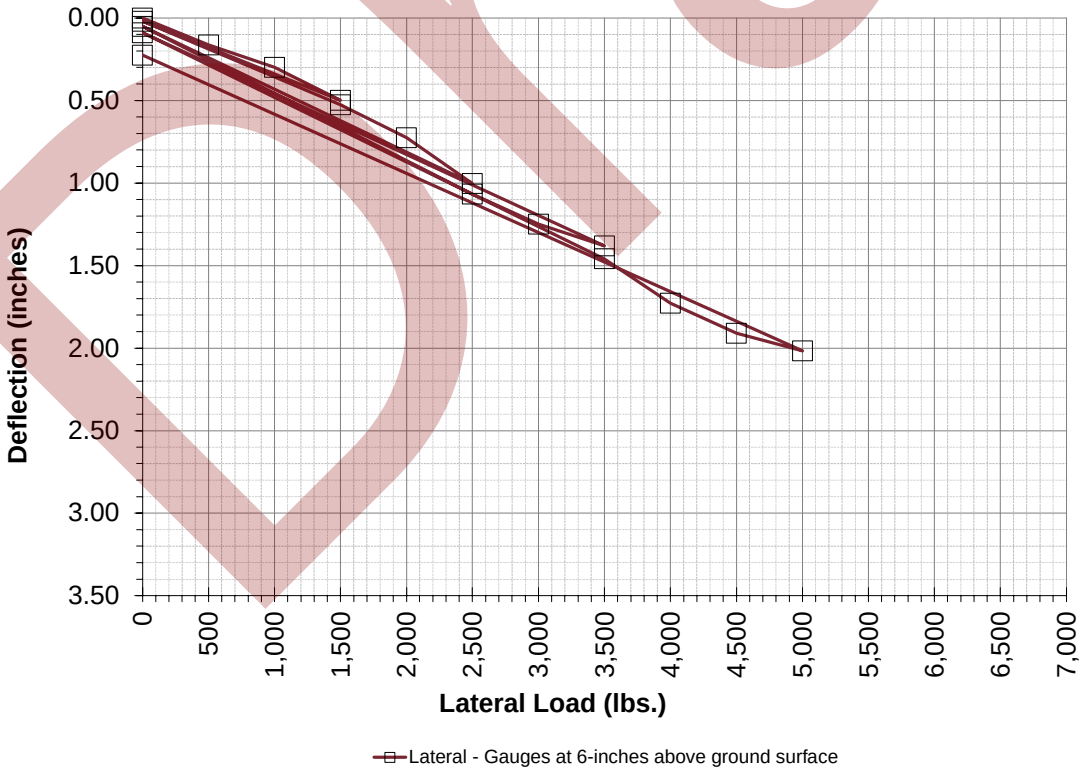
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-028B
Latitude [deg.]:	41.85192
Longitude [deg.]:	-83.95152
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	39

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.164	
14%	1,000	0.298	
21%	1,500	0.500	
0%	0	0.019	
21%	1,500	0.526	
29%	2,000	0.725	
36%	2,500	1.003	
0%	0	0.051	
36%	2,500	1.068	
43%	3,000	1.249	
50%	3,500	1.381	
0%	0	0.090	
50%	3,500	1.460	
57%	4,000	1.727	
64%	4,500	1.910	
71%	5,000	2.017	
0%	0	0.225	



Draft

Lateral Load Test Results for PLT-029A

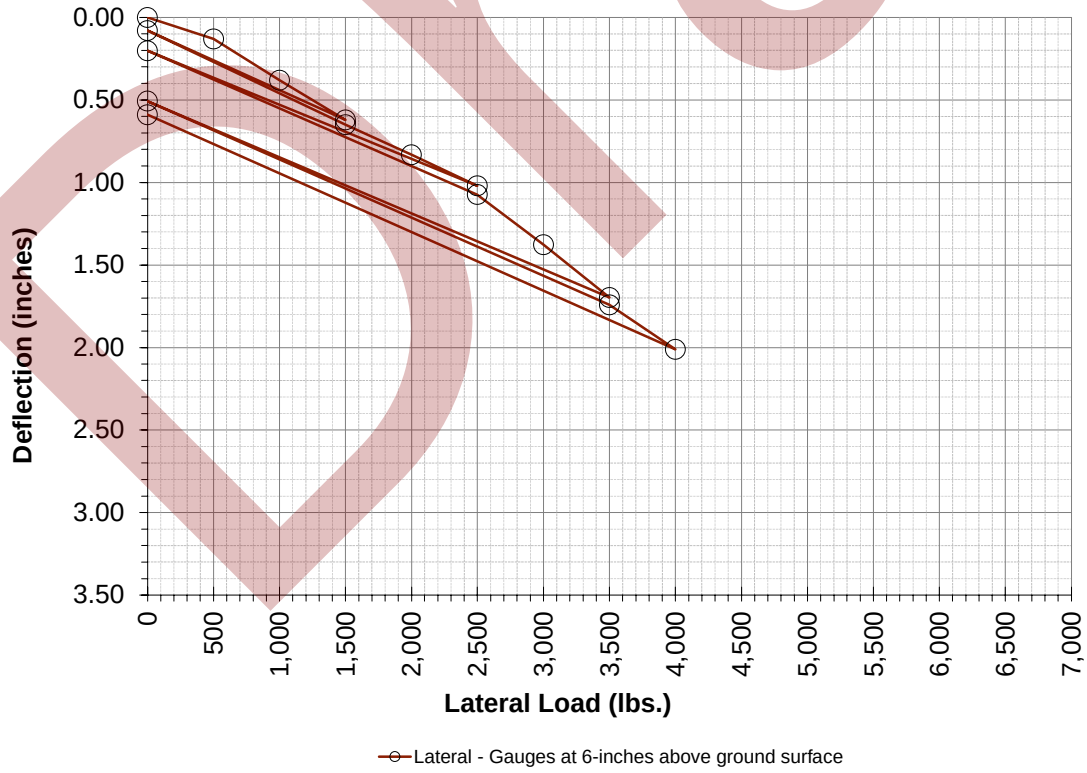
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-029A
Latitude [deg.]:	41.85184
Longitude [deg.]:	-83.94463
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	12

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.130	
14%	1,000	0.381	
21%	1,500	0.620	
0%	0	0.080	
21%	1,500	0.650	
29%	2,000	0.832	
36%	2,500	1.019	
0%	0	0.202	
36%	2,500	1.074	
43%	3,000	1.378	
50%	3,500	1.698	
0%	0	0.507	
50%	3,500	1.740	
57%	4,000	2.011	
0%	0	0.590	



Draft

Lateral Load Test Results for PLT-029B

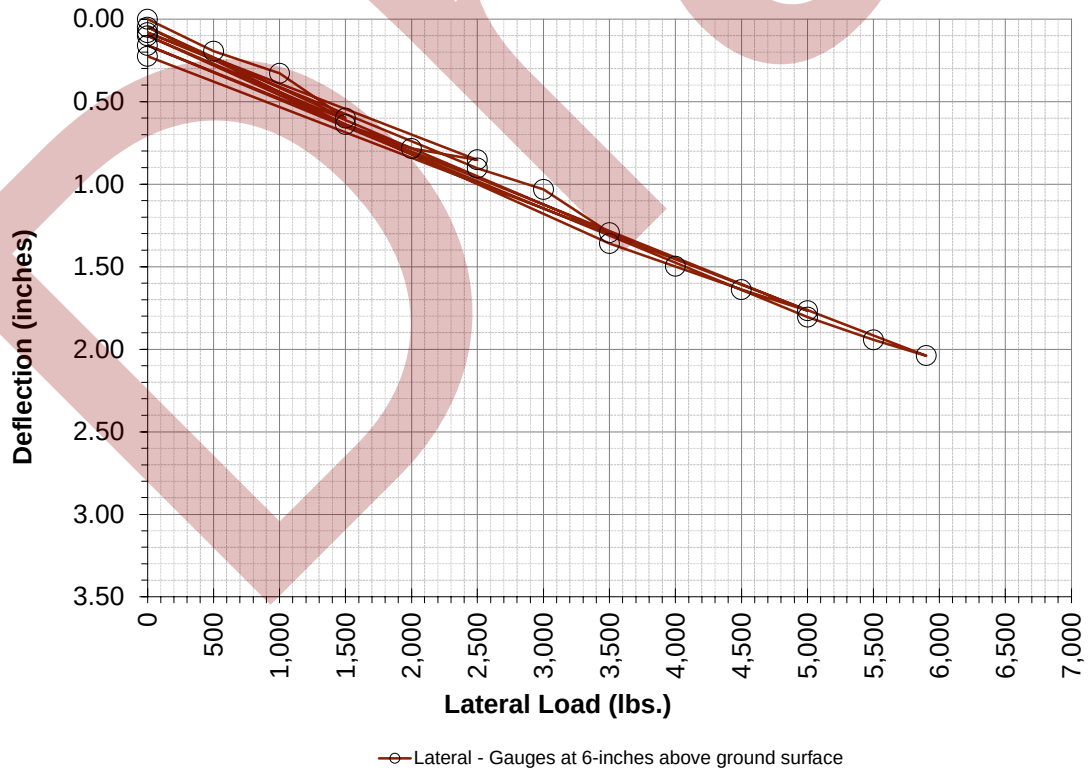
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-029B
Latitude [deg.]:	41.85184
Longitude [deg.]:	-83.94463
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	32

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.195	
14%	1,000	0.329	
21%	1,500	0.600	
0%	0	0.049	
21%	1,500	0.639	
29%	2,000	0.784	
36%	2,500	0.853	
0%	0	0.083	
36%	2,500	0.903	
43%	3,000	1.032	
50%	3,500	1.294	
0%	0	0.101	
50%	3,500	1.360	
57%	4,000	1.498	
64%	4,500	1.639	
71%	5,000	1.766	
0%	0	0.160	
71%	5,000	1.806	
79%	5,500	1.943	
84%	5,900	2.040	
0%	0	0.225	



Draft

Lateral Load Test Results for PLT-030A

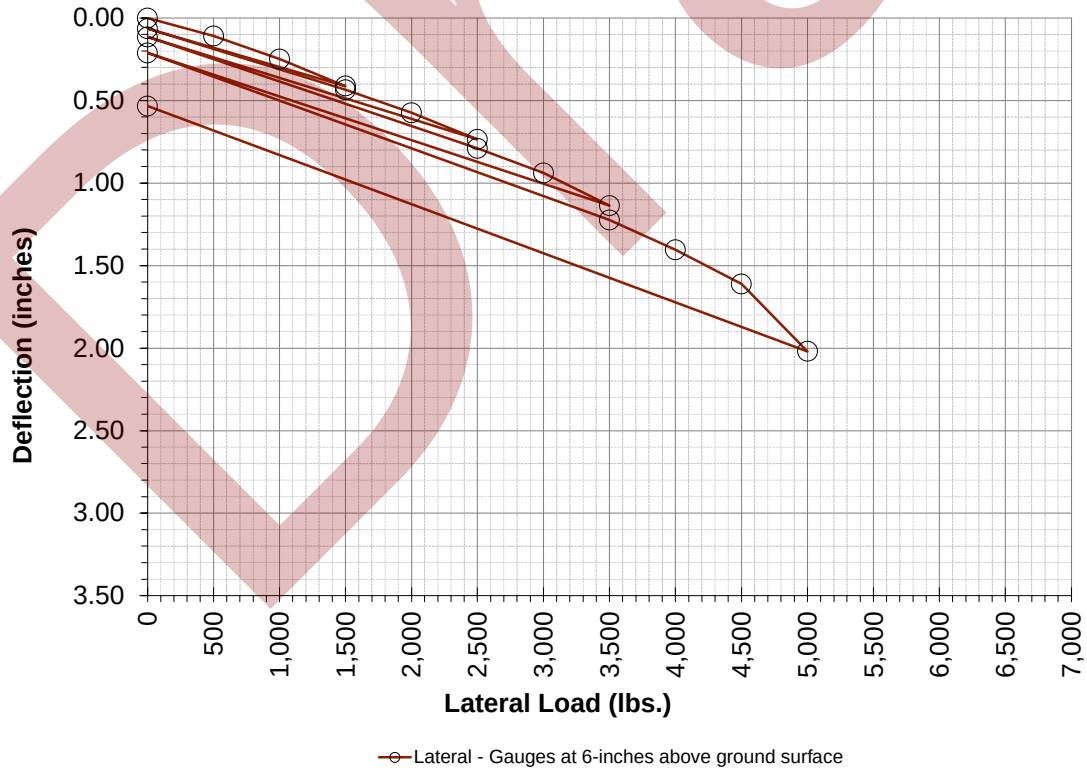
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-030A
Latitude [deg.]:	41.85424
Longitude [deg.]:	-83.95913
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	14

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.110	
14%	1,000	0.248	
21%	1,500	0.412	
0%	0	0.065	
21%	1,500	0.434	
29%	2,000	0.574	
36%	2,500	0.736	
0%	0	0.115	
36%	2,500	0.789	
43%	3,000	0.940	
50%	3,500	1.137	
0%	0	0.212	
50%	3,500	1.224	
57%	4,000	1.404	
64%	4,500	1.612	
71%	5,000	2.020	
0%	0	0.535	



Draft

Lateral Load Test Results for PLT-030B

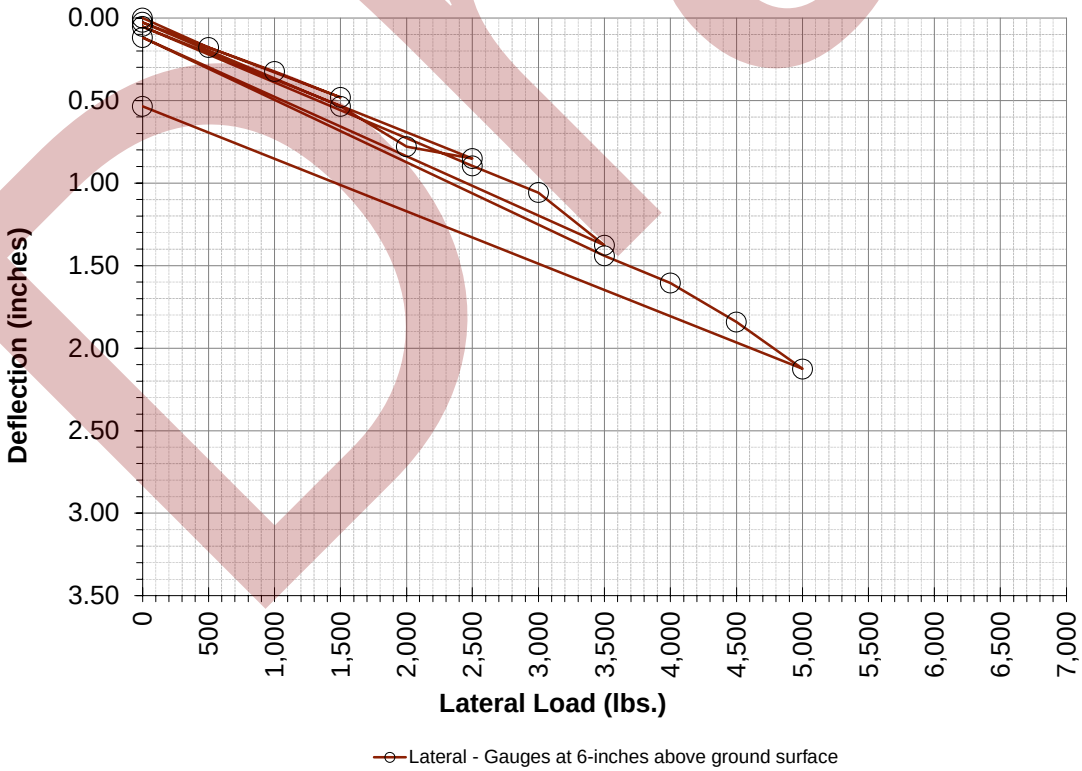
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-030B
Latitude [deg.]:	41.85424
Longitude [deg.]:	-83.95913
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	33

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.179	
14%	1,000	0.324	
21%	1,500	0.482	
0%	0	0.027	
21%	1,500	0.536	
29%	2,000	0.780	
36%	2,500	0.851	
0%	0	0.052	
36%	2,500	0.898	
43%	3,000	1.058	
50%	3,500	1.377	
0%	0	0.118	
50%	3,500	1.442	
57%	4,000	1.605	
64%	4,500	1.842	
71%	5,000	2.126	
0%	0	0.537	



Draft

Lateral Load Test Results for PLT-032A

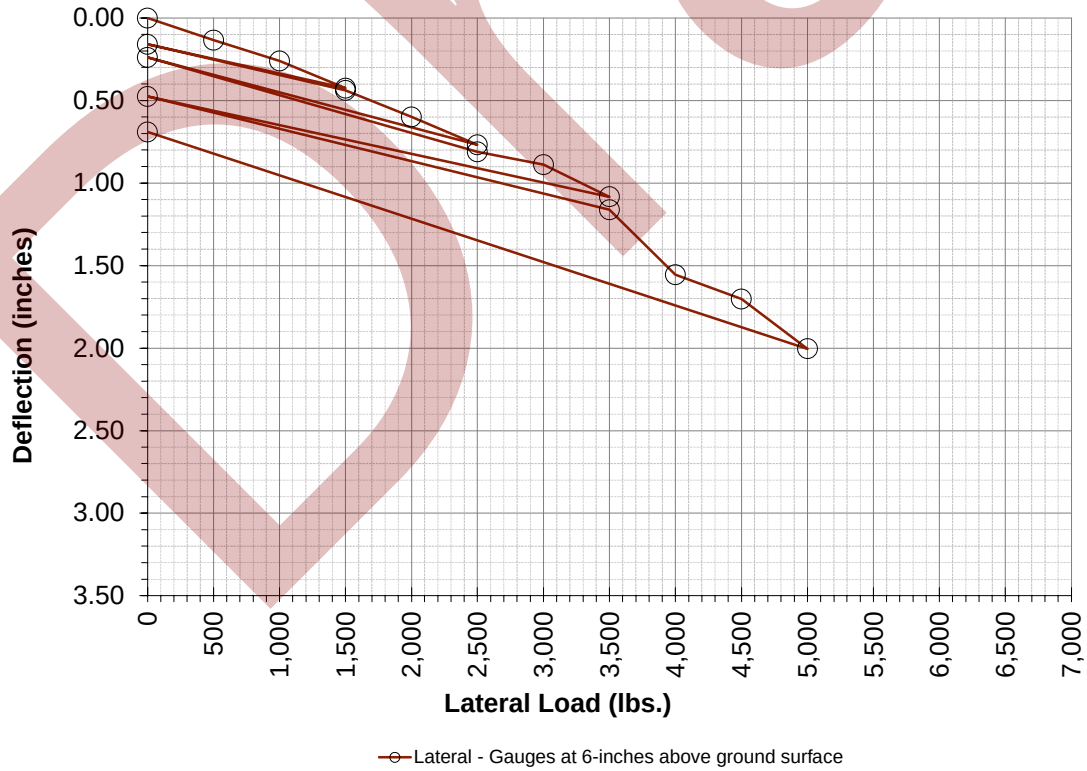
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-032A
Latitude [deg.]:	41.85319
Longitude [deg.]:	-83.96870
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	11

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.136	
14%	1,000	0.260	
21%	1,500	0.426	
0%	0	0.159	
21%	1,500	0.439	
29%	2,000	0.601	
36%	2,500	0.768	
0%	0	0.238	
36%	2,500	0.811	
43%	3,000	0.888	
50%	3,500	1.084	
0%	0	0.475	
50%	3,500	1.161	
57%	4,000	1.556	
64%	4,500	1.702	
71%	5,000	2.005	
0%	0	0.690	



Draft

Lateral Load Test Results for PLT-032B

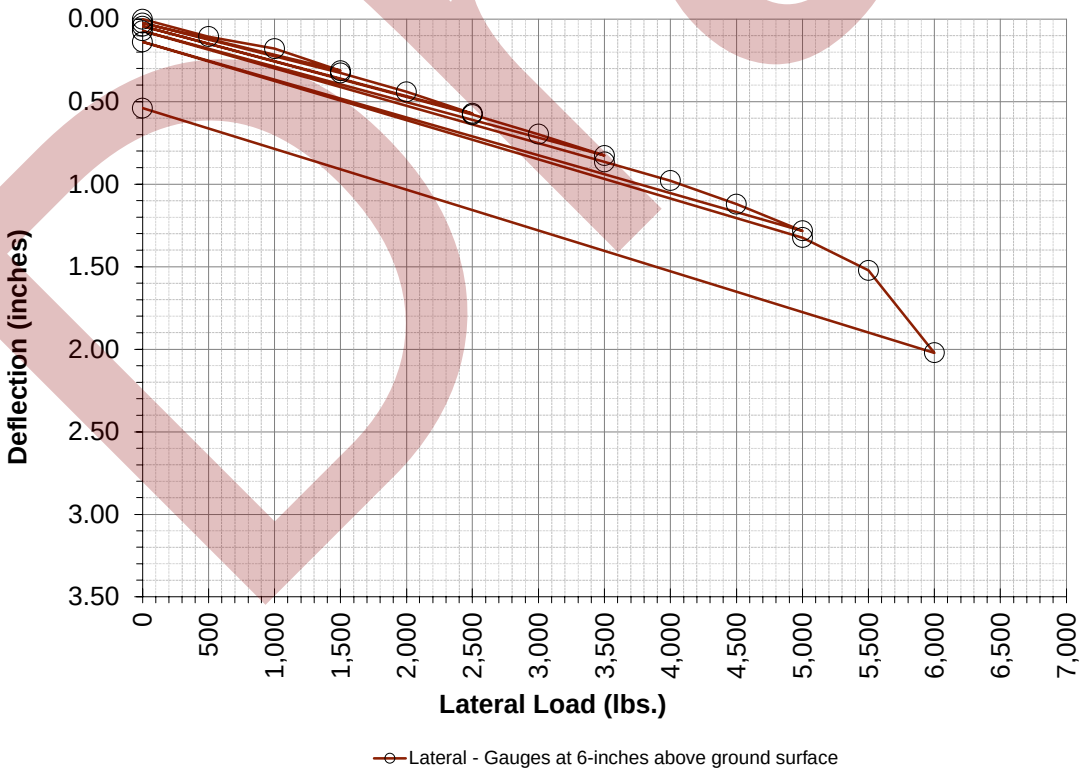
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-032B
Latitude [deg.]:	41.85319
Longitude [deg.]:	-83.96870
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	82

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.106	
14%	1,000	0.179	
21%	1,500	0.313	
0%	0	0.025	
21%	1,500	0.326	
29%	2,000	0.440	
36%	2,500	0.571	
0%	0	0.044	
36%	2,500	0.579	
43%	3,000	0.698	
50%	3,500	0.827	
0%	0	0.072	
50%	3,500	0.867	
57%	4,000	0.979	
64%	4,500	1.121	
71%	5,000	1.283	
0%	0	0.139	
71%	5,000	1.324	
79%	5,500	1.523	
86%	6,000	2.022	
0%	0	0.540	



Draft

Lateral Load Test Results for PLT-035A

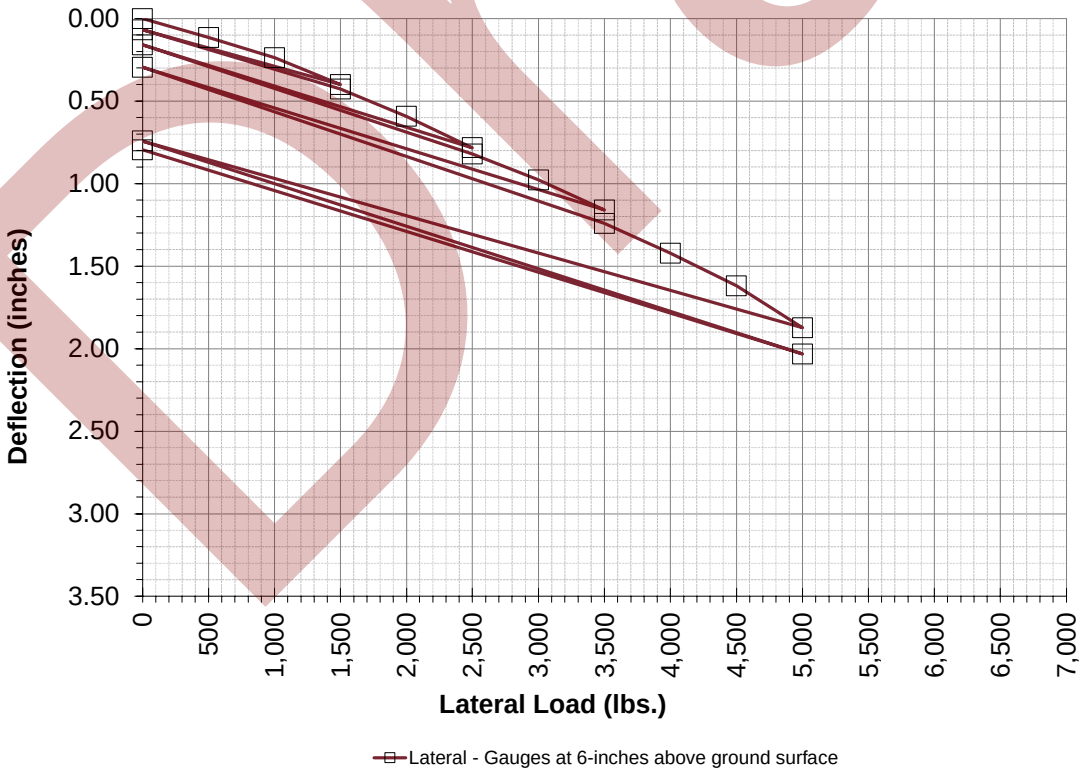
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-035A
Latitude [deg.]:	41.84806
Longitude [deg.]:	-83.96507
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	15

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.115	
14%	1,000	0.238	
21%	1,500	0.400	
0%	0	0.068	
21%	1,500	0.428	
29%	2,000	0.593	
36%	2,500	0.783	
0%	0	0.160	
36%	2,500	0.820	
43%	3,000	0.978	
50%	3,500	1.160	
0%	0	0.295	
50%	3,500	1.243	
57%	4,000	1.423	
64%	4,500	1.620	
71%	5,000	1.873	
0%	0	0.743	
71%	5,000	2.033	
0%	0	0.795	



Draft

Lateral Load Test Results for PLT-035B

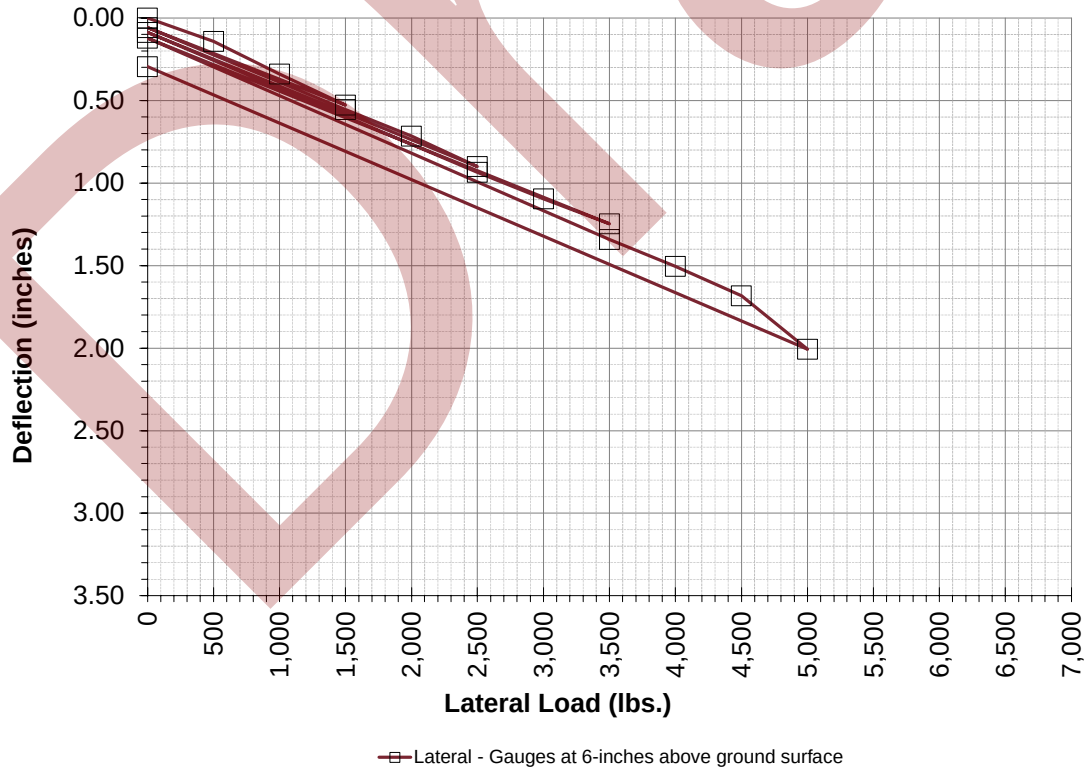
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-035B
Latitude [deg.]:	41.84806
Longitude [deg.]:	-83.96507
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	49

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.143	
14%	1,000	0.340	
21%	1,500	0.528	
0%	0	0.058	
21%	1,500	0.555	
29%	2,000	0.715	
36%	2,500	0.900	
0%	0	0.088	
36%	2,500	0.935	
43%	3,000	1.095	
50%	3,500	1.248	
0%	0	0.123	
50%	3,500	1.343	
57%	4,000	1.505	
64%	4,500	1.683	
71%	5,000	2.008	
0%	0	0.295	



Draft

Lateral Load Test Results for PLT-036A

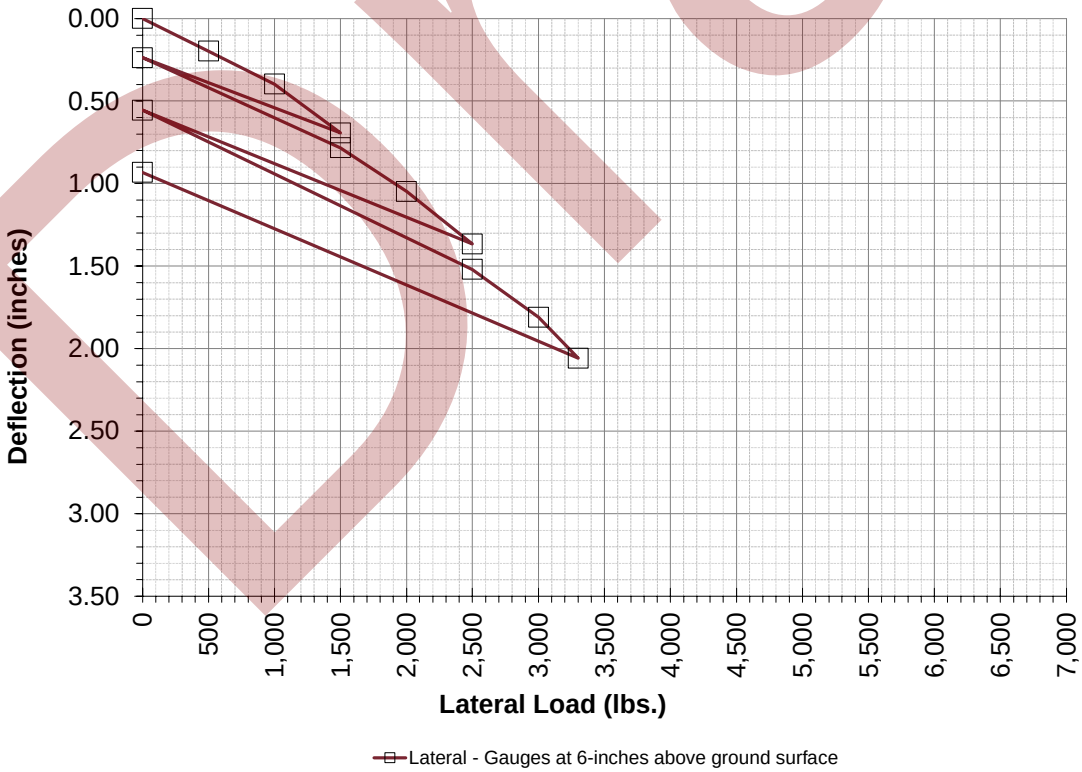
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-036A
Latitude [deg.]:	41.84667
Longitude [deg.]:	-83.95390
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	22

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.198	
14%	1,000	0.398	
21%	1,500	0.693	
0%	0	0.238	
21%	1,500	0.783	
29%	2,000	1.048	
36%	2,500	1.365	
0%	0	0.555	
36%	2,500	1.520	
43%	3,000	1.810	
47%	3,300	2.058	
0%	0	0.933	



Draft

Lateral Load Test Results for PLT-036B

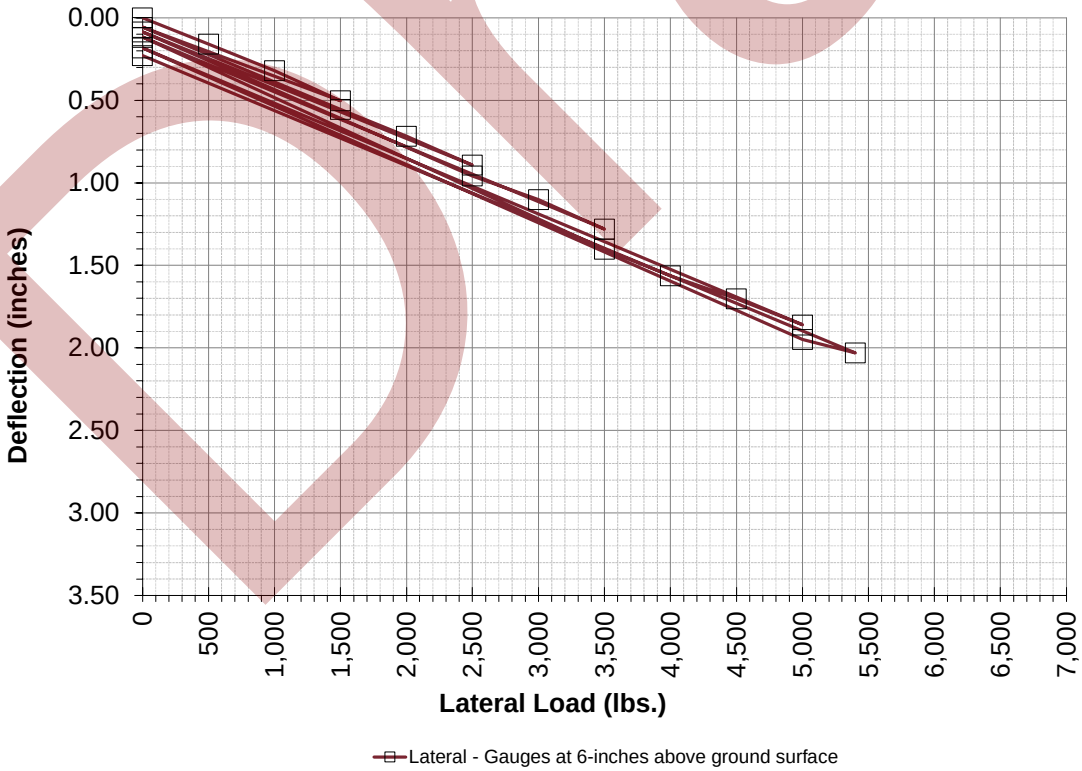
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-036B
Latitude [deg.]:	41.84667
Longitude [deg.]:	-83.95390
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	58

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.160	
14%	1,000	0.320	
21%	1,500	0.503	
0%	0	0.058	
21%	1,500	0.555	
29%	2,000	0.718	
36%	2,500	0.893	
0%	0	0.085	
36%	2,500	0.958	
43%	3,000	1.103	
50%	3,500	1.280	
0%	0	0.118	
50%	3,500	1.403	
57%	4,000	1.563	
64%	4,500	1.703	
71%	5,000	1.860	
0%	0	0.183	
71%	5,000	1.950	
77%	5,400	2.030	
0%	0	0.230	



Draft

Lateral Load Test Results for PLT-040A

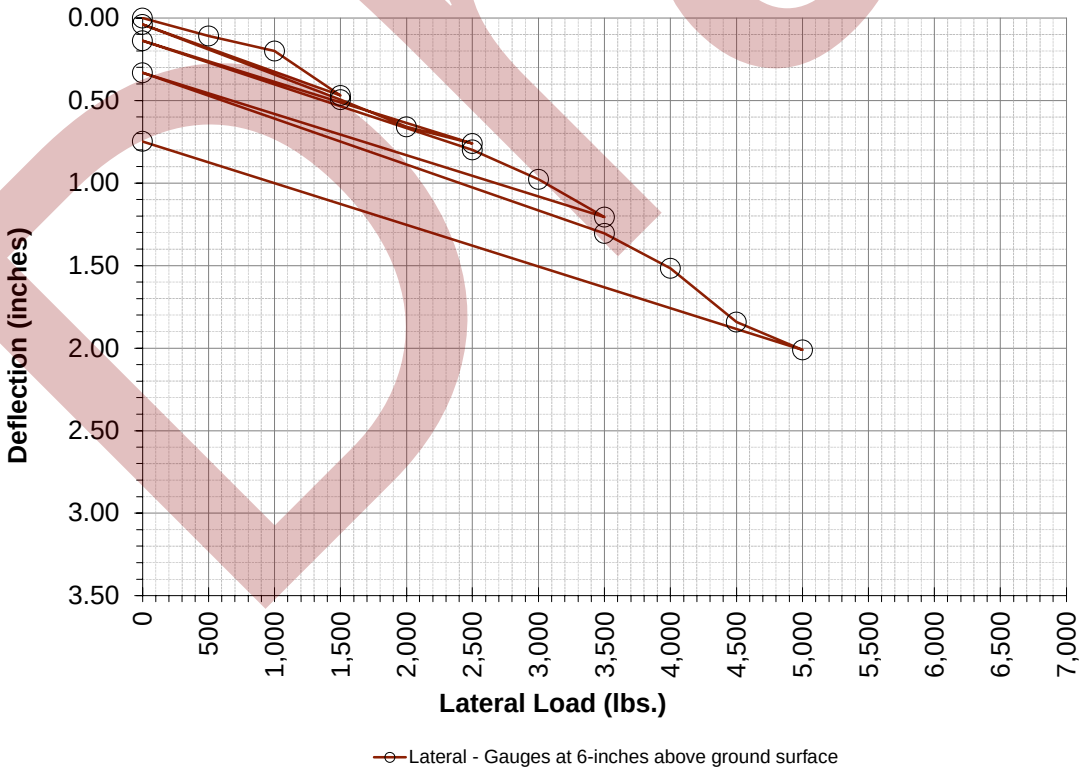
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-040A
Latitude [deg.]:	41.84438
Longitude [deg.]:	-83.95986
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	12

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.109	
14%	1,000	0.200	
21%	1,500	0.469	
0%	0	0.041	
21%	1,500	0.496	
29%	2,000	0.659	
36%	2,500	0.761	
0%	0	0.138	
36%	2,500	0.800	
43%	3,000	0.978	
50%	3,500	1.206	
0%	0	0.333	
50%	3,500	1.304	
57%	4,000	1.516	
64%	4,500	1.842	
71%	5,000	2.012	
0%	0	0.748	



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Lateral Load Test Results for PLT-040B

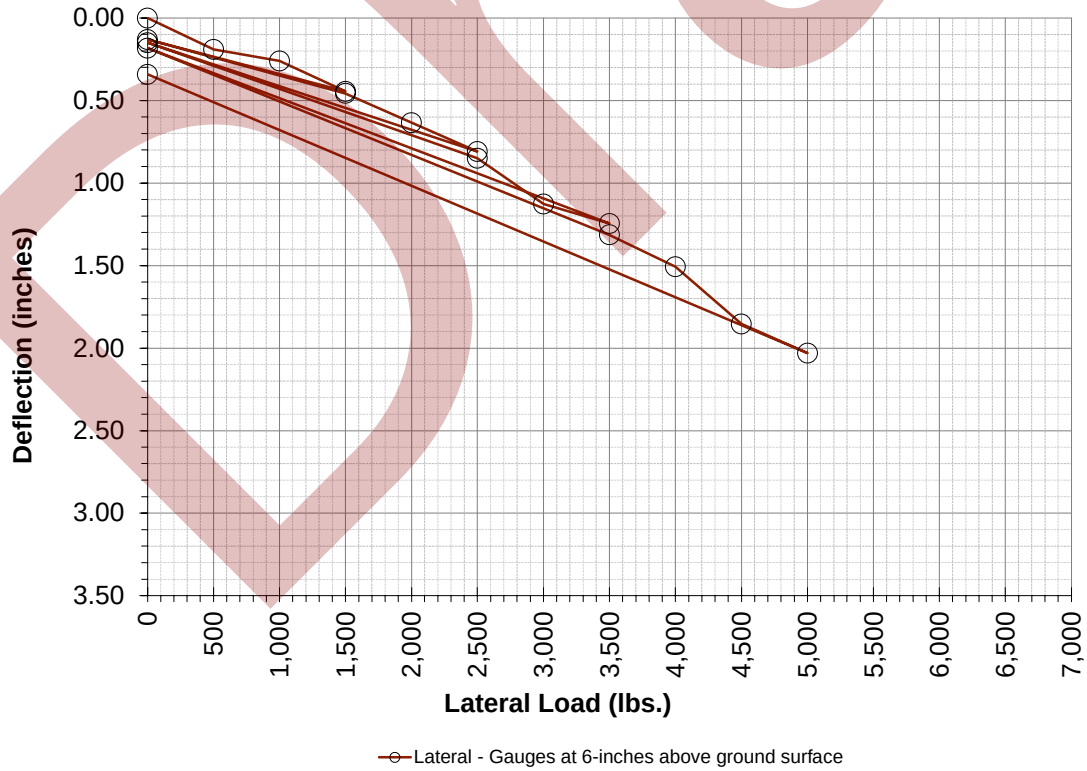
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information	
Pile ID:	PLT-040B
Latitude [deg.]:	41.84438
Longitude [deg.]:	-83.95986
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	33

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.191	
14%	1,000	0.262	
21%	1,500	0.445	
0%	0	0.131	
21%	1,500	0.458	
29%	2,000	0.634	
36%	2,500	0.809	
0%	0	0.151	
36%	2,500	0.849	
43%	3,000	1.126	
50%	3,500	1.245	
0%	0	0.183	
50%	3,500	1.315	
57%	4,000	1.508	
64%	4,500	1.854	
71%	5,000	2.031	
0%	0	0.342	



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Lateral Load Test Results for PLT-044A

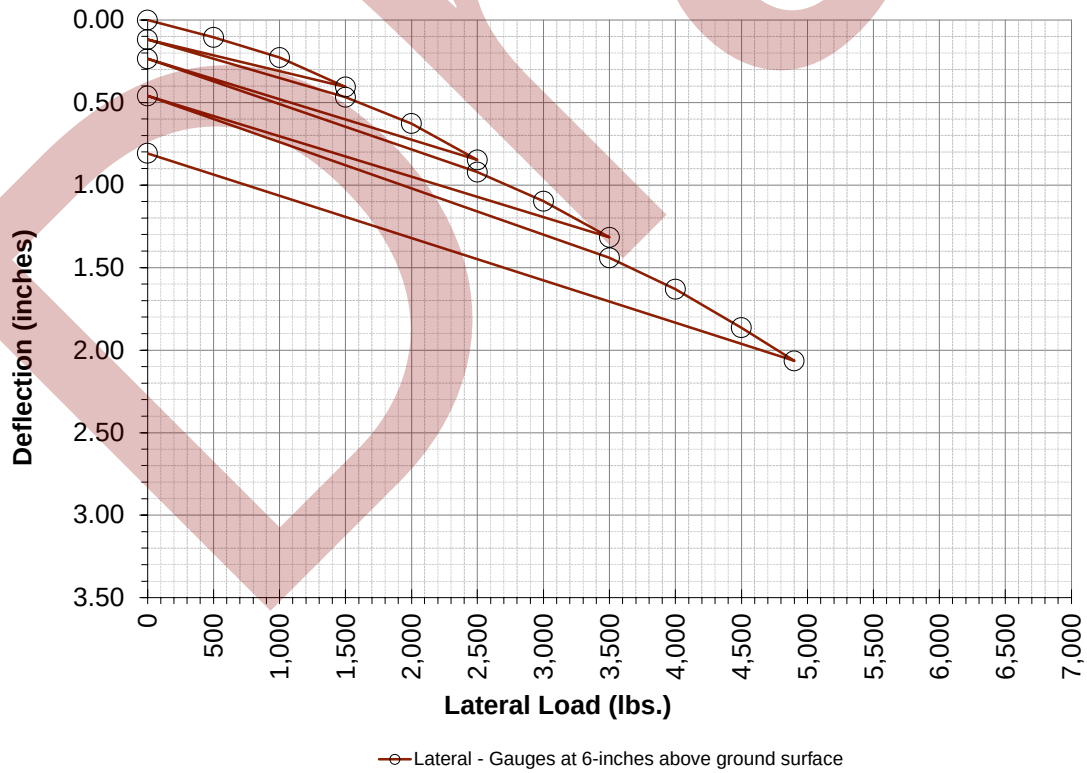
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-044A
Latitude [deg.]:	41.83520
Longitude [deg.]:	-83.97515
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	13

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.105	
14%	1,000	0.228	
21%	1,500	0.405	
0%	0	0.118	
21%	1,500	0.468	
29%	2,000	0.628	
36%	2,500	0.848	
0%	0	0.235	
36%	2,500	0.923	
43%	3,000	1.098	
50%	3,500	1.318	
0%	0	0.460	
50%	3,500	1.440	
57%	4,000	1.630	
64%	4,500	1.865	
70%	4,900	2.065	
0%	0	0.808	



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Lateral Load Test Results for PLT-044B

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-044B
Latitude [deg.]:	41.83520
Longitude [deg.]:	-83.97515
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	117

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.215	
14%	1,000	0.383	
21%	1,500	0.613	
0%	0	0.115	
21%	1,500	0.655	
29%	2,000	0.920	
36%	2,500	1.090	
0%	0	0.188	
36%	2,500	1.178	
43%	3,000	1.388	
50%	3,500	1.595	
0%	0	0.263	
50%	3,500	1.720	
57%	4,000	1.903	
60%	4,200	2.020	
0%	0	0.333	



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Lateral Load Test Results for PLT-045A

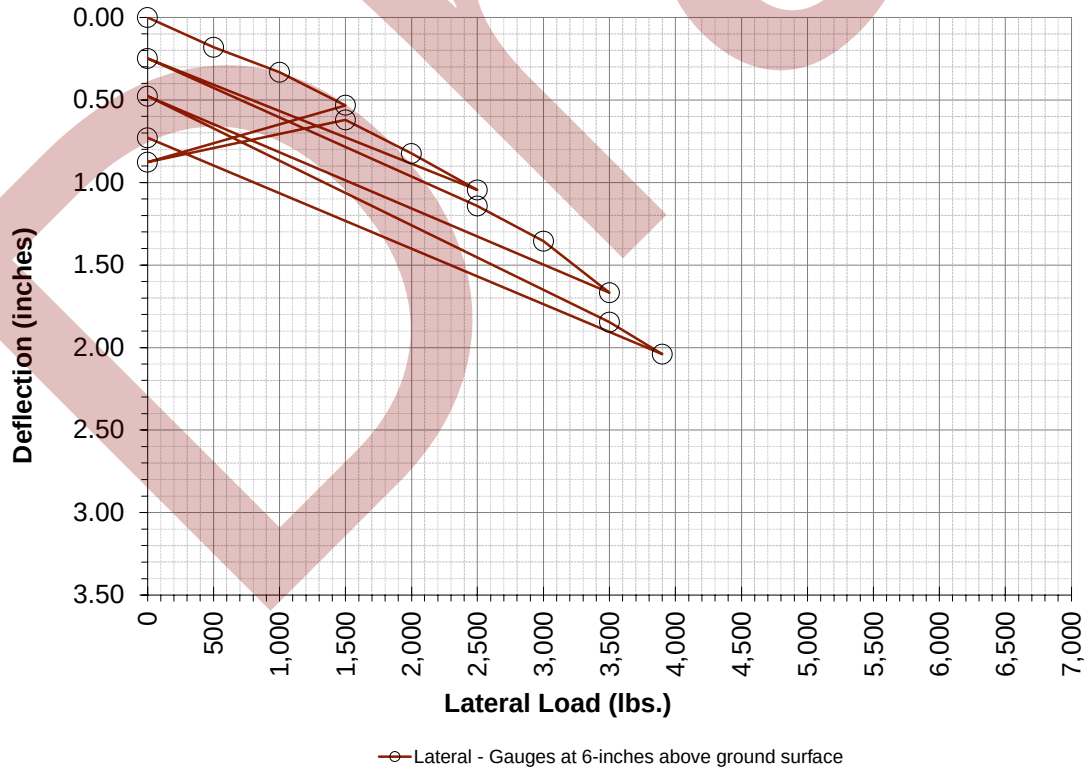
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-045A
Latitude [deg.]:	41.83691
Longitude [deg.]:	-83.98344
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	26

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.180	
14%	1,000	0.333	
21%	1,500	0.533	
0%	0	0.878	
21%	1,500	0.620	
29%	2,000	0.825	
36%	2,500	1.045	
0%	0	0.248	
36%	2,500	1.143	
43%	3,000	1.355	
50%	3,500	1.668	
0%	0	0.478	
50%	3,500	1.845	
56%	3,900	2.040	
0%	0	0.730	



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Lateral Load Test Results for PLT-045B

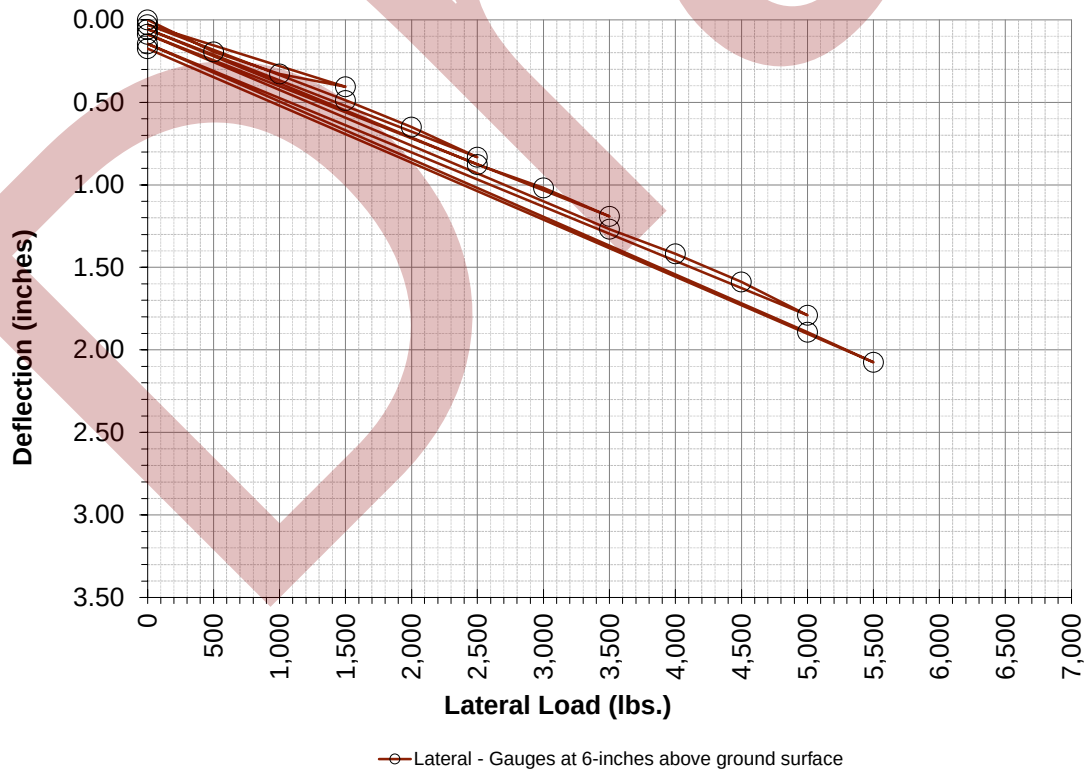
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-045B
Latitude [deg.]:	41.83691
Longitude [deg.]:	-83.98344
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	63

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.195	
14%	1,000	0.328	
21%	1,500	0.405	
0%	0	0.030	
21%	1,500	0.488	
29%	2,000	0.650	
36%	2,500	0.833	
0%	0	0.058	
36%	2,500	0.878	
43%	3,000	1.018	
50%	3,500	1.190	
0%	0	0.088	
50%	3,500	1.268	
57%	4,000	1.418	
64%	4,500	1.588	
71%	5,000	1.790	
0%	0	0.145	
71%	5,000	1.893	
79%	5,500	2.075	
0%	0	0.175	



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Lateral Load Test Results for PLT-047A

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-047A
Latitude [deg.]:	41.83427
Longitude [deg.]:	-83.98736
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	31

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.155	
14%	1,000	0.355	
21%	1,500	0.723	
0%	0	0.170	
21%	1,500	0.798	
29%	2,000	1.175	
36%	2,500	1.680	
0%	0	0.648	
36%	2,500	1.905	
43%	3,000	2.030	
0%	0	0.895	



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Lateral Load Test Results for PLT-047B

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information	
Pile ID:	PLT-047B
Latitude [deg.]:	41.83427
Longitude [deg.]:	-83.98736
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	124

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.195	
14%	1,000	0.358	
21%	1,500	0.603	
0%	0	0.055	
21%	1,500	0.630	
29%	2,000	0.863	
36%	2,500	1.135	
0%	0	0.110	
36%	2,500	1.165	
43%	3,000	1.430	
50%	3,500	1.695	
0%	0	0.165	
50%	3,500	1.760	
57%	4,000	2.008	
0%	0	0.210	



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Lateral Load Test Results for PLT-048A

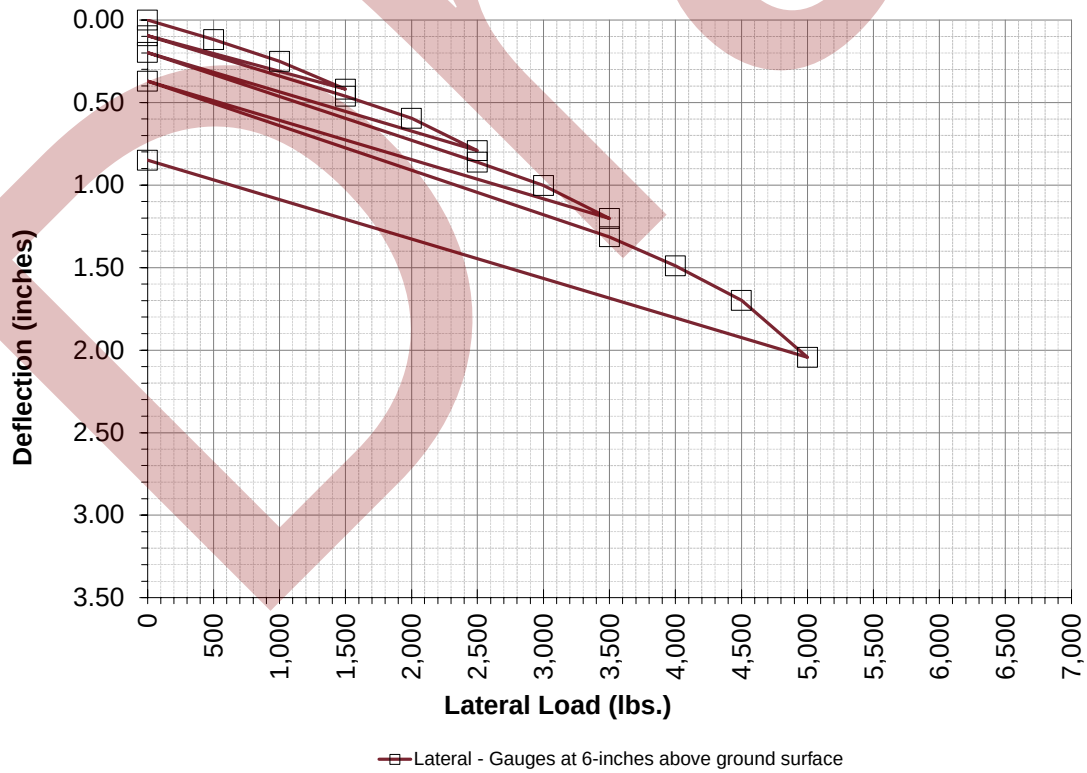
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-048A
Latitude [deg.]:	41.83605
Longitude [deg.]:	-83.94630
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	3

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.119	
14%	1,000	0.251	
21%	1,500	0.419	
0%	0	0.095	
21%	1,500	0.462	
29%	2,000	0.597	
36%	2,500	0.791	
0%	0	0.198	
36%	2,500	0.861	
43%	3,000	1.003	
50%	3,500	1.203	
0%	0	0.371	
50%	3,500	1.314	
57%	4,000	1.490	
64%	4,500	1.699	
71%	5,000	2.044	
0%	0	0.851	



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Lateral Load Test Results for PLT-048B

Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-048B
Latitude [deg.]:	41.83605
Longitude [deg.]:	-83.94630
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	16

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.143	
14%	1,000	0.241	
21%	1,500	0.431	
0%	0	0.025	
21%	1,500	0.461	
29%	2,000	0.635	
36%	2,500	0.826	
0%	0	0.066	
36%	2,500	0.920	
43%	3,000	1.083	
50%	3,500	1.317	
0%	0	0.121	
50%	3,500	1.440	
57%	4,000	1.620	
64%	4,500	1.838	
71%	5,000	2.043	
0%	0	0.236	



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Lateral Load Test Results for PLT-049A

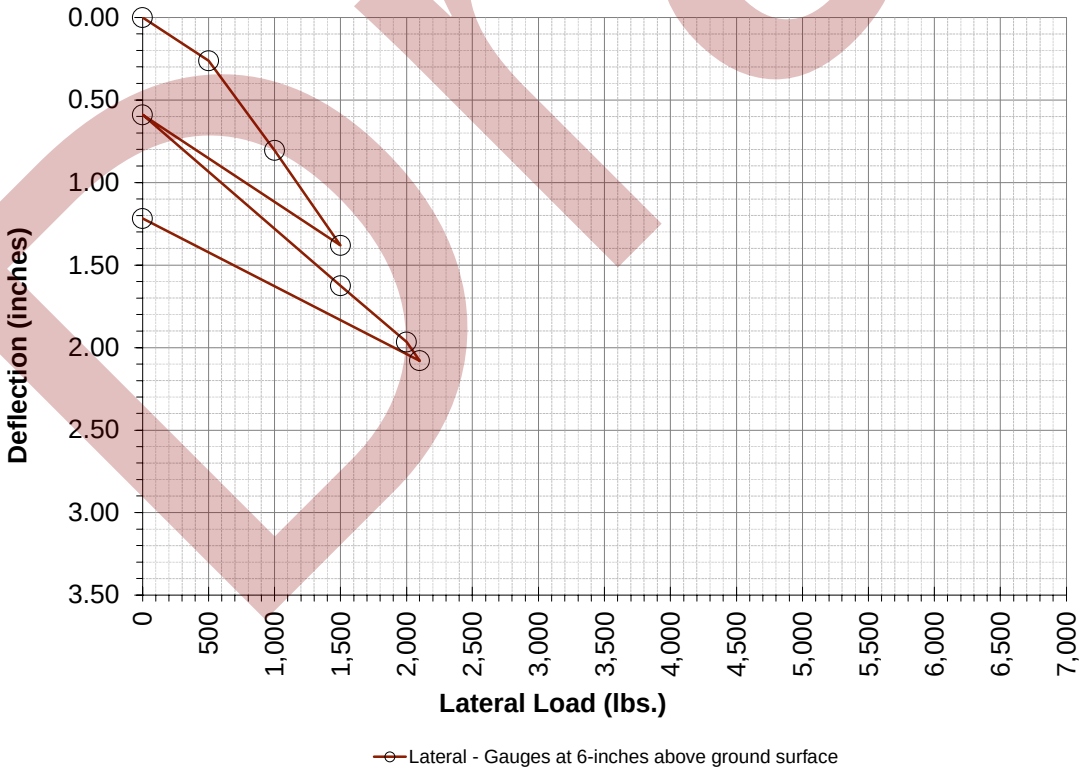
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-049A
Latitude [deg.]:	41.83523
Longitude [deg.]:	-83.94417
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	13

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.263	
14%	1,000	0.805	
21%	1,500	1.380	
0%	0	0.590	
21%	1,500	1.625	
29%	2,000	1.965	
30%	2,100	2.080	
0%	0	1.218	



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Lateral Load Test Results for PLT-049B

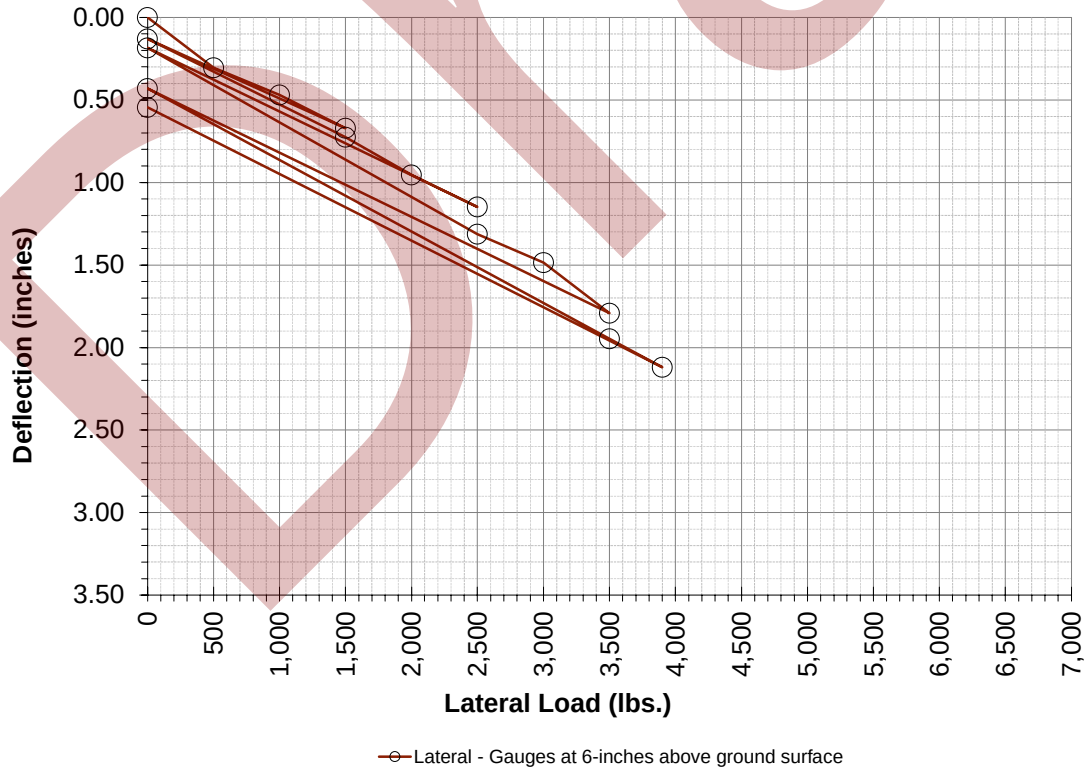
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-049B
Latitude [deg.]:	41.83523
Longitude [deg.]:	-83.94417
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	27

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.305	
14%	1,000	0.470	
21%	1,500	0.673	
0%	0	0.130	
21%	1,500	0.725	
29%	2,000	0.955	
36%	2,500	1.148	
0%	0	0.185	
36%	2,500	1.313	
43%	3,000	1.485	
50%	3,500	1.793	
0%	0	0.430	
50%	3,500	1.948	
56%	3,900	2.120	
0%	0	0.545	



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Lateral Load Test Results for PLT-051A

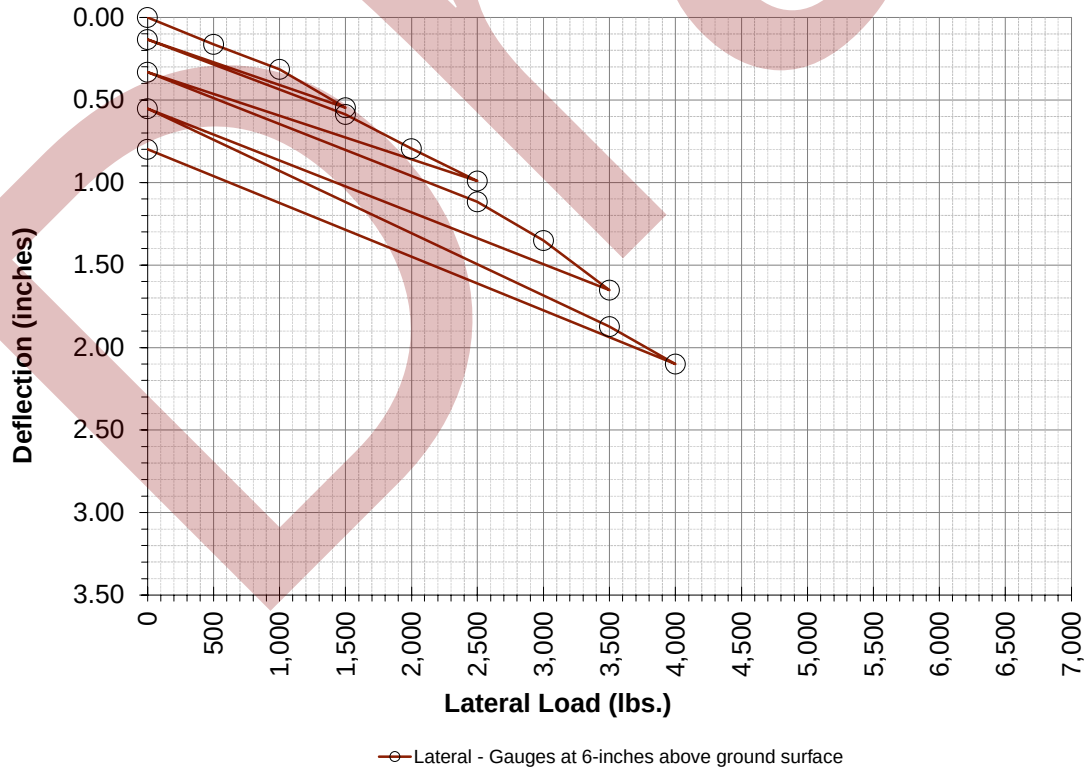
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-051A
Latitude [deg.]:	41.83115
Longitude [deg.]:	-83.94909
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	13

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.163	
14%	1,000	0.315	
21%	1,500	0.548	
0%	0	0.135	
21%	1,500	0.588	
29%	2,000	0.795	
36%	2,500	0.990	
0%	0	0.333	
36%	2,500	1.118	
43%	3,000	1.353	
50%	3,500	1.653	
0%	0	0.553	
50%	3,500	1.873	
57%	4,000	2.100	
0%	0	0.800	



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Lateral Load Test Results for PLT-051B

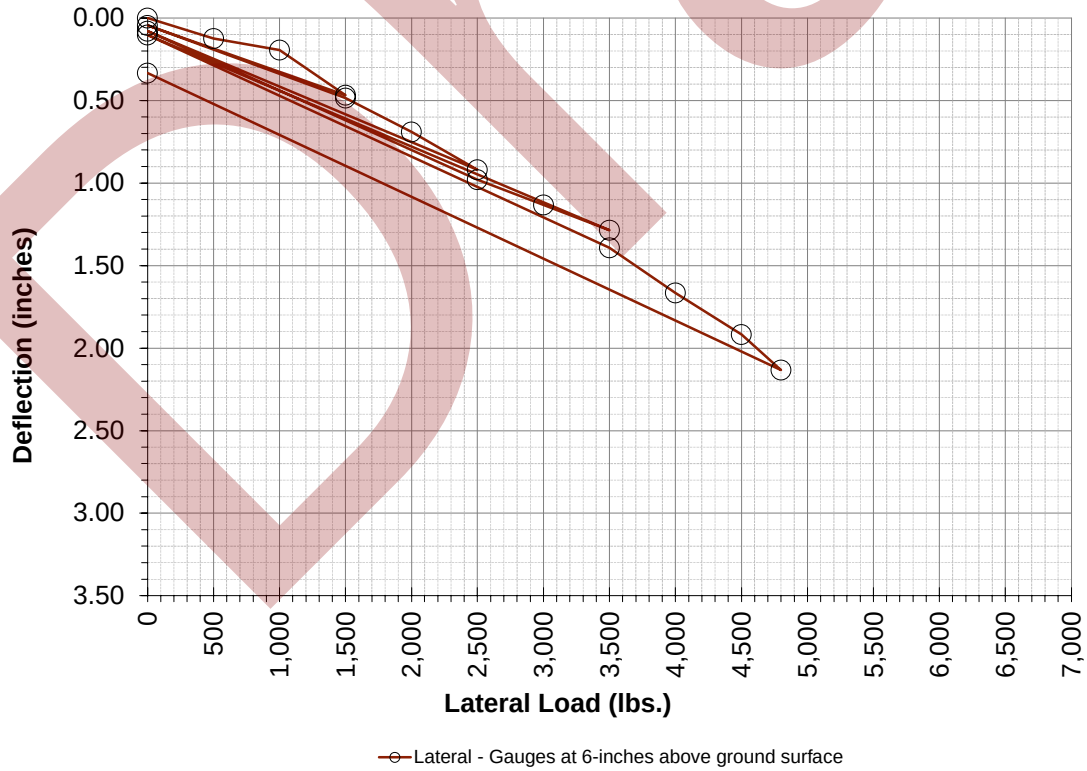
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-051B
Latitude [deg.]:	41.83115
Longitude [deg.]:	-83.94909
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	38

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.125	
14%	1,000	0.195	
21%	1,500	0.468	
0%	0	0.045	
21%	1,500	0.485	
29%	2,000	0.690	
36%	2,500	0.920	
0%	0	0.080	
36%	2,500	0.980	
43%	3,000	1.133	
50%	3,500	1.285	
0%	0	0.103	
50%	3,500	1.393	
57%	4,000	1.665	
64%	4,500	1.918	
69%	4,800	2.133	
0%	0	0.335	



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Lateral Load Test Results for PLT-052A

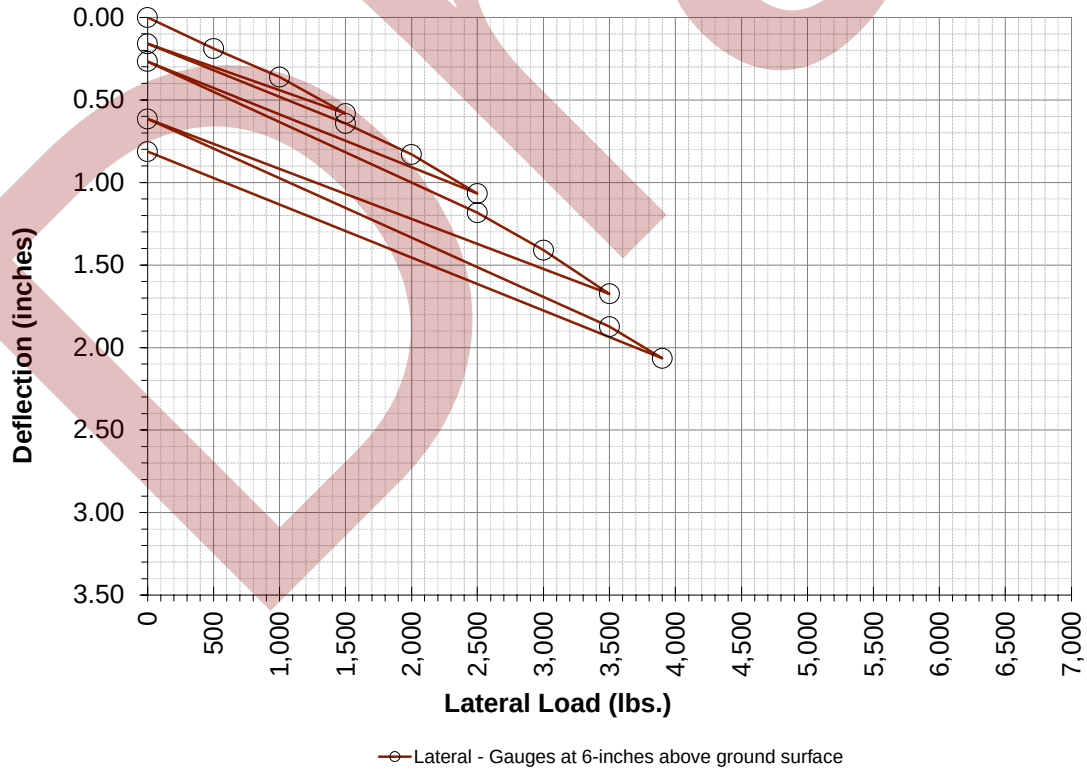
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-052A
Latitude [deg.]:	41.83231
Longitude [deg.]:	-83.95668
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	13

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.188	
14%	1,000	0.363	
21%	1,500	0.583	
0%	0	0.160	
21%	1,500	0.643	
29%	2,000	0.830	
36%	2,500	1.068	
0%	0	0.268	
36%	2,500	1.183	
43%	3,000	1.410	
50%	3,500	1.675	
0%	0	0.615	
50%	3,500	1.873	
56%	3,900	2.065	
0%	0	0.813	



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Lateral Load Test Results for PLT-052B

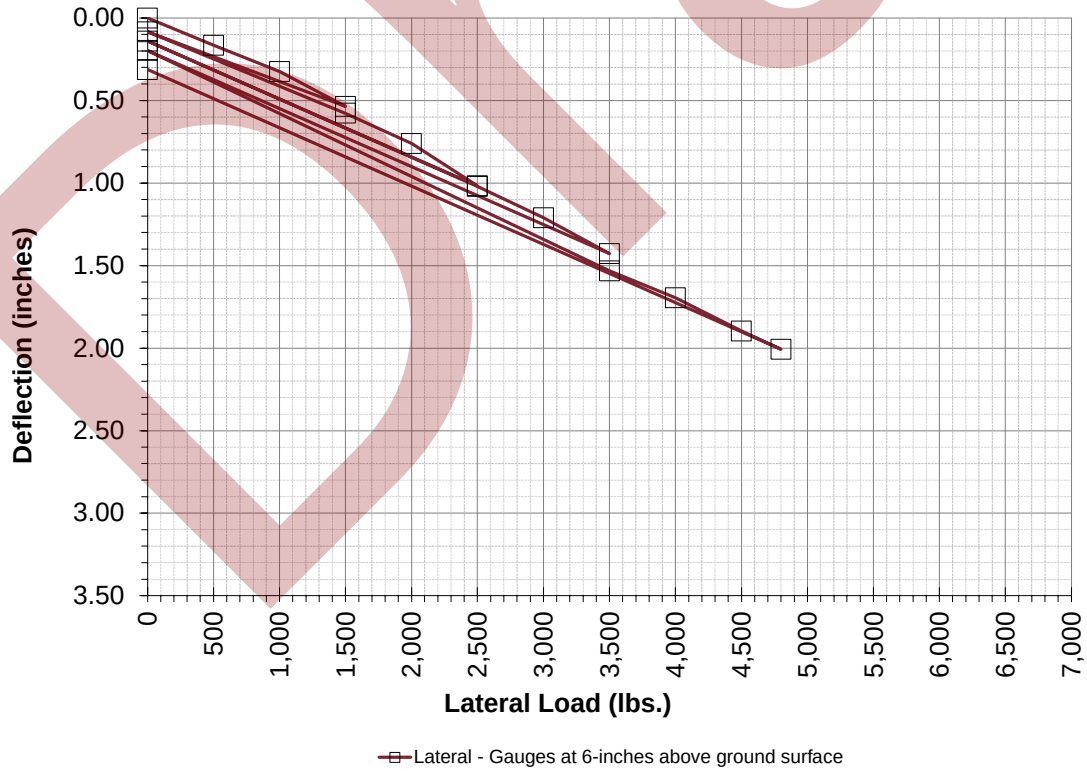
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information	
Pile ID:	PLT-052B
Latitude [deg.]:	41.83231
Longitude [deg.]:	-83.95668
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	27

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.165	
14%	1,000	0.325	
21%	1,500	0.535	
0%	0	0.085	
21%	1,500	0.578	
29%	2,000	0.760	
36%	2,500	1.018	
0%	0	0.140	
36%	2,500	1.020	
43%	3,000	1.210	
50%	3,500	1.428	
0%	0	0.198	
50%	3,500	1.533	
57%	4,000	1.695	
64%	4,500	1.898	
69%	4,800	2.008	
0%	0	0.313	



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Lateral Load Test Results for PLT-054A

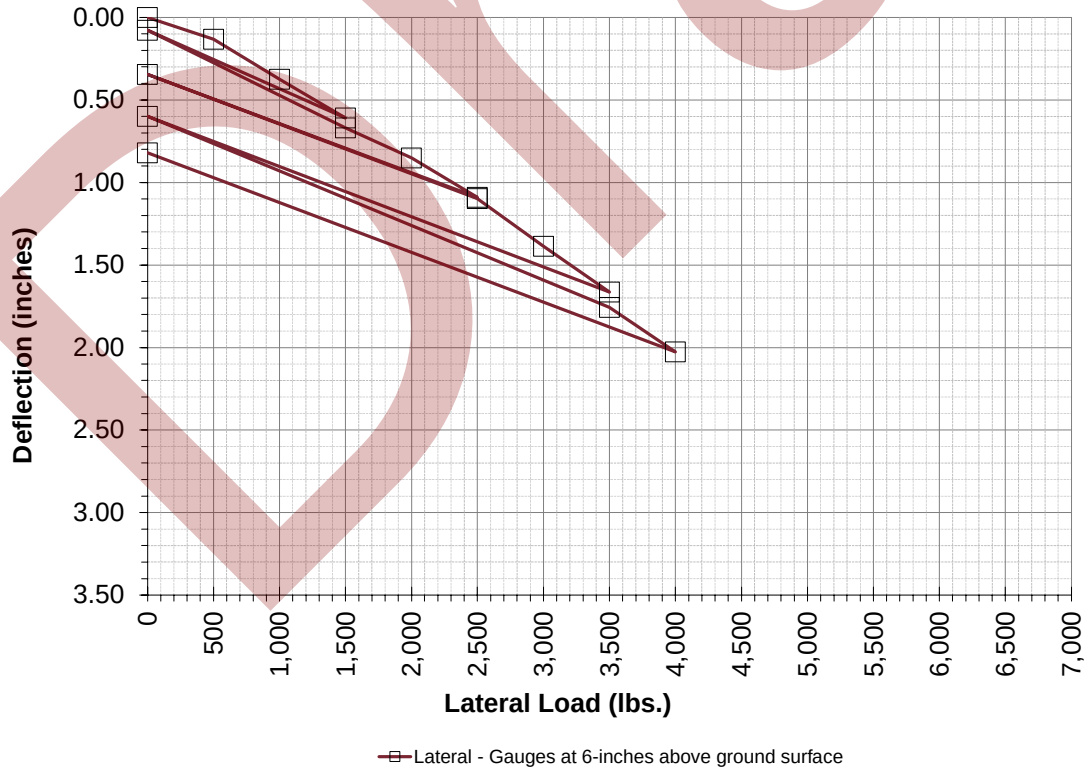
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-054A
Latitude [deg.]:	41.82646
Longitude [deg.]:	-83.95691
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	17

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.132	
14%	1,000	0.375	
21%	1,500	0.608	
0%	0	0.079	
21%	1,500	0.669	
29%	2,000	0.852	
36%	2,500	1.090	
0%	0	0.345	
36%	2,500	1.097	
43%	3,000	1.387	
50%	3,500	1.664	
0%	0	0.600	
50%	3,500	1.758	
57%	4,000	2.027	
0%	0	0.821	



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Lateral Load Test Results for PLT-054B

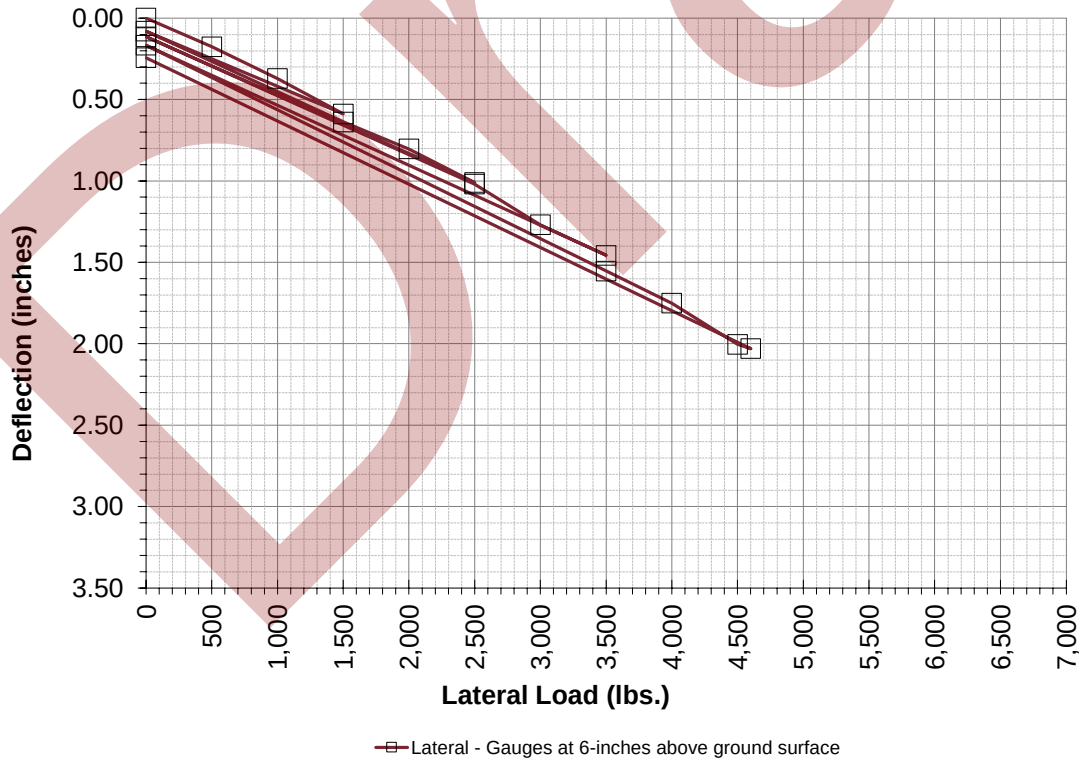
Project Information	
Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Lateral Load Test Set Up	
Number of Top Gauges:	N/A
Number of Bottom Gauges:	2
Height of Top Gauges [in.]:	N/A
Height of Bottom Gauges [in.]:	6
Height of Applied Load [in.]:	24
Load Cell:	Dillon Ed Jr

Test Date and Representative	
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information	
Pile ID:	PLT-054B
Latitude [deg.]:	41.82646
Longitude [deg.]:	-83.95691
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Stick-Up [in.]:	36
Lateral Design Load [lbs.]:	7,000
Drive Time [sec.]:	35

% of Design Load	Lateral Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
7%	500	0.176	
14%	1,000	0.372	
21%	1,500	0.589	
0%	0	0.081	
21%	1,500	0.638	
29%	2,000	0.804	
36%	2,500	1.010	
0%	0	0.115	
36%	2,500	1.020	
43%	3,000	1.270	
50%	3,500	1.457	
0%	0	0.168	
50%	3,500	1.554	
57%	4,000	1.751	
64%	4,500	2.004	
66%	4,600	2.030	
0%	0	0.244	



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Tension Load Test Result for PLT-001A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

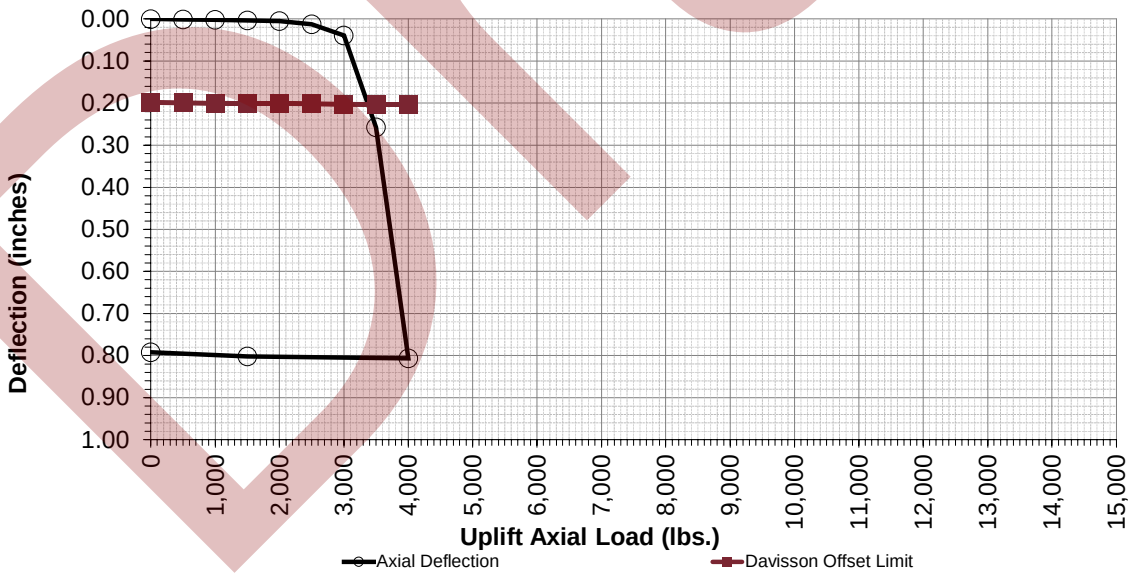
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-001A
Latitude [deg.]:	41.88216
Longitude[deg.]:	-83.98853
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	20

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.002	0.001	0.200	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.005	0.002	0.201	
17%	2,500	0.013	0.003	0.202	
20%	3,000	0.040	0.003	0.202	
23%	3,500	0.258	0.004	0.203	
27%	4,000	0.807	0.004	0.203	
10%	1,500	0.802	0.002	0.201	
0%	0	0.792	0.000	0.199	



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Tension Load Test Result for PLT-001B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

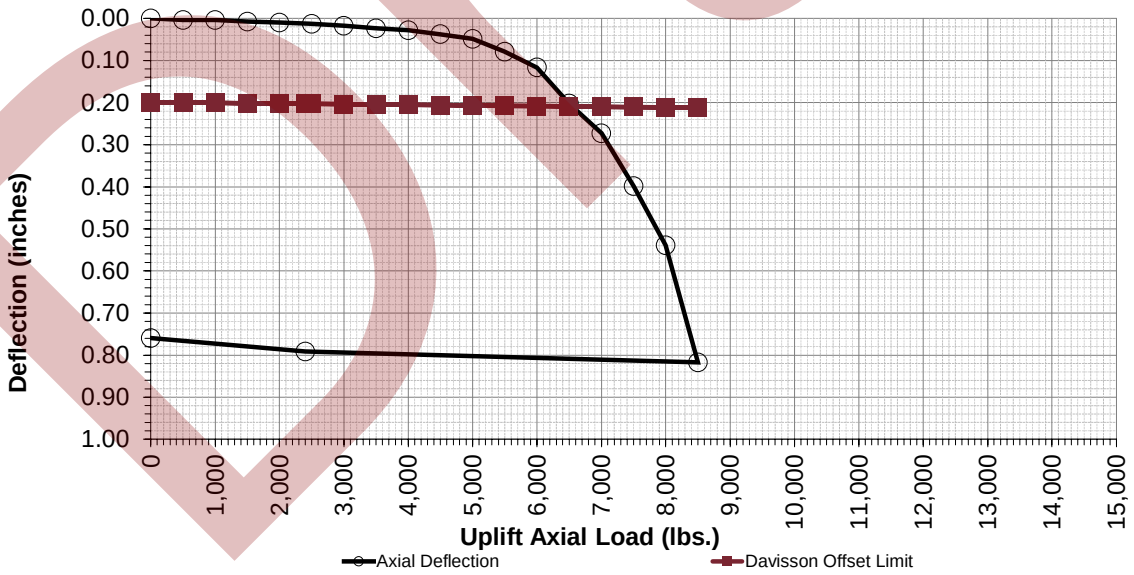
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-001B
Latitude [deg.]:	41.88216
Longitude[deg.]:	-83.98853
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	90

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.004	0.001	0.200	
7%	1,000	0.004	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.010	0.003	0.202	
17%	2,500	0.013	0.004	0.203	
20%	3,000	0.017	0.005	0.204	
23%	3,500	0.024	0.005	0.205	
27%	4,000	0.028	0.006	0.205	
30%	4,500	0.038	0.007	0.206	
33%	5,000	0.049	0.008	0.207	
37%	5,500	0.079	0.008	0.208	
40%	6,000	0.117	0.009	0.208	
43%	6,500	0.203	0.010	0.209	
47%	7,000	0.273	0.011	0.210	
50%	7,500	0.399	0.011	0.211	
53%	8,000	0.539	0.012	0.211	
57%	8,500	0.818	0.013	0.212	
16%	2,400	0.792	0.004	0.203	
0%	0	0.760	0.000	0.199	



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Tension Load Test Result for PLT-003A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

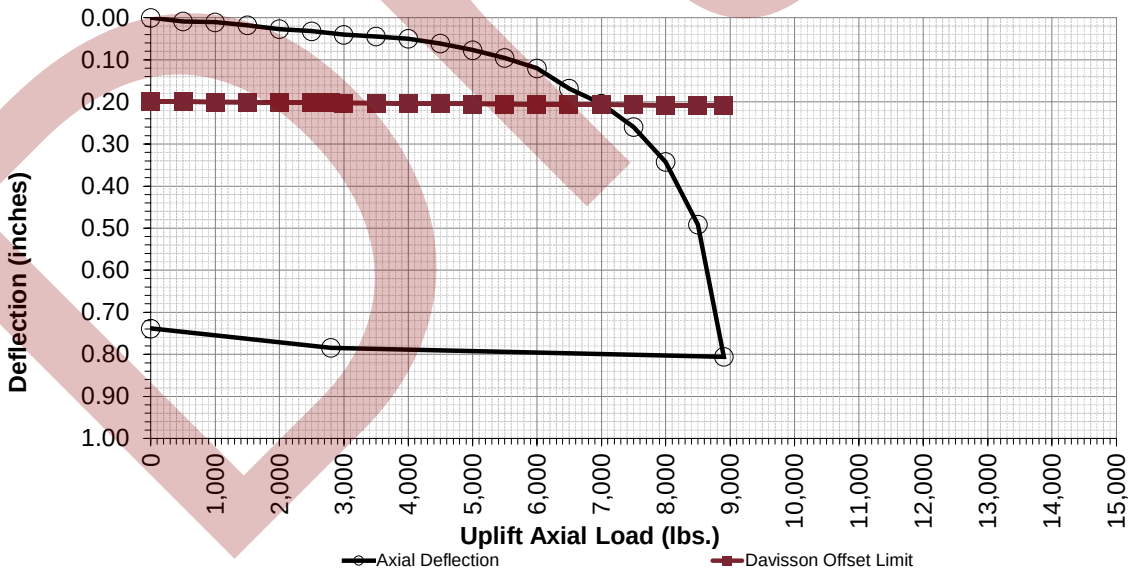
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-003A
Latitude [deg.]:	41.87986
Longitude[deg.]:	-83.98439
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	71

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.009	0.001	0.200	
7%	1,000	0.011	0.001	0.200	
10%	1,500	0.018	0.002	0.201	
13%	2,000	0.027	0.002	0.201	
17%	2,500	0.032	0.003	0.202	
20%	3,000	0.040	0.003	0.202	
23%	3,500	0.044	0.004	0.203	
27%	4,000	0.050	0.004	0.203	
30%	4,500	0.062	0.005	0.204	
33%	5,000	0.077	0.005	0.205	
37%	5,500	0.096	0.006	0.205	
40%	6,000	0.120	0.006	0.206	
43%	6,500	0.169	0.007	0.206	
47%	7,000	0.205	0.008	0.207	
50%	7,500	0.260	0.008	0.207	
53%	8,000	0.343	0.009	0.208	
57%	8,500	0.492	0.009	0.208	
59%	8,900	0.806	0.010	0.209	
19%	2,800	0.785	0.003	0.202	
0%	0	0.739	0.000	0.199	



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Tension Load Test Result for PLT-003B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

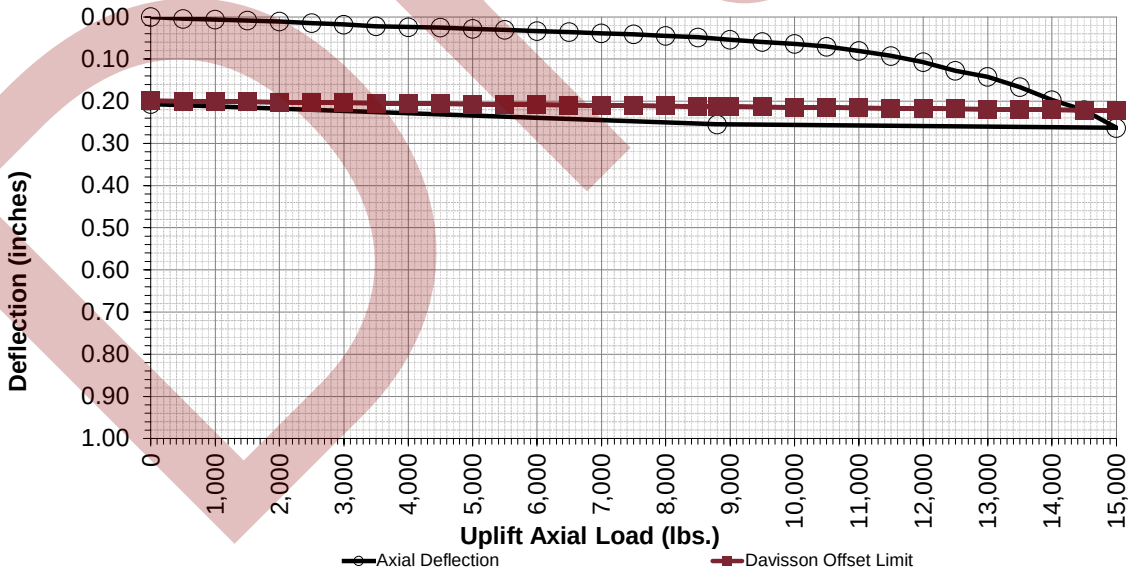
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-003B
Latitude [deg.]:	41.87986
Longitude[deg.]:	-83.98439
Pile Type:	W6x9
Pile Embedment Depth [in.]:	118
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	271

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.006	0.002	0.201	
10%	1,500	0.009	0.002	0.201	
13%	2,000	0.011	0.003	0.202	
17%	2,500	0.015	0.004	0.203	
20%	3,000	0.018	0.005	0.204	
23%	3,500	0.022	0.005	0.204	
27%	4,000	0.024	0.006	0.205	
30%	4,500	0.026	0.007	0.206	
33%	5,000	0.028	0.008	0.207	
37%	5,500	0.031	0.008	0.207	
40%	6,000	0.034	0.009	0.208	
43%	6,500	0.036	0.010	0.209	
47%	7,000	0.039	0.011	0.210	
50%	7,500	0.042	0.011	0.210	
53%	8,000	0.045	0.012	0.211	
57%	8,500	0.049	0.013	0.212	
60%	9,000	0.054	0.014	0.213	
63%	9,500	0.060	0.014	0.213	
67%	10,000	0.064	0.015	0.214	
70%	10,500	0.071	0.016	0.215	
73%	11,000	0.081	0.017	0.216	
77%	11,500	0.093	0.017	0.216	
80%	12,000	0.108	0.018	0.217	
83%	12,500	0.128	0.019	0.218	
87%	13,000	0.142	0.020	0.219	
90%	13,500	0.167	0.020	0.220	
93%	14,000	0.197	0.021	0.220	
97%	14,500	0.222	0.022	0.221	
100%	15,000	0.263	0.023	0.222	
59%	8,800	0.255	0.013	0.212	
0%	0	0.207	0.000	0.199	



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Tension Load Test Result for PLT-006A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

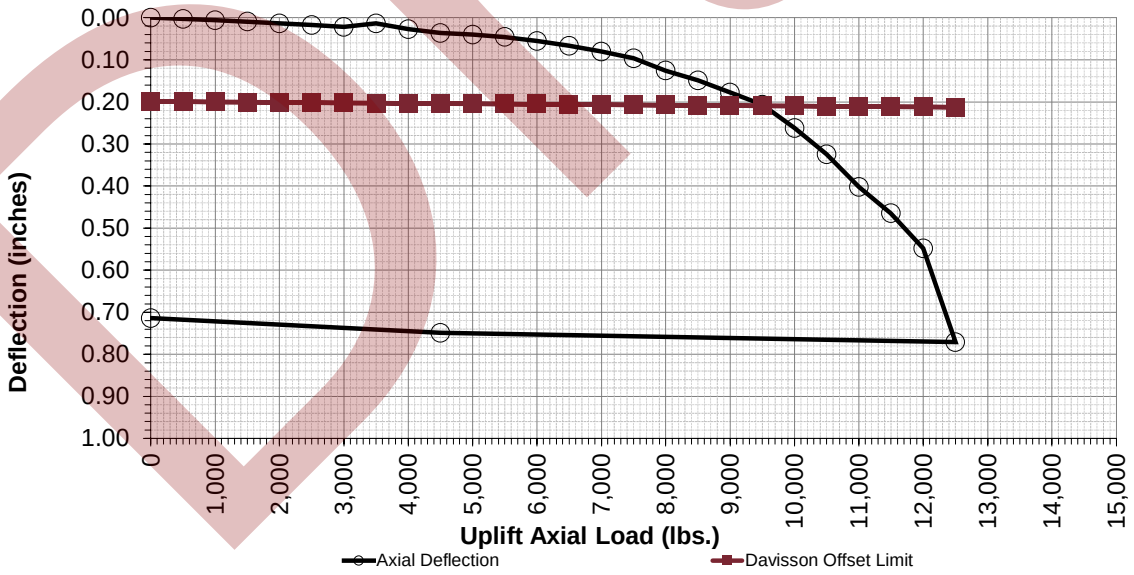
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-006A
Latitude [deg.]:	41.88158
Longitude[deg.]:	-83.97789
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	76

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.006	0.001	0.200	
10%	1,500	0.009	0.002	0.201	
13%	2,000	0.013	0.002	0.201	
17%	2,500	0.017	0.003	0.202	
20%	3,000	0.022	0.003	0.202	
23%	3,500	0.013	0.004	0.203	
27%	4,000	0.028	0.004	0.203	
30%	4,500	0.036	0.005	0.204	
33%	5,000	0.040	0.005	0.205	
37%	5,500	0.046	0.006	0.205	
40%	6,000	0.056	0.006	0.206	
43%	6,500	0.067	0.007	0.206	
47%	7,000	0.080	0.008	0.207	
50%	7,500	0.097	0.008	0.207	
53%	8,000	0.126	0.009	0.208	
57%	8,500	0.149	0.009	0.208	
60%	9,000	0.178	0.010	0.209	
63%	9,500	0.207	0.010	0.209	
67%	10,000	0.262	0.011	0.210	
70%	10,500	0.325	0.011	0.210	
73%	11,000	0.402	0.012	0.211	
77%	11,500	0.465	0.012	0.212	
80%	12,000	0.548	0.013	0.212	
83%	12,500	0.771	0.013	0.213	
30%	4,500	0.749	0.005	0.204	
0%	0	0.714	0.000	0.199	



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Tension Load Test Result for PLT-006B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

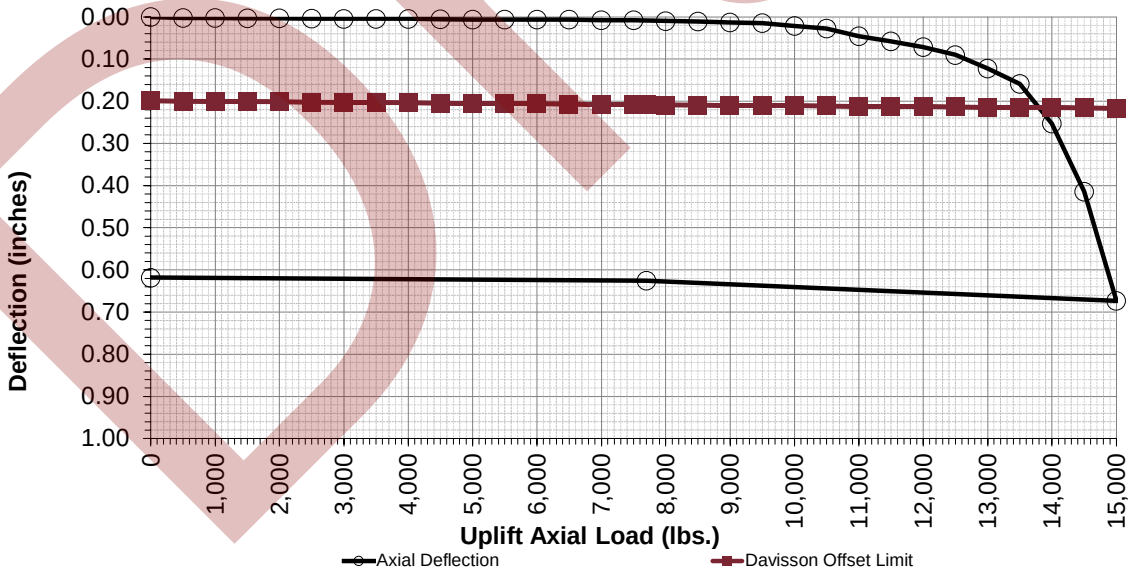
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-006B
Latitude [deg.]:	41.88158
Longitude[deg.]:	-83.97789
Pile Type:	W6x9
Pile Embedment Depth [in.]:	90
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	260

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.003	0.001	0.200	
10%	1,500	0.003	0.002	0.201	
13%	2,000	0.004	0.002	0.201	
17%	2,500	0.004	0.003	0.202	
20%	3,000	0.005	0.003	0.203	
23%	3,500	0.005	0.004	0.203	
27%	4,000	0.005	0.005	0.204	
30%	4,500	0.005	0.005	0.204	
33%	5,000	0.006	0.006	0.205	
37%	5,500	0.006	0.006	0.205	
40%	6,000	0.007	0.007	0.206	
43%	6,500	0.007	0.007	0.207	
47%	7,000	0.008	0.008	0.207	
50%	7,500	0.008	0.009	0.208	
53%	8,000	0.010	0.009	0.208	
57%	8,500	0.011	0.010	0.209	
60%	9,000	0.013	0.010	0.210	
63%	9,500	0.015	0.011	0.210	
67%	10,000	0.022	0.011	0.211	
70%	10,500	0.027	0.012	0.211	
73%	11,000	0.046	0.013	0.212	
77%	11,500	0.058	0.013	0.212	
80%	12,000	0.072	0.014	0.213	
83%	12,500	0.090	0.014	0.214	
87%	13,000	0.123	0.015	0.214	
90%	13,500	0.159	0.016	0.215	
93%	14,000	0.253	0.016	0.215	
97%	14,500	0.414	0.017	0.216	
100%	15,000	0.674	0.017	0.216	
51%	7,700	0.626	0.009	0.208	
0%	0	0.619	0.000	0.199	



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Tension Load Test Result for PLT-009A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

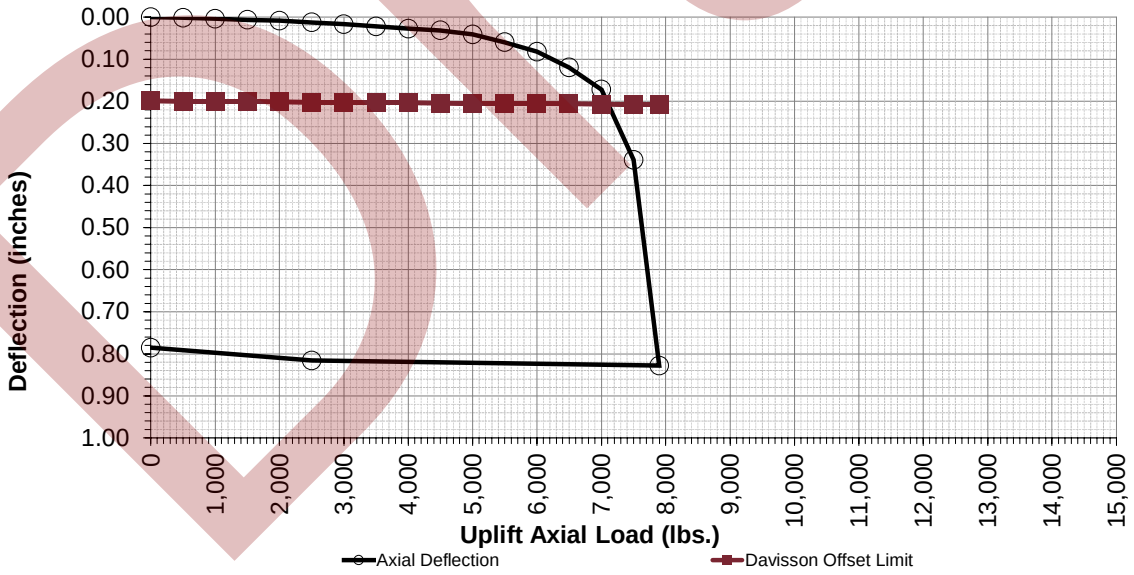
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-009A
Latitude [deg.]:	41.87789
Longitude[deg.]:	-83.97265
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	39

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.004	0.001	0.200	
10%	1,500	0.006	0.002	0.201	
13%	2,000	0.009	0.002	0.201	
17%	2,500	0.013	0.003	0.202	
20%	3,000	0.017	0.003	0.202	
23%	3,500	0.022	0.004	0.203	
27%	4,000	0.028	0.004	0.203	
30%	4,500	0.032	0.005	0.204	
33%	5,000	0.041	0.005	0.205	
37%	5,500	0.060	0.006	0.205	
40%	6,000	0.082	0.006	0.206	
43%	6,500	0.120	0.007	0.206	
47%	7,000	0.172	0.008	0.207	
50%	7,500	0.339	0.008	0.207	
53%	7,900	0.828	0.008	0.208	
17%	2,500	0.816	0.003	0.202	
0%	0	0.785	0.000	0.199	



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Tension Load Test Result for PLT-009B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

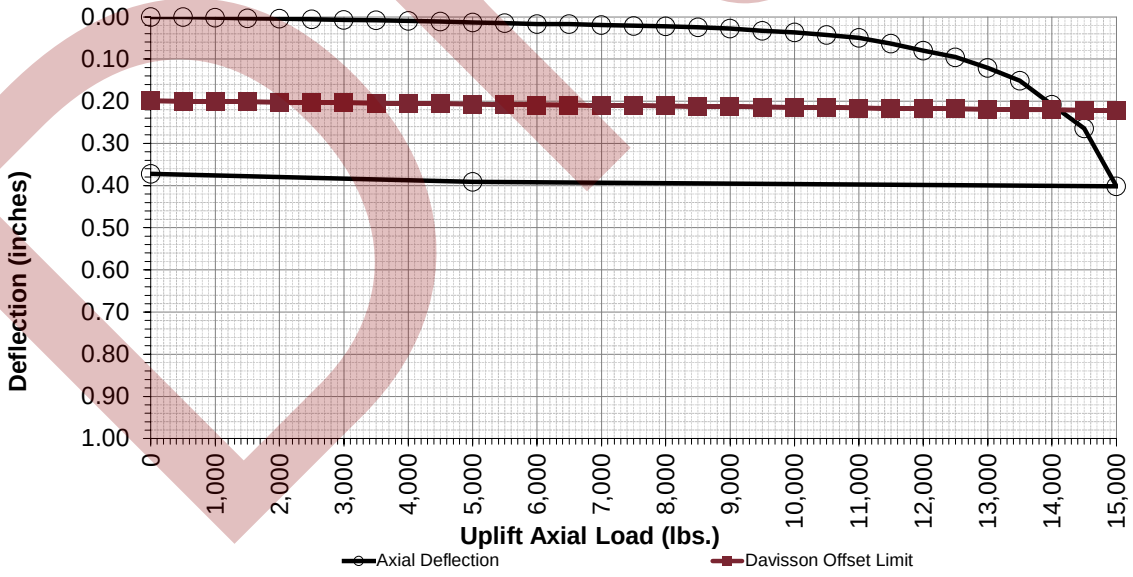
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-009B
Latitude [deg.]:	41.87789
Longitude[deg.]:	-83.97265
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	318

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.002	0.002	0.201	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.004	0.003	0.202	
17%	2,500	0.005	0.004	0.203	
20%	3,000	0.007	0.005	0.204	
23%	3,500	0.008	0.005	0.205	
27%	4,000	0.009	0.006	0.205	
30%	4,500	0.011	0.007	0.206	
33%	5,000	0.013	0.008	0.207	
37%	5,500	0.015	0.008	0.208	
40%	6,000	0.017	0.009	0.208	
43%	6,500	0.017	0.010	0.209	
47%	7,000	0.019	0.011	0.210	
50%	7,500	0.021	0.011	0.211	
53%	8,000	0.022	0.012	0.211	
57%	8,500	0.025	0.013	0.212	
60%	9,000	0.028	0.014	0.213	
63%	9,500	0.033	0.015	0.214	
67%	10,000	0.037	0.015	0.214	
70%	10,500	0.043	0.016	0.215	
73%	11,000	0.050	0.017	0.216	
77%	11,500	0.064	0.018	0.217	
80%	12,000	0.080	0.018	0.218	
83%	12,500	0.096	0.019	0.218	
87%	13,000	0.121	0.020	0.219	
90%	13,500	0.151	0.021	0.220	
93%	14,000	0.208	0.021	0.221	
97%	14,500	0.264	0.022	0.221	
100%	15,000	0.402	0.023	0.222	
33%	5,000	0.391	0.008	0.207	
0%	0	0.372	0.000	0.199	



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Tension Load Test Result for PLT-011A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

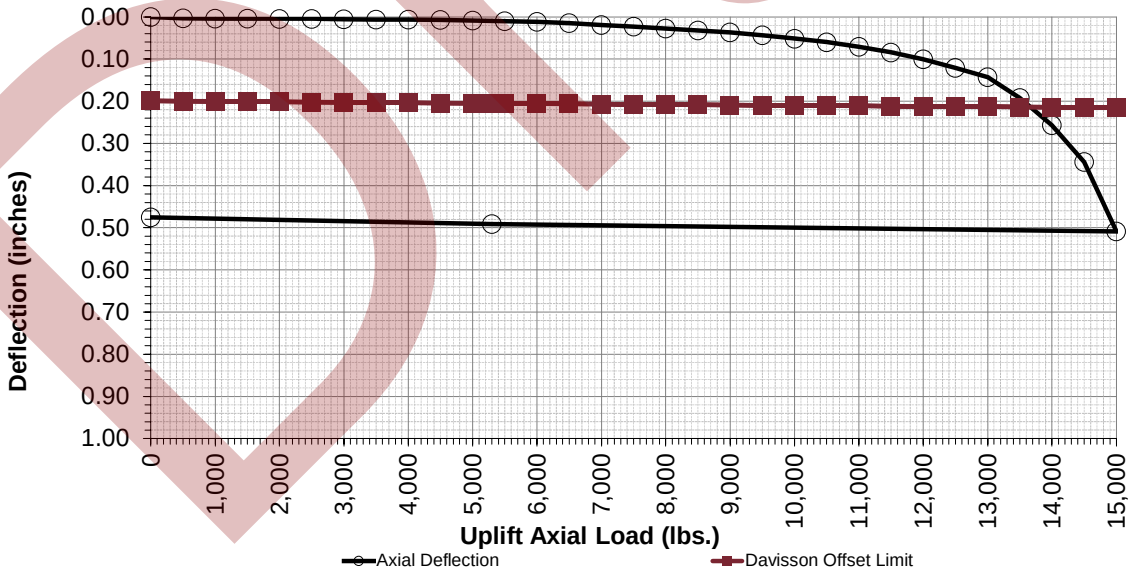
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-011A
Latitude [deg.]:	41.87236
Longitude[deg.]:	-83.97238
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	135

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.004	0.001	0.200	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.005	0.002	0.201	
17%	2,500	0.005	0.003	0.202	
20%	3,000	0.005	0.003	0.202	
23%	3,500	0.006	0.004	0.203	
27%	4,000	0.007	0.004	0.203	
30%	4,500	0.007	0.005	0.204	
33%	5,000	0.009	0.005	0.205	
37%	5,500	0.010	0.006	0.205	
40%	6,000	0.012	0.006	0.206	
43%	6,500	0.015	0.007	0.206	
47%	7,000	0.019	0.008	0.207	
50%	7,500	0.023	0.008	0.207	
53%	8,000	0.027	0.009	0.208	
57%	8,500	0.032	0.009	0.208	
60%	9,000	0.037	0.010	0.209	
63%	9,500	0.044	0.010	0.209	
67%	10,000	0.052	0.011	0.210	
70%	10,500	0.060	0.011	0.210	
73%	11,000	0.071	0.012	0.211	
77%	11,500	0.084	0.012	0.212	
80%	12,000	0.101	0.013	0.212	
83%	12,500	0.121	0.013	0.213	
87%	13,000	0.143	0.014	0.213	
90%	13,500	0.193	0.014	0.214	
93%	14,000	0.257	0.015	0.214	
97%	14,500	0.344	0.016	0.215	
100%	15,000	0.509	0.016	0.215	
35%	5,300	0.491	0.006	0.205	
0%	0	0.476	0.000	0.199	



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Tension Load Test Result for PLT-011B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

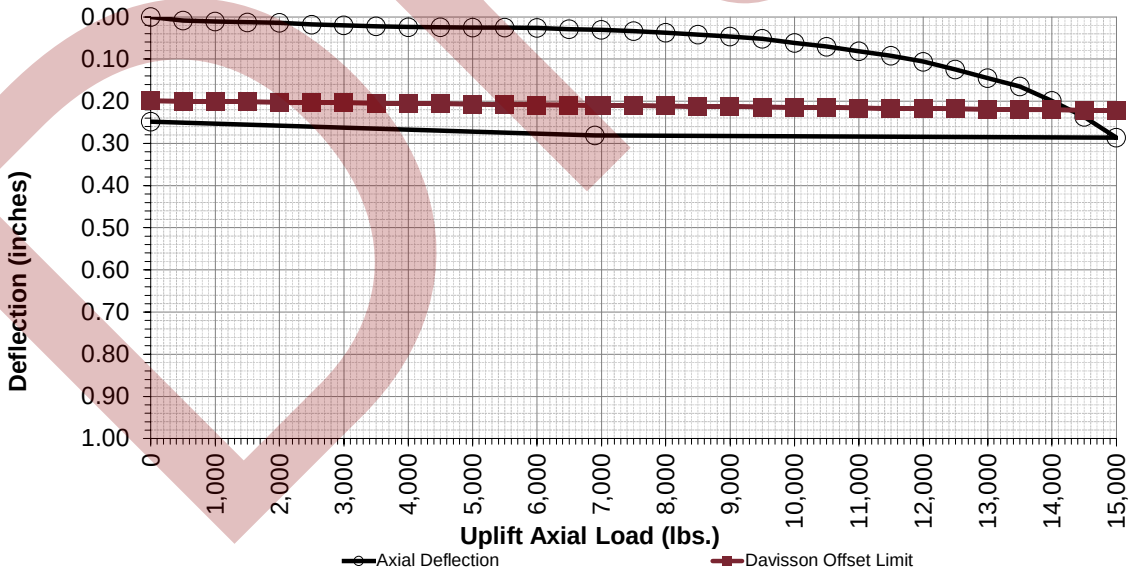
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-011B
Latitude [deg.]:	41.87236
Longitude[deg.]:	-83.97238
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	253

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.009	0.001	0.200	
7%	1,000	0.011	0.002	0.201	
10%	1,500	0.013	0.002	0.201	
13%	2,000	0.014	0.003	0.202	
17%	2,500	0.018	0.004	0.203	
20%	3,000	0.020	0.005	0.204	
23%	3,500	0.022	0.005	0.205	
27%	4,000	0.024	0.006	0.205	
30%	4,500	0.025	0.007	0.206	
33%	5,000	0.025	0.008	0.207	
37%	5,500	0.026	0.008	0.208	
40%	6,000	0.026	0.009	0.208	
43%	6,500	0.029	0.010	0.209	
47%	7,000	0.031	0.011	0.210	
50%	7,500	0.034	0.011	0.211	
53%	8,000	0.038	0.012	0.211	
57%	8,500	0.042	0.013	0.212	
60%	9,000	0.047	0.014	0.213	
63%	9,500	0.052	0.015	0.214	
67%	10,000	0.062	0.015	0.214	
70%	10,500	0.071	0.016	0.215	
73%	11,000	0.082	0.017	0.216	
77%	11,500	0.092	0.018	0.217	
80%	12,000	0.106	0.018	0.218	
83%	12,500	0.125	0.019	0.218	
87%	13,000	0.145	0.020	0.219	
90%	13,500	0.165	0.021	0.220	
93%	14,000	0.199	0.021	0.221	
97%	14,500	0.237	0.022	0.221	
100%	15,000	0.287	0.023	0.222	
46%	6,900	0.281	0.011	0.210	
0%	0	0.248	0.000	0.199	



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Tension Load Test Result for PLT-014A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

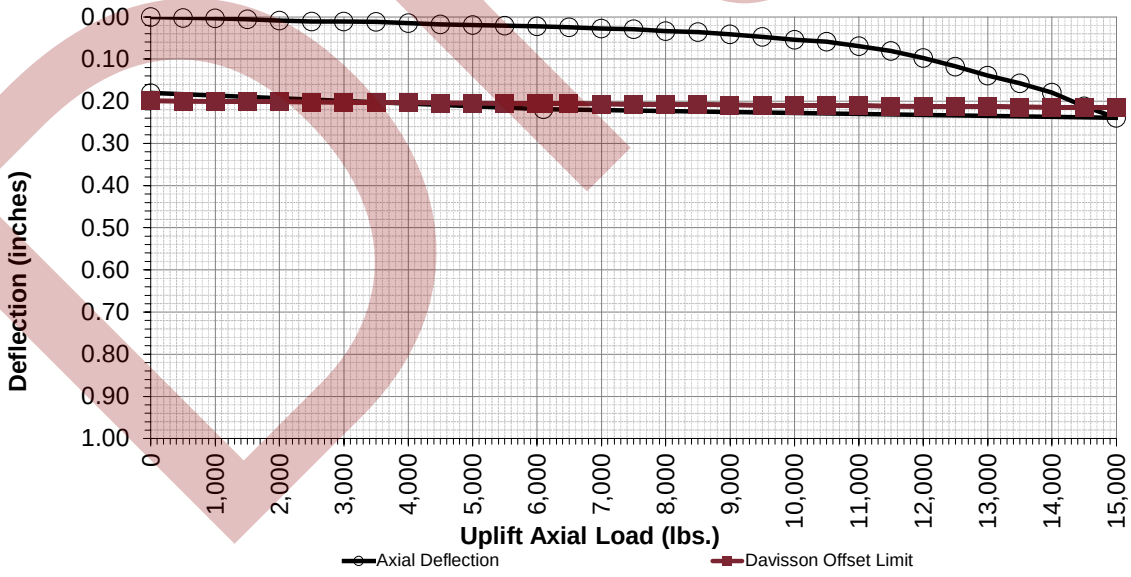
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-014A
Latitude [deg.]:	41.87234
Longitude[deg.]:	-83.95579
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	127

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.003	0.001	0.200	
10%	1,500	0.006	0.002	0.201	
13%	2,000	0.009	0.002	0.201	
17%	2,500	0.011	0.003	0.202	
20%	3,000	0.011	0.003	0.202	
23%	3,500	0.012	0.004	0.203	
27%	4,000	0.015	0.004	0.203	
30%	4,500	0.018	0.005	0.204	
33%	5,000	0.019	0.005	0.205	
37%	5,500	0.021	0.006	0.205	
40%	6,000	0.023	0.006	0.206	
43%	6,500	0.025	0.007	0.206	
47%	7,000	0.027	0.008	0.207	
50%	7,500	0.029	0.008	0.207	
53%	8,000	0.034	0.009	0.208	
57%	8,500	0.036	0.009	0.208	
60%	9,000	0.041	0.010	0.209	
63%	9,500	0.047	0.010	0.209	
67%	10,000	0.054	0.011	0.210	
70%	10,500	0.059	0.011	0.210	
73%	11,000	0.069	0.012	0.211	
77%	11,500	0.081	0.012	0.212	
80%	12,000	0.097	0.013	0.212	
83%	12,500	0.118	0.013	0.213	
87%	13,000	0.139	0.014	0.213	
90%	13,500	0.158	0.014	0.214	
93%	14,000	0.180	0.015	0.214	
97%	14,500	0.212	0.016	0.215	
100%	15,000	0.240	0.016	0.215	
41%	6,100	0.219	0.007	0.206	
0%	0	0.181	0.000	0.199	



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Tension Load Test Result for PLT-014B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

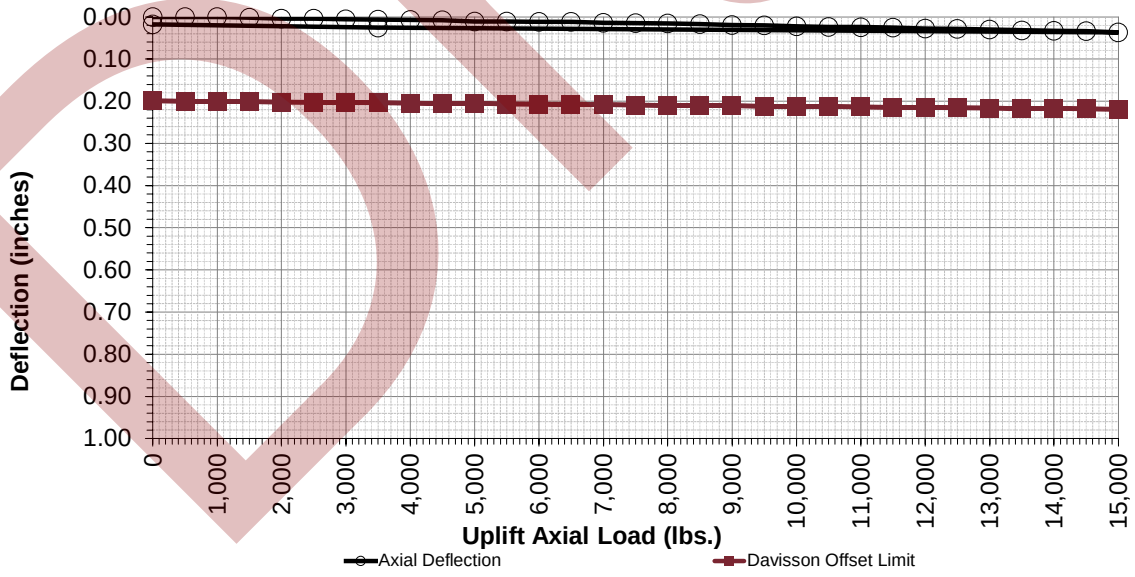
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-014B
Latitude [deg.]:	41.87234
Longitude[deg.]:	-83.95579
Pile Type:	W6x9
Pile Embedment Depth [in.]:	102
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	417

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.001	0.001	0.200	
10%	1,500	0.002	0.002	0.201	
13%	2,000	0.004	0.003	0.202	
17%	2,500	0.004	0.003	0.202	
20%	3,000	0.005	0.004	0.203	
23%	3,500	0.006	0.005	0.204	
27%	4,000	0.007	0.005	0.204	
30%	4,500	0.008	0.006	0.205	
33%	5,000	0.011	0.007	0.206	
37%	5,500	0.011	0.007	0.206	
40%	6,000	0.012	0.008	0.207	
43%	6,500	0.012	0.008	0.208	
47%	7,000	0.014	0.009	0.208	
50%	7,500	0.015	0.010	0.209	
53%	8,000	0.016	0.010	0.210	
57%	8,500	0.017	0.011	0.210	
60%	9,000	0.019	0.012	0.211	
63%	9,500	0.020	0.012	0.212	
67%	10,000	0.022	0.013	0.212	
70%	10,500	0.024	0.014	0.213	
73%	11,000	0.024	0.014	0.213	
77%	11,500	0.026	0.015	0.214	
80%	12,000	0.028	0.016	0.215	
83%	12,500	0.029	0.016	0.215	
87%	13,000	0.030	0.017	0.216	
90%	13,500	0.032	0.018	0.217	
93%	14,000	0.033	0.018	0.217	
97%	14,500	0.034	0.019	0.218	
100%	15,000	0.037	0.020	0.219	
23%	3,500	0.026	0.005	0.204	
0%	0	0.018	0.000	0.199	



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Tension Load Test Result for PLT-015A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

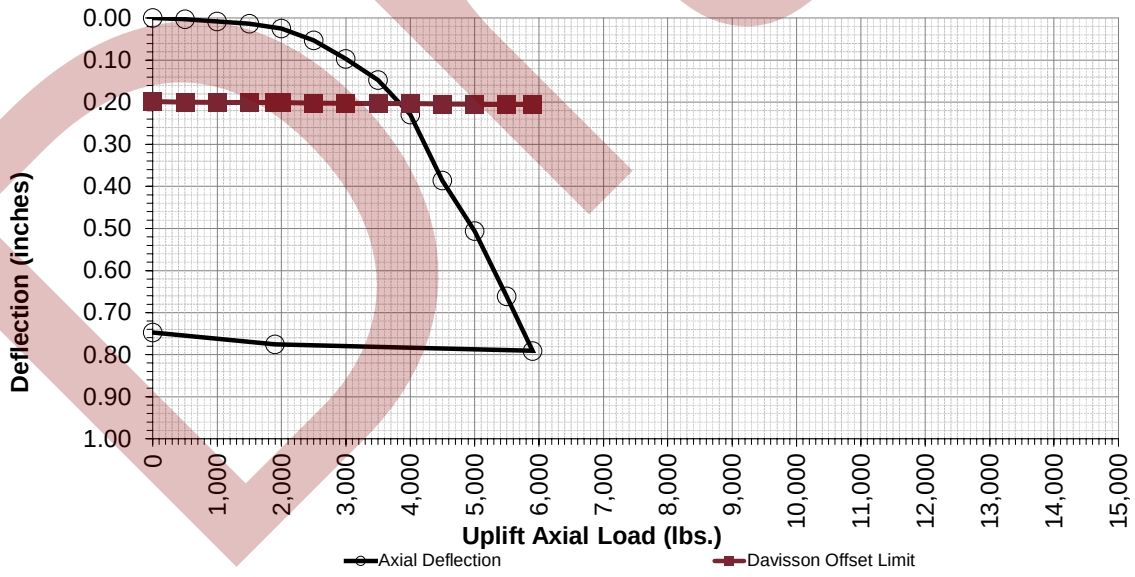
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-015A
Latitude [deg.]:	41.86888
Longitude[deg.]:	-83.95896
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	20

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.008	0.001	0.200	
10%	1,500	0.014	0.002	0.201	
13%	2,000	0.025	0.002	0.201	
17%	2,500	0.053	0.003	0.202	
20%	3,000	0.097	0.003	0.202	
23%	3,500	0.148	0.004	0.203	
27%	4,000	0.229	0.004	0.203	
30%	4,500	0.386	0.005	0.204	
33%	5,000	0.506	0.005	0.205	
37%	5,500	0.661	0.006	0.205	
39%	5,900	0.791	0.006	0.205	
13%	1,900	0.776	0.002	0.201	
0%	0	0.748	0.000	0.199	



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Tension Load Test Result for PLT-015B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

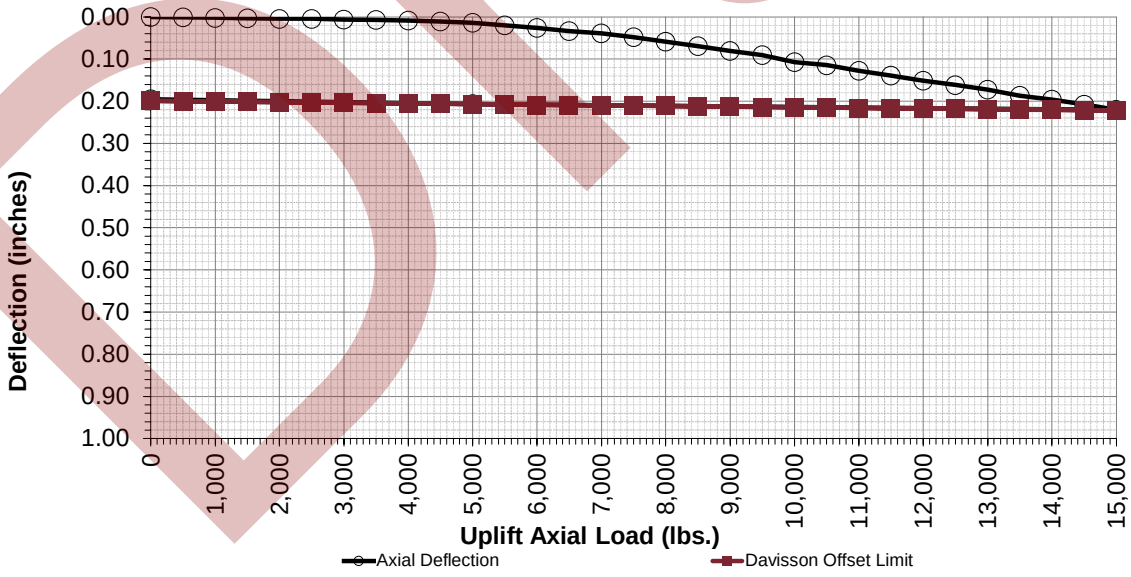
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-015B
Latitude [deg.]:	41.86888
Longitude[deg.]:	-83.95896
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	40

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.002	0.002	0.201	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.005	0.003	0.202	
17%	2,500	0.005	0.004	0.203	
20%	3,000	0.007	0.005	0.204	
23%	3,500	0.007	0.005	0.205	
27%	4,000	0.009	0.006	0.205	
30%	4,500	0.011	0.007	0.206	
33%	5,000	0.014	0.008	0.207	
37%	5,500	0.020	0.008	0.208	
40%	6,000	0.026	0.009	0.208	
43%	6,500	0.034	0.010	0.209	
47%	7,000	0.039	0.011	0.210	
50%	7,500	0.048	0.011	0.211	
53%	8,000	0.059	0.012	0.211	
57%	8,500	0.070	0.013	0.212	
60%	9,000	0.081	0.014	0.213	
63%	9,500	0.091	0.015	0.214	
67%	10,000	0.107	0.015	0.214	
70%	10,500	0.115	0.016	0.215	
73%	11,000	0.128	0.017	0.216	
77%	11,500	0.139	0.018	0.217	
80%	12,000	0.152	0.018	0.218	
83%	12,500	0.162	0.019	0.218	
87%	13,000	0.173	0.020	0.219	
90%	13,500	0.187	0.021	0.220	
93%	14,000	0.196	0.021	0.221	
97%	14,500	0.208	0.022	0.221	
100%	15,000	0.221	0.023	0.222	
33%	5,000	0.207	0.008	0.207	
0%	0	0.196	0.000	0.199	



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Tension Load Test Result for PLT-016A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

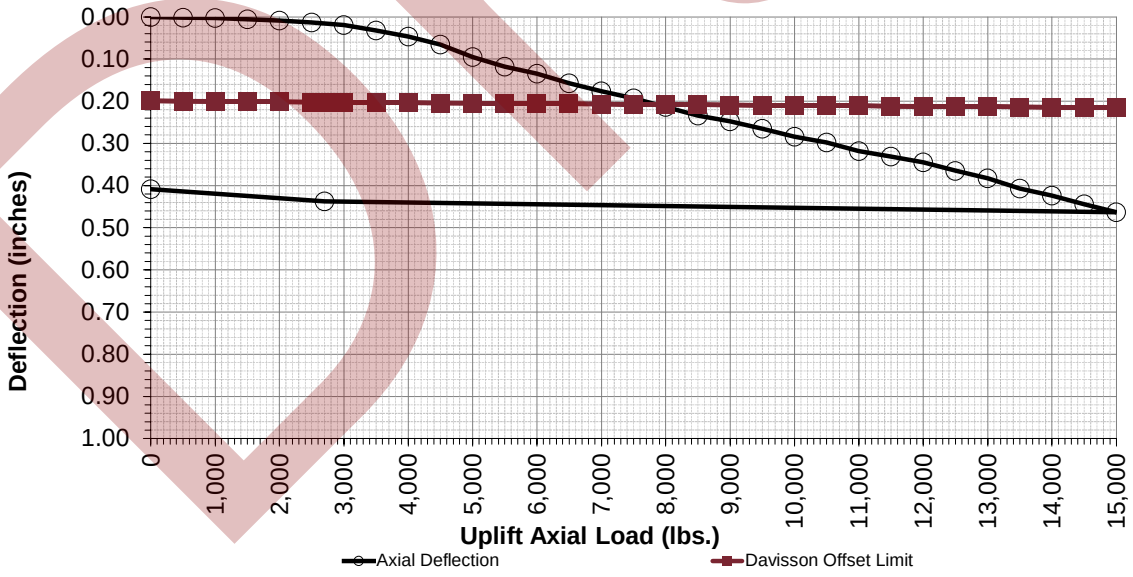
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-016A
Latitude [deg.]:	41.86773
Longitude[deg.]:	-83.96645
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	30

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.003	0.001	0.200	
10%	1,500	0.005	0.002	0.201	
13%	2,000	0.009	0.002	0.201	
17%	2,500	0.013	0.003	0.202	
20%	3,000	0.020	0.003	0.202	
23%	3,500	0.032	0.004	0.203	
27%	4,000	0.047	0.004	0.203	
30%	4,500	0.066	0.005	0.204	
33%	5,000	0.095	0.005	0.205	
37%	5,500	0.118	0.006	0.205	
40%	6,000	0.135	0.006	0.206	
43%	6,500	0.158	0.007	0.206	
47%	7,000	0.177	0.008	0.207	
50%	7,500	0.193	0.008	0.207	
53%	8,000	0.214	0.009	0.208	
57%	8,500	0.234	0.009	0.208	
60%	9,000	0.248	0.010	0.209	
63%	9,500	0.265	0.010	0.209	
67%	10,000	0.284	0.011	0.210	
70%	10,500	0.298	0.011	0.210	
73%	11,000	0.318	0.012	0.211	
77%	11,500	0.332	0.012	0.212	
80%	12,000	0.345	0.013	0.212	
83%	12,500	0.365	0.013	0.213	
87%	13,000	0.383	0.014	0.213	
90%	13,500	0.407	0.014	0.214	
93%	14,000	0.424	0.015	0.214	
97%	14,500	0.444	0.016	0.215	
100%	15,000	0.464	0.016	0.215	
18%	2,700	0.438	0.003	0.202	
0%	0	0.409	0.000	0.199	



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Tension Load Test Result for PLT-016B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

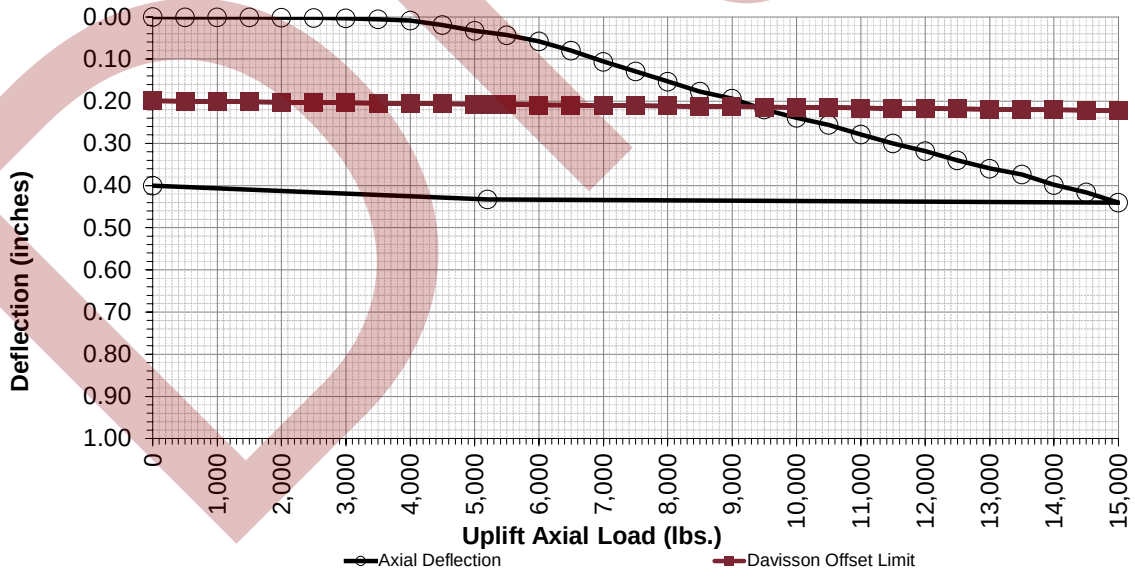
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-016B
Latitude [deg.]:	41.86773
Longitude[deg.]:	-83.96645
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	40

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.002	0.201	
10%	1,500	0.001	0.002	0.201	
13%	2,000	0.002	0.003	0.202	
17%	2,500	0.002	0.004	0.203	
20%	3,000	0.004	0.005	0.204	
23%	3,500	0.006	0.005	0.205	
27%	4,000	0.009	0.006	0.205	
30%	4,500	0.019	0.007	0.206	
33%	5,000	0.033	0.008	0.207	
37%	5,500	0.043	0.008	0.208	
40%	6,000	0.058	0.009	0.208	
43%	6,500	0.080	0.010	0.209	
47%	7,000	0.106	0.011	0.210	
50%	7,500	0.130	0.011	0.211	
53%	8,000	0.153	0.012	0.211	
57%	8,500	0.177	0.013	0.212	
60%	9,000	0.194	0.014	0.213	
63%	9,500	0.220	0.015	0.214	
67%	10,000	0.240	0.015	0.214	
70%	10,500	0.256	0.016	0.215	
73%	11,000	0.279	0.017	0.216	
77%	11,500	0.300	0.018	0.217	
80%	12,000	0.318	0.018	0.218	
83%	12,500	0.340	0.019	0.218	
87%	13,000	0.360	0.020	0.219	
90%	13,500	0.374	0.021	0.220	
93%	14,000	0.399	0.021	0.221	
97%	14,500	0.416	0.022	0.221	
100%	15,000	0.441	0.023	0.222	
35%	5,200	0.433	0.008	0.207	
0%	0	0.400	0.000	0.199	



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Tension Load Test Result for PLT-018A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

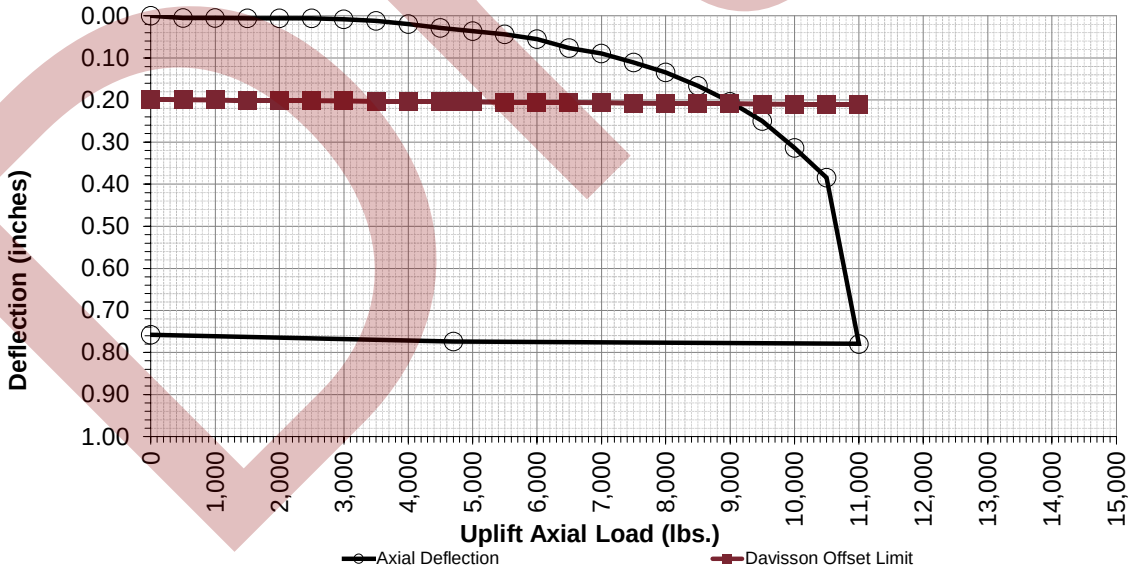
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-018A
Latitude [deg.]:	41.86370
Longitude[deg.]:	-83.96473
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	16

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.005	0.001	0.200	
10%	1,500	0.006	0.002	0.201	
13%	2,000	0.006	0.002	0.201	
17%	2,500	0.006	0.003	0.202	
20%	3,000	0.008	0.003	0.202	
23%	3,500	0.012	0.004	0.203	
27%	4,000	0.020	0.004	0.203	
30%	4,500	0.029	0.005	0.204	
33%	5,000	0.037	0.005	0.205	
37%	5,500	0.044	0.006	0.205	
40%	6,000	0.055	0.006	0.206	
43%	6,500	0.076	0.007	0.206	
47%	7,000	0.090	0.008	0.207	
50%	7,500	0.111	0.008	0.207	
53%	8,000	0.135	0.009	0.208	
57%	8,500	0.166	0.009	0.208	
60%	9,000	0.204	0.010	0.209	
63%	9,500	0.250	0.010	0.209	
67%	10,000	0.314	0.011	0.210	
70%	10,500	0.385	0.011	0.210	
73%	11,000	0.780	0.012	0.211	
31%	4,700	0.774	0.005	0.204	
0%	0	0.758	0.000	0.199	



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Tension Load Test Result for PLT-018B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

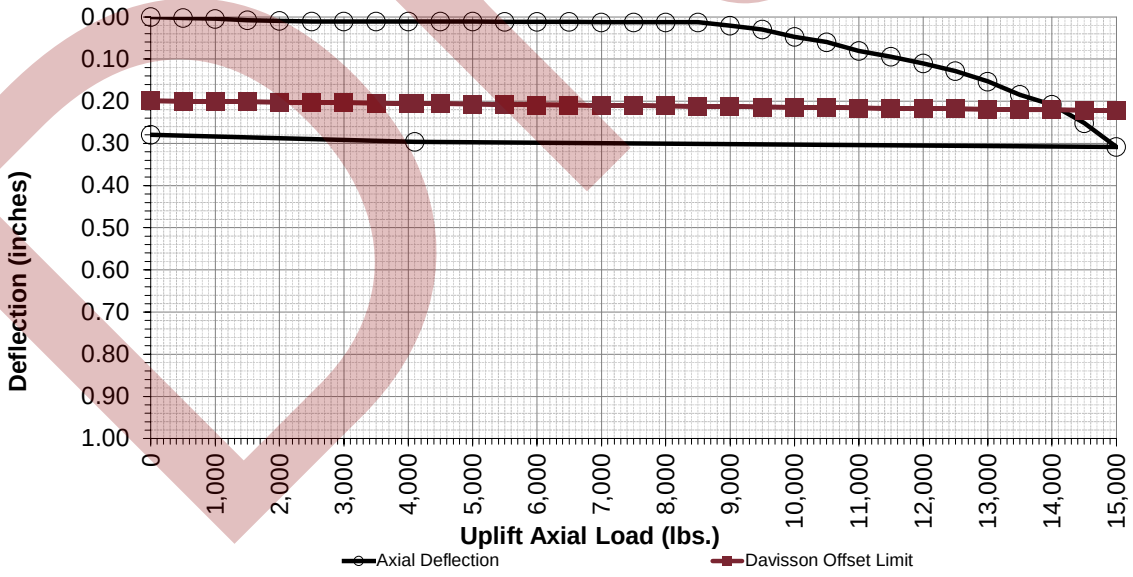
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-018B
Latitude [deg.]:	41.86370
Longitude[deg.]:	-83.96473
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	100

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.005	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.009	0.003	0.202	
17%	2,500	0.011	0.004	0.203	
20%	3,000	0.011	0.005	0.204	
23%	3,500	0.011	0.005	0.205	
27%	4,000	0.011	0.006	0.205	
30%	4,500	0.011	0.007	0.206	
33%	5,000	0.011	0.008	0.207	
37%	5,500	0.012	0.008	0.208	
40%	6,000	0.012	0.009	0.208	
43%	6,500	0.012	0.010	0.209	
47%	7,000	0.013	0.011	0.210	
50%	7,500	0.013	0.011	0.211	
53%	8,000	0.013	0.012	0.211	
57%	8,500	0.013	0.013	0.212	
60%	9,000	0.021	0.014	0.213	
63%	9,500	0.030	0.015	0.214	
67%	10,000	0.048	0.015	0.214	
70%	10,500	0.060	0.016	0.215	
73%	11,000	0.081	0.017	0.216	
77%	11,500	0.095	0.018	0.217	
80%	12,000	0.110	0.018	0.218	
83%	12,500	0.129	0.019	0.218	
87%	13,000	0.153	0.020	0.219	
90%	13,500	0.185	0.021	0.220	
93%	14,000	0.208	0.021	0.221	
97%	14,500	0.252	0.022	0.221	
100%	15,000	0.309	0.023	0.222	
27%	4,100	0.296	0.006	0.205	
0%	0	0.280	0.000	0.199	



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Tension Load Test Result for PLT-019A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

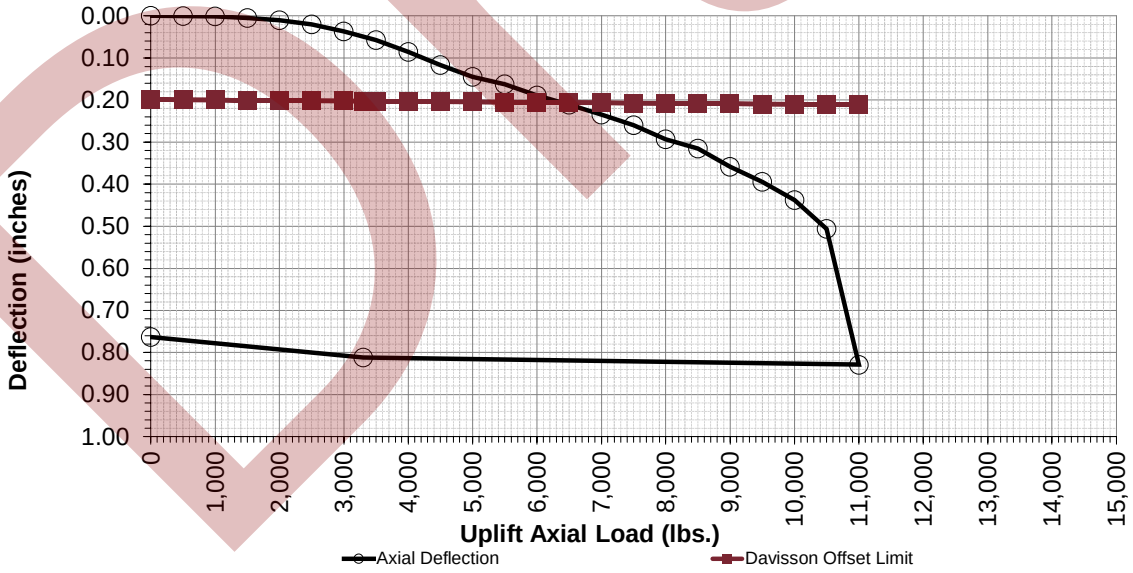
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-019A
Latitude [deg.]:	41.86273
Longitude[deg.]:	-83.95827
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	10

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.001	0.200	
10%	1,500	0.005	0.002	0.201	
13%	2,000	0.010	0.002	0.201	
17%	2,500	0.021	0.003	0.202	
20%	3,000	0.037	0.003	0.202	
23%	3,500	0.058	0.004	0.203	
27%	4,000	0.086	0.004	0.203	
30%	4,500	0.117	0.005	0.204	
33%	5,000	0.145	0.005	0.205	
37%	5,500	0.162	0.006	0.205	
40%	6,000	0.189	0.006	0.206	
43%	6,500	0.211	0.007	0.206	
47%	7,000	0.235	0.008	0.207	
50%	7,500	0.260	0.008	0.207	
53%	8,000	0.293	0.009	0.208	
57%	8,500	0.315	0.009	0.208	
60%	9,000	0.359	0.010	0.209	
63%	9,500	0.394	0.010	0.209	
67%	10,000	0.438	0.011	0.210	
70%	10,500	0.506	0.011	0.210	
73%	11,000	0.829	0.012	0.211	
22%	3,300	0.812	0.004	0.203	
0%	0	0.764	0.000	0.199	



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Tension Load Test Result for PLT-019B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

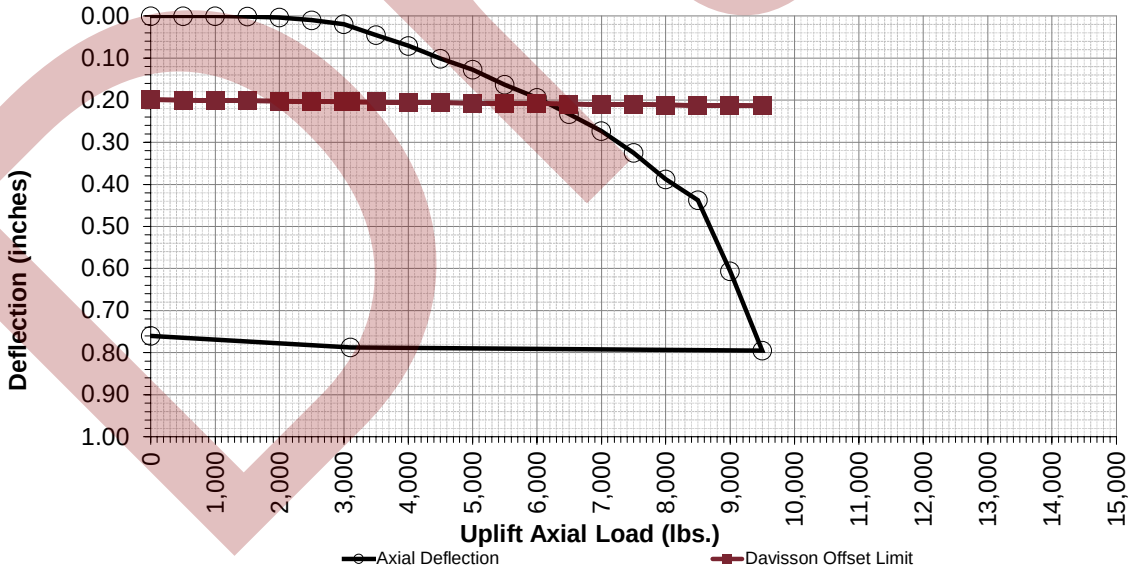
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-019B
Latitude [deg.]:	41.86273
Longitude[deg.]:	-83.95827
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	28

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.002	0.201	
10%	1,500	0.002	0.002	0.201	
13%	2,000	0.004	0.003	0.202	
17%	2,500	0.010	0.004	0.203	
20%	3,000	0.020	0.005	0.204	
23%	3,500	0.045	0.005	0.205	
27%	4,000	0.071	0.006	0.205	
30%	4,500	0.101	0.007	0.206	
33%	5,000	0.128	0.008	0.207	
37%	5,500	0.164	0.008	0.208	
40%	6,000	0.194	0.009	0.208	
43%	6,500	0.233	0.010	0.209	
47%	7,000	0.273	0.011	0.210	
50%	7,500	0.325	0.011	0.211	
53%	8,000	0.388	0.012	0.211	
57%	8,500	0.438	0.013	0.212	
60%	9,000	0.607	0.014	0.213	
63%	9,500	0.796	0.015	0.214	
21%	3,100	0.788	0.005	0.204	
0%	0	0.760	0.000	0.199	



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Tension Load Test Result for PLT-020A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

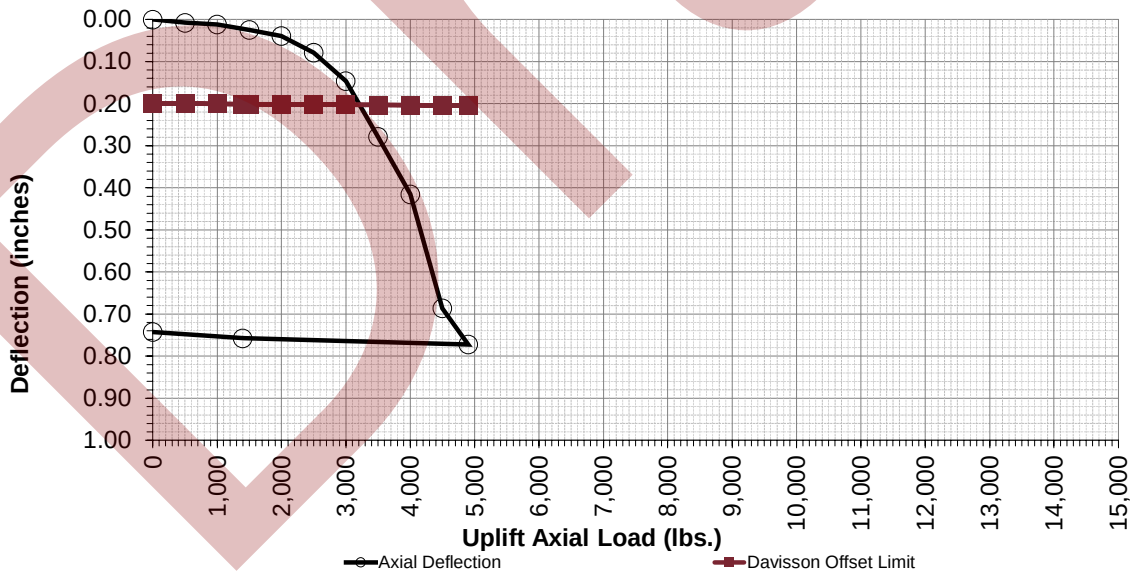
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-020A
Latitude [deg.]:	41.85524
Longitude[deg.]:	-83.96229
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	9

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.008	0.001	0.200	
7%	1,000	0.012	0.001	0.200	
10%	1,500	0.025	0.002	0.201	
13%	2,000	0.039	0.002	0.201	
17%	2,500	0.079	0.003	0.202	
20%	3,000	0.147	0.003	0.202	
23%	3,500	0.279	0.004	0.203	
27%	4,000	0.415	0.004	0.203	
30%	4,500	0.687	0.005	0.204	
33%	4,900	0.773	0.005	0.204	
9%	1,400	0.758	0.002	0.201	
0%	0	0.743	0.000	0.199	



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Tension Load Test Result for PLT-20B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

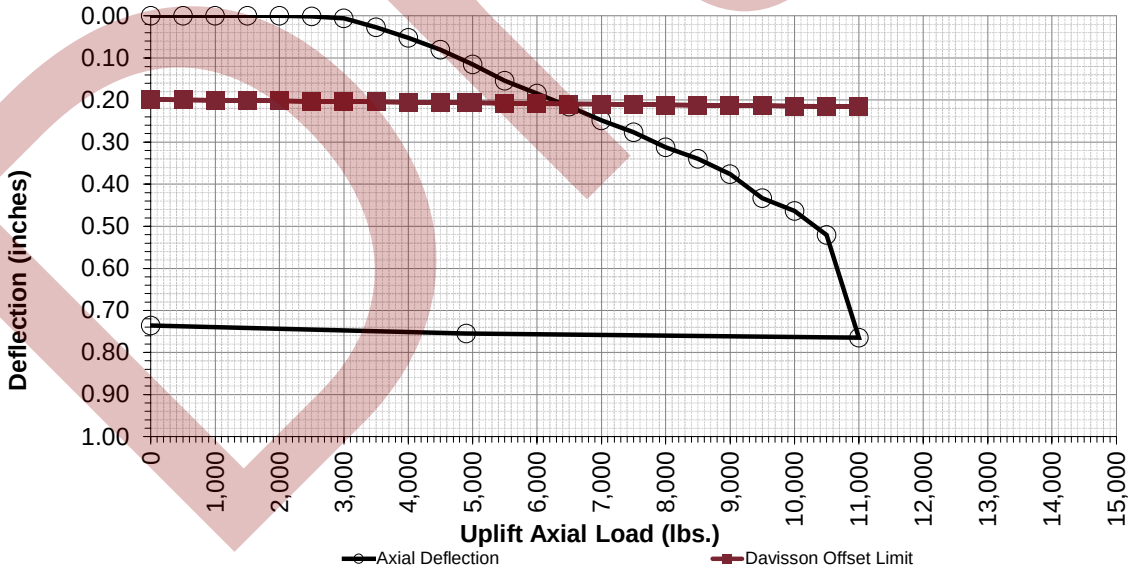
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-20B
Latitude [deg.]:	41.85524
Longitude[deg.]:	-83.96229
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	37

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.002	0.201	
10%	1,500	0.000	0.002	0.201	
13%	2,000	0.000	0.003	0.202	
17%	2,500	0.002	0.004	0.203	
20%	3,000	0.006	0.005	0.204	
23%	3,500	0.027	0.005	0.205	
27%	4,000	0.053	0.006	0.205	
30%	4,500	0.080	0.007	0.206	
33%	5,000	0.115	0.008	0.207	
37%	5,500	0.154	0.008	0.208	
40%	6,000	0.185	0.009	0.208	
43%	6,500	0.216	0.010	0.209	
47%	7,000	0.248	0.011	0.210	
50%	7,500	0.277	0.011	0.211	
53%	8,000	0.313	0.012	0.211	
57%	8,500	0.340	0.013	0.212	
60%	9,000	0.377	0.014	0.213	
63%	9,500	0.434	0.015	0.214	
67%	10,000	0.464	0.015	0.214	
70%	10,500	0.521	0.016	0.215	
73%	11,000	0.765	0.017	0.216	
33%	4,900	0.755	0.008	0.207	
0%	0	0.736	0.000	0.199	



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Tension Load Test Result for PLT-023A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

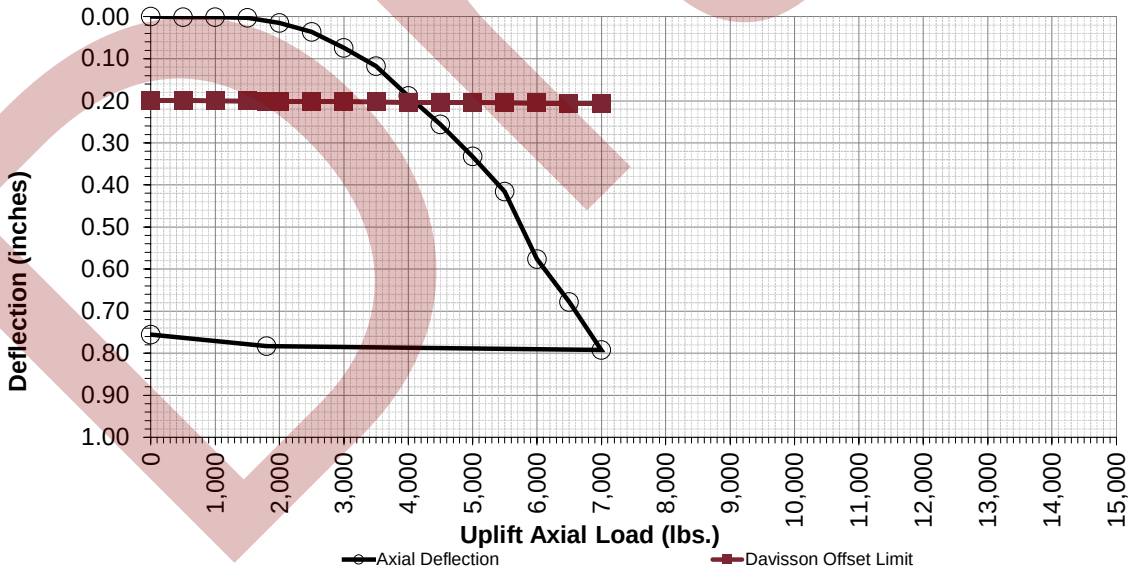
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-023A
Latitude [deg.]:	41.85713
Longitude[deg.]:	-83.96409
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	22

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.001	0.200	
10%	1,500	0.003	0.002	0.201	
13%	2,000	0.015	0.002	0.201	
17%	2,500	0.036	0.003	0.202	
20%	3,000	0.074	0.003	0.202	
23%	3,500	0.118	0.004	0.203	
27%	4,000	0.189	0.004	0.203	
30%	4,500	0.256	0.005	0.204	
33%	5,000	0.333	0.005	0.205	
37%	5,500	0.416	0.006	0.205	
40%	6,000	0.577	0.006	0.206	
43%	6,500	0.679	0.007	0.206	
47%	7,000	0.793	0.008	0.207	
12%	1,800	0.784	0.002	0.201	
0%	0	0.756	0.000	0.199	



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Tension Load Test Result for PLT-023B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

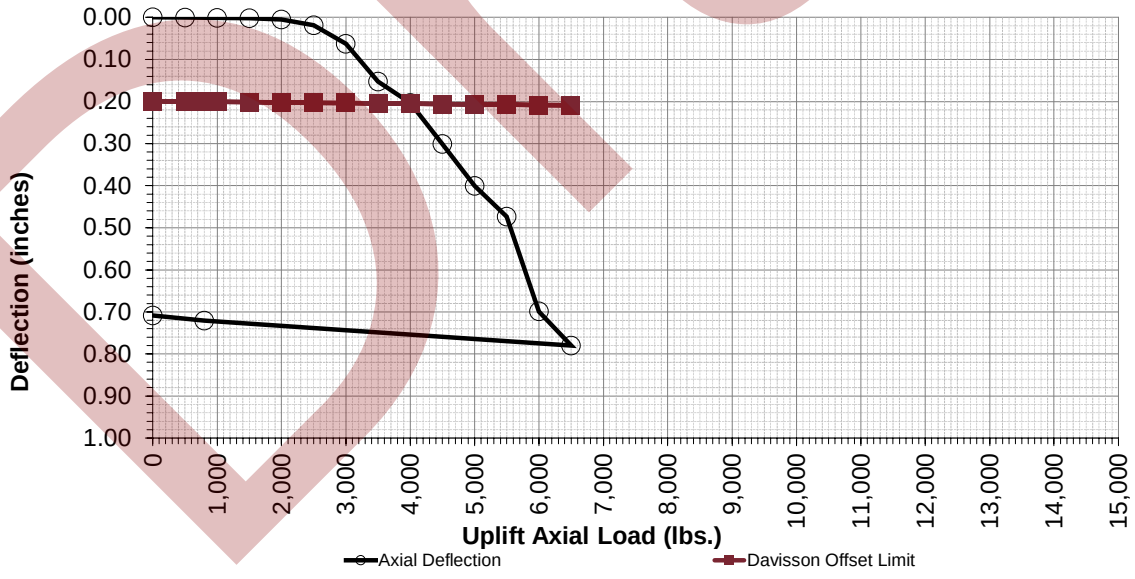
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-023B
Latitude [deg.]:	41.85713
Longitude[deg.]:	-83.96409
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	23

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.002	0.201	
10%	1,500	0.002	0.002	0.201	
13%	2,000	0.005	0.003	0.202	
17%	2,500	0.019	0.004	0.203	
20%	3,000	0.063	0.005	0.204	
23%	3,500	0.153	0.005	0.205	
27%	4,000	0.204	0.006	0.205	
30%	4,500	0.301	0.007	0.206	
33%	5,000	0.401	0.008	0.207	
37%	5,500	0.474	0.008	0.208	
40%	6,000	0.699	0.009	0.208	
43%	6,500	0.780	0.010	0.209	
5%	800	0.721	0.001	0.200	
0%	0	0.709	0.000	0.199	



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Tension Load Test Result for PLT-026A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

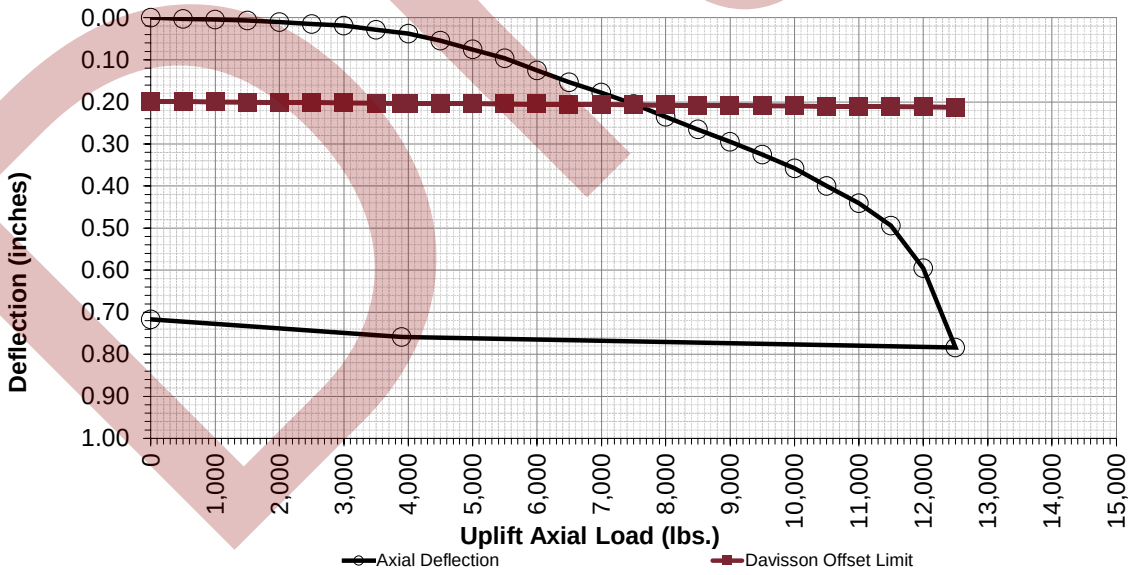
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-026A
Latitude [deg.]:	41.85938
Longitude[deg.]:	-83.95300
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	15

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.005	0.001	0.200	
10%	1,500	0.007	0.002	0.201	
13%	2,000	0.010	0.002	0.201	
17%	2,500	0.015	0.003	0.202	
20%	3,000	0.019	0.003	0.202	
23%	3,500	0.029	0.004	0.203	
27%	4,000	0.038	0.004	0.203	
30%	4,500	0.054	0.005	0.204	
33%	5,000	0.076	0.005	0.205	
37%	5,500	0.096	0.006	0.205	
40%	6,000	0.125	0.006	0.206	
43%	6,500	0.154	0.007	0.206	
47%	7,000	0.178	0.008	0.207	
50%	7,500	0.205	0.008	0.207	
53%	8,000	0.236	0.009	0.208	
57%	8,500	0.266	0.009	0.208	
60%	9,000	0.295	0.010	0.209	
63%	9,500	0.326	0.010	0.209	
67%	10,000	0.358	0.011	0.210	
70%	10,500	0.400	0.011	0.210	
73%	11,000	0.441	0.012	0.211	
77%	11,500	0.494	0.012	0.212	
80%	12,000	0.595	0.013	0.212	
83%	12,500	0.784	0.013	0.213	
26%	3,900	0.759	0.004	0.203	
0%	0	0.717	0.000	0.199	



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Tension Load Test Result for PLT-026B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

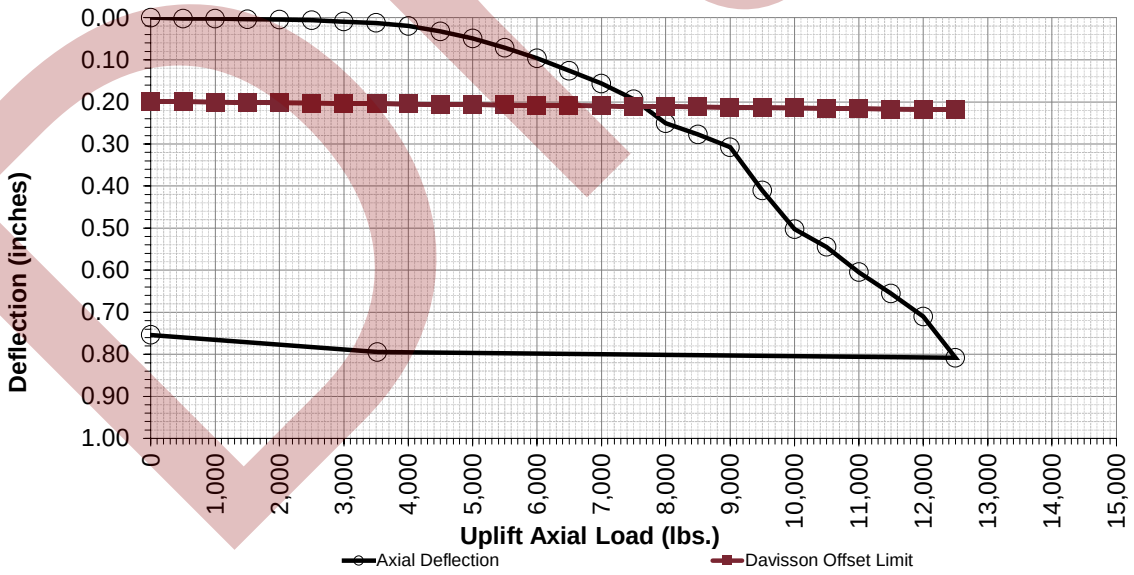
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-026B
Latitude [deg.]:	41.85938
Longitude[deg.]:	-83.95300
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	67

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.002	0.002	0.201	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.005	0.003	0.202	
17%	2,500	0.006	0.004	0.203	
20%	3,000	0.009	0.005	0.204	
23%	3,500	0.013	0.005	0.205	
27%	4,000	0.020	0.006	0.205	
30%	4,500	0.032	0.007	0.206	
33%	5,000	0.049	0.008	0.207	
37%	5,500	0.072	0.008	0.208	
40%	6,000	0.097	0.009	0.208	
43%	6,500	0.126	0.010	0.209	
47%	7,000	0.157	0.011	0.210	
50%	7,500	0.194	0.011	0.211	
53%	8,000	0.251	0.012	0.211	
57%	8,500	0.278	0.013	0.212	
60%	9,000	0.308	0.014	0.213	
63%	9,500	0.410	0.015	0.214	
67%	10,000	0.503	0.015	0.214	
70%	10,500	0.545	0.016	0.215	
73%	11,000	0.605	0.017	0.216	
77%	11,500	0.656	0.018	0.217	
80%	12,000	0.710	0.018	0.218	
83%	12,500	0.808	0.019	0.218	
23%	3,520	0.795	0.005	0.205	
0%	0	0.754	0.000	0.199	



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Tension Load Test Result for PLT-028A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

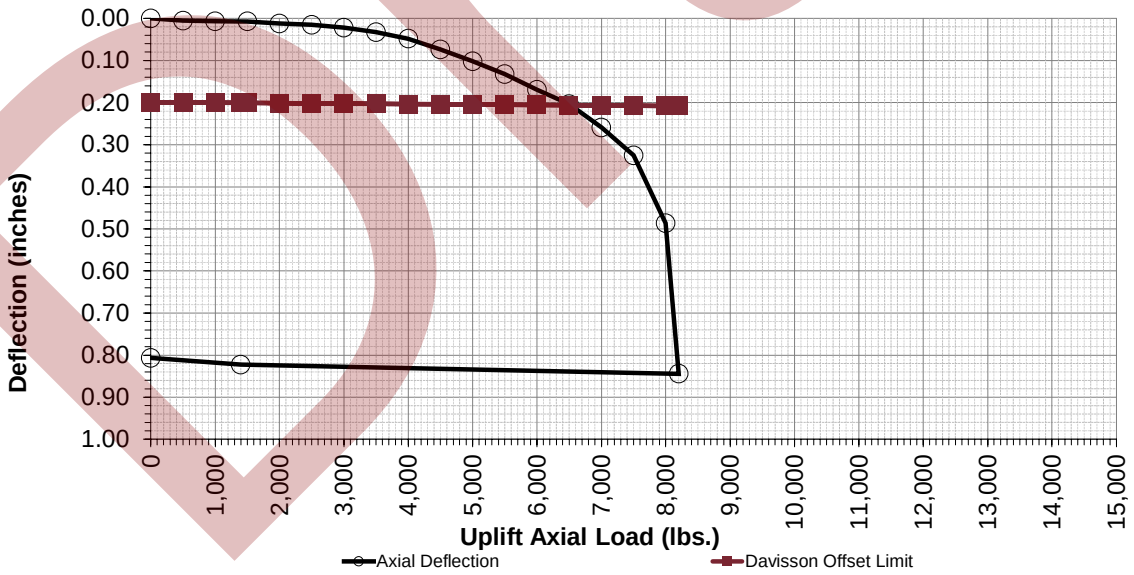
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-028A
Latitude [deg.]:	41.85192
Longitude[deg.]:	-83.95152
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	9

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.007	0.001	0.200	
10%	1,500	0.007	0.002	0.201	
13%	2,000	0.012	0.002	0.201	
17%	2,500	0.015	0.003	0.202	
20%	3,000	0.022	0.003	0.202	
23%	3,500	0.033	0.004	0.203	
27%	4,000	0.048	0.004	0.203	
30%	4,500	0.074	0.005	0.204	
33%	5,000	0.102	0.005	0.205	
37%	5,500	0.133	0.006	0.205	
40%	6,000	0.170	0.006	0.206	
43%	6,500	0.204	0.007	0.206	
47%	7,000	0.260	0.008	0.207	
50%	7,500	0.325	0.008	0.207	
53%	8,000	0.487	0.009	0.208	
55%	8,200	0.845	0.009	0.208	
9%	1,400	0.823	0.002	0.201	
0%	0	0.807	0.000	0.199	



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Tension Load Test Result for PLT-028B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

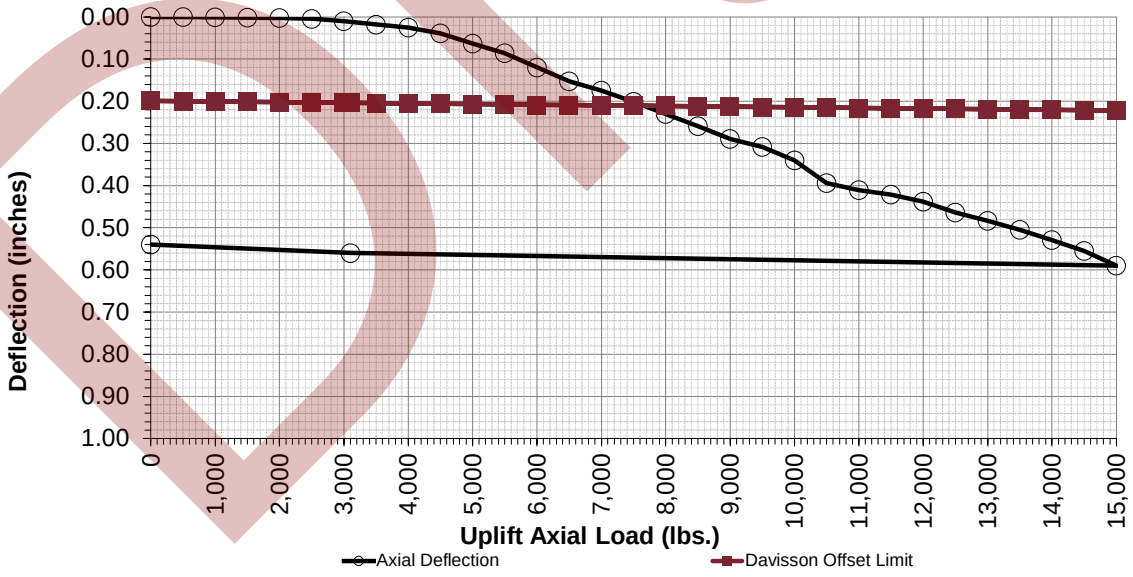
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-028B
Latitude [deg.]:	41.85192
Longitude[deg.]:	-83.95152
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	39

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.002	0.201	
10%	1,500	0.002	0.002	0.201	
13%	2,000	0.003	0.003	0.202	
17%	2,500	0.005	0.004	0.203	
20%	3,000	0.010	0.005	0.204	
23%	3,500	0.018	0.005	0.205	
27%	4,000	0.026	0.006	0.205	
30%	4,500	0.039	0.007	0.206	
33%	5,000	0.063	0.008	0.207	
37%	5,500	0.086	0.008	0.208	
40%	6,000	0.120	0.009	0.208	
43%	6,500	0.153	0.010	0.209	
47%	7,000	0.175	0.011	0.210	
50%	7,500	0.202	0.011	0.211	
53%	8,000	0.230	0.012	0.211	
57%	8,500	0.259	0.013	0.212	
60%	9,000	0.290	0.014	0.213	
63%	9,500	0.309	0.015	0.214	
67%	10,000	0.340	0.015	0.214	
70%	10,500	0.395	0.016	0.215	
73%	11,000	0.411	0.017	0.216	
77%	11,500	0.422	0.018	0.217	
80%	12,000	0.439	0.018	0.218	
83%	12,500	0.464	0.019	0.218	
87%	13,000	0.484	0.020	0.219	
90%	13,500	0.505	0.021	0.220	
93%	14,000	0.529	0.021	0.221	
97%	14,500	0.555	0.022	0.221	
100%	15,000	0.590	0.023	0.222	
21%	3,100	0.560	0.005	0.204	
0%	0	0.540	0.000	0.199	



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Tension Load Test Result for PLT-029A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

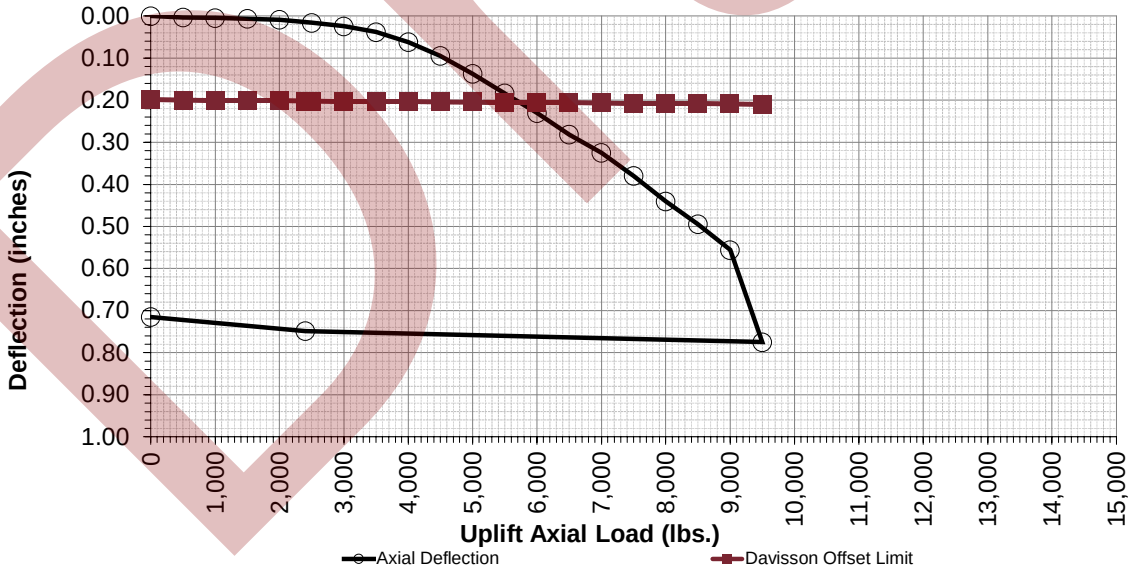
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-029A
Latitude [deg.]:	41.85184
Longitude[deg.]:	-83.94463
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	12

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.005	0.001	0.200	
10%	1,500	0.007	0.002	0.201	
13%	2,000	0.009	0.002	0.201	
17%	2,500	0.016	0.003	0.202	
20%	3,000	0.025	0.003	0.202	
23%	3,500	0.038	0.004	0.203	
27%	4,000	0.062	0.004	0.203	
30%	4,500	0.095	0.005	0.204	
33%	5,000	0.138	0.005	0.205	
37%	5,500	0.184	0.006	0.205	
40%	6,000	0.231	0.006	0.206	
43%	6,500	0.282	0.007	0.206	
47%	7,000	0.325	0.008	0.207	
50%	7,500	0.380	0.008	0.207	
53%	8,000	0.441	0.009	0.208	
57%	8,500	0.495	0.009	0.208	
60%	9,000	0.556	0.010	0.209	
63%	9,500	0.775	0.010	0.209	
16%	2,400	0.749	0.003	0.202	
0%	0	0.715	0.000	0.199	



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Tension Load Test Result for PLT-029B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

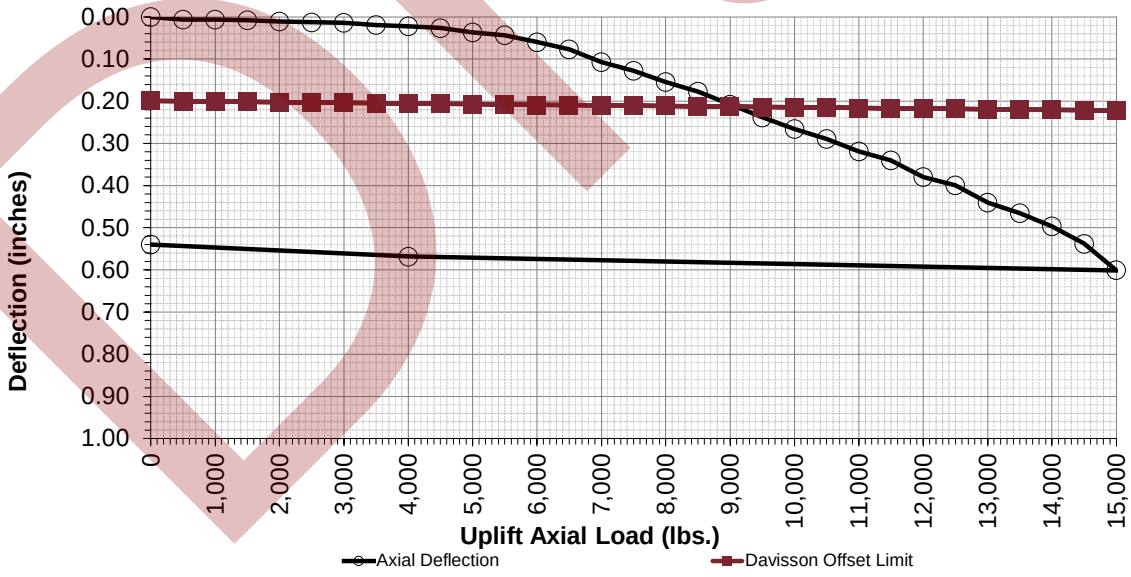
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-029B
Latitude [deg.]:	41.85184
Longitude[deg.]:	-83.94463
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	32

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.006	0.001	0.200	
7%	1,000	0.006	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.011	0.003	0.202	
17%	2,500	0.013	0.004	0.203	
20%	3,000	0.014	0.005	0.204	
23%	3,500	0.019	0.005	0.205	
27%	4,000	0.023	0.006	0.205	
30%	4,500	0.027	0.007	0.206	
33%	5,000	0.037	0.008	0.207	
37%	5,500	0.044	0.008	0.208	
40%	6,000	0.060	0.009	0.208	
43%	6,500	0.077	0.010	0.209	
47%	7,000	0.108	0.011	0.210	
50%	7,500	0.128	0.011	0.211	
53%	8,000	0.155	0.012	0.211	
57%	8,500	0.178	0.013	0.212	
60%	9,000	0.208	0.014	0.213	
63%	9,500	0.238	0.015	0.214	
67%	10,000	0.266	0.015	0.214	
70%	10,500	0.290	0.016	0.215	
73%	11,000	0.319	0.017	0.216	
77%	11,500	0.340	0.018	0.217	
80%	12,000	0.380	0.018	0.218	
83%	12,500	0.400	0.019	0.218	
87%	13,000	0.441	0.020	0.219	
90%	13,500	0.465	0.021	0.220	
93%	14,000	0.497	0.021	0.221	
97%	14,500	0.538	0.022	0.221	
100%	15,000	0.601	0.023	0.222	
27%	4,000	0.568	0.006	0.205	
0%	0	0.540	0.000	0.199	



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Tension Load Test Result for PLT-030A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

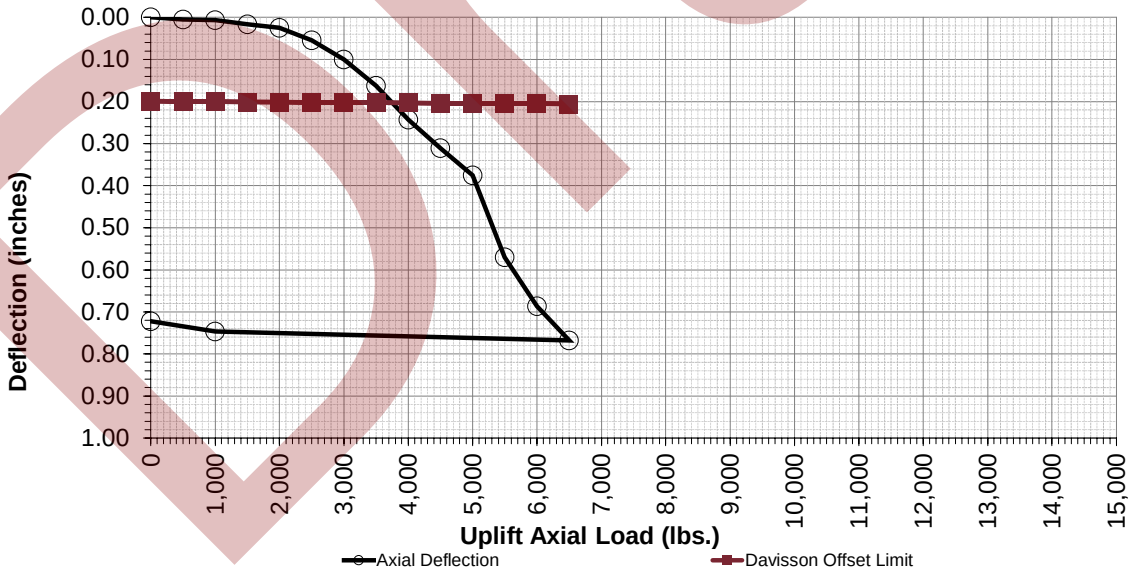
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-030A
Latitude [deg.]:	41.85424
Longitude[deg.]:	-83.95913
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	14

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.007	0.001	0.200	
10%	1,500	0.017	0.002	0.201	
13%	2,000	0.025	0.002	0.201	
17%	2,500	0.054	0.003	0.202	
20%	3,000	0.101	0.003	0.202	
23%	3,500	0.163	0.004	0.203	
27%	4,000	0.244	0.004	0.203	
30%	4,500	0.311	0.005	0.204	
33%	5,000	0.375	0.005	0.205	
37%	5,500	0.570	0.006	0.205	
40%	6,000	0.687	0.006	0.206	
43%	6,500	0.768	0.007	0.206	
7%	1,000	0.746	0.001	0.200	
0%	0	0.723	0.000	0.199	



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Tension Load Test Result for PLT-030B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

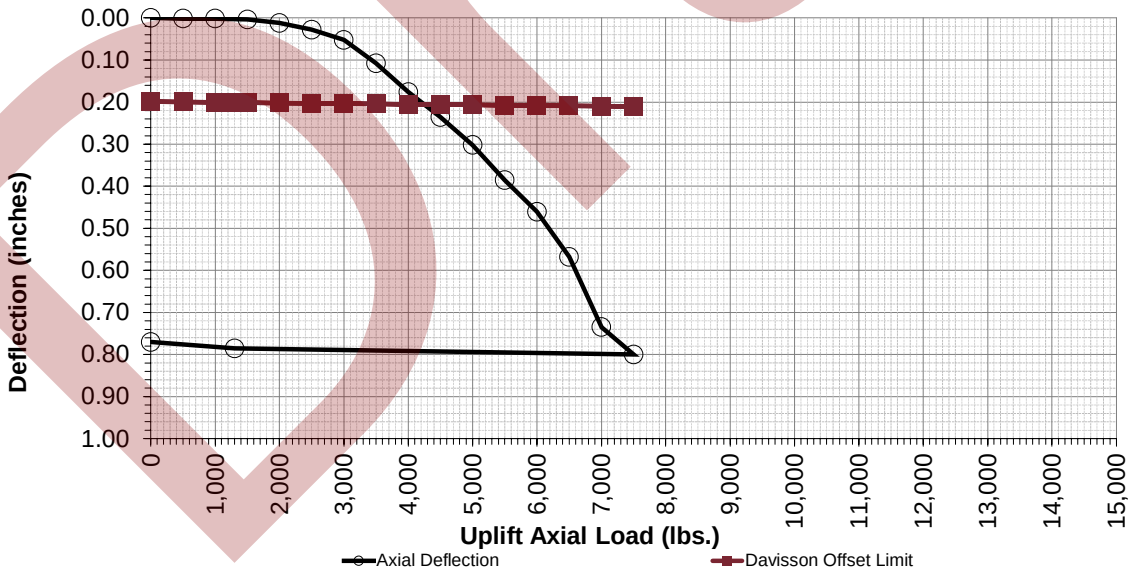
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-030B
Latitude [deg.]:	41.85424
Longitude[deg.]:	-83.95913
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	33

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.002	0.002	0.201	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.012	0.003	0.202	
17%	2,500	0.028	0.004	0.203	
20%	3,000	0.053	0.005	0.204	
23%	3,500	0.108	0.005	0.205	
27%	4,000	0.177	0.006	0.205	
30%	4,500	0.236	0.007	0.206	
33%	5,000	0.302	0.008	0.207	
37%	5,500	0.385	0.008	0.208	
40%	6,000	0.461	0.009	0.208	
43%	6,500	0.568	0.010	0.209	
47%	7,000	0.735	0.011	0.210	
50%	7,500	0.800	0.011	0.211	
9%	1,300	0.786	0.002	0.201	
0%	0	0.770	0.000	0.199	



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Tension Load Test Result for PLT-032A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

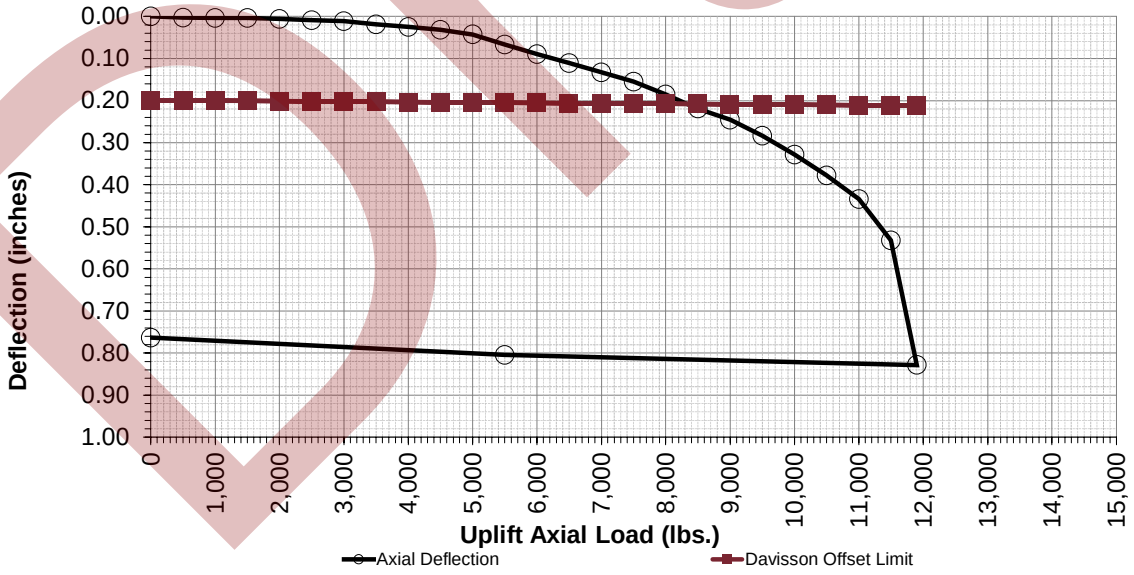
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-032A
Latitude [deg.]:	41.85319
Longitude[deg.]:	-83.96870
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	11

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.004	0.001	0.200	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.006	0.002	0.201	
17%	2,500	0.009	0.003	0.202	
20%	3,000	0.012	0.003	0.202	
23%	3,500	0.019	0.004	0.203	
27%	4,000	0.025	0.004	0.203	
30%	4,500	0.032	0.005	0.204	
33%	5,000	0.043	0.005	0.205	
37%	5,500	0.067	0.006	0.205	
40%	6,000	0.090	0.006	0.206	
43%	6,500	0.111	0.007	0.206	
47%	7,000	0.133	0.008	0.207	
50%	7,500	0.155	0.008	0.207	
53%	8,000	0.186	0.009	0.208	
57%	8,500	0.219	0.009	0.208	
60%	9,000	0.246	0.010	0.209	
63%	9,500	0.284	0.010	0.209	
67%	10,000	0.328	0.011	0.210	
70%	10,500	0.378	0.011	0.210	
73%	11,000	0.434	0.012	0.211	
77%	11,500	0.533	0.012	0.212	
79%	11,900	0.829	0.013	0.212	
37%	5,500	0.805	0.006	0.205	
0%	0	0.763	0.000	0.199	



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Tension Load Test Result for PLT-032B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

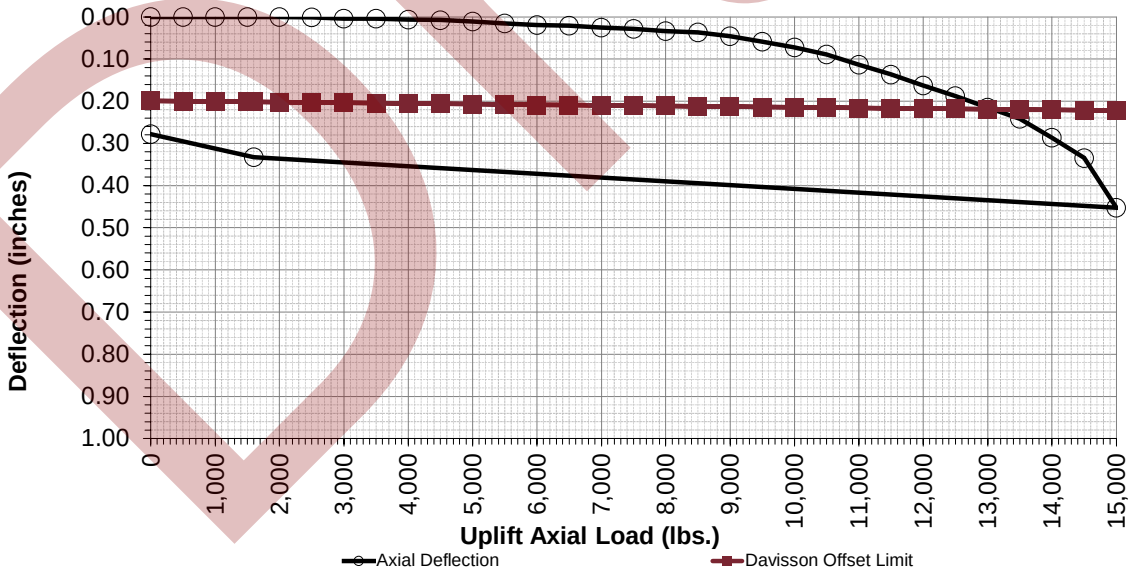
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-032B
Latitude [deg.]:	41.85319
Longitude[deg.]:	-83.96870
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	82

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.002	0.201	
10%	1,500	0.001	0.002	0.201	
13%	2,000	0.001	0.003	0.202	
17%	2,500	0.001	0.004	0.203	
20%	3,000	0.004	0.005	0.204	
23%	3,500	0.004	0.005	0.205	
27%	4,000	0.006	0.006	0.205	
30%	4,500	0.008	0.007	0.206	
33%	5,000	0.011	0.008	0.207	
37%	5,500	0.016	0.008	0.208	
40%	6,000	0.019	0.009	0.208	
43%	6,500	0.021	0.010	0.209	
47%	7,000	0.025	0.011	0.210	
50%	7,500	0.029	0.011	0.211	
53%	8,000	0.034	0.012	0.211	
57%	8,500	0.037	0.013	0.212	
60%	9,000	0.046	0.014	0.213	
63%	9,500	0.059	0.015	0.214	
67%	10,000	0.073	0.015	0.214	
70%	10,500	0.089	0.016	0.215	
73%	11,000	0.113	0.017	0.216	
77%	11,500	0.137	0.018	0.217	
80%	12,000	0.163	0.018	0.218	
83%	12,500	0.188	0.019	0.218	
87%	13,000	0.215	0.020	0.219	
90%	13,500	0.242	0.021	0.220	
93%	14,000	0.286	0.021	0.221	
97%	14,500	0.335	0.022	0.221	
100%	15,000	0.453	0.023	0.222	
11%	1,600	0.333	0.002	0.202	
0%	0	0.278	0.000	0.199	



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Tension Load Test Result for PLT-035A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

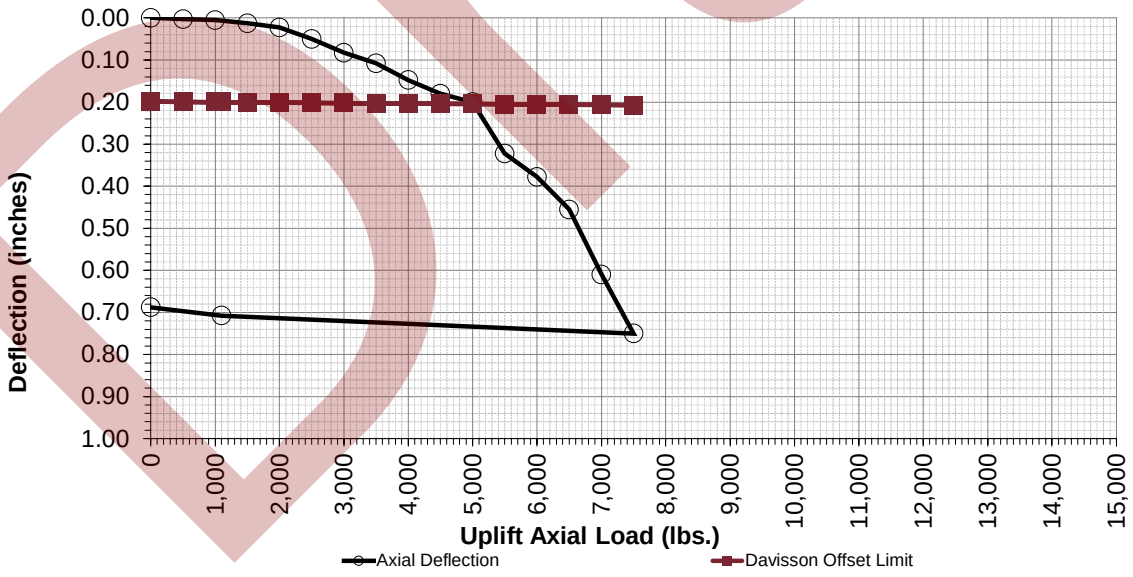
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-035A
Latitude [deg.]:	41.84806
Longitude[deg.]:	-83.96507
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	15

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.005	0.001	0.200	
10%	1,500	0.013	0.002	0.201	
13%	2,000	0.023	0.002	0.201	
17%	2,500	0.050	0.003	0.202	
20%	3,000	0.083	0.003	0.202	
23%	3,500	0.108	0.004	0.203	
27%	4,000	0.148	0.004	0.203	
30%	4,500	0.180	0.005	0.204	
33%	5,000	0.200	0.005	0.205	
37%	5,500	0.323	0.006	0.205	
40%	6,000	0.378	0.006	0.206	
43%	6,500	0.455	0.007	0.206	
47%	7,000	0.610	0.008	0.207	
50%	7,500	0.750	0.008	0.207	
7%	1,100	0.708	0.001	0.200	
0%	0	0.688	0.000	0.199	



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Tension Load Test Result for PLT-035B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

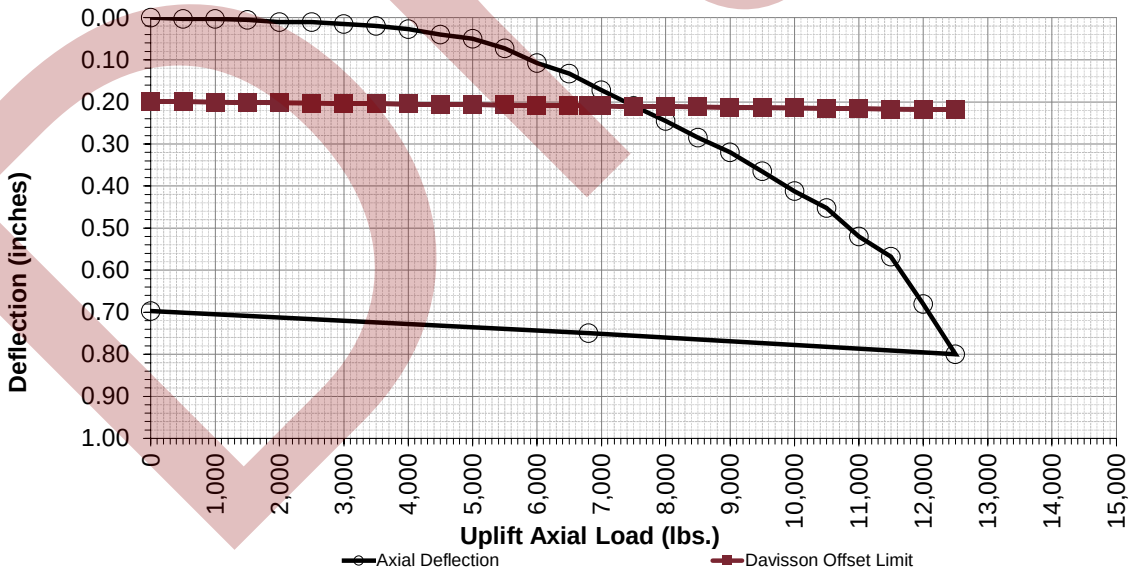
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-035B
Latitude [deg.]:	41.84806
Longitude[deg.]:	-83.96507
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	49

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.003	0.002	0.201	
10%	1,500	0.005	0.002	0.201	
13%	2,000	0.010	0.003	0.202	
17%	2,500	0.010	0.004	0.203	
20%	3,000	0.015	0.005	0.204	
23%	3,500	0.020	0.005	0.205	
27%	4,000	0.028	0.006	0.205	
30%	4,500	0.040	0.007	0.206	
33%	5,000	0.050	0.008	0.207	
37%	5,500	0.073	0.008	0.208	
40%	6,000	0.108	0.009	0.208	
43%	6,500	0.133	0.010	0.209	
47%	7,000	0.173	0.011	0.210	
50%	7,500	0.210	0.011	0.211	
53%	8,000	0.245	0.012	0.211	
57%	8,500	0.285	0.013	0.212	
60%	9,000	0.320	0.014	0.213	
63%	9,500	0.365	0.015	0.214	
67%	10,000	0.413	0.015	0.214	
70%	10,500	0.453	0.016	0.215	
73%	11,000	0.520	0.017	0.216	
77%	11,500	0.568	0.018	0.217	
80%	12,000	0.680	0.018	0.218	
83%	12,500	0.800	0.019	0.218	
45%	6,800	0.750	0.010	0.210	
0%	0	0.698	0.000	0.199	



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Tension Load Test Result for PLT-036A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

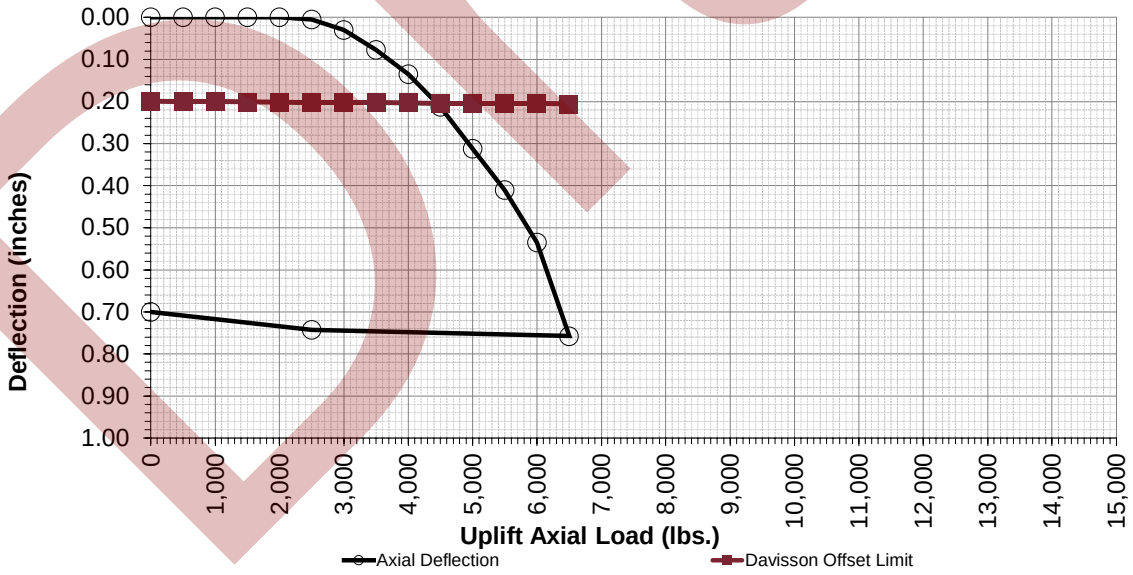
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-036A
Latitude [deg.]:	41.84667
Longitude[deg.]:	-83.95390
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	22

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.001	0.200	
10%	1,500	0.000	0.002	0.201	
13%	2,000	0.000	0.002	0.201	
17%	2,500	0.005	0.003	0.202	
20%	3,000	0.030	0.003	0.202	
23%	3,500	0.078	0.004	0.203	
27%	4,000	0.135	0.004	0.203	
30%	4,500	0.213	0.005	0.204	
33%	5,000	0.313	0.005	0.205	
37%	5,500	0.410	0.006	0.205	
40%	6,000	0.535	0.006	0.206	
43%	6,500	0.758	0.007	0.206	
17%	2,500	0.743	0.003	0.202	
0%	0	0.700	0.000	0.199	



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Tension Load Test Result for PLT-036B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

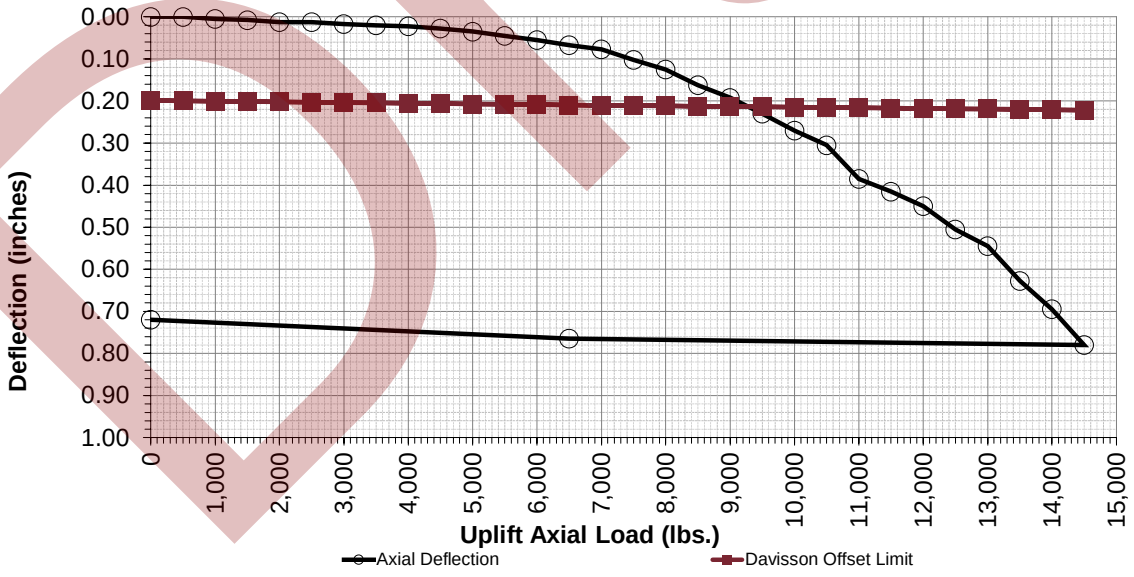
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-036B
Latitude [deg.]:	41.84667
Longitude[deg.]:	-83.95390
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	58

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.005	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.013	0.003	0.202	
17%	2,500	0.013	0.004	0.203	
20%	3,000	0.018	0.005	0.204	
23%	3,500	0.020	0.005	0.205	
27%	4,000	0.023	0.006	0.205	
30%	4,500	0.028	0.007	0.206	
33%	5,000	0.035	0.008	0.207	
37%	5,500	0.045	0.008	0.208	
40%	6,000	0.055	0.009	0.208	
43%	6,500	0.068	0.010	0.209	
47%	7,000	0.078	0.011	0.210	
50%	7,500	0.103	0.011	0.211	
53%	8,000	0.125	0.012	0.211	
57%	8,500	0.163	0.013	0.212	
60%	9,000	0.193	0.014	0.213	
63%	9,500	0.230	0.015	0.214	
67%	10,000	0.270	0.015	0.214	
70%	10,500	0.305	0.016	0.215	
73%	11,000	0.385	0.017	0.216	
77%	11,500	0.415	0.018	0.217	
80%	12,000	0.450	0.018	0.218	
83%	12,500	0.505	0.019	0.218	
87%	13,000	0.545	0.020	0.219	
90%	13,500	0.628	0.021	0.220	
93%	14,000	0.695	0.021	0.221	
97%	14,500	0.780	0.022	0.221	
43%	6,500	0.765	0.010	0.209	
0%	0	0.720	0.000	0.199	



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Tension Load Test Result for PLT-040A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

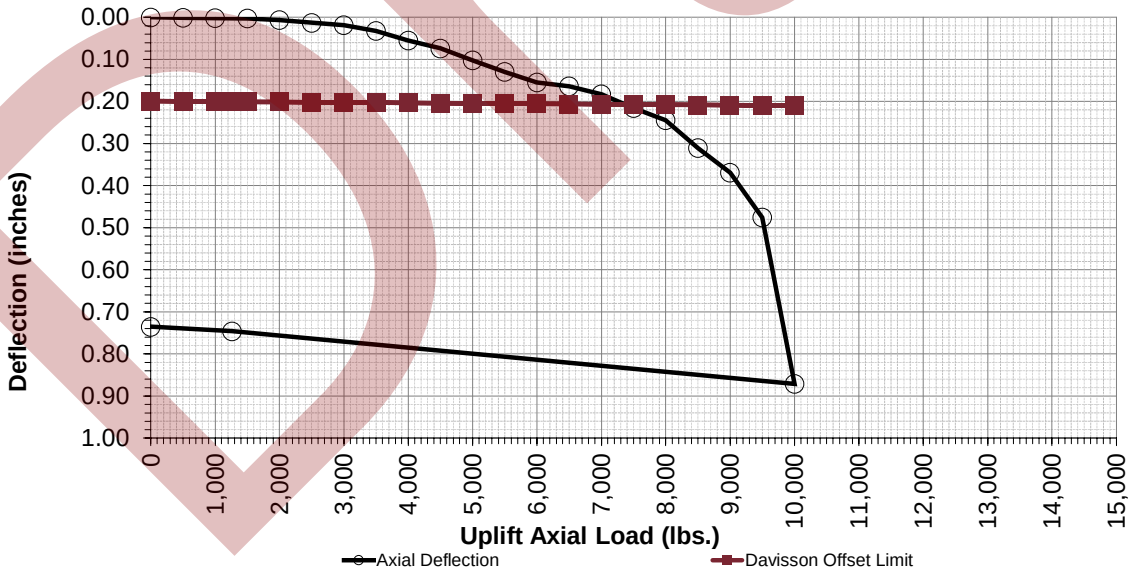
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-040A
Latitude [deg.]:	41.84438
Longitude[deg.]:	-83.95986
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	12

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.002	0.001	0.200	
10%	1,500	0.003	0.002	0.201	
13%	2,000	0.007	0.002	0.201	
17%	2,500	0.013	0.003	0.202	
20%	3,000	0.019	0.003	0.202	
23%	3,500	0.033	0.004	0.203	
27%	4,000	0.055	0.004	0.203	
30%	4,500	0.074	0.005	0.204	
33%	5,000	0.103	0.005	0.205	
37%	5,500	0.130	0.006	0.205	
40%	6,000	0.155	0.006	0.206	
43%	6,500	0.164	0.007	0.206	
47%	7,000	0.183	0.008	0.207	
50%	7,500	0.216	0.008	0.207	
53%	8,000	0.245	0.009	0.208	
57%	8,500	0.311	0.009	0.208	
60%	9,000	0.369	0.010	0.209	
63%	9,500	0.476	0.010	0.209	
67%	10,000	0.871	0.011	0.210	
8%	1,260	0.746	0.001	0.201	
0%	0	0.736	0.000	0.199	



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Tension Load Test Result for PLT-040B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

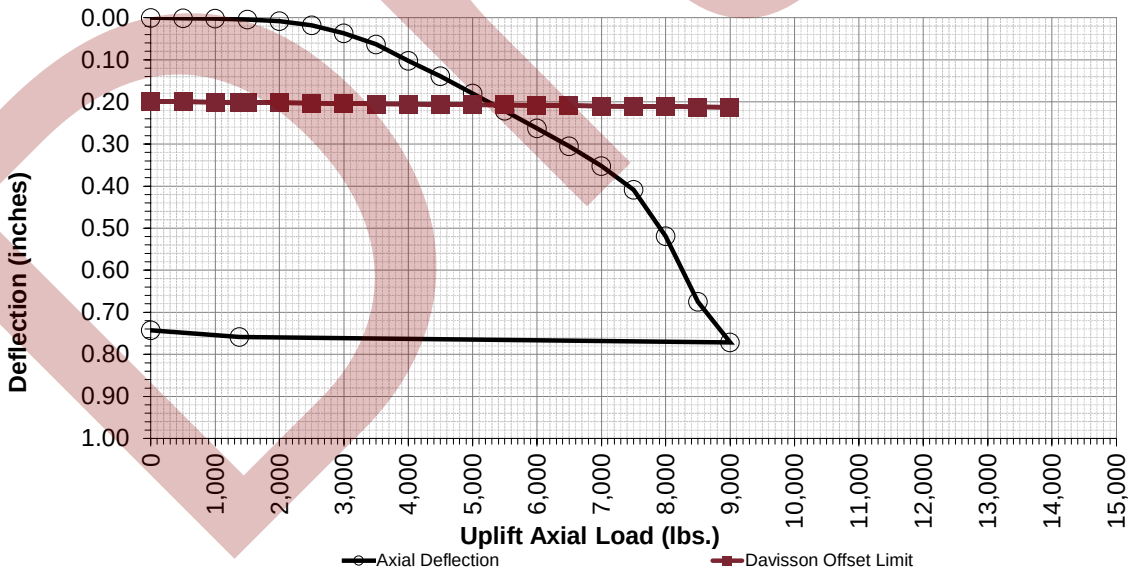
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-040B
Latitude [deg.]:	41.84438
Longitude[deg.]:	-83.95986
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	33

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.002	0.001	0.200	
7%	1,000	0.002	0.002	0.201	
10%	1,500	0.004	0.002	0.201	
13%	2,000	0.008	0.003	0.202	
17%	2,500	0.018	0.004	0.203	
20%	3,000	0.037	0.005	0.204	
23%	3,500	0.063	0.005	0.205	
27%	4,000	0.103	0.006	0.205	
30%	4,500	0.139	0.007	0.206	
33%	5,000	0.180	0.008	0.207	
37%	5,500	0.221	0.008	0.208	
40%	6,000	0.263	0.009	0.208	
43%	6,500	0.306	0.010	0.209	
47%	7,000	0.353	0.011	0.210	
50%	7,500	0.409	0.011	0.211	
53%	8,000	0.519	0.012	0.211	
57%	8,500	0.675	0.013	0.212	
60%	9,000	0.772	0.014	0.213	
9%	1,380	0.759	0.002	0.201	
0%	0	0.743	0.000	0.199	



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Tension Load Test Result for PLT-044A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

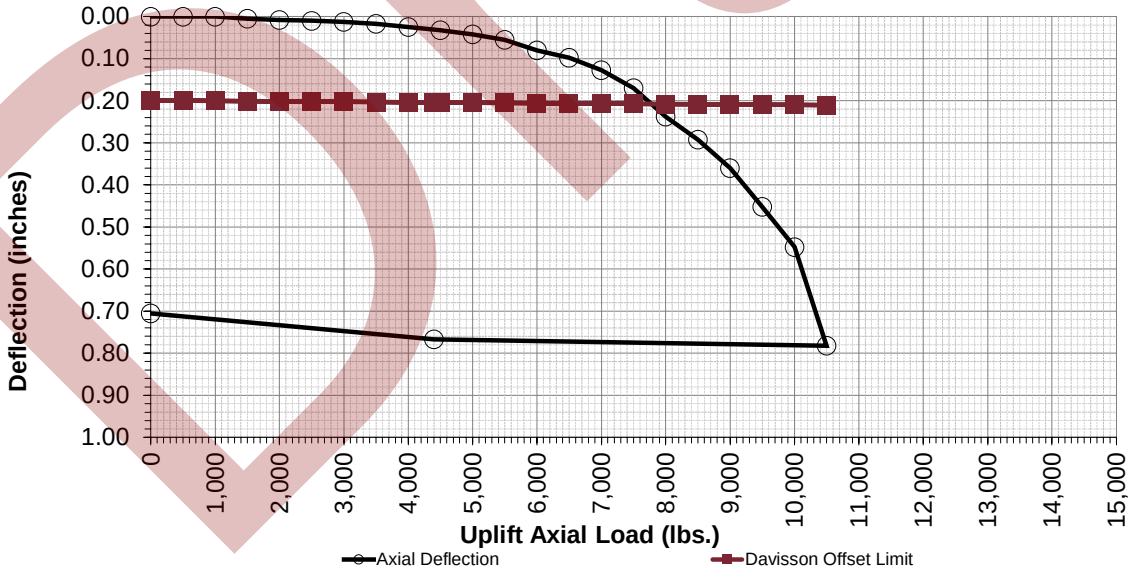
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-044A
Latitude [deg.]:	41.83520
Longitude[deg.]:	-83.97515
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	13

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.001	0.200	
10%	1,500	0.005	0.002	0.201	
13%	2,000	0.008	0.002	0.201	
17%	2,500	0.010	0.003	0.202	
20%	3,000	0.013	0.003	0.202	
23%	3,500	0.018	0.004	0.203	
27%	4,000	0.025	0.004	0.203	
30%	4,500	0.033	0.005	0.204	
33%	5,000	0.043	0.005	0.205	
37%	5,500	0.055	0.006	0.205	
40%	6,000	0.080	0.006	0.206	
43%	6,500	0.098	0.007	0.206	
47%	7,000	0.128	0.008	0.207	
50%	7,500	0.170	0.008	0.207	
53%	8,000	0.238	0.009	0.208	
57%	8,500	0.293	0.009	0.208	
60%	9,000	0.360	0.010	0.209	
63%	9,500	0.453	0.010	0.209	
67%	10,000	0.548	0.011	0.210	
70%	10,500	0.783	0.011	0.210	
29%	4,400	0.768	0.005	0.204	
0%	0	0.705	0.000	0.199	



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Tension Load Test Result for PLT-044B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

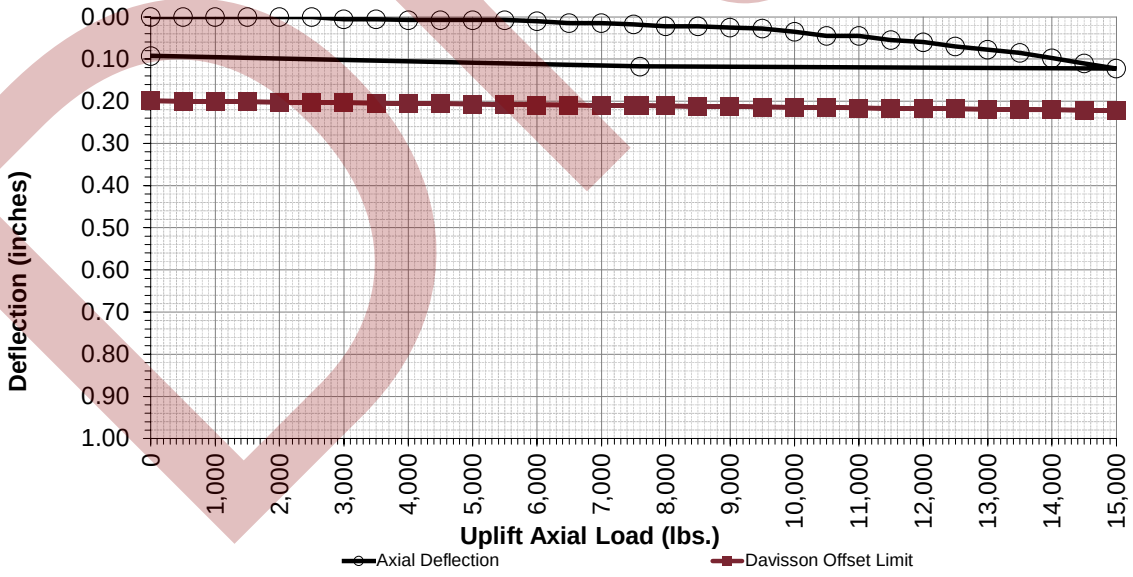
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-044B
Latitude [deg.]:	41.83520
Longitude[deg.]:	-83.97515
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	117

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.002	0.201	
10%	1,500	0.000	0.002	0.201	
13%	2,000	0.000	0.003	0.202	
17%	2,500	0.000	0.004	0.203	
20%	3,000	0.005	0.005	0.204	
23%	3,500	0.005	0.005	0.205	
27%	4,000	0.008	0.006	0.205	
30%	4,500	0.008	0.007	0.206	
33%	5,000	0.008	0.008	0.207	
37%	5,500	0.008	0.008	0.208	
40%	6,000	0.010	0.009	0.208	
43%	6,500	0.015	0.010	0.209	
47%	7,000	0.015	0.011	0.210	
50%	7,500	0.018	0.011	0.211	
53%	8,000	0.023	0.012	0.211	
57%	8,500	0.023	0.013	0.212	
60%	9,000	0.025	0.014	0.213	
63%	9,500	0.028	0.015	0.214	
67%	10,000	0.035	0.015	0.214	
70%	10,500	0.045	0.016	0.215	
73%	11,000	0.045	0.017	0.216	
77%	11,500	0.055	0.018	0.217	
80%	12,000	0.060	0.018	0.218	
83%	12,500	0.070	0.019	0.218	
87%	13,000	0.078	0.020	0.219	
90%	13,500	0.085	0.021	0.220	
93%	14,000	0.098	0.021	0.221	
97%	14,500	0.110	0.022	0.221	
100%	15,000	0.123	0.023	0.222	
51%	7,600	0.118	0.012	0.211	
0%	0	0.093	0.000	0.199	



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Tension Load Test Result for PLT-045A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

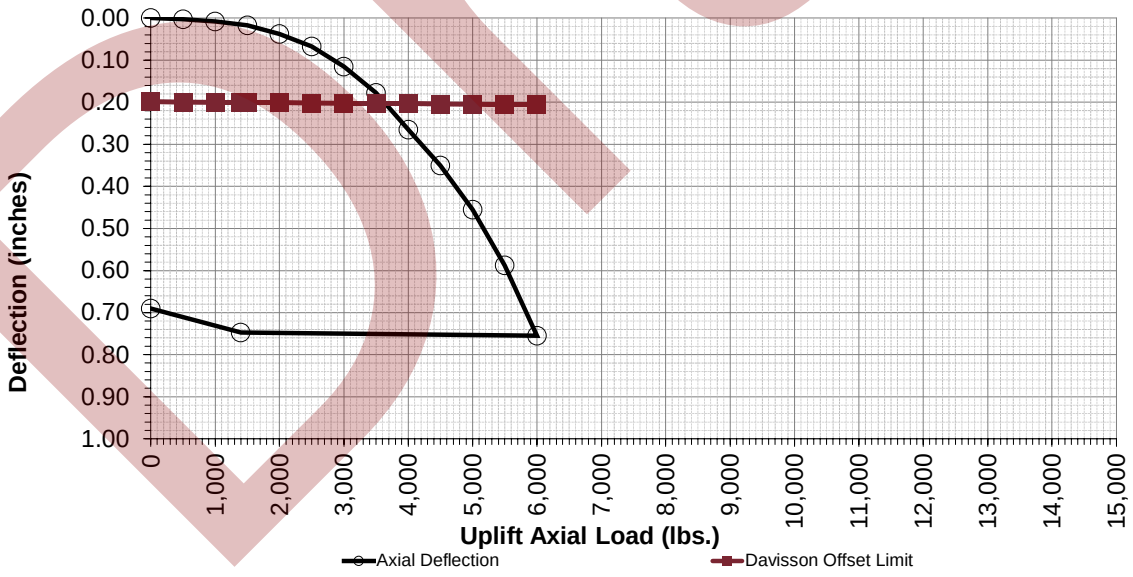
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-045A
Latitude [deg.]:	41.83691
Longitude[deg.]:	-83.98344
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	26

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.008	0.001	0.200	
10%	1,500	0.018	0.002	0.201	
13%	2,000	0.038	0.002	0.201	
17%	2,500	0.068	0.003	0.202	
20%	3,000	0.115	0.003	0.202	
23%	3,500	0.178	0.004	0.203	
27%	4,000	0.265	0.004	0.203	
30%	4,500	0.350	0.005	0.204	
33%	5,000	0.455	0.005	0.205	
37%	5,500	0.588	0.006	0.205	
40%	6,000	0.755	0.006	0.206	
9%	1,400	0.748	0.002	0.201	
0%	0	0.690	0.000	0.199	



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Tension Load Test Result for PLT-045B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

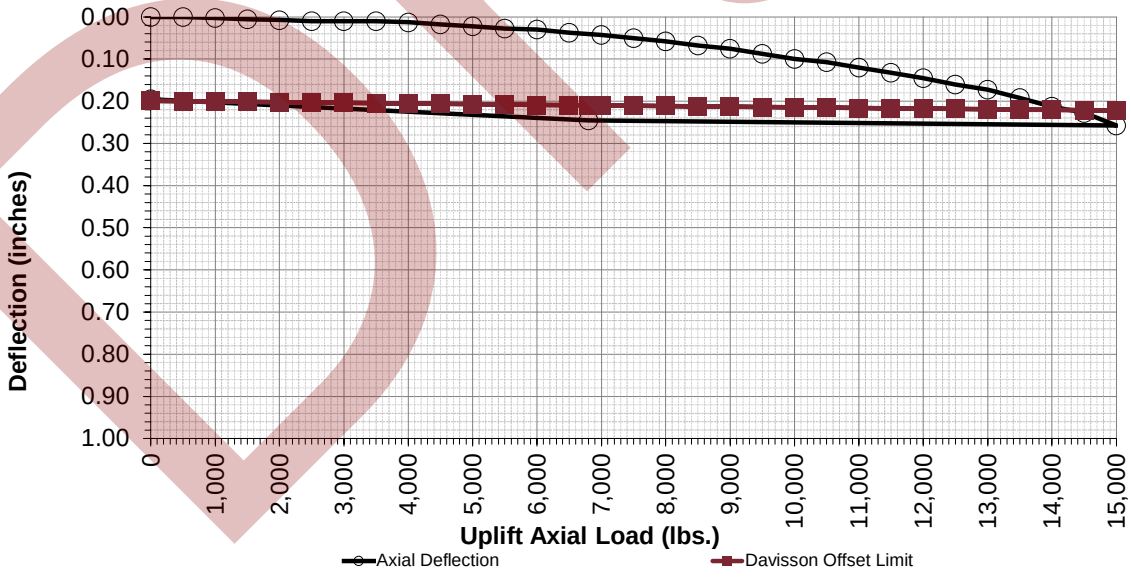
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-045B
Latitude [deg.]:	41.83691
Longitude[deg.]:	-83.98344
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	63

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.003	0.002	0.201	
10%	1,500	0.005	0.002	0.201	
13%	2,000	0.008	0.003	0.202	
17%	2,500	0.010	0.004	0.203	
20%	3,000	0.010	0.005	0.204	
23%	3,500	0.010	0.005	0.205	
27%	4,000	0.013	0.006	0.205	
30%	4,500	0.018	0.007	0.206	
33%	5,000	0.023	0.008	0.207	
37%	5,500	0.028	0.008	0.208	
40%	6,000	0.030	0.009	0.208	
43%	6,500	0.038	0.010	0.209	
47%	7,000	0.043	0.011	0.210	
50%	7,500	0.050	0.011	0.211	
53%	8,000	0.058	0.012	0.211	
57%	8,500	0.068	0.013	0.212	
60%	9,000	0.075	0.014	0.213	
63%	9,500	0.088	0.015	0.214	
67%	10,000	0.100	0.015	0.214	
70%	10,500	0.108	0.016	0.215	
73%	11,000	0.120	0.017	0.216	
77%	11,500	0.133	0.018	0.217	
80%	12,000	0.145	0.018	0.218	
83%	12,500	0.160	0.019	0.218	
87%	13,000	0.173	0.020	0.219	
90%	13,500	0.193	0.021	0.220	
93%	14,000	0.213	0.021	0.221	
97%	14,500	0.228	0.022	0.221	
100%	15,000	0.258	0.023	0.222	
45%	6,800	0.245	0.010	0.210	
0%	0	0.195	0.000	0.199	



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Tension Load Test Result for PLT-047A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

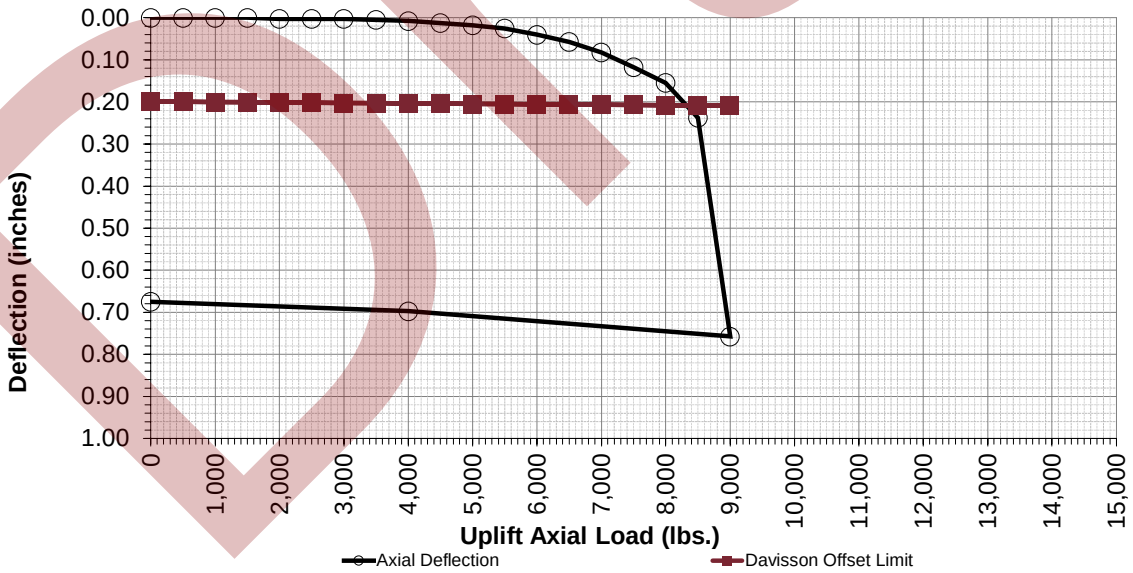
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-047A
Latitude [deg.]:	41.83427
Longitude[deg.]:	-83.98736
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	31

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.000	0.001	0.200	
10%	1,500	0.000	0.002	0.201	
13%	2,000	0.003	0.002	0.201	
17%	2,500	0.003	0.003	0.202	
20%	3,000	0.003	0.003	0.202	
23%	3,500	0.005	0.004	0.203	
27%	4,000	0.008	0.004	0.203	
30%	4,500	0.013	0.005	0.204	
33%	5,000	0.018	0.005	0.205	
37%	5,500	0.025	0.006	0.205	
40%	6,000	0.040	0.006	0.206	
43%	6,500	0.058	0.007	0.206	
47%	7,000	0.083	0.008	0.207	
50%	7,500	0.118	0.008	0.207	
53%	8,000	0.155	0.009	0.208	
57%	8,500	0.238	0.009	0.208	
60%	9,000	0.758	0.010	0.209	
27%	4,000	0.698	0.004	0.203	
0%	0	0.675	0.000	0.199	



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Tension Load Test Result for PLT-047B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

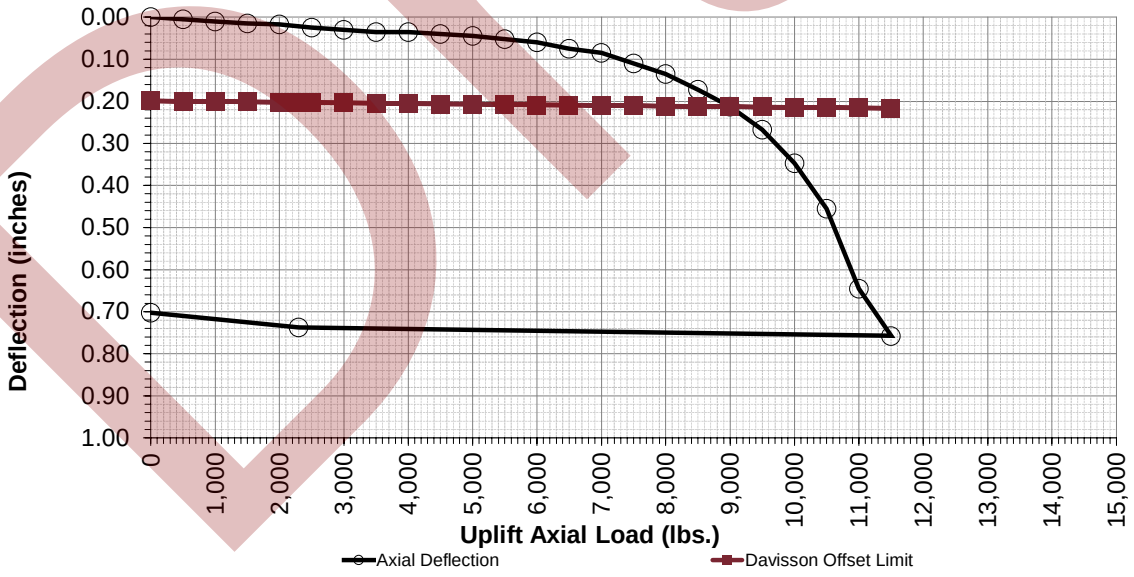
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-047B
Latitude [deg.]:	41.83427
Longitude[deg.]:	-83.98736
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	124

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.010	0.002	0.201	
10%	1,500	0.015	0.002	0.201	
13%	2,000	0.018	0.003	0.202	
17%	2,500	0.025	0.004	0.203	
20%	3,000	0.030	0.005	0.204	
23%	3,500	0.035	0.005	0.205	
27%	4,000	0.035	0.006	0.205	
30%	4,500	0.040	0.007	0.206	
33%	5,000	0.045	0.008	0.207	
37%	5,500	0.053	0.008	0.208	
40%	6,000	0.060	0.009	0.208	
43%	6,500	0.075	0.010	0.209	
47%	7,000	0.085	0.011	0.210	
50%	7,500	0.110	0.011	0.211	
53%	8,000	0.135	0.012	0.211	
57%	8,500	0.173	0.013	0.212	
60%	9,000	0.213	0.014	0.213	
63%	9,500	0.268	0.015	0.214	
67%	10,000	0.348	0.015	0.214	
70%	10,500	0.455	0.016	0.215	
73%	11,000	0.645	0.017	0.216	
77%	11,500	0.758	0.018	0.217	
15%	2,300	0.738	0.004	0.203	
0%	0	0.703	0.000	0.199	



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Tension Load Test Result for PLT-048A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

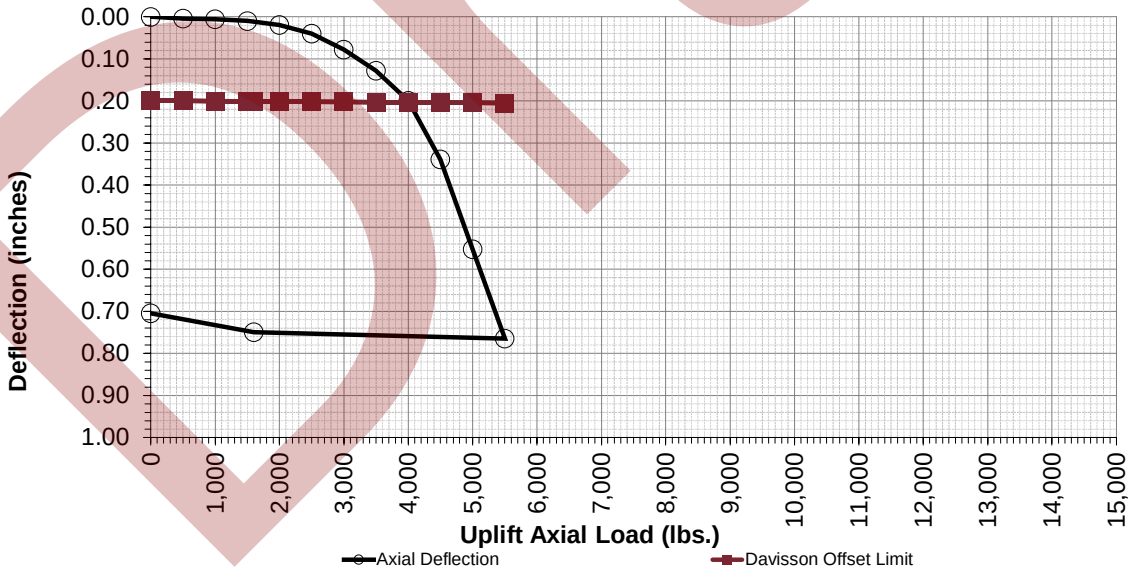
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-048A
Latitude [deg.]:	41.83605
Longitude[deg.]:	-83.94630
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	3

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.004	0.001	0.200	
7%	1,000	0.006	0.001	0.200	
10%	1,500	0.010	0.002	0.201	
13%	2,000	0.019	0.002	0.201	
17%	2,500	0.040	0.003	0.202	
20%	3,000	0.078	0.003	0.202	
23%	3,500	0.128	0.004	0.203	
27%	4,000	0.200	0.004	0.203	
30%	4,500	0.339	0.005	0.204	
33%	5,000	0.553	0.005	0.205	
37%	5,500	0.765	0.006	0.205	
11%	1,600	0.750	0.002	0.201	
0%	0	0.705	0.000	0.199	



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Tension Load Test Result for PLT-048B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

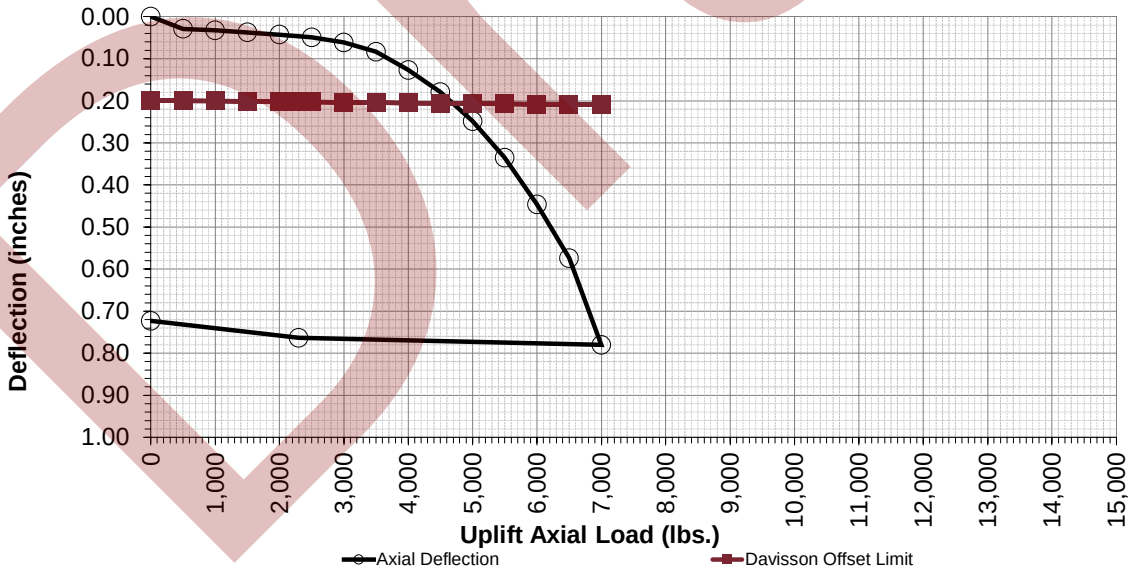
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-048B
Latitude [deg.]:	41.83605
Longitude[deg.]:	-83.94630
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	16

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.029	0.001	0.200	
7%	1,000	0.032	0.002	0.201	
10%	1,500	0.038	0.002	0.201	
13%	2,000	0.043	0.003	0.202	
17%	2,500	0.049	0.004	0.203	
20%	3,000	0.062	0.005	0.204	
23%	3,500	0.084	0.005	0.205	
27%	4,000	0.127	0.006	0.205	
30%	4,500	0.180	0.007	0.206	
33%	5,000	0.248	0.008	0.207	
37%	5,500	0.335	0.008	0.208	
40%	6,000	0.447	0.009	0.208	
43%	6,500	0.574	0.010	0.209	
47%	7,000	0.780	0.011	0.210	
15%	2,300	0.763	0.004	0.203	
0%	0	0.724	0.000	0.199	



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Tension Load Test Result for PLT-049A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

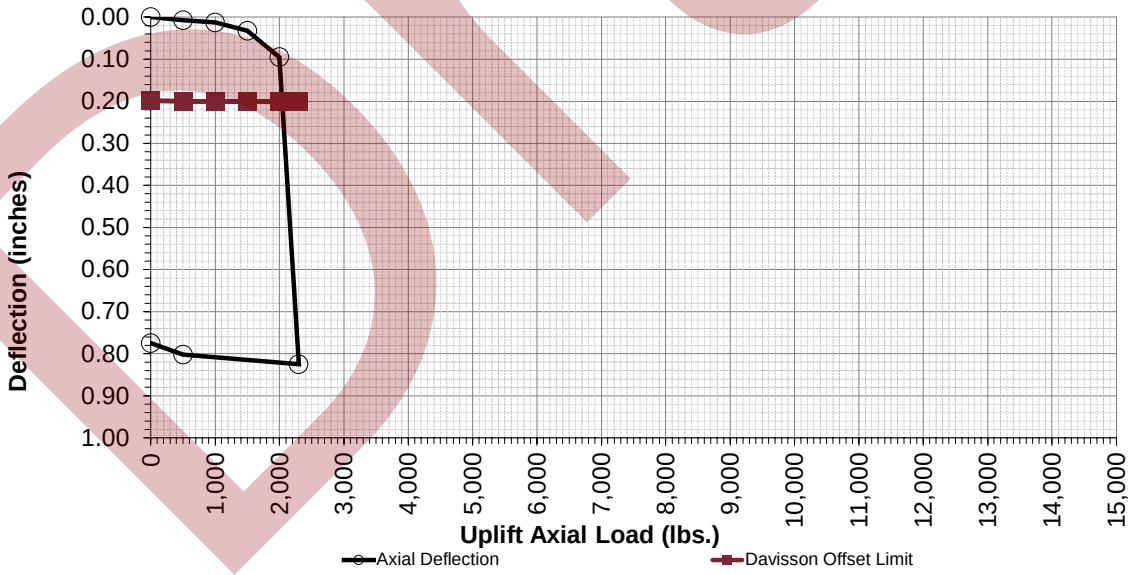
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-049A
Latitude [deg.]:	41.83523
Longitude[deg.]:	-83.94417
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	13

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.008	0.001	0.200	
7%	1,000	0.013	0.001	0.200	
10%	1,500	0.033	0.002	0.201	
13%	2,000	0.095	0.002	0.201	
15%	2,300	0.825	0.002	0.202	
3%	500	0.803	0.001	0.200	
0%	0	0.775	0.000	0.199	



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Tension Load Test Result for PLT-049B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

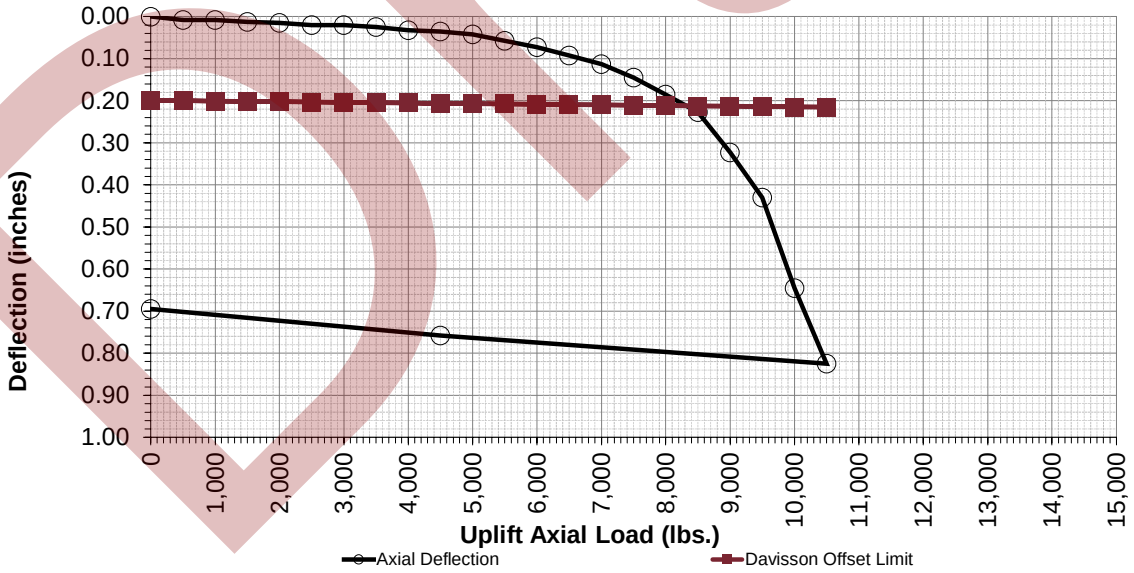
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-049B
Latitude [deg.]:	41.83523
Longitude[deg.]:	-83.94417
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	27

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.008	0.001	0.200	
7%	1,000	0.008	0.002	0.201	
10%	1,500	0.013	0.002	0.201	
13%	2,000	0.015	0.003	0.202	
17%	2,500	0.020	0.004	0.203	
20%	3,000	0.020	0.005	0.204	
23%	3,500	0.025	0.005	0.205	
27%	4,000	0.033	0.006	0.205	
30%	4,500	0.035	0.007	0.206	
33%	5,000	0.043	0.008	0.207	
37%	5,500	0.058	0.008	0.208	
40%	6,000	0.073	0.009	0.208	
43%	6,500	0.093	0.010	0.209	
47%	7,000	0.113	0.011	0.210	
50%	7,500	0.145	0.011	0.211	
53%	8,000	0.185	0.012	0.211	
57%	8,500	0.228	0.013	0.212	
60%	9,000	0.323	0.014	0.213	
63%	9,500	0.430	0.015	0.214	
67%	10,000	0.645	0.015	0.214	
70%	10,500	0.825	0.016	0.215	
30%	4,500	0.758	0.007	0.206	
0%	0	0.695	0.000	0.199	



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Tension Load Test Result for PLT-051A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

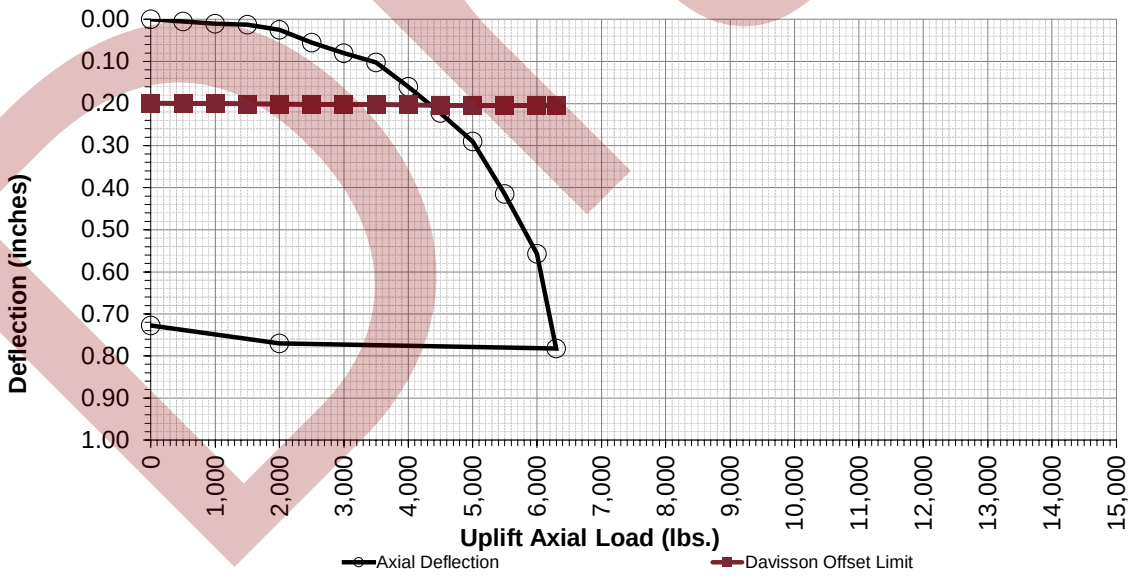
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-051A
Latitude [deg.]:	41.83115
Longitude[deg.]:	-83.94909
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	13

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.010	0.001	0.200	
10%	1,500	0.013	0.002	0.201	
13%	2,000	0.025	0.002	0.201	
17%	2,500	0.055	0.003	0.202	
20%	3,000	0.080	0.003	0.202	
23%	3,500	0.103	0.004	0.203	
27%	4,000	0.160	0.004	0.203	
30%	4,500	0.223	0.005	0.204	
33%	5,000	0.290	0.005	0.205	
37%	5,500	0.415	0.006	0.205	
40%	6,000	0.558	0.006	0.206	
42%	6,300	0.783	0.007	0.206	
13%	2,000	0.770	0.002	0.201	
0%	0	0.728	0.000	0.199	



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Tension Load Test Result for PLT-051B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

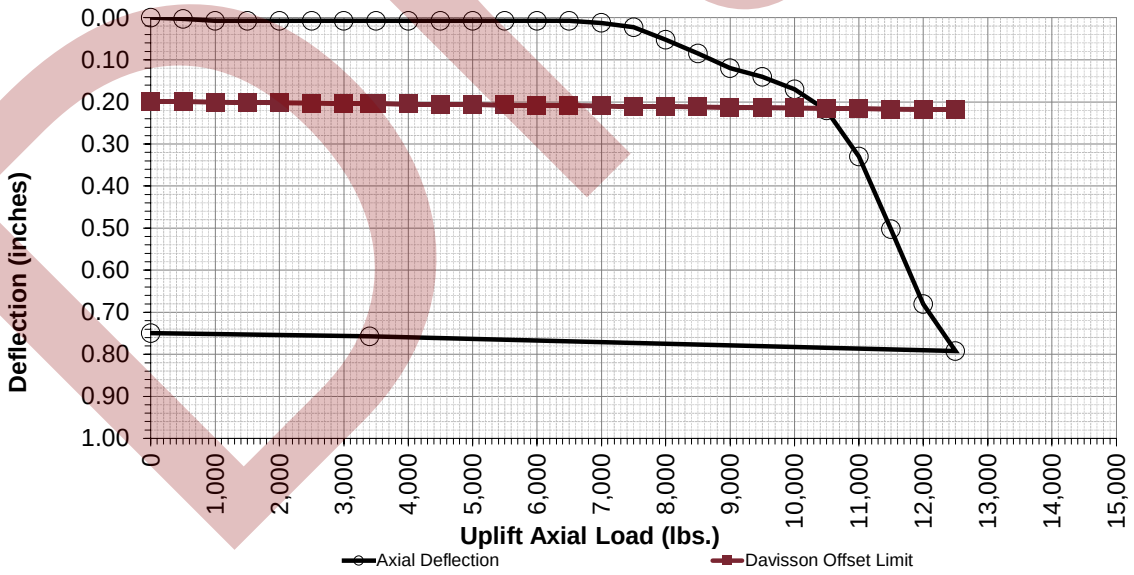
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-051B
Latitude [deg.]:	41.83115
Longitude[deg.]:	-83.94909
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	38

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.003	0.001	0.200	
7%	1,000	0.008	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.008	0.003	0.202	
17%	2,500	0.008	0.004	0.203	
20%	3,000	0.008	0.005	0.204	
23%	3,500	0.008	0.005	0.205	
27%	4,000	0.008	0.006	0.205	
30%	4,500	0.008	0.007	0.206	
33%	5,000	0.008	0.008	0.207	
37%	5,500	0.008	0.008	0.208	
40%	6,000	0.008	0.009	0.208	
43%	6,500	0.008	0.010	0.209	
47%	7,000	0.013	0.011	0.210	
50%	7,500	0.023	0.011	0.211	
53%	8,000	0.053	0.012	0.211	
57%	8,500	0.085	0.013	0.212	
60%	9,000	0.120	0.014	0.213	
63%	9,500	0.140	0.015	0.214	
67%	10,000	0.170	0.015	0.214	
70%	10,500	0.220	0.016	0.215	
73%	11,000	0.330	0.017	0.216	
77%	11,500	0.503	0.018	0.217	
80%	12,000	0.680	0.018	0.218	
83%	12,500	0.793	0.019	0.218	
23%	3,400	0.758	0.005	0.204	
0%	0	0.750	0.000	0.199	



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Tension Load Test Result for PLT-052A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

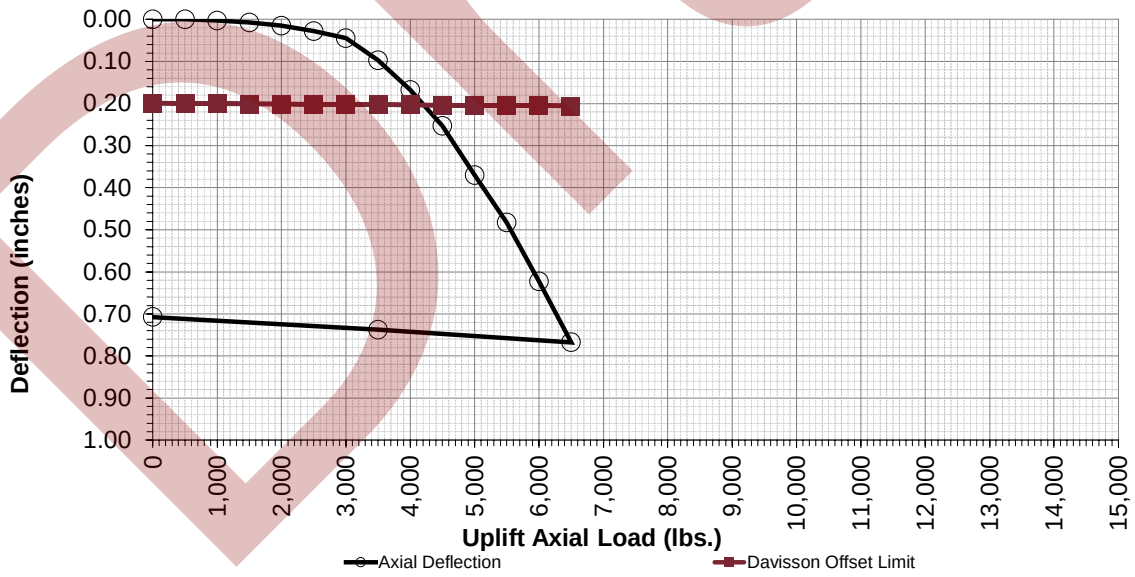
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-052A
Latitude [deg.]:	41.83231
Longitude[deg.]:	-83.95668
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	13

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.000	0.001	0.200	
7%	1,000	0.003	0.001	0.200	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.015	0.002	0.201	
17%	2,500	0.028	0.003	0.202	
20%	3,000	0.045	0.003	0.202	
23%	3,500	0.098	0.004	0.203	
27%	4,000	0.168	0.004	0.203	
30%	4,500	0.253	0.005	0.204	
33%	5,000	0.370	0.005	0.205	
37%	5,500	0.483	0.006	0.205	
40%	6,000	0.623	0.006	0.206	
43%	6,500	0.768	0.007	0.206	
23%	3,500	0.738	0.004	0.203	
0%	0	0.708	0.000	0.199	



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Tension Load Test Result for PLT-052B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

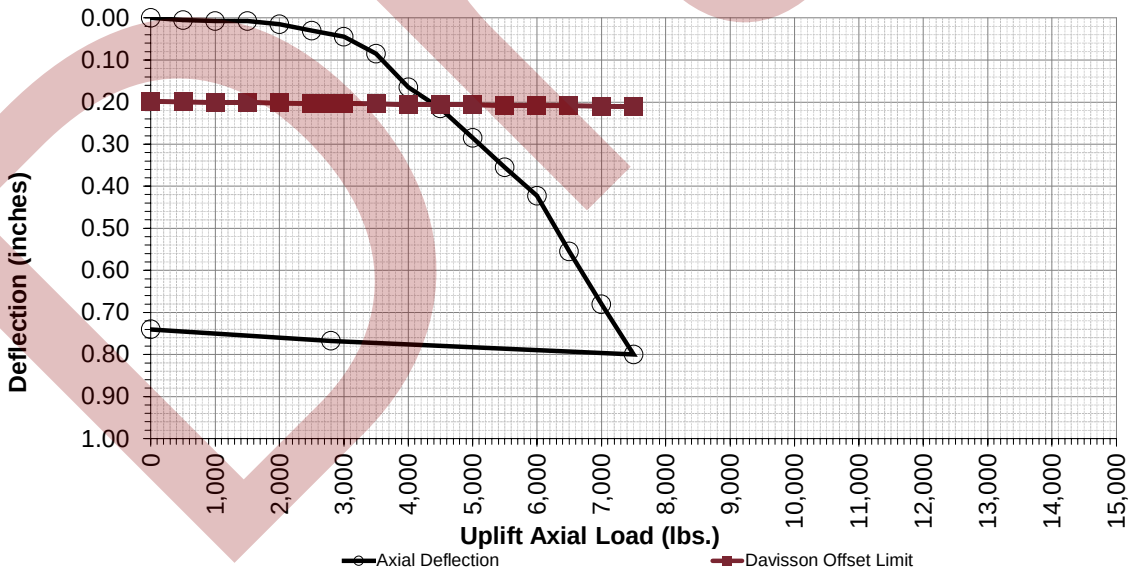
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-052B
Latitude [deg.]:	41.83231
Longitude[deg.]:	-83.95668
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	27

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.005	0.001	0.200	
7%	1,000	0.008	0.002	0.201	
10%	1,500	0.008	0.002	0.201	
13%	2,000	0.015	0.003	0.202	
17%	2,500	0.030	0.004	0.203	
20%	3,000	0.045	0.005	0.204	
23%	3,500	0.085	0.005	0.205	
27%	4,000	0.165	0.006	0.205	
30%	4,500	0.215	0.007	0.206	
33%	5,000	0.285	0.008	0.207	
37%	5,500	0.355	0.008	0.208	
40%	6,000	0.423	0.009	0.208	
43%	6,500	0.555	0.010	0.209	
47%	7,000	0.680	0.011	0.210	
50%	7,500	0.800	0.011	0.211	
19%	2,800	0.768	0.004	0.203	
0%	0	0.740	0.000	0.199	



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Tension Load Test Result for PLT-054A

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

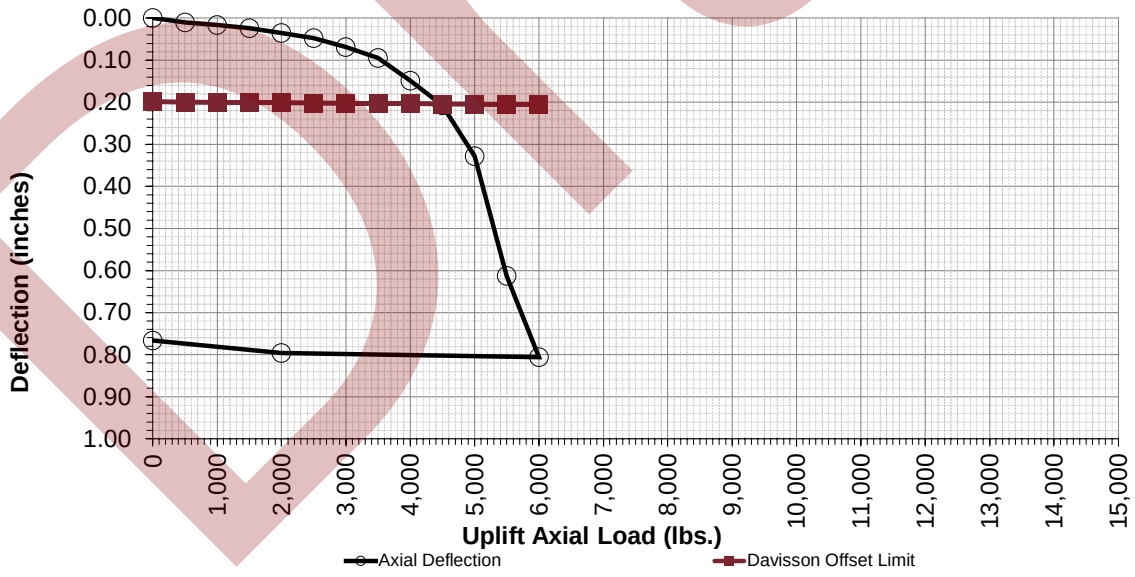
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-054A
Latitude [deg.]:	41.82646
Longitude[deg.]:	-83.95691
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	17

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.011	0.001	0.200	
7%	1,000	0.016	0.001	0.200	
10%	1,500	0.024	0.002	0.201	
13%	2,000	0.035	0.002	0.201	
17%	2,500	0.048	0.003	0.202	
20%	3,000	0.069	0.003	0.202	
23%	3,500	0.095	0.004	0.203	
27%	4,000	0.149	0.004	0.203	
30%	4,500	0.207	0.005	0.204	
33%	5,000	0.329	0.005	0.205	
37%	5,500	0.613	0.006	0.205	
40%	6,000	0.806	0.006	0.206	
13%	2,000	0.796	0.002	0.201	
0%	0	0.767	0.000	0.199	



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Tension Load Test Result for PLT-054B

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in.]:	6
Load Cell:	Dillon Ed Jr

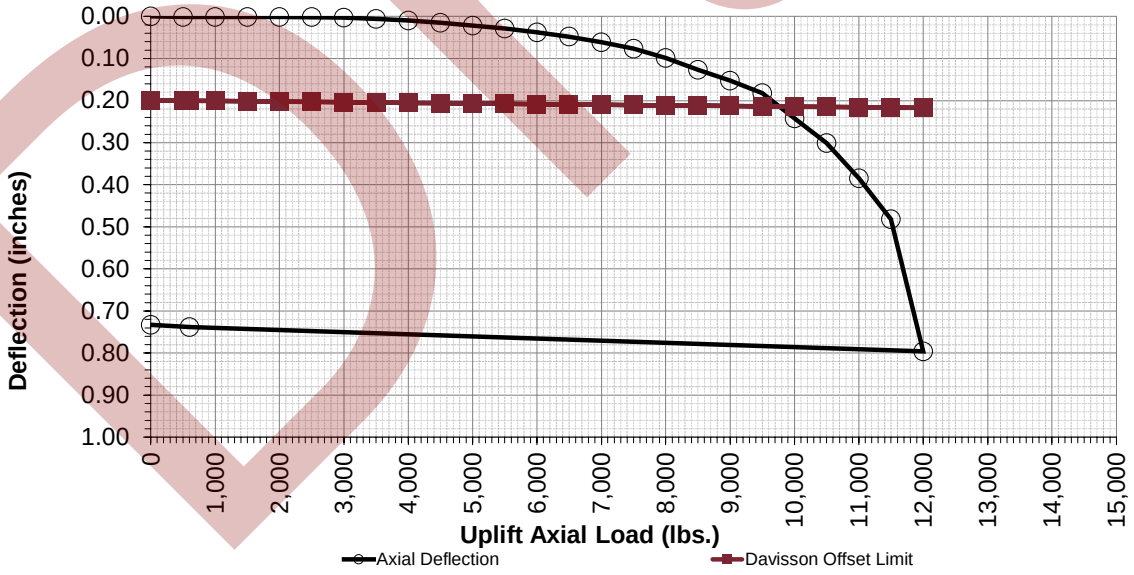
Test Date and Representative

Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-054B
Latitude [deg.]:	41.82646
Longitude[deg.]:	-83.95691
Pile Type:	W6x9
Pile Embedment Depth [in.]:	120
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	36
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	35

Tension Test Results				Davisson Offset Limit Lines	
% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in.) (PL/AE)	Davisson Offest Limit (in.) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
3%	500	0.001	0.001	0.200	
7%	1,000	0.001	0.002	0.201	
10%	1,500	0.001	0.002	0.201	
13%	2,000	0.001	0.003	0.202	
17%	2,500	0.002	0.004	0.203	
20%	3,000	0.003	0.005	0.204	
23%	3,500	0.006	0.005	0.205	
27%	4,000	0.010	0.006	0.205	
30%	4,500	0.015	0.007	0.206	
33%	5,000	0.022	0.008	0.207	
37%	5,500	0.029	0.008	0.208	
40%	6,000	0.038	0.009	0.208	
43%	6,500	0.048	0.010	0.209	
47%	7,000	0.062	0.011	0.210	
50%	7,500	0.077	0.011	0.211	
53%	8,000	0.099	0.012	0.211	
57%	8,500	0.127	0.013	0.212	
60%	9,000	0.153	0.014	0.213	
63%	9,500	0.183	0.015	0.214	
67%	10,000	0.243	0.015	0.214	
70%	10,500	0.301	0.016	0.215	
73%	11,000	0.385	0.017	0.216	
77%	11,500	0.482	0.018	0.217	
80%	12,000	0.796	0.018	0.218	
4%	600	0.739	0.001	0.200	
0%	0	0.733	0.000	0.199	



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Compression Load Test Result for PLT-003C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

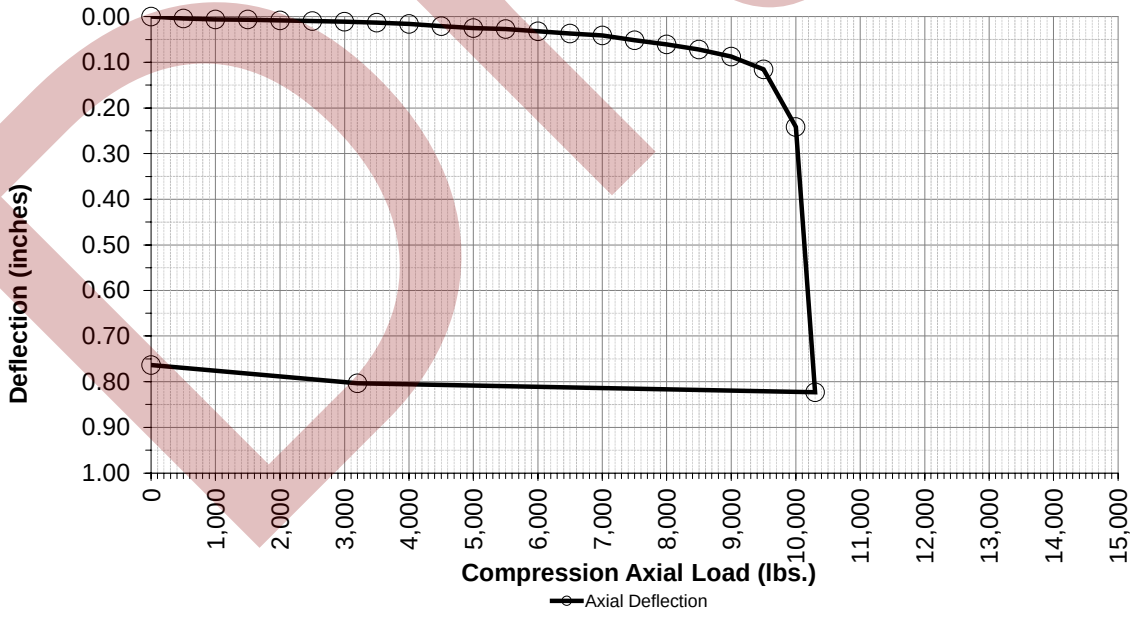
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-003C
Latitude [deg.]:	41.87986
Longitude [deg.]:	-83.98439
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	62

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.004	
7%	1,000	0.006	
10%	1,500	0.007	
13%	2,000	0.008	
17%	2,500	0.010	
20%	3,000	0.011	
23%	3,500	0.014	
27%	4,000	0.017	
30%	4,500	0.021	
33%	5,000	0.025	
37%	5,500	0.028	
40%	6,000	0.032	
43%	6,500	0.037	
47%	7,000	0.041	
50%	7,500	0.052	
53%	8,000	0.061	
57%	8,500	0.072	
60%	9,000	0.088	
63%	9,500	0.116	
67%	10,000	0.242	
69%	10,300	0.823	
21%	3,200	0.803	
0%	0	0.764	



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Compression Load Test Result for PLT-009C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

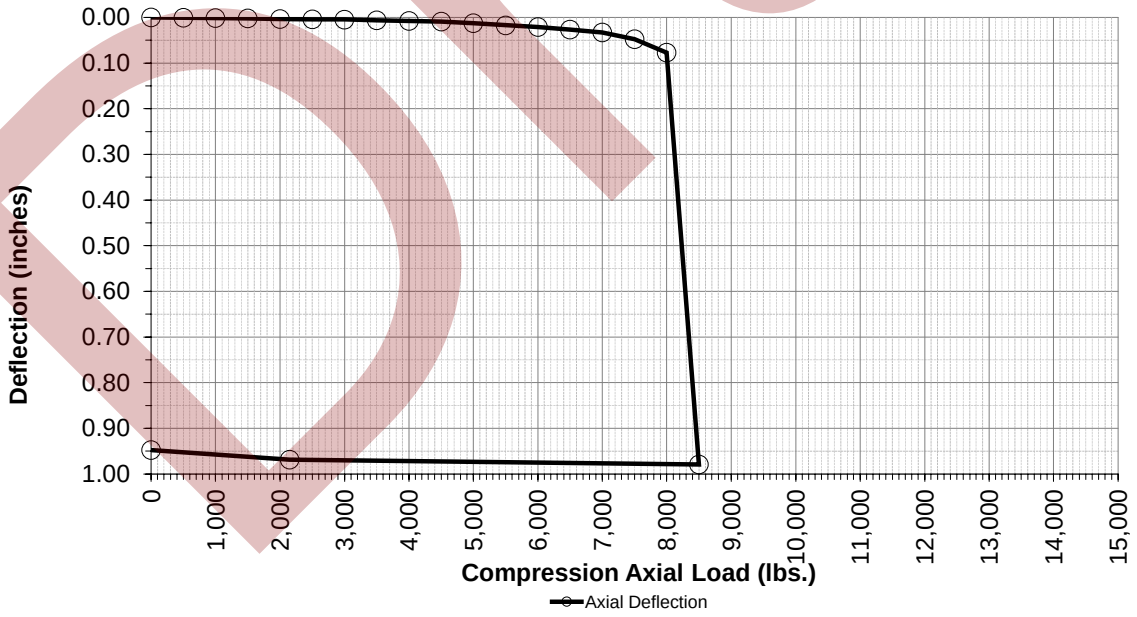
Tested By Terracon Rep:	D. Childers
Date Tested:	7/10/2025

Pile Information

Pile ID:	PLT-009C
Latitude [deg.]:	41.87789
Longitude [deg.]:	-83.97265
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	46

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.001	
7%	1,000	0.001	
10%	1,500	0.002	
13%	2,000	0.003	
17%	2,500	0.004	
20%	3,000	0.005	
23%	3,500	0.006	
27%	4,000	0.008	
30%	4,500	0.009	
33%	5,000	0.013	
37%	5,500	0.017	
40%	6,000	0.021	
43%	6,500	0.027	
47%	7,000	0.033	
50%	7,500	0.048	
53%	8,000	0.077	
57%	8,500	0.979	
14%	2,150	0.969	
0%	0	0.948	



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Compression Load Test Result for PLT-014C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

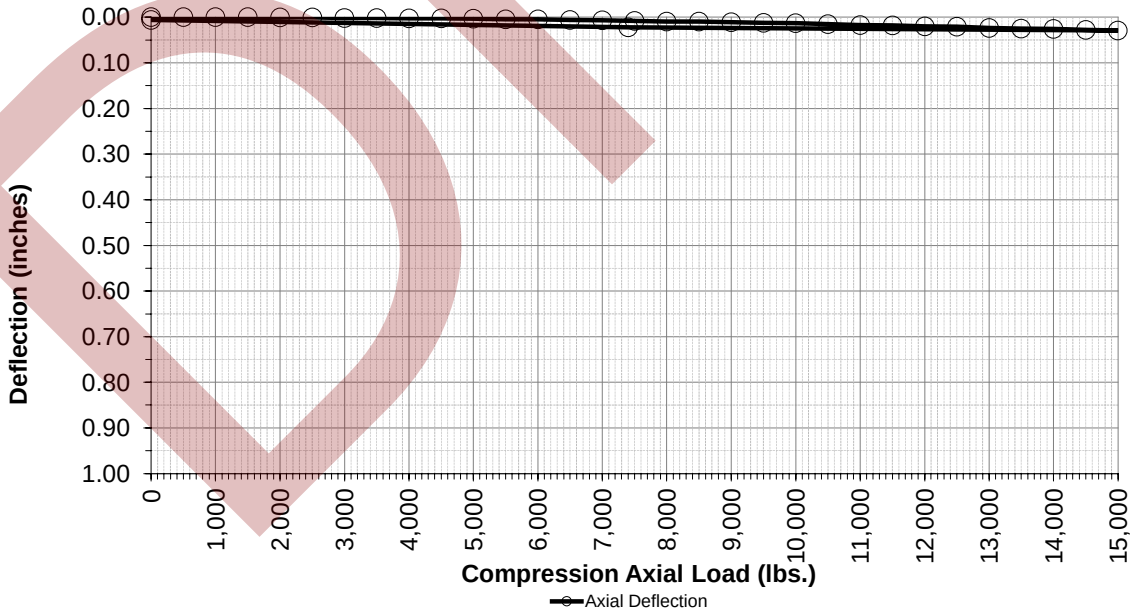
Tested By Terracon Rep:	D. Childers
Date Tested:	7/11/2025

Pile Information

Pile ID:	PLT-014C
Latitude [deg.]:	41.87234
Longitude [deg.]:	-83.95579
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	83

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.000	
10%	1,500	0.000	
13%	2,000	0.001	
17%	2,500	0.001	
20%	3,000	0.002	
23%	3,500	0.002	
27%	4,000	0.003	
30%	4,500	0.003	
33%	5,000	0.004	
37%	5,500	0.005	
40%	6,000	0.005	
43%	6,500	0.006	
47%	7,000	0.007	
50%	7,500	0.008	
53%	8,000	0.010	
57%	8,500	0.010	
60%	9,000	0.012	
63%	9,500	0.013	
67%	10,000	0.014	
70%	10,500	0.016	
73%	11,000	0.018	
77%	11,500	0.018	
80%	12,000	0.020	
83%	12,500	0.021	
87%	13,000	0.024	
90%	13,500	0.025	
93%	14,000	0.026	
97%	14,500	0.028	
100%	15,000	0.030	
49%	7,400	0.023	
0%	0	0.006	



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Compression Load Test Result for PLT-019C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

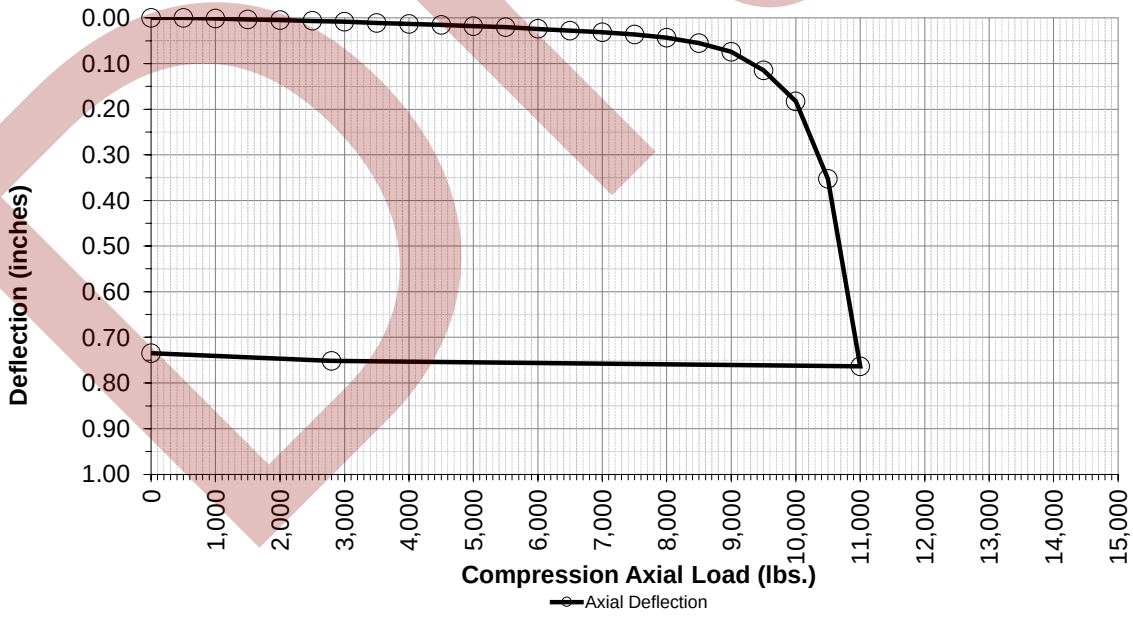
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-019C
Latitude [deg.]:	41.86273
Longitude [deg.]:	-83.95827
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	16

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.002	
10%	1,500	0.004	
13%	2,000	0.005	
17%	2,500	0.007	
20%	3,000	0.009	
23%	3,500	0.011	
27%	4,000	0.013	
30%	4,500	0.015	
33%	5,000	0.019	
37%	5,500	0.020	
40%	6,000	0.024	
43%	6,500	0.028	
47%	7,000	0.032	
50%	7,500	0.037	
53%	8,000	0.044	
57%	8,500	0.056	
60%	9,000	0.074	
63%	9,500	0.115	
67%	10,000	0.183	
70%	10,500	0.353	
73%	11,000	0.764	
19%	2,800	0.752	
0%	0	0.735	



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Compression Load Test Result for PLT-023C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

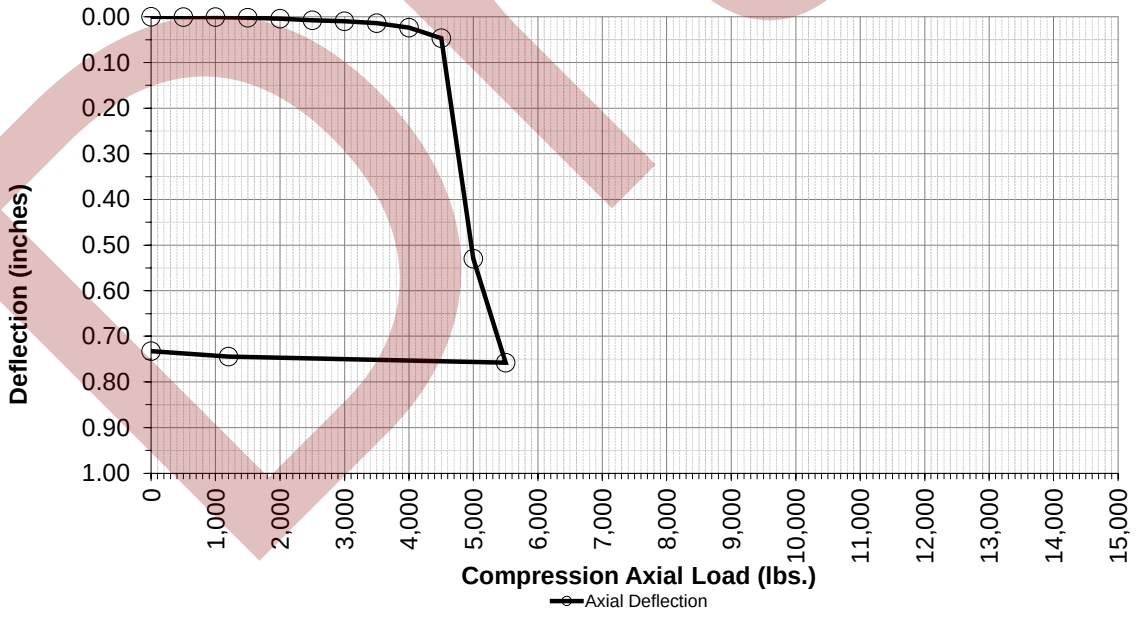
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-023C
Latitude [deg.]:	41.85713
Longitude [deg.]:	-83.96409
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	7

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.001	
7%	1,000	0.001	
10%	1,500	0.002	
13%	2,000	0.004	
17%	2,500	0.008	
20%	3,000	0.010	
23%	3,500	0.014	
27%	4,000	0.024	
30%	4,500	0.047	
33%	5,000	0.530	
37%	5,500	0.758	
8%	1,200	0.744	
0%	0	0.733	



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Compression Load Test Result for PLT-028C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

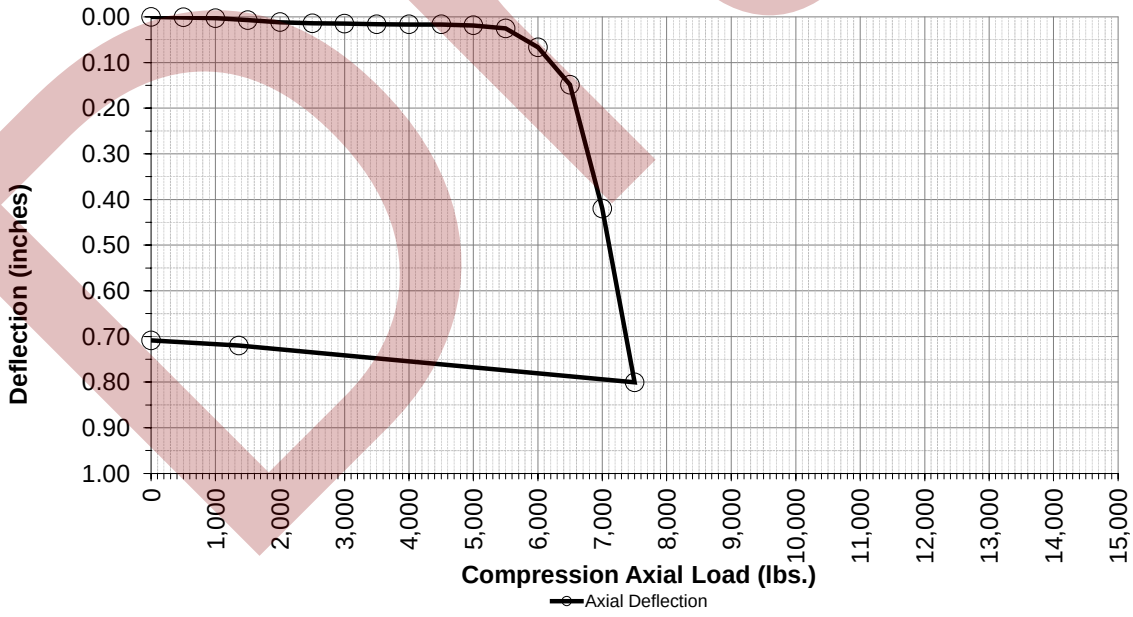
Tested By Terracon Rep:	D. Childers
Date Tested:	7/8/2025

Pile Information

Pile ID:	PLT-028C
Latitude [deg.]:	41.85192
Longitude [deg.]:	-83.95152
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	8

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.001	
7%	1,000	0.003	
10%	1,500	0.007	
13%	2,000	0.012	
17%	2,500	0.014	
20%	3,000	0.015	
23%	3,500	0.016	
27%	4,000	0.017	
30%	4,500	0.017	
33%	5,000	0.019	
37%	5,500	0.025	
40%	6,000	0.067	
43%	6,500	0.149	
47%	7,000	0.420	
50%	7,500	0.801	
9%	1,360	0.720	
0%	0	0.709	



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Compression Load Test Result for PLT-035C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

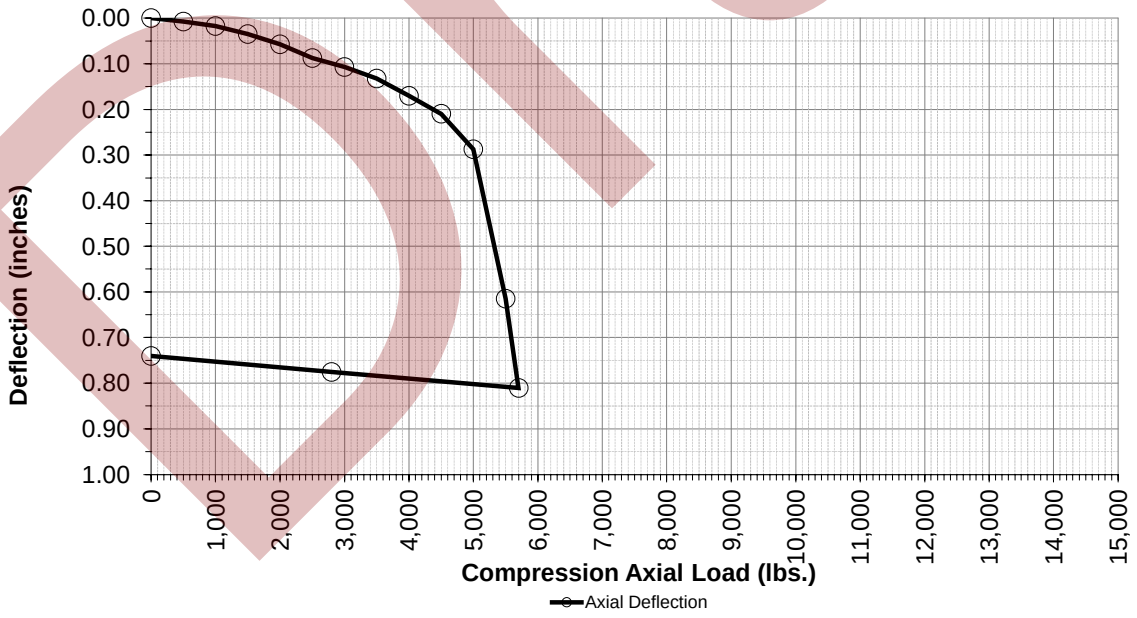
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-035C
Latitude [deg.]:	41.84806
Longitude [deg.]:	-83.96507
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	15

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.008	
7%	1,000	0.018	
10%	1,500	0.035	
13%	2,000	0.058	
17%	2,500	0.088	
20%	3,000	0.108	
23%	3,500	0.133	
27%	4,000	0.170	
30%	4,500	0.210	
33%	5,000	0.288	
37%	5,500	0.615	
38%	5,700	0.810	
19%	2,800	0.775	
0%	0	0.740	



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Compression Load Test Result for PLT-036C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

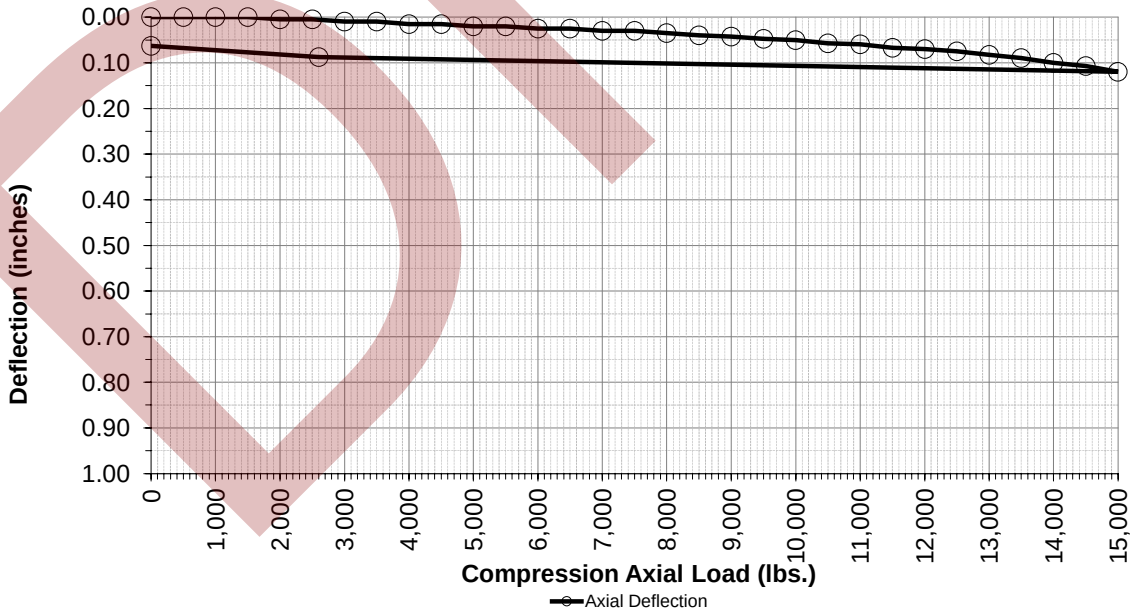
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-036C
Latitude [deg.]:	41.84667
Longitude [deg.]:	-83.95390
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	58

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.000	
10%	1,500	0.000	
13%	2,000	0.005	
17%	2,500	0.005	
20%	3,000	0.010	
23%	3,500	0.010	
27%	4,000	0.015	
30%	4,500	0.015	
33%	5,000	0.020	
37%	5,500	0.020	
40%	6,000	0.025	
43%	6,500	0.025	
47%	7,000	0.030	
50%	7,500	0.030	
53%	8,000	0.035	
57%	8,500	0.040	
60%	9,000	0.043	
63%	9,500	0.048	
67%	10,000	0.050	
70%	10,500	0.058	
73%	11,000	0.060	
77%	11,500	0.068	
80%	12,000	0.070	
83%	12,500	0.075	
87%	13,000	0.083	
90%	13,500	0.090	
93%	14,000	0.100	
97%	14,500	0.108	
100%	15,000	0.120	
17%	2,600	0.088	
0%	0	0.063	



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Compression Load Test Result for PLT-044C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

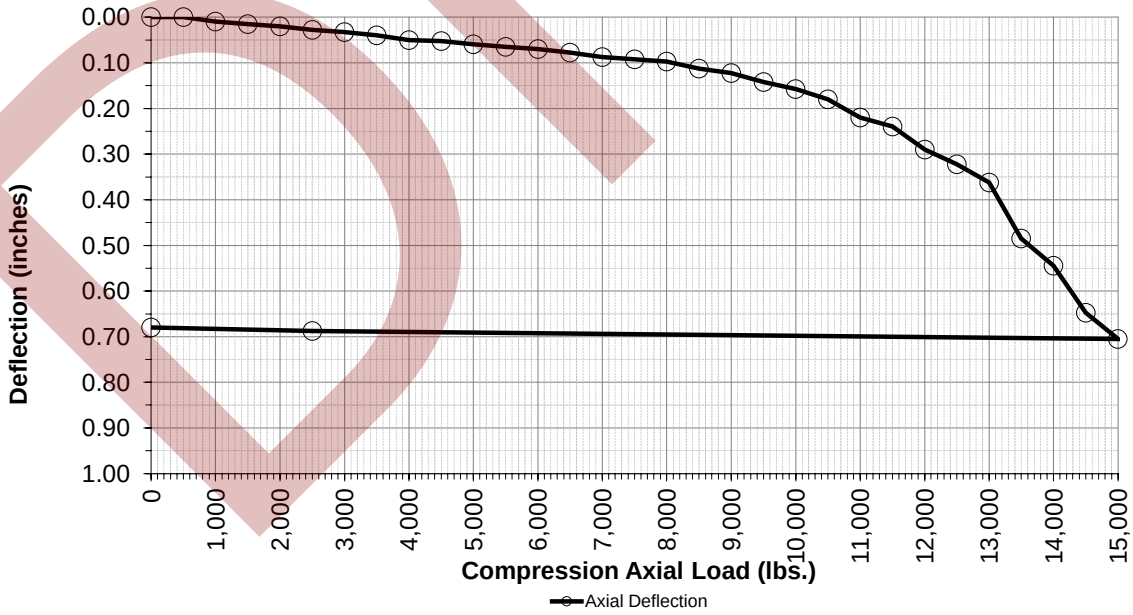
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-044C
Latitude [deg.]:	41.83520
Longitude [deg.]:	-83.97515
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	15

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.010	
10%	1,500	0.015	
13%	2,000	0.020	
17%	2,500	0.028	
20%	3,000	0.033	
23%	3,500	0.040	
27%	4,000	0.050	
30%	4,500	0.053	
33%	5,000	0.060	
37%	5,500	0.065	
40%	6,000	0.070	
43%	6,500	0.078	
47%	7,000	0.088	
50%	7,500	0.093	
53%	8,000	0.098	
57%	8,500	0.113	
60%	9,000	0.123	
63%	9,500	0.143	
67%	10,000	0.158	
70%	10,500	0.180	
73%	11,000	0.220	
77%	11,500	0.240	
80%	12,000	0.290	
83%	12,500	0.323	
87%	13,000	0.363	
90%	13,500	0.485	
93%	14,000	0.545	
97%	14,500	0.648	
100%	15,000	0.705	
17%	2,500	0.688	
0%	0	0.680	



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Compression Load Test Result for PLT-045C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

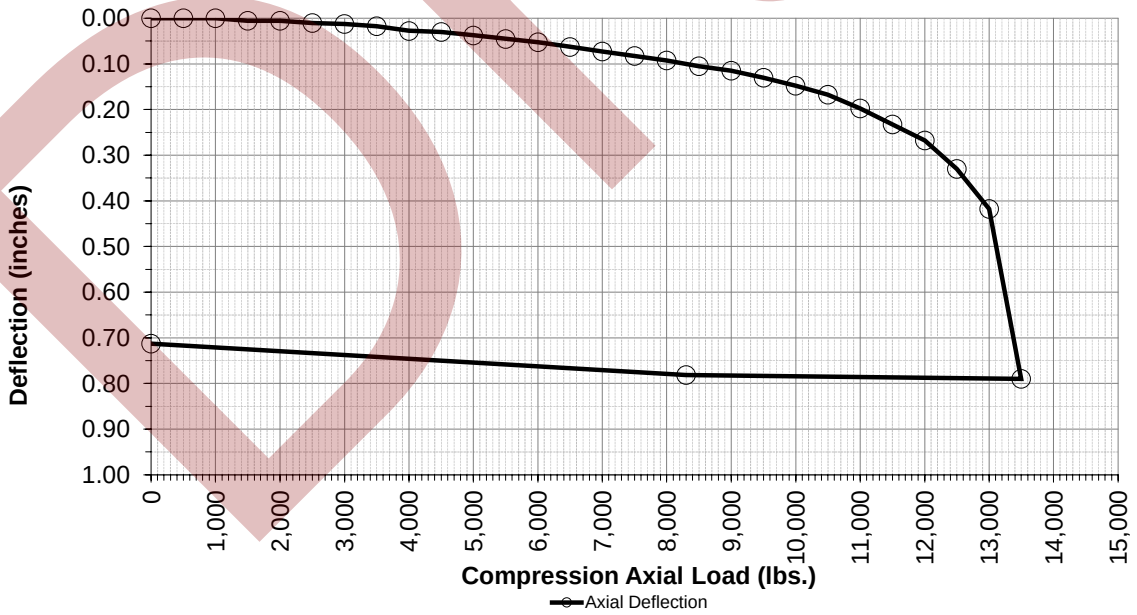
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-045C
Latitude [deg.]:	41.83691
Longitude [deg.]:	-83.98344
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	29

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.000	
10%	1,500	0.005	
13%	2,000	0.005	
17%	2,500	0.010	
20%	3,000	0.013	
23%	3,500	0.018	
27%	4,000	0.028	
30%	4,500	0.030	
33%	5,000	0.038	
37%	5,500	0.045	
40%	6,000	0.053	
43%	6,500	0.063	
47%	7,000	0.073	
50%	7,500	0.083	
53%	8,000	0.093	
57%	8,500	0.105	
60%	9,000	0.115	
63%	9,500	0.130	
67%	10,000	0.148	
70%	10,500	0.168	
73%	11,000	0.198	
77%	11,500	0.233	
80%	12,000	0.268	
83%	12,500	0.330	
87%	13,000	0.418	
90%	13,500	0.790	
55%	8,300	0.782	
0%	0	0.713	



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Compression Load Test Result for PLT-047C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

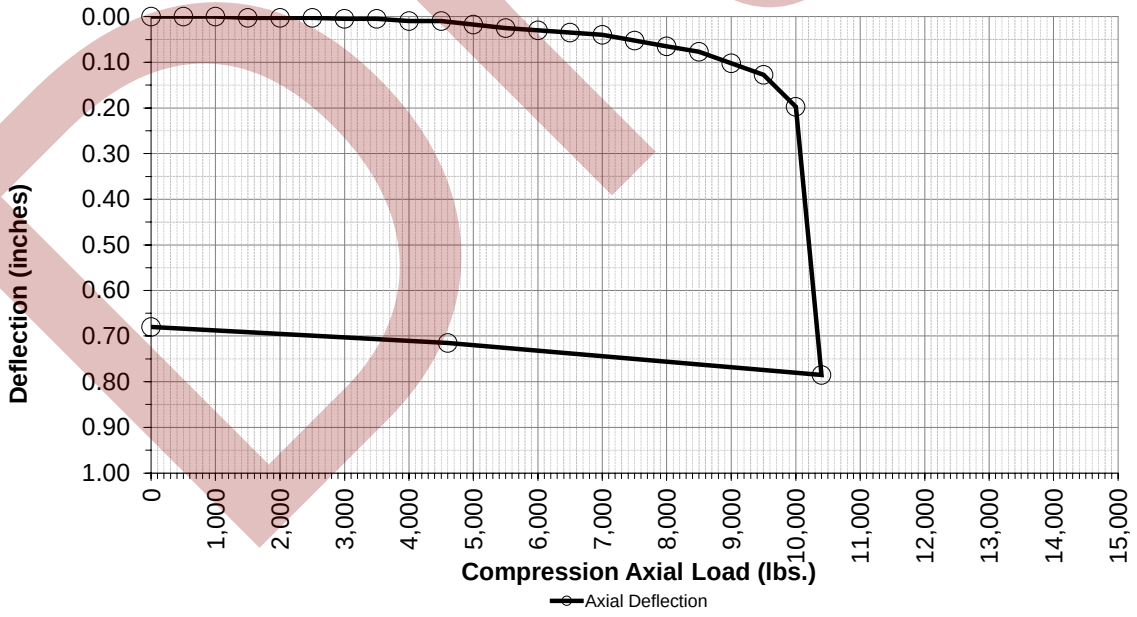
Tested By Terracon Rep:	D. Childers
Date Tested:	6/18/2025

Pile Information

Pile ID:	PLT-047C
Latitude [deg.]:	41.83427
Longitude [deg.]:	-83.98736
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	28

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.000	
7%	1,000	0.000	
10%	1,500	0.003	
13%	2,000	0.003	
17%	2,500	0.003	
20%	3,000	0.005	
23%	3,500	0.005	
27%	4,000	0.010	
30%	4,500	0.010	
33%	5,000	0.018	
37%	5,500	0.025	
40%	6,000	0.030	
43%	6,500	0.035	
47%	7,000	0.040	
50%	7,500	0.053	
53%	8,000	0.065	
57%	8,500	0.078	
60%	9,000	0.103	
63%	9,500	0.128	
67%	10,000	0.198	
69%	10,400	0.785	
31%	4,600	0.715	
0%	0	0.680	



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Compression Load Test Result for PLT-049C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

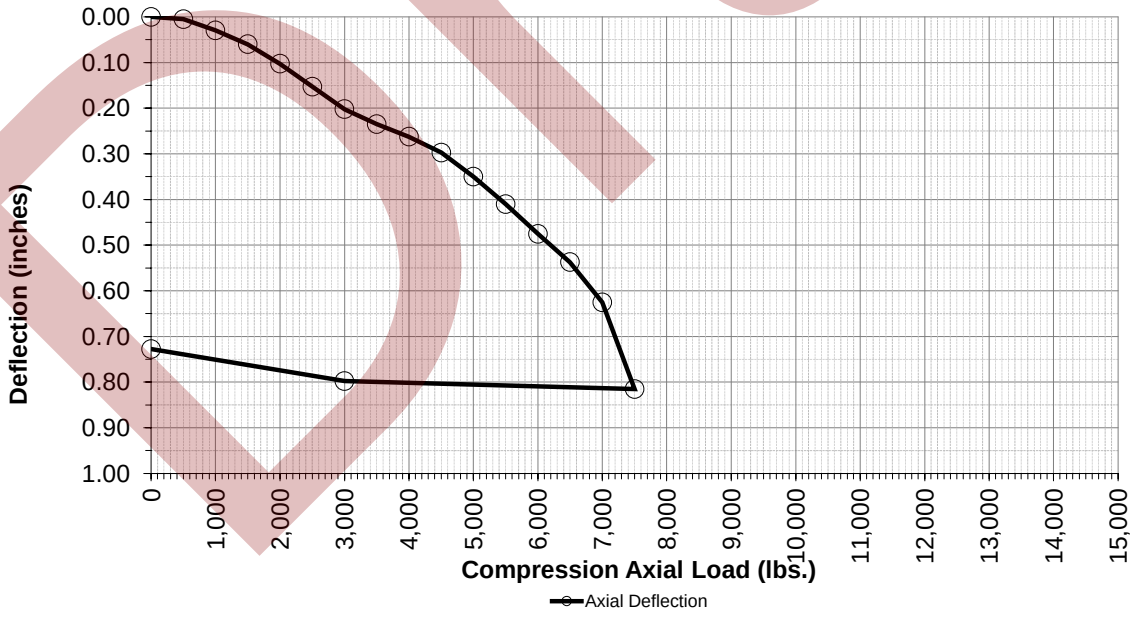
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-049C
Latitude [deg.]:	41.83523
Longitude [deg.]:	-83.94417
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	17

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.005	
7%	1,000	0.030	
10%	1,500	0.060	
13%	2,000	0.103	
17%	2,500	0.153	
20%	3,000	0.203	
23%	3,500	0.235	
27%	4,000	0.263	
30%	4,500	0.298	
33%	5,000	0.350	
37%	5,500	0.410	
40%	6,000	0.475	
43%	6,500	0.538	
47%	7,000	0.625	
50%	7,500	0.815	
20%	3,000	0.798	
0%	0	0.728	



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Compression Load Test Result for PLT-051C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

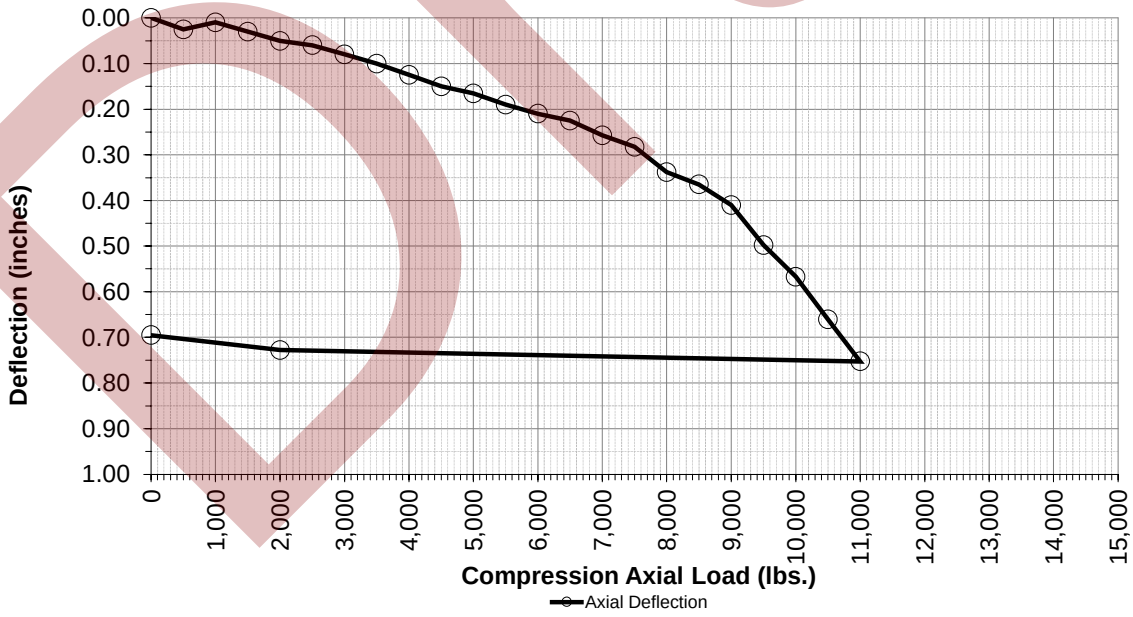
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-051C
Latitude [deg.]:	41.83115
Longitude [deg.]:	-83.94909
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	18

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.025	
7%	1,000	0.010	
10%	1,500	0.030	
13%	2,000	0.050	
17%	2,500	0.060	
20%	3,000	0.080	
23%	3,500	0.100	
27%	4,000	0.125	
30%	4,500	0.150	
33%	5,000	0.165	
37%	5,500	0.190	
40%	6,000	0.210	
43%	6,500	0.225	
47%	7,000	0.258	
50%	7,500	0.283	
53%	8,000	0.338	
57%	8,500	0.365	
60%	9,000	0.410	
63%	9,500	0.498	
67%	10,000	0.568	
70%	10,500	0.660	
73%	11,000	0.753	
13%	2,000	0.728	
0%	0	0.695	



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Compression Load Test Result for PLT-052C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

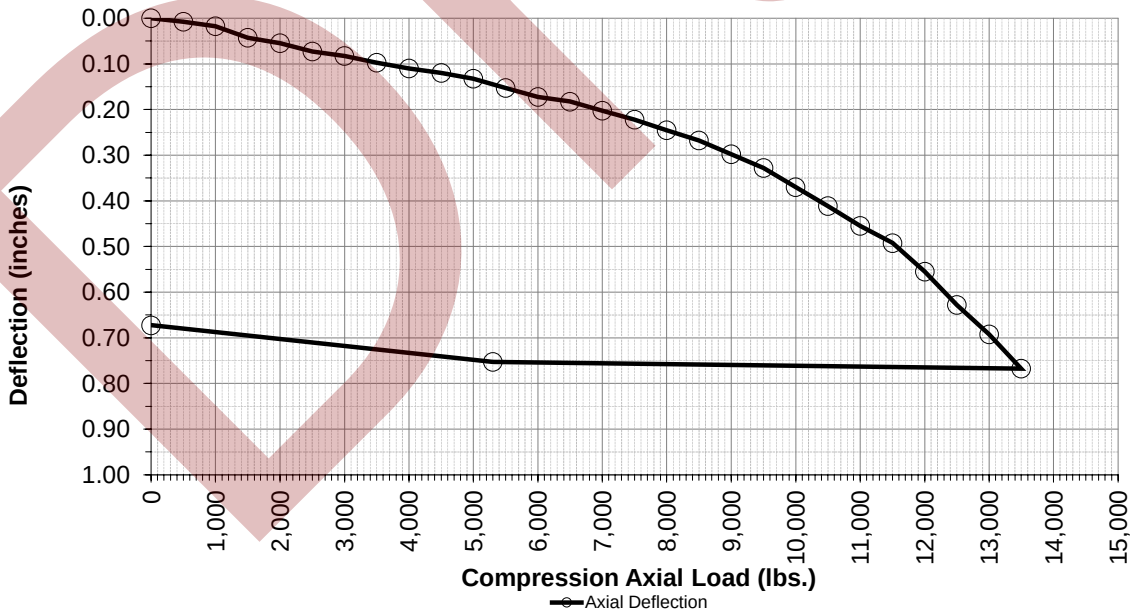
Tested By Terracon Rep:	D. Childers
Date Tested:	6/17/2025

Pile Information

Pile ID:	PLT-052C
Latitude [deg.]:	41.83231
Longitude [deg.]:	-83.95668
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	15

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.008	
7%	1,000	0.018	
10%	1,500	0.043	
13%	2,000	0.055	
17%	2,500	0.073	
20%	3,000	0.083	
23%	3,500	0.098	
27%	4,000	0.110	
30%	4,500	0.120	
33%	5,000	0.133	
37%	5,500	0.153	
40%	6,000	0.173	
43%	6,500	0.183	
47%	7,000	0.203	
50%	7,500	0.223	
53%	8,000	0.245	
57%	8,500	0.268	
60%	9,000	0.298	
63%	9,500	0.328	
67%	10,000	0.370	
70%	10,500	0.412	
73%	11,000	0.455	
77%	11,500	0.493	
80%	12,000	0.555	
83%	12,500	0.628	
87%	13,000	0.693	
90%	13,500	0.768	
35%	5,300	0.753	
0%	0	0.673	



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Compression Load Test Result for PLT-054C

Project Information

Project Name:	Rouget Road Solar
Project Location:	Adrian, MI
Project Number:	CK245217

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	Defender Xtreme

Test Date and Representative

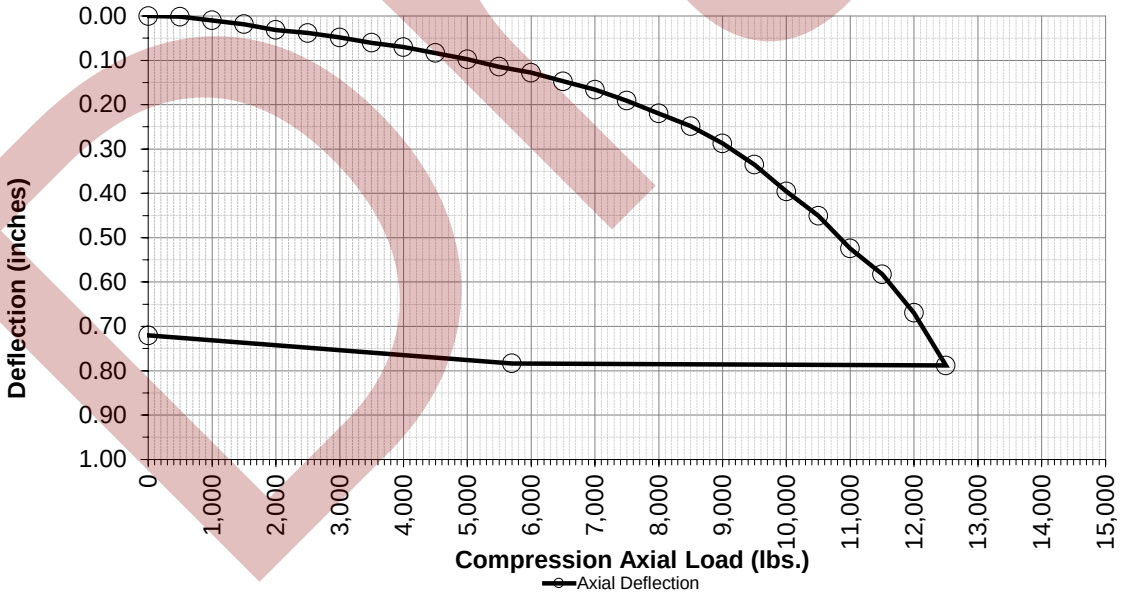
Tested By Terracon Rep:	D. Childers
Date Tested:	7/9/2025

Pile Information

Pile ID:	PLT-054C
Latitude [deg.]:	41.82646
Longitude [deg.]:	-83.95691
Pile Type:	W6x9
Pile Embedment Depth [in.]:	84
Pile Diameter [in.]:	5.9
Pile Stick-Up [in.]:	30
Axial Design Load [lbs.]:	15,000
Pile Area [sq. in.]:	2.7
Elastic Modulus [ksi.]:	29,000
Drive Time [sec.]:	19

Compression Test Results

% of Design Load	Axial Load [lbs.]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
3%	500	0.002	
7%	1,000	0.010	
10%	1,500	0.019	
13%	2,000	0.032	
17%	2,500	0.039	
20%	3,000	0.049	
23%	3,500	0.061	
27%	4,000	0.070	
30%	4,500	0.084	
33%	5,000	0.098	
37%	5,500	0.115	
40%	6,000	0.128	
43%	6,500	0.148	
47%	7,000	0.166	
50%	7,500	0.191	
53%	8,000	0.220	
57%	8,500	0.249	
60%	9,000	0.288	
63%	9,500	0.336	
67%	10,000	0.396	
70%	10,500	0.451	
73%	11,000	0.525	
77%	11,500	0.583	
80%	12,000	0.670	
83%	12,500	0.788	
38%	5,700	0.784	
0%	0	0.721	



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APPENDIX C

SOP Contaminant Impacted Soil

Management Response

EHS SOP.1: Soil Management Response Actions when Contaminant Impacted Soil is Detected during Construction

1 Purpose

This document is created to establish the Standard Operating Procedure (SOP) for the discovery and management of contaminant impacted soils during the construction phase of RWECE Facilities. This SOP outlines the roles and responsibilities of RWECE Personnel and the Construction Contractor (or EPC Contractor), in the event that contaminant impacted soil is detected during construction. This document provides tools for the identification of contaminant impacted soil, the required materials needed for effective management of contaminant impacted soil, and the reporting procedures both internally and externally upon the discovery of contaminant impacted soils. RWECE will provide all applicable documents to the Construction Contractor including but not limited to; a Phase I ESA created for the Site, a Phase II ESA as applicable, and any maps or locations of known contaminant impacted soil areas.

2 Scope

This document is applicable to all RWECE Sites. Please note, response actions associated with encountering impacted groundwater are not included within the scope of this SOP. ***If impacted groundwater is encountered, additional response actions shall be considered prior to disturbing the groundwater.***

3 Applicability

Technologies:	☒	☒	☒
United States		Canada	

4 Document Revision History

Revision #	Date	Description	Author
1	2/23/24	Contaminant Impacted Soil Management Response	Carson Rowe
2	3/4/24	Contaminant Impacted Soil Management Response	Carson Rowe

5 Reference s

5.1 Internal Standards

- RWECE Environmental Management System

6 Appendices

6.1 Appendix 1 - Site Specific Contact Sheet

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Definitions & Acronyms

Terms & Acronym	Definition
RWECE	RWE Clean Energy, LLC
Construction Contractor	EPC contractor who has been contracted to build a facility on behalf of RWECE, and their sub-contractors.
Contaminant Impacted Soil	Any soil impacted by foreign or abnormal substance. Common examples include; petroleum, lead, creosote, etc .
EHS	Environmental Health and Safety
Phase I ESA	Phase I Environmental Site Assessment

8 Roles and Responsibilities

Role	Responsibilities
RWECE, Construction EHS Representative	• Receive report from Construction Contractor if contaminant impacted soil is discovered. • Communicate internally to RWECE all information about the discovery of contaminant impacted soil. • Provide on site oversight of the execution of this SOP
Construction Contractor	• Execute Applicable Elements of this SOP. • Provide Reports and information to RWECE on a timely basis • Work with RWECE to execute all sections of this SOP
RWECE, Environmental & Permitting	• Provide Environmental Expertise • Deliver any relevant site documents to EHS Team
RWECE, Environmental (EHS)	• Support Construction EHS personnel in the execution of this SOP • Communicate with State and Federal agencies as applicable. • Provide Environmental Expertise
RWECE Project Management/ Construction Management	• Communicate with Construction Contractor any changes to schedule or plans based on execution of this SOP. • Work with EHS and Environmental Development to retain a certified waste management firm, as applicable • Provide on site oversight of the execution of this SOP

9 Identification of Contaminant Impacted Soil

9.1 Project Specific Potential Contaminant Type

This part of the procedure involves determining whether non native or abnormal impacts are present in the soil. The Phase I ESA for the project may have identified petroleum contamination, for example, as possible to occur on the Site. There could be other non-native or abnormal forms of soil or fill material impact present on the Site. If any abnormalities or non native substances are identified in soil, the following steps in the SOP should be followed. The below identification guide is structured for soils that could be impacted by the historic activities identified on Site.

9.2 Inspection to Determine if Soil is Contaminated

When soil is excavated or disturbed within the potential contamination areas, a general evaluation of whether the soil includes contamination shall be performed. Soil contaminated with petroleum for example, often has a distinct appearance or odor. The appearance of the soil is often grey or black. A picture of soil with petroleum contamination is provided in Figure 1. In many cases, the contaminated soil is much dryer than shown in Figure 1. Nevertheless, dryer soil also has a grey appearance. The odor of contaminated soil is similar to odors associated with solvents, gasoline, diesel, or used oil. If this appearance or odor is not present, but doubt still exists, the construction contractor shall contact the RWECE Construction EHS representative for further direction (which likely will include soil characterization via sampling and analysis) prior to continuing any earth disturbing activities. Response actions identified in Section 10.2 may be performed immediately, as necessary.



Figure 1 – Wet Soil Contaminated with Petroleum



Figure 2 – Dry Soil Contaminated with Petroleum

Offline versions are not controlled . The controlled version can be found at the RWECEEHS SharePoint page.

10 Contaminant Impacted Soil Management Procedures

This part of the procedure includes the identification of equipment to have available and the specific actions to take if any form of contamination is found in soil disturbed within the Site.

10.1 Equipment

If contamination is detected in excavated or disturbed soil, as described in Section 9.2, actions identified in the following sections are necessary. To adequately perform these actions, the following equipment shall be present at the excavation location, or at the nearby project construction yard:

- Four Visqueen or other Visqueen-like Tarps, 40'x30' or similar, (herein referred to as "plastic tarp")
- Shovels or Excavator
- 200 feet of PIG Absorbent Socks and Spill Kit
- Twenty Stakes (may be made of wood or any other material)
- Two Hundred Feet of Yellow Caution Tape
- 10 Labels to be used to identify the contents of Soil Piles
- Multiple pairs of Neoprene or Neoprene-like Gloves to use During the Handling of contaminated soil

10.2 Actions to Take When Contaminant Impacted Soil is Detected

When crude oil or contamination is identified in soil as described in Section 9.2, the contaminated soil shall be segregated from other soil excavated or disturbed. **Under no circumstances shall potentially impacted soil be moved off-site, or from the point of origin.** This contaminated soil shall be placed on a Visqueen tarp and covered with another tarp in a manner ensuring contamination does not migrate beyond the tarp. Additionally, the tarps shall be secured so each does not blow away. Labels shall be placed on the plastic tarp cover. The labels shall include the following information:

- Label: "Potentially Contaminated "Soil" or "Solid Waste" (as applicable) "Currently Being Characterized"
- Date the excavated soil was placed on the tarp, or the solid waste was generated
- GPS coordinates (4 coordinates) defining the origin location of the excavated soil
- Depth defining location where the excavated soil originated (for example, between 0 and 4 feet below ground surface)
- Name of RWECE EHS Personnel, Contractors Responsible Personnel, and their contact information for any questions regarding the excavated soil pile.
- Stakes and caution tape may be used if additional means are necessary to ensure the contaminated soil and solid waste is not disturbed.

10.3 Soil and Waste Management

Following the completion of the reporting requirements included in Section 11, RWECE shall retain a consultant and / or a licensed waste management firm to characterize and implement waste management, transportation, and disposal requirements in accordance with State and Federal Requirements.

11 Reporting

This part of the procedure includes reporting requirements for both the Construction Contractor and RWECE. The contact information for all the roles mentioned in this section can be found in Appendix 1 - Site Specific Contact Sheet. This sheet should be filled out to reflect the contact information of all project specific personnel prior to starting any earth disturbing activities.

11.1 Reporting Requirements for the Construction Contractor

When contaminant impacted soil is detected as described in Section 9.2, the Construction Contractor will be required conduct the following reporting at a minimum:

- Provide a verbal report to the RWECE Environmental, Health, and Safety Representative. The RWECE EHS representative will notify RWECE's Project Development Team, Project Management Team, and internal EHS Environmental Team. In addition as required by contract, the Construction Contractor will develop a report and deliver it to the RWECE Construction EHS Representative within 12 hours (or less as required by contract) notifying in writing the detection of contaminant impacted soil. This report will include at a minimum, information regarding observations as described in section 9.2, the response actions taken to date as identified in 10.2, and appropriate contact information for any questions or clarifications.

11.2 Reporting Requirements for RWECE

Following receipt of the reports identified in Section 4.1, the RWECE Construction EHS Representative along with Environmental (EHS) and Environmental & Permitting will determine whether information must be reported to regulatory agencies, landowners and any other parties as required by the Project. In addition, RWECE will determine if support from a certified waste management consultant from external firms shall be used, if necessary, to assess these reporting requirements. If such reports are applicable, the Environmental (EHS) Representative or designee (e.g. in some cases Construction EHS or the contractor will be authorized) will complete the reporting. RWECE Project Management and RWECE Construction EHS will provide guidance back to the Construction Contractor, as necessary.

12 Recordkeeping

This part of the procedure includes recordkeeping requirements for both the Construction Contractor and RWECE.

12.1 Recordkeeping Requirements for the Construction Contractor

All information and documents collected and/or developed during the during the execution of this SOP as identified in Sections 9.2, 10.2 and 11.1 shall be kept in the Construction Contractor's project file for a period consistent with their contract.

12.2 Recordkeeping Requirements for the RWECE

All information and documents collected and/or developed during the execution of this SOP as identified in sections 10.3 and 11.2 shall be retained by RWECE for the lifetime of the facility.

APPENDIX D
Phase I Environmental Site Assessment

Phase I Environmental Site Assessment for the Rouget Road Solar Farm, Lenawee County, Michigan

FEBRUARY 2025

PREPARED FOR

Rouget Road Solar Farm, LLC

PREPARED BY

SWCA Environmental Consultants

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR THE ROUGET ROAD SOLAR FARM, LENAWEE COUNTY, MICHIGAN

Prepared for

Rouget Road Solar Farm, LLC
1401 East 6th Street, Suite 400
Austin, Texas 78702
Attention: Mark Quarles

Prepared by

SWCA Environmental Consultants
20 East Thomas Road, Suite 1700
Phoenix, Arizona 85012
(602) 274-3831
www.swca.com

SWCA Project No. 78878

February 2025

EXECUTIVE SUMMARY

This executive summary presents the results of a Phase I Environmental Site Assessment (ESA) completed by SWCA Environmental Consultants (SWCA) for the proposed Rouget Road Solar Farm (the subject property). The subject property is approximately 2,066 acres of contiguous land located southeast of Adrian in Lenawee County, Michigan. The subject property comprises 46 privately owned parcels. It is mostly open farmland with some wooded areas. Several farmsteads and residences are present and two electrical transmission lines cross the subject property.

The purpose of this Phase I ESA is to satisfy part of the due diligence requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation, and Liability Act liability.

The following list presents selected primary findings of this Phase I ESA:

- SWCA's review of historical topographic maps and aerial photographs dating from 1939 found that the subject property and surrounding area were open agricultural land with scattered farmsteads and residences, and remain so today. The past use of the subject property is not considered to be a recognized environmental condition (REC).
- SWCA reviewed a Phase I ESA report competed by Stantec Consulting Services Inc., in 2021. The subject property of that report approximated the boundaries of the current subject property. The 2021 Phase I ESA report did not identify any RECs for the subject property.
- A Phase I ESA User Questionnaire completed by Mark Quarles, representing Rouget Road Solar Farm, LLC, on November 12, 2024, did not identify anything that SWCA considers to be a REC.
- Phase I ESA User Questionnaires were provided to subject property landowners by Rouget Road Solar Farm, LLC. As of the time of this report, eight completed questionnaires were provided to SWCA. The answers provided in returned questionnaires did not identify anything that SWCA considers to be a REC.
- SWCA's review of a November 8, 2024, Environmental Data Resources, LLC (EDR), environmental database search report and supplemental records from state and federal regulatory databases identified the following:
    - A release of 1,4-dioxane occurred in or prior to 2004 at the Drexel Park Wells location, 0.93 miles northwest of the subject property. At that time an interim response had been conducted but the incident required action in the short term. No further details are provided. Because of its distance from the subject property and because 21 years have passed since the release, this is not considered to be a REC for the subject property.
    - Brazeway, Inc., located 0.93 mile northwest of the subject property, is identified in the Superfund Environmental Management System (SEMS) – Archive database, Resource Conservation and Recovery Act (RCRA) corrective action (CORRACTS) database, and several other related listings. The SEMS listing indicates the site is not on the national priorities list. Following discovery and preliminary assessment in 1992, cleanup was deferred to RCRA (Subtitle C). The RCRA CORRACTS listing indicates that in 2009 it was determined an investigation was not necessary and the facility was assigned a low corrective action priority. Because of its low priority status following an investigation, and because of its distance from the subject property, this facility is not considered to be a REC for the subject property.
    - Laidlaw Waste Systems (the closed Adrian Landfill), is located 0.5 mile north of the northwest corner of the subject property. This facility was listed as a Part 201 site (sites

where there has been a release of a hazardous substance(s) in excess of residential criteria, and/or where corrective actions have not been completed to meet the applicable cleanup criteria for unrestricted residential use) for the contaminants chlorobenzene and chloroethane in 2004. No further information is provided. This facility is also identified as having potentially contaminated groundwater with Per- and Polyfluorinated Substances (PFAS). Groundwater at that site flows to the River Raisin. However, because PFAS concentrations in samples collected just north of the subject property were far below the criteria for concern, this facility is not considered to be a REC for the subject property.

- Adrian Oil Burner Service, located 0.35 mile from the subject property, had several leaking underground storage tanks (LUSTs) in the past. Diesel fuel tanks that were 10,000, 15,000, and 20,000 gallons in capacity, and a 6,000-gallon gasoline tank, were installed in 1966 and removed in 1999. Releases were reported in 1992 (2) and 2000 (2) and are still listed as open cases. The site is also identified as a brownfield site and the Michigan Department of Environment, Great Lakes, and Energy Inventory listing states the facility requires action in the short-term. Michigan's baseline environmental assessment (BEA) program allows people to purchase or begin operating at a facility without being held liable for existing contamination. A BEA was completed in 2019. The results of the BEA were not provided but the site is currently occupied by a different retail business. Because of the distance from the subject property, and considering the facility was allowed to remain occupied, these leaks are unlikely to affect the subject property and are not considered to be RECs.
- Five oil and gas listings are mapped on the subject property. These are three oil and gas test wells listed as plugged and dry, an oil and gas test well with a terminated permit, and a plugged mineral well. Mineral wells include solution mining wells, brine production wells, certain types of disposal wells, and test wells associated with mineral exploration and extraction. Because of the types of wells and their current statuses, the wells are not considered to be RECs for the subject property.

- SWCA's reconnaissance of the subject property on November 4, 2024, verified it is primarily open agricultural fields, but also includes nine farmsteads, 2 residences, and several wooded areas. Electrical transmission lines cross the northern portion of the subject property in an east-west alignment and the southern portion in a northwest-southeast alignment. The fields and wooded areas appeared typical and nothing notable was observed in these areas. Properties adjoining the subject property in all directions appeared to be in similar use and condition as the subject property. The following was noted:
  - 55-gallon drums were observed at a few of the farmsteads. They appeared to be a good condition and no leaks or spills were noted.
  - A farmstead midway up Van Highway had debris and old equipment including an empty 300-gallon polyethylene tote and an empty 300-gallon aboveground storage tank (AST) for fuel. No evidence of leaks or spills were observed in these areas. Soil inside an open-ended structure exhibited moderate oil staining from stored equipment. This soil staining is considered to be a de minimis condition.
  - A few piles of tires and another empty AST were noted in the woods and brush south of the farmstead, as well as an empty metal drum and various piles of scrap and debris.
  - A 500-gallon fuel AST was inside of an open-ended structure at a farmstead southeast of Myers Highway and East Carleton Road. The tank appeared to be in serviceable condition and only minor soil staining was evident near the tank. A few buckets of used oil and a pallet of herbicides in jugs appeared to be in good condition. Soil inside the

structure exhibited moderate oil staining from stored equipment. This soil staining is considered to be a de minimis condition.

- A farmstead along the east of Rau Highway, in the southwestern portion of the subject property, had farm equipment stored in a barn. Moderate oil staining was on the dirt/gravel floor. This soil staining is considered to be a de minimis condition.
- Various debris piles and burn piles were observed at several farmsteads and appeared to contain only benign trash and scrap, and vegetative materials.

- No significant quantities of hazardous substances or petroleum products were observed on or adjoining the subject property except as noted above. No evidence of significant spills or ground staining, unusual odors, or potential contamination beyond de minimis conditions was observed on or adjoining the subject property during the site reconnaissance.

The information presented in this report is intended for the exclusive use of Rouget Road Solar Farm, LLC; RWE Clean Energy; and their affiliates, underwriters, lenders, and counsel. Reliance by any other parties on the information presented herein is the sole responsibility of said parties. This Phase I ESA report is viable for 180 days following the earliest date of any of the following components of all appropriate inquiries: interviews, the environmental records review, the site reconnaissance, and the declaration of the Environmental Professional. **This Phase I ESA report is viable for 180 days following November 4, 2024** (the date of the site reconnaissance).

We have performed a *Phase I ESA* in conformance with the scope and limitations of ASTM International Standard 2247-23 of the *subject property*, as described in Section 2 of this report. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this *report*. **This assessment has revealed *no RECs, controlled RECs,* or *significant data gaps* in connection with the *subject property***.

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1 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (ESA) completed by SWCA Environmental Consultants (SWCA) for the proposed Rouget Road Solar Farm (the subject property). The subject property is approximately 2,066 acres of contiguous land located southeast of Adrian in Lenawee County, Michigan. The subject property comprises 46 privately owned parcels. It is mostly open farmland with some wooded areas. Several farmsteads and residences are present and two electrical transmission lines cross the subject property.

1.1 Purpose

The purpose of this Phase I ESA is to satisfy part of the due diligence requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability.

This Phase I ESA generally follows the standards described in ASTM International (ASTM) Standard E2247-23, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property* (ASTM 2023). Standard E2247-23 incorporates Standard E1527-21 (*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* [ASTM 2021]) by reference and is intended to be no less stringent than Standard E1527-21. Therefore, this report reflects recent updates to and best practices of Standard E1527-21.

The goal of the processes established by this practice is to assess the property, to the extent feasible pursuant to the processes prescribed in ASTM Standard E2247-23, for the presence of recognized environmental conditions (RECs). A REC is defined in the ASTM standard as "(1) the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* to the *environment*; (2) the likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* or likely *release* to the *environment*; or (3) the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* under conditions that pose a *material threat* of a future *release* to the *environment*." De minimis conditions, which generally do not present a threat to human health or the environment and generally would not be the subject of enforcement actions if brought to the attention of appropriate regulating agencies, are not RECs.

According to ASTM, all appropriate inquiry (AAI) is not an exhaustive assessment of a property. There is a point at which the cost of information obtained, or the time required to gather it, outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of the practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an environmental site assessment and the reduction of uncertainty about unknown conditions resulting from additional information.

1.2 Scope of Work

SWCA completed this Phase I ESA in general accordance with ASTM Standard E2247-23. Deletions or deviations from ASTM Standard E2247-23 are documented in Section 1.3 of this report. To achieve the objective referenced above, SWCA completed the following tasks:

- Requested ASTM-specified information from the user of this report
- Surveyed relevant documents to assess the subject property's physical setting
- Reviewed historical topographic maps and historical aerial photographs

- Reviewed a previously completed Phase I ESA report for the subject property
- Provided Phase I ESA Landowner Questionnaires to representatives of the owners of the subject property, via Rouget Road Solar Farm, LLC.
- Reviewed appropriate federal and state environmental records
- Completed a reconnaissance of the subject property and observed adjoining properties
- Prepared this Phase I ESA report and referenced all information sources herein

This Phase I ESA did not include observation, assessment, or reporting of issues identified in the ASTM standard as non-scope considerations, such as asbestos-containing materials, lead-based paint, naturally occurring radon, non-hazardous wastes and materials, mold or microbial growth conditions, biological agents, and medical wastes. No soil, air, or water samples were collected for this Phase I ESA.

SWCA warrants that a qualified Environmental Professional was responsible for the preparation of this report in conformance with ethical business practices and industry standards. Appendix A contains the credentials of the Environmental Professional responsible for preparation of this report.

1.3 Limitations

Some standard sources are not readily available and thus were not used to prepare this Phase I ESA. This Phase I ESA is intended to minimize, but not eliminate, uncertainty regarding the potential for RECs in connection with the subject property, with reasonable limits to time and cost. Data gaps, limitations, and deviations from the ASTM standard are described below.

- Because of the lack of available aerial photographs and U.S. Geological Survey (USGS) topographic maps, the commonly used 5-year interval between photographs and topographic map dates could not be followed for all photographs and maps reviewed. Although some uses can be determined, the resolution of historical aerial photographs limits SWCA's ability to identify on-site details.
- As is customary with large-scale rural projects, the site reconnaissance focused on pre-identified areas of the subject property and adjoining properties with indications of activity that could have resulted in the presence of a REC, especially areas where hazardous substances or petroleum products may be used, handled, managed, or stored or may have been used, handled, managed, or stored in the past. SWCA did not walk transects of the vacant undeveloped portions of the subject property. Therefore, not all land surfaces were directly observed.
- Rouget Road Solar Farm, LLC opted to distribute Phase I ESA Landowner Questionnaires to landowners in person at an event Rouget Road Solar Farm, LLC was hosting. As of the time of this report, only eight completed questionnaires were provided to SWCA.
- A representative of Rouget Road Solar Farm, LLC indicated that it has not yet been determined whether activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls are in place at the property and/or have been filed or recorded against the subject property under federal, tribal, state or local law

Although there is no warranty or guarantee regarding the presence or absence of hazardous materials that could potentially affect the subject property, SWCA has provided its best professional judgement on the presence or absence of such materials. This Phase I ESA was not performed to provide a comprehensive evaluation of business environmental risk.

Because alternatives to standard sources served as a solid basis of learning past property uses and conditions, and because supplemental data sources provided sufficient information, these gaps in the data are not considered to be significant and are not thought to have affected SWCA's ability to identify RECs on the subject property. SWCA's findings and conclusions within this assessment do not take into consideration the limitations identified in this report.

1.4 User Reliance

The information contained in this report relates only to the subject property and should not be extrapolated or construed to apply to any other location. The description of the subject property as provided herein represents the conditions of the subject property as it existed on the date of the site reconnaissance and data source searches. Findings are based solely on the above-referenced methods and limitations.

The information presented in this report is intended for the exclusive use of Rouget Road Solar Farm, LLC; RWE Clean Energy; and their affiliates, underwriters, lenders, and counsel. Reliance by any other parties on the information presented herein is the sole responsibility of said parties. If the Phase I ESA will be relied upon by a different party than the user for whom the Phase I ESA was originally prepared, that party must also satisfy the user's responsibilities in Section 6 of ASTM Standard E2247-23.

This Phase I ESA report is viable for 180 days following the earliest date of any of the following components of all appropriate inquiries (AAIs): interviews, environmental records review, site reconnaissance, and the declaration of the Environmental Professional. **This Phase I ESA report is viable for 180 days following November 4, 2024** (the date of the site reconnaissance). Continued viability of this report is subject to ASTM Standard E2247-23, Sections 4.6 to 4.8. The validity of the report can be renewed by updating the components of AAIs listed above.

2 PROPERTY DESCRIPTION

The subject property is approximately 2,066 acres of contiguous land located southeast of Adrian in Lenawee County, Michigan. It is mostly open farmland with some wooded areas. Several farmsteads and residences are present and two electrical transmission lines cross the subject property. It spans 8 miles from north to south and 2.7 miles from east to west. The subject property comprises 46 privately owned parcels and the majority is owned by the Terry, Frye, Engel, Creque, and Archer families; Judson Farms, the Roback Family Living Trust, and Maple Row Farms. Single-parcel owners include the Shirley Sheldon Living Trust, Kafer Family Trust, Idella Wegner Trust, the Deborah Comstock Trust, and Henry Smith (Lenawee County 2025, Regrid.com). Adjoining land use is similar to the subject property and is entirely in agricultural and residential uses. The subject property is depicted in Figures 1, 2a–2c, and 3a–3c, and Appendix B provides a map of subject property parcels. Detailed parcel information is available from Lenawee County (2025).

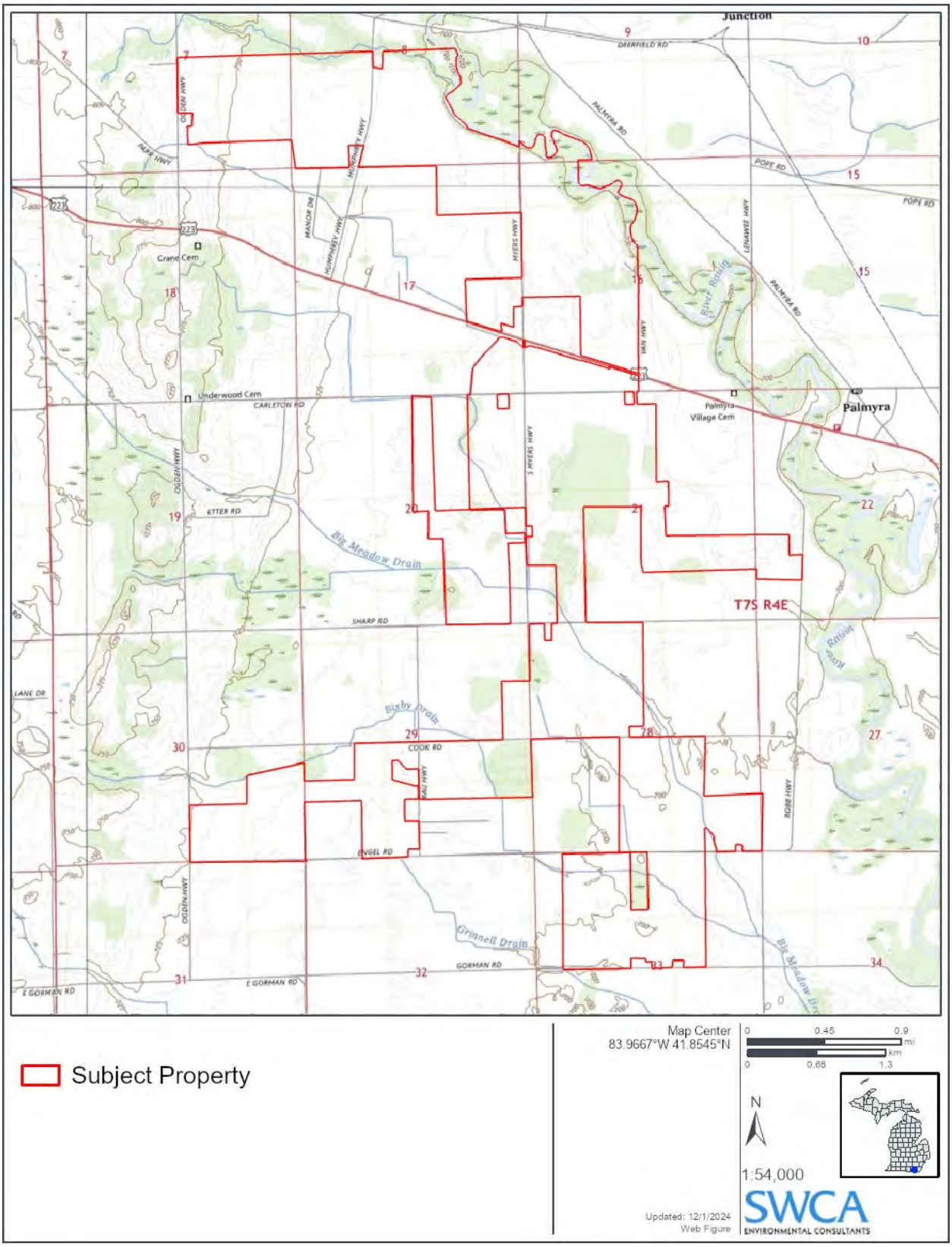


Figure 1. Overview map of the subject property.

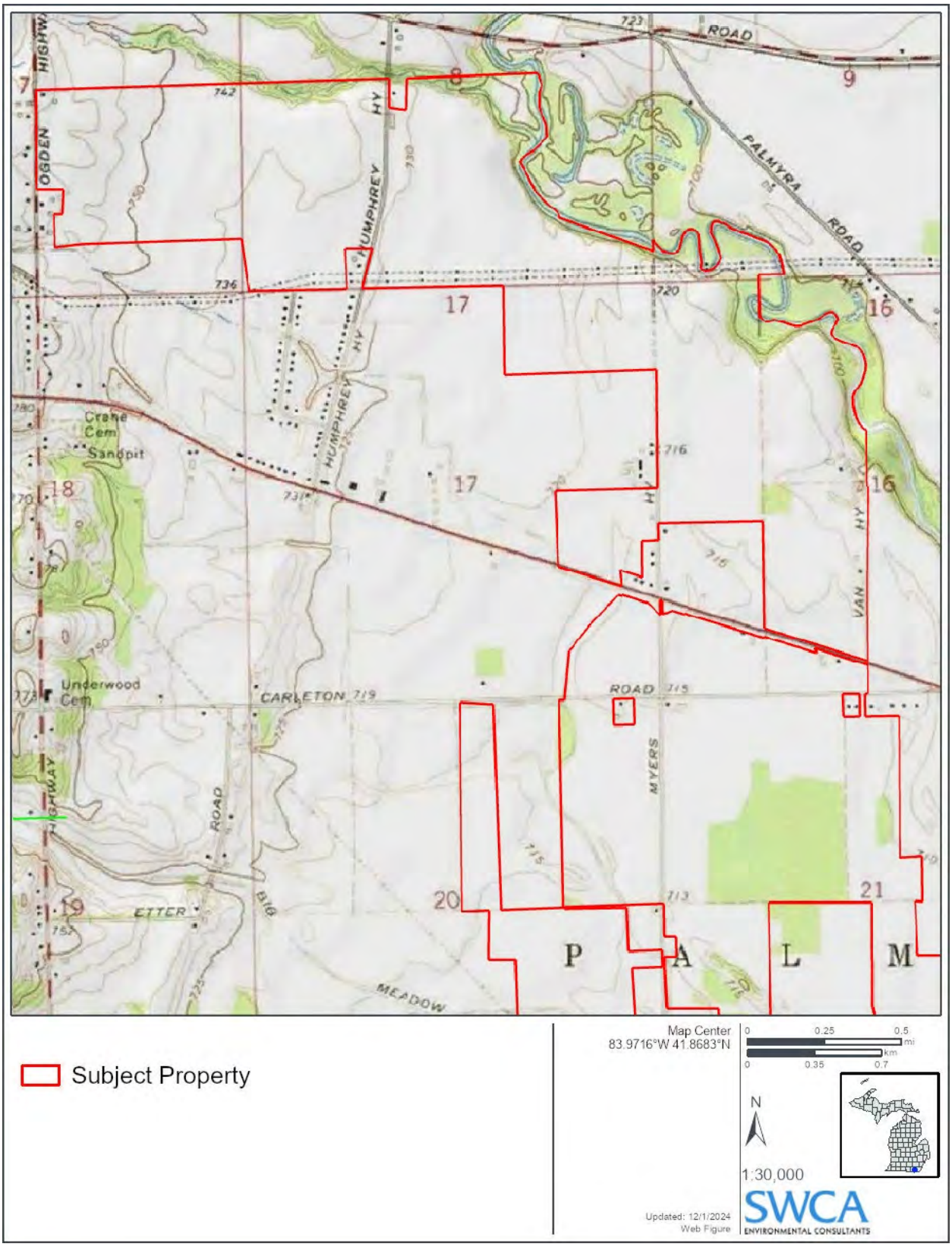


Figure 2a. Topographic map of the subject property, northern portion.

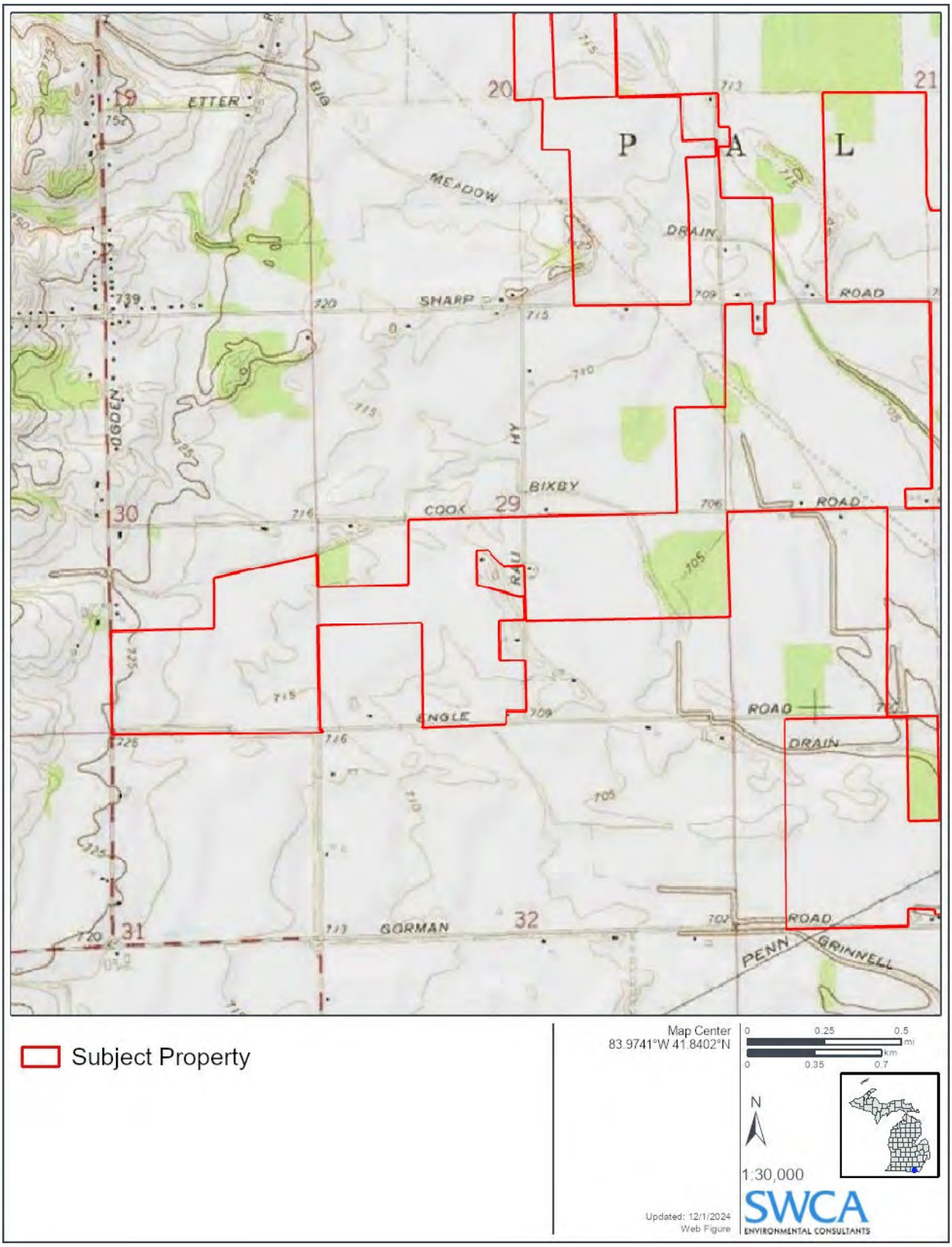


Figure 2b. Topographic map of the subject property, southwestern portion.

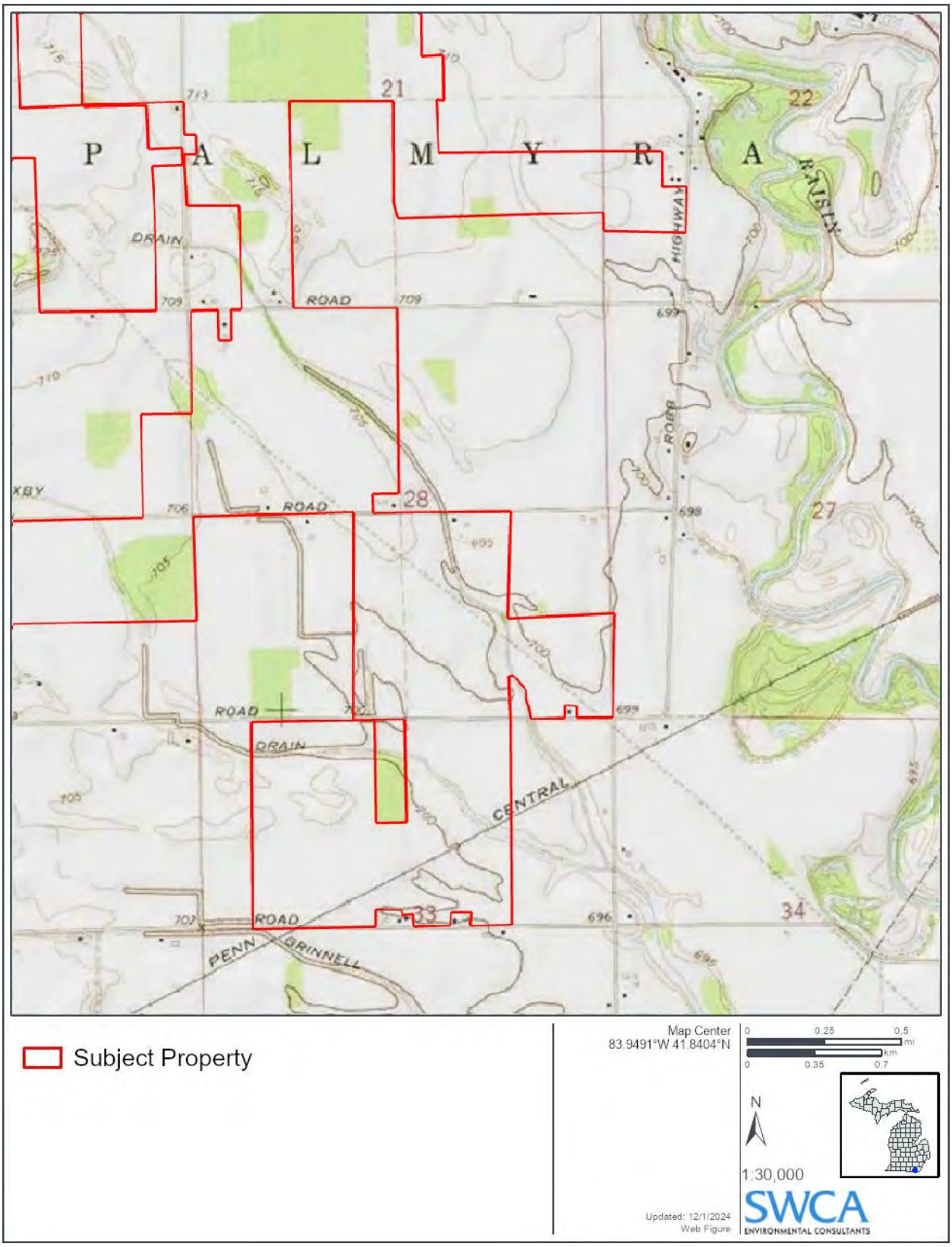


Figure 2c. Topographic map of the subject property, southeastern portion.

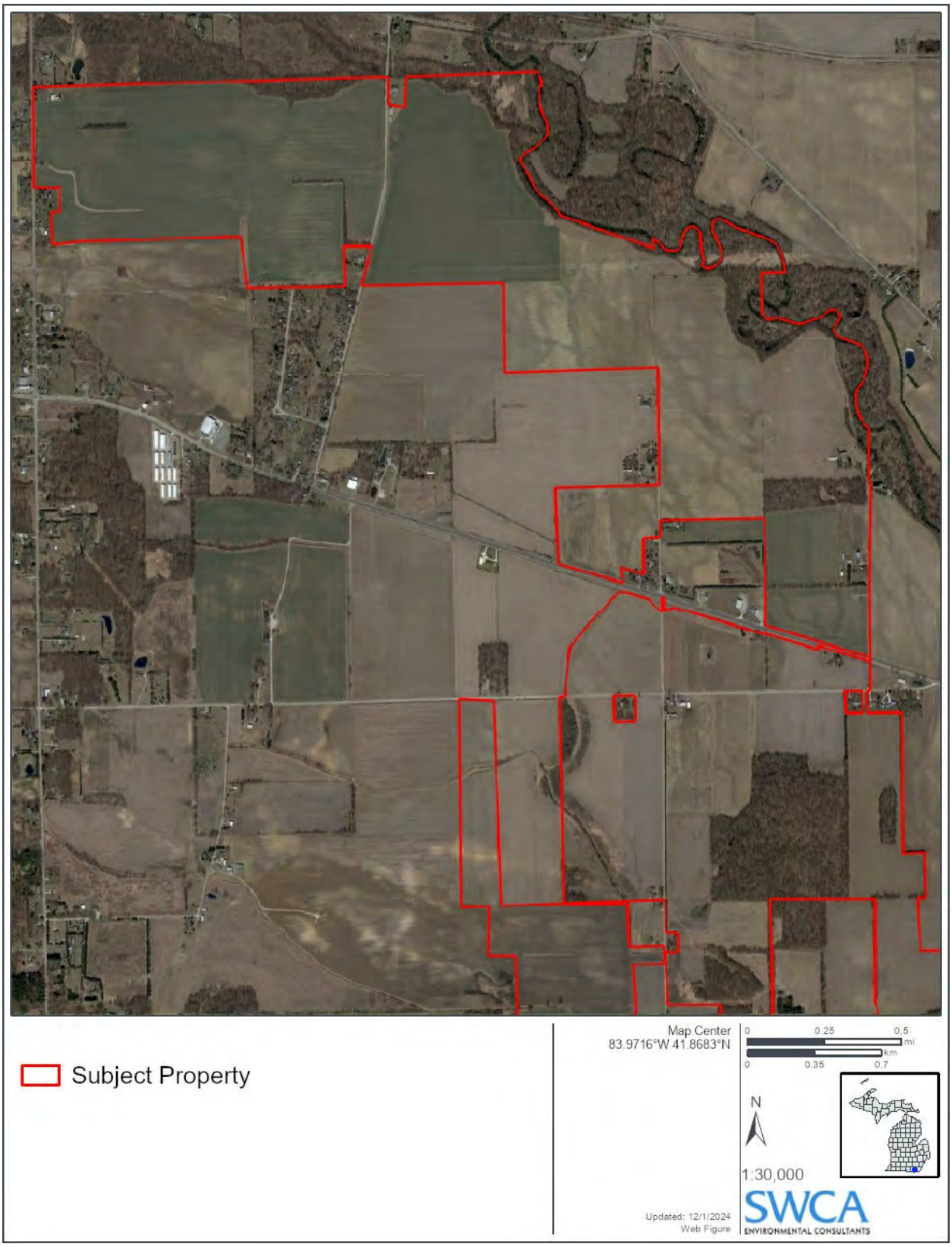


Figure 3a. Aerial photograph of the subject property, northern portion.

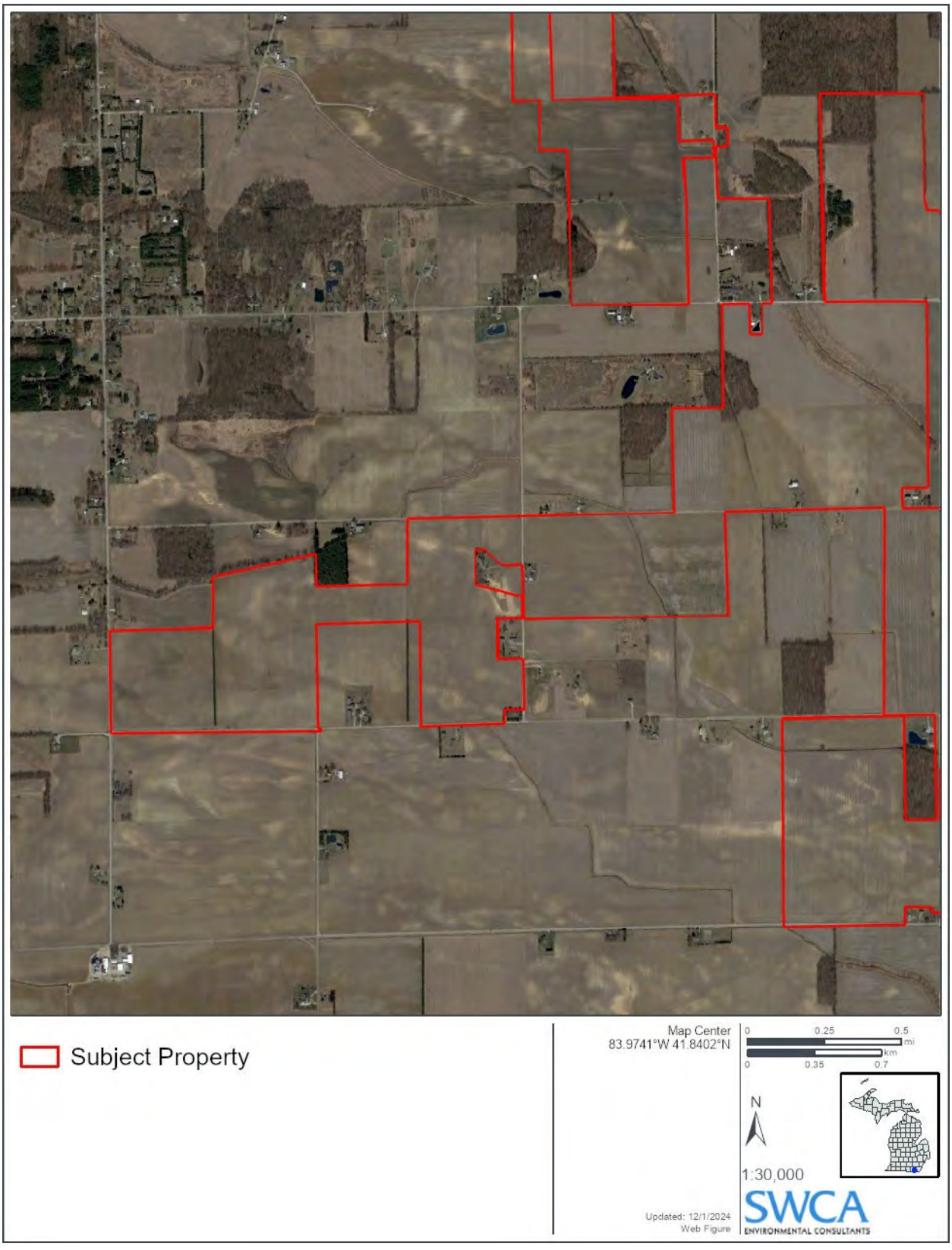


Figure 3b. Aerial photograph of the subject property, southwestern portion.

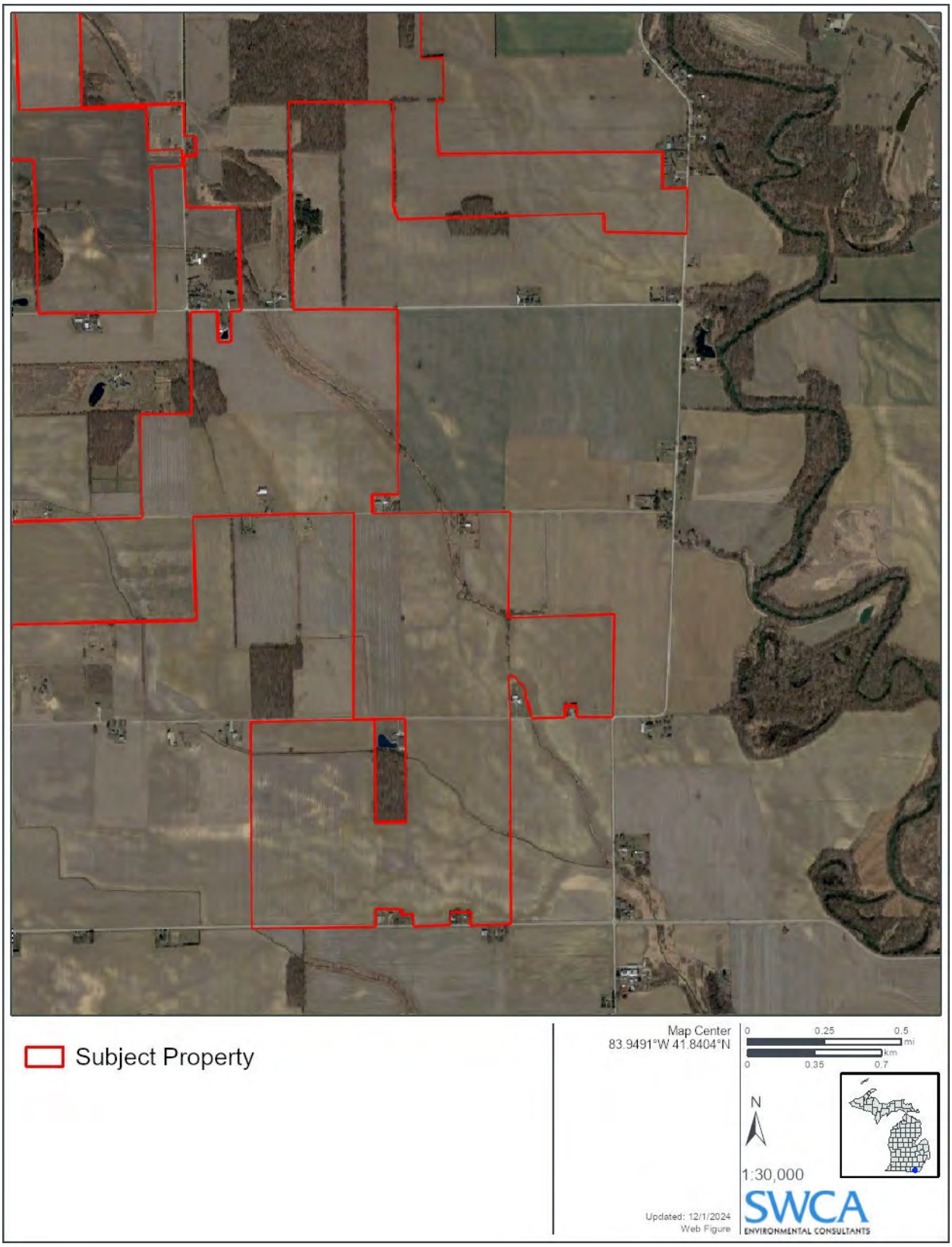


Figure 3c. Aerial photograph of the subject property, southeastern portion.

3 PHYSICAL SETTING ANALYSIS

SWCA reviewed pertinent key physical characteristics of the subject property, as obtained from available natural history information sources.

3.1 Topography

USGS topographic maps of the region (USGS 2025a) indicate that mots of the subject property slopes southeast toward and along Big Meadow Drain and Bixby Drain. A portion of the south slopes south toward Grinnel Drain and a portion of the north slopes north, northeast, and east toward the River Raisin. Typical of the region, the area is fairly flat with shallowly incised drainageways. Elevations on the subject property range from approximately 690 to 775 feet above mean sea level.

3.2 Geology and Hydrogeology

USGS online spatial mineral resources data indicate that the surface geology of the subject property is mapped within a broad area of Coldwater Shale. This mapping unit consists primarily of mudstone and shale, with minor constituents dolostone, sandstone, limestone, and siltstone (USGS 2025b).

Generally, groundwater flow direction has been inferred based on topography in the vicinity of the subject property with the assumption that shallow groundwater flow will follow surface topography, which slopes overall toward to the southeast, to the River Raisin. No site-specific measurements of groundwater depth and flow direction have been performed as part of this assessment.

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) maps numerous water wells in the area and six water wells on the subject property. None of the on-site or adjoining wells are identified as public water supply wells and none are identified as monitoring wells. Four of the wells are identified as household wells and the other two are type “other.” Depth to water data are not provided for these wells but they are drilled to depths between 32 and 142 feet below grade (EGLE 2025a). Appendix B provides a map of water well locations.

3.3 Soils

SWCA completed a review of data from the Natural Resources Conservation Service (NRCS) State Soil Geographic (STATSGO) data set to identify soils on the subject property. The STATSGO data were used because the map units are larger and define broader areas. These soil maps are on a larger scale and were compiled by generalizing more detailed soil survey mapping. They are normally used where more detailed soil survey maps are not available or not feasible for the scale of the project. SWCA’s review of the STATSGO mapping indicated that nearly all of the subject property is mapped as the Lamson-Kibbie soil association (NRCS 2025a, 2025b). Location-specific soil data are also available via an interactive KMZ file from the California Soil Resource Lab (2025). Table 1 includes descriptions of the soil types mapped on the subject property.

Table 1. Soil Types on the Subject Property

Soil Name	Description
Kibbie	Very deep, somewhat poorly drained soils on lake plains, ground moraines, outwash plains, and deltas. They formed in stratified loamy and silty glaciofluvial or glaciolacustrine deposits.

Soil Name	Description
Lamson	Very deep, poorly drained and very poorly drained soils formed in glacio-fluvial, glacio-lacustrine and deltaic deposits. They are level and nearly level soils in low areas on glacial lake plains.

Source: NRCS (2025b).

4 HISTORICAL PROPERTY USES AND RECORDS REVIEW

The history of the subject property and adjoining properties was reviewed in accordance with the ASTM standard, except as noted in Section 1.3. Historical uses of the subject property were determined based on a review of readily available, reasonably ascertainable data, including topographic maps, aerial photographs, and interviews.

4.1 Historical Topographic Map Review

SWCA reviewed USGS topographic maps of the area dated 1939 to 2023, provided by the USGS (2025a) and Nationwide Environmental Title Research, LLC (Nationwide) (2025). On the 1939 map, the subject property and vicinity are depicted primarily as vacant land with various improved roads. Few structures were on or in the vicinity of the subject property. An electrical transmission line traversed the southern portion of the subject property in a northwest-southeast alignment, and the New York Central (later Penn Central, then Conrail) Railroad tracks crossed through the southeast corner of the subject property.

No significant changes are noted in topographic maps until a parallel east-west pair of electrical transmission lines crossed the northern portion of the subject property in the 1972 map. The railroad was abandoned in the 1986 map.

No other significant changes are evident in SWCA's review of subsequent USGS topographic maps. It appears the subject property and surrounding area have remained relatively unchanged since 1947.

4.2 Historical Aerial Photograph Review

SWCA reviewed historical aerial photographs of the subject property spanning from 1955 to 2022 (Google Earth 2025; Nationwide 2025). In 1955, the subject property and surrounding area appear to be primarily open agricultural land with scattered farmsteads and residences. Railroad tracks crossed the southern portion of the subject property and transmission lines were present, as described above. While various structures were built or removed over time, the uses of the subject property and adjoining properties throughout this time period appear to have been only farming and residential use.

No significant changes to the subject property or adjoining properties were noted in SWCA's review of aerial photographs.

4.3 Previous Phase I Environmental Site Assessment Reports

Rouget Road Solar Farm, LLC provided SWCA with a copy of a Phase I ESA report competed by Stantec Consulting Services Inc. (2021). The subject property of that report approximated the boundaries of the current subject property but did not include any of the 16 parcels south of Sharp Road. The 2021 Phase I ESA report did not identify any RECs for the subject property.

SWCA is not aware of and did not review any other previously completed Phase I ESA reports or other similar environmental reports relevant to this Phase I ESA.

4.4 Interviews

Mark Quarles, representing Rouget Road Solar Farm, LLC, completed a Phase I ESA User Questionnaire regarding the subject property on November 12, 2024. M. Quarles noted that the purchase price being paid for the subject property reasonably reflects its fair market value. M. Quarles does not know of any past uses of the subject property other than rural agricultural land. M. Quarles does not know of any significant spills or chemical releases, or environmental cleanups that have occurred on the subject property and is not aware of any obvious indicators that point to the presence or likely presence of releases at the subject property. M. Quarles provided SWCA with a Phase I ESA completed by Stantec (Santec 2021) and it is summarized above in Section 4.3.

Rouget Road Solar Farm, LLC opted to distribute Phase I ESA Landowner Questionnaires to landowners in person at an event Rouget Road Solar Farm, LLC was hosting. As of the time of this report, eight completed questionnaires were provided to SWCA. These were from Larry Frye, Mark Wegner, Dean and Sandra Roback, David Terry, Gary Sheldon, Deborah Comstock, Jane Allen, Jeff and Eileen Creque, representing a total of 22 subject property parcels.

D. Comstock noted there were gas tanks on her property when it was farmed but they have been removed. She did not specify if the tanks were aboveground or underground; however, underground tanks on a farm are expensive to permit, install, and maintain, and are rare on farm properties. Also, SWCA did not identify records of underground tanks or underground tank removal on this property. Her property also has a new water well that recently installed and checked. All respondents (except D. Comstock) noted their properties have never been used to store hazardous materials or petroleum products. All respondents indicated their properties have not been impacted by any spills or releases, and there is no known potential for impacts to the best of their knowledge.

Appendix C provides documentation of the above correspondence.

4.5 Environmental Liens and Activity and Use Limitations

Completion of searches for recorded environmental liens and AULs is a responsibility of the user of a Phase I ESA. It is the user's responsibility to obtain and review title records back to 1980 (the year CERCLA was enacted). M. Quarles, representing Rouget Road Solar Farm, LLC, indicated on November 12, 2024, that a search of recorded records did not identify any identify any environmental liens filed against the subject property under federal, tribal, state, or local law. M. Quarles answered it had not yet been determined whether AULs, such as engineering controls, land use restrictions or institutional controls are in place at the property and/or have been filed or recorded against the subject property under federal, tribal, state or local law.

5 ENVIRONMENTAL RECORDS REVIEW

SWCA conducted an environmental records review to establish the environmental history of the subject property and surrounding area to ascertain whether hazardous waste or hazardous material management, handling, treatment, or disposal activities have occurred on or near the subject property.

5.1 Federal and State Environmental Records

An environmental database search report generated by Environmental Data Resources, LLC (EDR), on November 8, 2024, was used to access environmental records for the subject property and surrounding properties. The databases searched by EDR include those specified by ASTM Standard E2247-23, as well as several additional federal and state databases and databases proprietary to EDR. EDR updates its records in accordance with ASTM Standard E2247-23 guidelines, and ASTM's standard search distances were followed (Table 2). Additional listed facilities that EDR has not identified may exist within a 1-mile radius.

Table 2. Approximate Minimum Search Distances

Record Sources	Approximate Minimum Search Distance (miles)
Federal Databases	
National Priorities List (NPL)	1.0
Delisted NPL	0.5
CERCLA/CERCLA No Further Remedial Action Planned sites	0.5
Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) facilities	1.0
RCRA non-CORRACTS Treatment, Storage, and Disposal facilities	0.5
RCRA generators list	Subject property and adjoining
Institutional control/Engineering control registries	Subject property only
Emergency Response Notification System	Subject property only
State and Tribal Databases	
NPL/"Superfund" state equivalent	1.0
Hazardous waste facilities	0.5
Landfill and solid waste disposal site lists	0.5
Leaking storage tank lists	0.5
Registered storage tank lists	Subject property and adjoining
Institutional control/Engineering control registries	Subject property only
Voluntary cleanup sites	0.5
Brownfield sites	0.5

Source: ASTM (2021, 2023).

SWCA also reviewed supplemental records from state and federal regulatory databases maintained by Michigan EGLE (2025a–2025h), U.S. Army Corps of Engineers (2025), U.S. Department of Transportation (2025), and U.S. Environmental Protection Agency (EPA) (2025a–2025d). Appendix D provides a copy of the environmental database search report.

5.2 Environmental Database Listings

SWCA's review of the EDR database search report and supplemental records from state and federal regulatory databases found the following:

- Drexel Park Wells, located 0.93 miles northwest of the subject property at the intersection of East Maumee Street and Parr Highway, is listed in the EGLE Part 201 sites and the EGLE Inventory databases. The listing is related to a release of 1,4-dioxane that occurred in or prior to 2004. At that time an interim response had been conducted but the risks required action in the short term. No further details are provided. Part 201 sites are sites where there has been a release of a hazardous substance(s) in excess of residential criteria, and/or where corrective actions have not yet been completed to meet the applicable cleanup criteria for unrestricted residential use. Currently, a liable party or another entity is performing remediation actions at the site and state funds are not being expended.
- Brazeway, Inc., located 0.93 mile northwest of the subject property at 2711 East Maumee Street, is identified in the Superfund Environmental Management System (SEMS) – Archive database, Resource Conservation and Recovery Act (RCRA) corrective action (CORRACTS) database, and several other related listings. The SEMS listing indicates the site is not on the national priorities list. Following discovery and preliminary assessment in 1992, cleanup was deferred to RCRA (Subtitle C). The CORRACTS listing indicates that in 2009 it was determined an investigation was not necessary and the facility was assigned a low corrective action priority.
- Laidlaw Waste Systems (the closed Adrian Landfill), is located 0.5 mile north of the northwest corner of the subject property, at 1983 North Ogden Highway. This facility was listed as a Part 201 site for the contaminants chlorobenzene and chloroethane in 2004. No further information is provided. This facility is also identified as having potentially contaminated groundwater with Per- and Polyfluorinated Substances (PFAS). Groundwater at that site flows to the River Raisin, but PFAS concentrations in groundwater samples collected just north of the subject property at the Deerfield Road bridge were far below the criteria for concern.
- Adrian Oil Burner Service, located 0.35 mile from the subject property at 3438 East U.S. Highway 223, had several leaking underground storage tanks (LUSTs) in the past. The facility is also listed in other databases related to these releases. Releases were reported in 1992 (2) and 2000 (2) and are still listed as open cases. Diesel fuel tanks that were 10,000, 15,000, and 20,000 gallons in capacity, and a 6,000-gallon gasoline tank, were installed in 1966 and removed in 1999. The site is also identified as a brownfield site and the EGLE Inventory listing states the facility requires action in the short-term. Michigan's baseline environmental assessment (BEA) program allows people to purchase or begin operating at a facility without being held liable for existing contamination. A BEA was completed in 2019. The results of the BEA were not provided but the site is currently occupied by a different retail business, Adrian Pools and Spas.
- The Central Lenawee Wastewater Treatment Plant is located 0.25 mile north of the subject property at 4350 Deerfield Road. This facility is identified in the PFAS Enforcement & Compliance History Information (ECHO) database. This database is simply a list of facilities in industries that may be handling PFAS and is not an indication of actual PFAS handling, known releases, or likely contamination. Given its proximity to the subject property, it is possible that biosolids from this facility were applied on the subject property.
- Adrian Fuels, LLC is mapped on the subject property in error. However, it is actually located 6.7 miles northeast of the subject property at 4665 West U.S. Highway 223.
- Custom Top Shop is mapped on the subject property in error. However, it is actually located 6.5 miles northeast of the subject property at 4575 West U.S. Highway 223
- A clandestine drug lab (methamphetamines) is mapped in a field in the middle portion of the subject property just south of U.S. Highway 223. According to the listing the incident occurred in 2021. However, the incident actually occurred 0.57 mile east of the subject property at a

residence at 4163 Robb Highway, and the point location assigned to it is the default centroid of Palmyra Township.

- No gas transmission or hazardous liquid transmission pipelines are mapped on or adjoining the subject property. No pipeline incidents (gas) or accidents (liquid) are mapped on or adjoining the subject property.
- Five oil and gas listings are mapped on the subject property. Oil and gas test wells, listed as plugged and dry, are mapped on Parcel Nos. PA0-120-2300-00 (Terry Living Trust), PA0-128-1550-00 (Judson Farms, LLC), and PA0-129-4050-00 (Idella Wegner Trust). An oil and gas test well, with a terminated permit, mapped on Parcel No. PA0-128-1550-00 (Judson Farms, LLC). Last, a plugged mineral well is mapped on Parcel No. PA0-120-2300-00 (Terry Living Trust). Further details of the mineral well are not readily available, but this type of well includes solution mining wells, brine production wells, certain types of disposal wells, and test wells associated with mineral exploration and extraction. Appendix D provides a map of these locations on the subject property.
- EDR database search reports also identify unmapped sites (sites or facilities that are listed in one or more regulatory agency databases but that could not be readily mapped because of incomplete address or location information). Thirty unmapped sites are identified. However, these are not believed to be relevant to the subject property because of the types of listing and their distances from the subject property.

6 PROPERTY RECONNAISSANCE

Andrew Sheets of SWCA completed the Phase I ESA site investigation for the subject property on November 7, 2024. The subject property was accessed by on-site roads and by walking throughout the site. Appendix E includes photographs taken during the property reconnaissance.

6.1 Property Inspection

The subject property is entirely in rural agricultural use. It is primarily open agricultural fields, but also includes nine farmsteads, 2 residences, and several wooded areas. Electrical transmission lines cross the northern portion of the subject property in an east-west alignment and the southern portion in a northwest-southeast alignment. The fields and wooded areas appeared typical and nothing notable was observed in these areas.

The farmsteads appeared typical; most included a residence, one or more barns, one or more grain bins or silos, and various farm-related outbuildings for tractor and implement storage and other uses. The following was noted:

- A farmstead in the northwest corner of the subject property had 4 unlabeled blue polyethylene drums with a 55-gallon capacity. Some appeared to hold liquid. No signs of leaks or spills were evident near the drums.
- A barn in the northern portion of the subject property, along the east of Humphrey Highway, held three drums. No signs of leaks or spills were evident near the drums.
- Two structures at a farmstead in the east of the subject property, at the northern end of Van highway, had collapsed and could not be safely entered for observation.
- A farmstead midway up Van Highway had debris and old equipment on either side of an arched-roof enclosure used for storing tractors and other equipment. The debris included an empty 300-

gallon polyethylene tote, a few empty drums and buckets, and an empty 300-gallon aboveground storage tank (AST) for fuel. No signs of leaks or spills were evident in these areas. Soil inside the enclosure exhibited moderate oil staining from stored equipment. A few piles of tires and another empty AST were noted in the woods and brush south of the farmstead, as well as an empty metal drum and various piles of scrap and debris that could not be identified because of vegetative cover.

- A 500-gallon fuel AST was inside of an arch-roofed shelter at a farmstead southeast of Myers Highway and East Carleton Road. The tank appeared to be in serviceable condition and only minor soil staining was evident near the tank. There were a few buckets of used oil and a pallet of herbicides in jugs inside the enclosure. They appeared to be in good condition. Soil inside the enclosure exhibited moderate oil staining from stored equipment.
- A farmstead along the east of Rau Highway, in the southwestern portion of the subject property, had farm equipment stored in a barn. Moderate oil staining typical of such a barn was on the dirt/gravel floor.
- Various debris piles and burn piles were observed at several farmsteads and appeared to contain only benign trash and scrap, and vegetative materials.

Properties adjoining the subject property in all directions appeared to be in similar use and condition as the subject property. They were used for farmland and residence. Land adjoining the northeast, along the River Raisin, was wooded.

No significant quantities of hazardous substances or petroleum products were observed on or adjoining the subject property except as noted above. No evidence of significant spills or ground staining, unusual odors, or potential contamination beyond de minimis conditions was observed on or adjoining the subject property during the site reconnaissance (Table 3).

Table 3. Features, Activities, Uses, and Conditions on the Subject Property

Item	Present	Notes
Structures	Yes	Homes and farm structures
Roads	Yes	No concerns
Potable water supply/source	Yes	Assumed to be present
Sewage disposal system	Yes	Assumed to be present
Hazardous substances and petroleum products in connection with identified uses	Yes	No concerns
Storage tanks	Yes	No concerns
Strong, pungent, or noxious odors	No	Not applicable (N/A)
Standing surface water and pools or sumps containing liquids likely to be hazardous substances or petroleum products	No	N/A
Drums, totes, and intermediate bulk containers	Yes	No concerns
Hazardous substance and petroleum product containers not in connection with identified uses	No	N/A
Unidentified substance containers	Yes	No concerns
Polychlorinated biphenyl–containing items	No	N/A
Heating/Cooling	Yes	Assumed to be present
Stains or corrosion on floors, walls, or ceilings (not water)	No	N/A

Item	Present	Notes
Drains and sumps	No	N/A
Pits, ponds, or lagoons	No	N/A
Stained soil or pavement	Yes	No concerns
Unduly stressed vegetation	No	N/A
Solid waste disposal	Yes	No concerns
Water/Wastewater discharge	No	N/A
Wells	No	N/A
Septic systems or cesspools	Yes	Septic assumed to be present

7 PHASE I ENVIRONMENTAL SITE ASSESSMENT FINDINGS

The following list presents selected primary findings of this Phase I ESA:

- SWCA's review of historical topographic maps and aerial photographs dating from 1939 found that the subject property and surrounding area were open agricultural land with scattered farmsteads and residences, and remain so today. The past use of the subject property is not considered to be a REC.
- SWCA reviewed a Phase I ESA report competed by Stantec Consulting Services Inc., in 2021. The subject property of that report approximated the boundaries of the current subject property. The 2021 Phase I ESA report did not identify any RECs for the subject property.
- A Phase I ESA User Questionnaire completed by Mark Quarles, representing Rouget Road Solar Farm, LLC, on November 12, 2024, did not identify anything that SWCA considers to be a REC.
- Phase I ESA User Questionnaires were provided to subject property landowners by Rouget Road Solar Farm, LLC. As of the time of this report, eight completed questionnaires were provided to SWCA. The answers provided in returned questionnaires did not identify anything that SWCA considers to be a REC.
- SWCA's review of a November 8, 2024, EDR, environmental database search report and supplemental records from state and federal regulatory databases identified the following:
    - A release of 1,4-dioxane occurred in or prior to 2004 at the Drexel Park Wells location, 0.93 miles northwest of the subject property. At that time an interim response had been conducted but the incident required action in the short term. No further details are provided. Because of its distance from the subject property and because 21 years have passed since the release, this is not considered to be a REC for the subject property.
    - Brazeway, Inc., located 0.93 mile northwest of the subject property, is identified in the SEMS – Archive database, RCRA CORRACTS database, and several other related listings. The SEMS listing indicates the site is not on the national priorities list. Following discovery and preliminary assessment in 1992, cleanup was deferred to RCRA (Subtitle C). The RCRA CORRACTS listing indicates that in 2009 it was determined an investigation was not necessary and the facility was assigned a low corrective action priority. Because of its low priority status following an investigation, and because of its distance from the subject property, this facility is not considered to be a REC for the subject property.

  - Laidlaw Waste Systems (the closed Adrian Landfill), is located 0.5 mile north of the northwest corner of the subject property. This facility was listed as a Part 201 site (sites where there has been a release of a hazardous substance(s) in excess of residential criteria, and/or where corrective actions have not been completed to meet the applicable cleanup criteria for unrestricted residential use) for the contaminants chlorobenzene and chloroethane in 2004. No further information is provided. This facility is also identified as having potentially contaminated groundwater with Per- and Polyfluorinated Substances (PFAS). Groundwater at that site flows to the River Raisin. However, because PFAS concentrations in samples collected just north of the subject property were far below the criteria for concern, this facility is not considered to be a REC for the subject property.
  - Adrian Oil Burner Service, located 0.35 mile from the subject property, had several LUSTs in the past. Diesel fuel tanks that were 10,000, 15,000, and 20,000 gallons in capacity, and a 6,000-gallon gasoline tank, were installed in 1966 and removed in 1999. Releases were reported in 1992 (2) and 2000 (2) and are still listed as open cases. The site is also identified as a brownfield site and the EGLE Inventory listing states the facility requires action in the short-term. Michigan's BEA program allows people to purchase or begin operating at a facility without being held liable for existing contamination. A BEA was completed in 2019. The results of the BEA were not provided but the site is currently occupied by a different retail business. Because of the distance from the subject property, and considering the facility was allowed to remain occupied, these leaks are unlikely to affect the subject property and are not considered to be RECs.
  - Five oil and gas listings are mapped on the subject property. These are three oil and gas test wells listed as plugged and dry, an oil and gas test well with a terminated permit, and a plugged mineral well. Mineral wells include solution mining wells, brine production wells, certain types of disposal wells, and test wells associated with mineral exploration and extraction. Because of the types of wells and their current statuses, the wells are not considered to be RECs for the subject property.

- SWCA's reconnaissance of the subject property on November 4, 2024, verified it is primarily open agricultural fields, but also includes nine farmsteads, 2 residences, and several wooded areas. Electrical transmission lines cross the northern portion of the subject property in an east-west alignment and the southern portion in a northwest-southeast alignment. The fields and wooded areas appeared typical and nothing notable was observed in these areas. Properties adjoining the subject property in all directions appeared to be in similar use and condition as the subject property. The following was noted:
  - 55-gallon drums were observed at a few of the farmsteads. They appeared to be a good condition and no leaks or spills were noted.
  - A farmstead midway up Van Highway had debris and old equipment including an empty 300-gallon polyethylene tote and an empty 300-gallon AST for fuel. No evidence of leaks or spills were observed in these areas. Soil inside an open-ended structure exhibited moderate oil staining from stored equipment. This soil staining is considered to be a de minimis condition.
  - A few piles of tires and another empty AST were noted in the woods and brush south of the farmstead, as well as an empty metal drum and various piles of scrap and debris.
  - A 500-gallon fuel AST was inside of an open-ended structure at a farmstead southeast of Myers Highway and East Carleton Road. The tank appeared to be in serviceable condition and only minor soil staining was evident near the tank. A few buckets of used oil and a pallet of herbicides in jugs appeared to be in good condition. Soil inside the

structure exhibited moderate oil staining from stored equipment. This soil staining is considered to be a de minimis condition.

- A farmstead along the east of Rau Highway, in the southwestern portion of the subject property, had farm equipment stored in a barn. Moderate oil staining was on the dirt/gravel floor. This soil staining is considered to be a de minimis condition.
- Various debris piles and burn piles were observed at several farmsteads and appeared to contain only benign trash and scrap, and vegetative materials.

- No significant quantities of hazardous substances or petroleum products were observed on or adjoining the subject property except as noted above. No evidence of significant spills or ground staining, unusual odors, or potential contamination beyond de minimis conditions was observed on or adjoining the subject property during the site reconnaissance.

8 PHASE I ENVIRONMENTAL SITE ASSESSMENT CONCLUSIONS

SWCA has completed a Phase I ESA of the subject property based on information obtained during the site investigation and the information obtained through the activities of this Phase I ESA, excluding the limitations. The information contained in this report relates only to the subject property and should not be extrapolated or construed to apply to any other site. The description of the subject property as provided herein represents the conditions of the subject property as it existed on the date of the site reconnaissance and data source searches.

We have performed a *Phase I ESA* in conformance with the scope and limitations of ASTM International Standard E2247-23 of the ***subject property***, as described in Section 2 of this report. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this *report*. **This assessment has revealed *no RECs, controlled RECs,* or *significant data gaps* in connection with the *subject property***.

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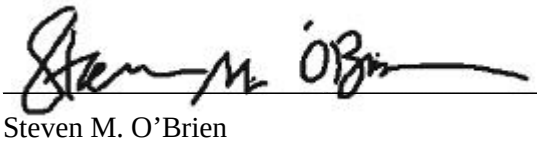
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10 SIGNATURES OF PREPARERS

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in 40 Code of Federal Regulations (CFR) 312.10. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312. Appendix A includes my qualifications.



February 7, 2025

Steven M. O'Brien
Environmental Professional / Lead Project Manager

Date

APPENDIX A

Qualifications of Preparers

SWCA ENVIRONMENTAL CONSULTANTS

STEVEN M. O'BRIEN
Environmental Professional
and Lead Project Manager

Education / Training

- B.A., Biology / Chemistry, Gettysburg College; 1994

Expertise

- Large-scale Phase I ESAs (2247-16)
- Commercial Phase I ESAs (1527-21)
- Wetlands and hydric soils
- Stream channel assessment and restoration
- State/National Environmental Policy Act (S/NEPA) documentation
- Protected species
- 404/401 permitting
- Project management

Relevant Projects

- Neary 1,000 Phase I ESAs Nationwide in 41 States
- 17 Phase I ESAs for Cell Tower Sites; WyoLink Project; Throughout Wyoming
- Many Phase I ESAs for Wind and Solar Projects in 33 states
- Painted Desert Power Solar Project Phase I ESA and report update; Coconino County, Arizona
- Perrin Ranch Phase I ESA, 43,000-acres, Coconino County, Arizona
- Phase I ESAs at 23 Sites; U.S. Army Corps of Engineers; Washington
- Phase I Environmental Site Assessment 435 Acres; Pascua Yaqui Tribe of Arizona; Pima County, Arizona
- 9 Phase I Environmental Site Assessments; Aveda Transportation and Energy Services; Multiple States
- 450,000-acre Phase I ESA for a wind energy project, Eastern Montana

Mr. O'Brien is an Environmental Professional and Lead Project Manager with 27 years of nationwide experience in environmental consulting and technical writing, including 23 years of extensive experience performing Phase I Environmental Site Assessments (ESAs). He leads SWCA's nationwide Phase I ESA Technical Work Group and is SWCA's senior Environmental Professional.

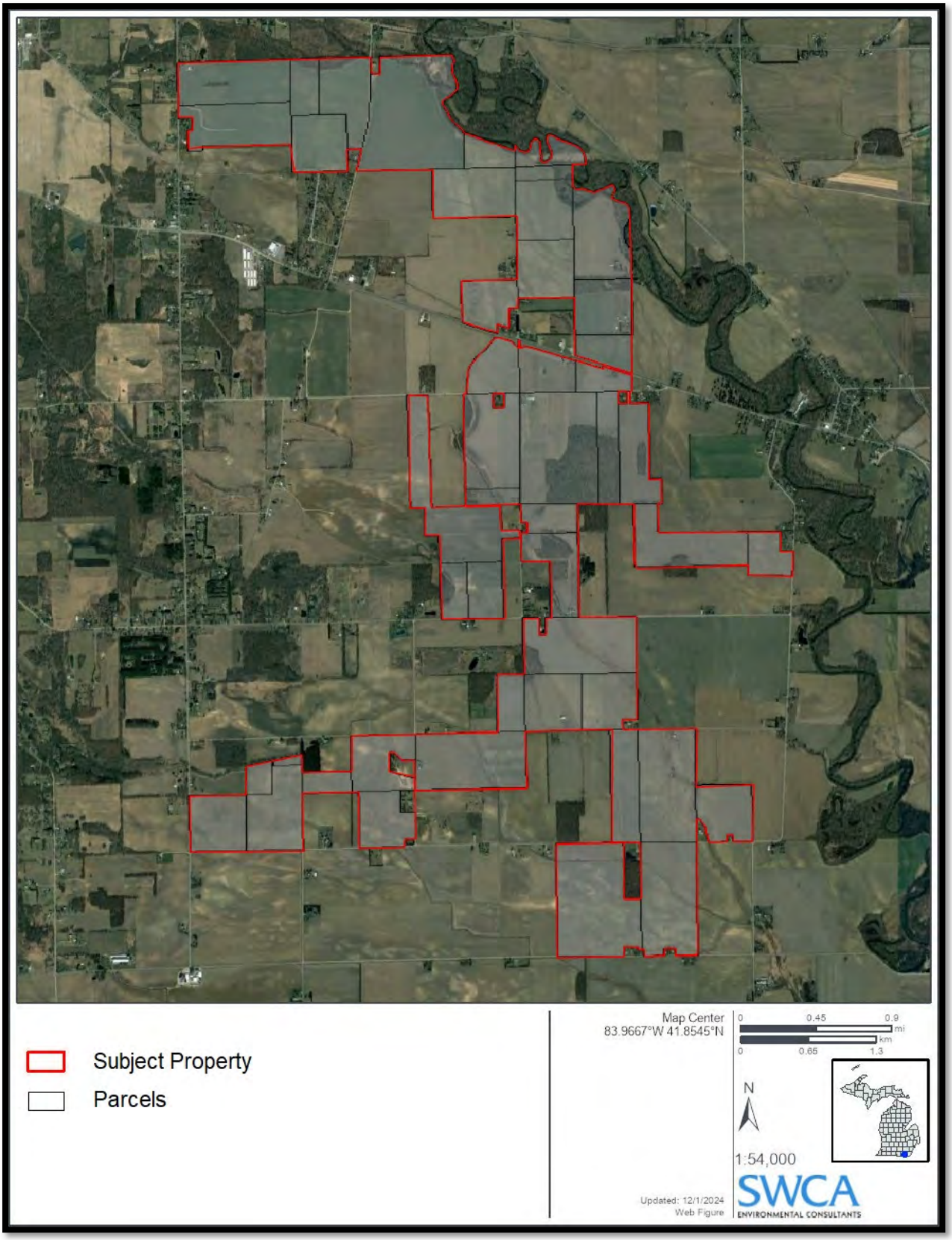
He has completed nearly 1,000 Phase I ESAs in a variety of settings in 41 states and Guam, from tiny easements to 900–square mile assemblages, including several hundred wind and solar projects in 33 states. His projects also include transmission lines and pipelines, oil and gas fields, reclaimed coal mines and landfills, U.S. EPA Superfund sites, and Department of Defense sites. His specialties include applying ASTM Standard 2247-16 for large-scale projects, performing FAA-Standard ESAs for airport projects, and applying the principles of ESAs to Environmental Baseline Surveys (EBSs) for Department of Defense sites and classification of Environmental Condition of Property area types. He manages the large and difficult Phase I ESAs for SWCA companywide. He mentors others to conduct ESAs with a focus on concise and defensible reporting techniques to satisfy clients' lenders, investors, and counsel. He also performs third party review and been an expert witness for ESA cases.

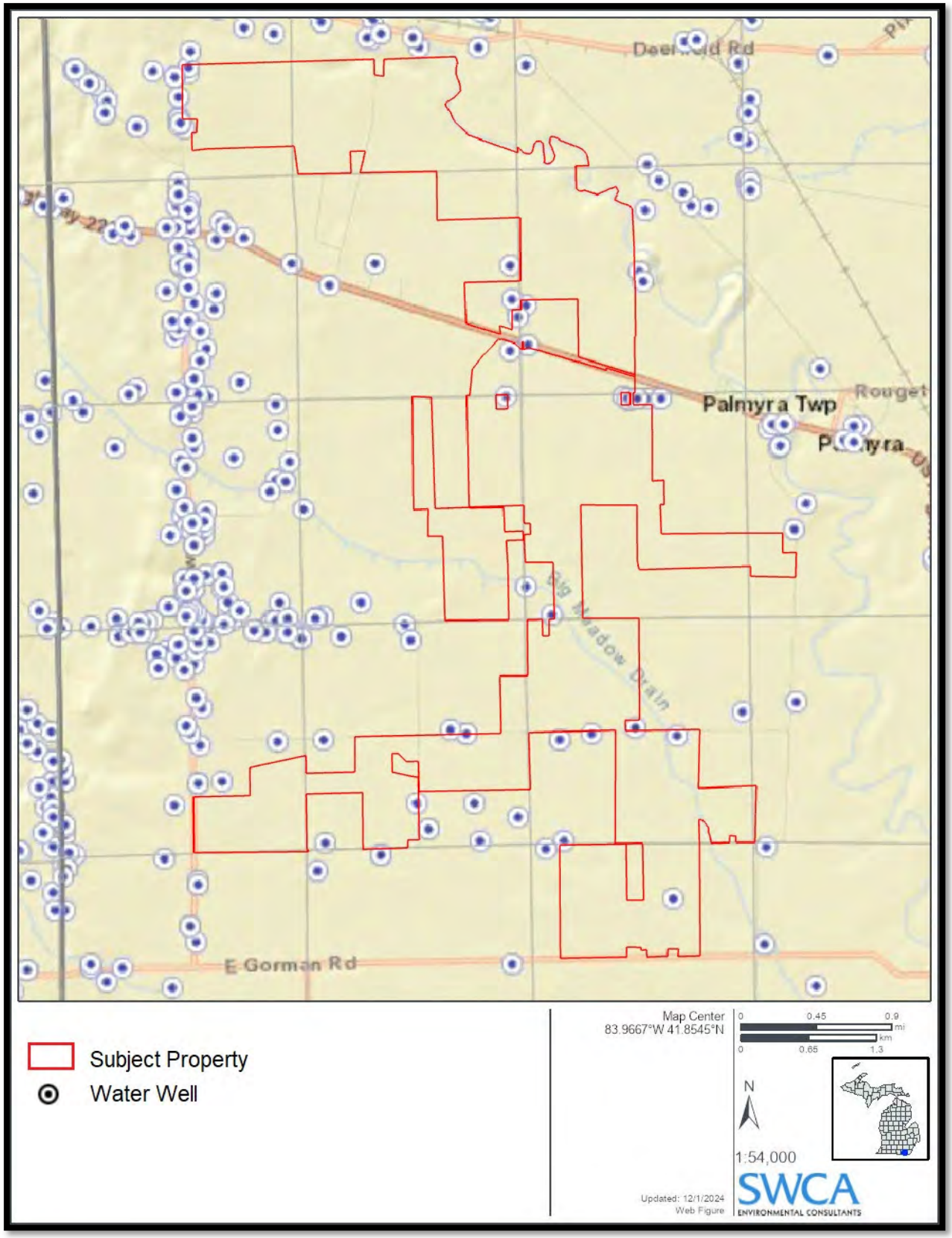
Mr. O'Brien is also experienced in performing soil mapping, wetland delineations, habitat assessments, permitting, protected species, and stream morphology assessments. He has performed assessment, design, and construction oversight for more than 250 stream stabilization sites. He has completed masters level courses in natural resources, forestry, soil characterization, and hydric soils. He has extensive experience performing construction oversight and has experience training clients, contractors, staff, and local officials.

Mr. O'Brien has extensive plant, soil, and hydrology fieldwork experience in locations from coastal marshes to deserts to high in the Rocky Mountains. He has been 40-hour Hazardous Waste and Emergency Response (HAZWOPER)–certified since 1998, earned a Watershed Training Certificate from the EPA, and a Water Supply Watershed Protection certificate.

APPENDIX B

Additional Records


Subject Property
Parcels
Map Center
83.9667°W 41.8545°N
0
0.45
0.9
mi
km
0
0.65
1.3
N
1:54,000
Updated: 12/1/2024
Web Figure
SWCA
ENVIRONMENTAL CONSULTANTS


Deerfield Rd
Palmyra Twp
Rouget
Big Meadow Drain
E Gorman Rd
Subject Property
Water Well
Map Center
83.9667°W 41.8545°N
0
0.45
0.9
mi
km
0
0.65
1.3
N
1:54,000
Updated: 12/1/2024
Web Figure
SWCA
ENVIRONMENTAL CONSULTANTS

APPENDIX C

Correspondence

PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)
INITIAL DATA REQUEST

As part of the Phase I ESA process, there is some standard information that we'll need for the report. Please provide the following to SWCA:

1) The name of the project/site, as you want it to appear in the report.
Rouget Road Solar Farm

2) To whom the report should be addressed: Name/Entity/Mailing Address.
Mark Quarles, RWE Clean Energy, 353 North Clark Street, Chicago IL 60654

3) Name(s) of any additional party relying on the report.

None

4) The date you need the completed report.

Per our contract

5) The reason the Phase I ESA is being performed (i.e., liability protection, lender requirement, property purchase, etc.).

Due diligence

6) Contact information for property owners and/or managers.

To be provided separately

~~7) Mapping of the site boundaries in KMZ or Shapefile format, if not already provided.~~

8) A completed Phase I ESA User Questionnaire. Answers of n/a or unknown are fine. No signature is needed. To be completed by each party relying on the Phase I ESA, not the property owner.

PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)

***USER* QUESTIONNAIRE**

(*to be completed by each party that will rely upon the report*)

Completed by: Mark Quarles, Environmental & Permitting Manager

Date: November 12, 2024

Site Name: Rouget Road Solar Project

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections (LLPs)* [1] offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments")[2], the *user* must conduct the following inquires required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *user* should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

The *user* is defined as "the party seeking to use Practice E1527 to complete an *environmental site assessment* of the *property*. A *user* may include, without limitation, a potential purchaser of *property*, a potential tenant of *property*, an owner of *property*, a lender, or a *property* manager. The *user* has specific obligations for completing a successful application of this practice outlined in Section 6" of ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

1) Environmental cleanup liens that are filed or recorded against the *property* (40 CFR 312.25) – Did a search of *recorded land title records* (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed against the *property* under federal, tribal, state, or local law? (X) Yes ( ) No
If yes, please describe: None found in search of recorded records.

Note 1 – In certain jurisdictions, federal, tribal, state, or local statuses, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

2) Activity and land use limitations that are in place on the *property* or that have been filed or recorded against the *property* (40 CFR 312.26(a)(1)(v) and vi) – Did a search of *recorded land title records* (or judicial records where appropriate, see Note 1 above) identify any Activity and Use Limitations (AULs), such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the *property* and/or have been filed or recorded against the *property* under federal, tribal, state or local law? ( ) Yes ( ) No. If yes, please describe: Not yet determined

[1] *Landowner Liability Protections, or LLPs*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability ("Common Elements" Guide*) issued on March 6, 2003.

[2] Public Law 107-118.

3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28) - Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? ( ) Yes (X) No If yes, please explain:

4) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29) – Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? (X) Yes ( ) No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? ( ) Yes ( ) No If yes, please describe:

5) Commonly known or *reasonably ascertainable information about the property* (40 CFR 312.30) – Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,

a. Do you know the past uses of the *property*? Primarily rural agricultural land

b. Do you know of specific chemicals that are present or once were present at the *property*? No

c. Do you know of spills or other chemical releases that have taken place at the *property*? No

d. Do you know of any environmental cleanups that have taken place at the *property*? No

e. Do you know of any previous Phase I Environmental Site Assessment performed for the *property*? (X) Yes ( ) No. If yes, can copies be provided? Stantec, Rouget Road Solar Phase I Environmental Site Assessment, April 20, 2021.

f. If available, please provide contact information for someone knowledgeable about past uses of the *property* (present or past owner, operator or occupant). Current landowners to be interviewed by SWCA.

6) The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31) – Based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of releases at the *property*? ( ) Yes (X) No If yes, please describe:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project PA0-116-1100-00
PA0-117-4925-0000

Date: 11/21/24

Name: Larry Frye

Company:

Phone: 517-759-2331 Email:

1. How many years have you owned, occupied, or been associated with the property? 75

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes X No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes X No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes X No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes X No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes X No __Unknown

If yes, explain.

20. Additional Comments:

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7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes X No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes X No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes X No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project PA0-129-4050-00

Date: 11/21/2024

Name: MARK WEGNER

Company:

Phone: 734417 4538 Email: mwegner@frontier.com

1. How many years have you owned, occupied, or been associated with the property? 60

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes X No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes X No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes X No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes X No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes X No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes X No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes X No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes X No __Unknown

If yes, explain.

20. Additional Comments:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project PA0-120-4600-00
PA0-120-4600-00

Date: 11-21-24

Name: DEAN + SANDRA ROBACK

Company:

Phone: 517 270-2359 Email: sandiroback@yahoo.com

1. How many years have you owned, occupied, or been associated with the property? 47 yrs.

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes X No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes X No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes __No __Unknown
NA

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes X No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes X No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes X No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes X No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes X No __Unknown

If yes, explain.

20. Additional Comments:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project

PA0-121-3650-00
PA0-128-1050-00

Date: 11-21-24

Name: David Terry

Company:

Phone: 570-673-3454 Email: terry dave 13 @ small 3

1. How many years have you owned, occupied, or been associated with the property? 11

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes ✓No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes ✓No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes ✓No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes ✓No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes ✓No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes ✓No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes ✓No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes __X__No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes __X__No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes __X__No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes __X__No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes __X__No __Unknown

If yes, explain.

20. Additional Comments:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project PA0-128-4750-00

Date: 11-21-24

Name: Gary Sheldon

Company: Sheldon Farms LLC

Phone: 517-673-2333 Email: Sheldonfarms84@gmail.com

1. How many years have you owned, occupied, or been associated with the property? 6 or 7 years

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes X No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes X No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes X No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes X No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes X No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes X No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes X No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes X No __Unknown

If yes, explain.

20. Additional Comments:

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project PA0-107-4025-00

Date: 11/21/24
Name: DEBORAH COMSTOCK
Company: The Lenawee Voice
Phone: 517-263-3530 Email: comstockdjc@aol.com

1. How many years have you owned, occupied, or been associated with the property? 70

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown
   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown
   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes __No X Unknown
   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown
   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown
   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes __No X Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
X Yes __No __Unknown

If yes, explain Gas tanks on property when farmed. Since Removed

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes X No __Unknown New well just installed and chlored

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes X__No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes X__No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes X__No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes X__No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes X__No __Unknown

If yes, explain.

20. Additional Comments:

Please return this form to sobrien@swca.com

This form conforms to ASTM Standard Practice for Limited Environmental Due Diligence, E1528-14. West Conshohocken, PA: ASTM, 2014.

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PA0-133-2050-00
PA0-133-1800-00

PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

PA0-130-4555-00
PA0-130-4400-00
PA0-130-4800-00
PA0-[illegible]-3200-00
129
PA0-129-3800-00

Rouget Road Solar Project

Date: 11/21/24

Name: Jane Allen

Company: Engel Family Farm

Phone: 517 242-45[illegible] Email: janeeallen@yahoo.com

1. How many years have you owned, occupied, or been associated with the property? 150

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes X No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes X No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes X No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes X No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes X No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes X No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes __X__No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes __X__No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes __X__No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes __X__No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes __X__No __Unknown

If yes, explain.

20. Additional Comments:

Please return this form to sobrien@swca.com

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PA0-117-2300-00
PA0-108-4800-00
PA0-109-3550-00
PA0-108-3550-00
PA0-108-3050-00
PA0-107-4550-00

PHASE I ENVIRONMENTAL SITE ASSESSMENT
LANDOWNER QUESTIONNAIRE

Rouget Road Solar Project

Date: 11-21-2024

Name: Jeff and Eileen Creque

Company: Jeff Creque Farms, Inc

Phone: 419-829-2941 Email:

1. How many years have you owned, occupied, or been associated with the property? 20+

2. To the best of your knowledge, has the property or any adjoining property been previously used for or is currently used for industrial use?
   __Yes X No __Unknown

   If yes, explain.

3. To the best of your knowledge has the property or any adjoining property been previously used or is currently used as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory' junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?
   __Yes X No __Unknown

   If yes, explain.

4. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemical in individual containers of greater than 5 gallon in volume or 50 gallon in the aggregate, stored on or used at the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

5. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?
   __Yes X No __Unknown

   If yes, explain.

6. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site or that is of an unknown origin?
   __Yes X No __Unknown

   If yes, explain.

7. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?
__Yes __X__No __Unknown

If yes, explain.

8. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?
__Yes __X__No __Unknown

If yes, explain.

9. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on this property?
__Yes __X__No __Unknown

If yes, explain.

10. Are there currently, or to the best of your knowledge have there been previously, leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?
__Yes __X__No __Unknown

If yes, explain.

11. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?
__Yes __X__No __Unknown

If yes, explain.

12. Do you have any knowledge of environmental liens or governmental notifications relating to the past or recurrent violations of environmental laws with respect to the property or any facility located on the property?
__Yes __X__No __Unknown

If yes, explain.

13. Have you been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?
__Yes __X__No __Unknown

If yes, explain.

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15. Do you have any knowledge of any environmental assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assistance of the property?
__Yes __X__No __Unknown

If yes, explain.

16. Do you know of any past, threatened, or pending lawsuits of administrative proceeding concerning a release or threatened release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?
__Yes __X__No __Unknown

If yes, explain.

17. Does the property discharge wastewater (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary waste or storm water system?
__Yes __X__No __Unknown

If yes, explain.

18. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, cattle dipping troughs, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried, and/or burned on the property?
__Yes __X__No __Unknown

If yes, explain.

19. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?
__Yes __X__No __Unknown

If yes, explain.

20. Additional Comments:

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APPENDIX D

Environmental Database Records

78878 Rouget Road Site
78878 Rouget Road Site
Palmyra, MI 49268

Inquiry Number: 7816996.2s
November 08, 2024

EDR Area / Corridor Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Mapped Sites Summary	2
Key Map	2
Map Findings Summary	3
Focus Maps	7
Map Findings	45
Orphan Summary	OR-1
Government Records Searched/Data Currency Tracking	GR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

78878 ROUGET ROAD SITE
PALMYRA, MI 49268

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

STANDARD ENVIRONMENTAL RECORDS

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

A review of the LUST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 LUST site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
A DRIAN FUELS LLC Release Status: Closed Substance Release: Unknown Facility Id: 00005933	***4665 W US 223 ROUTE***	***1 / 10***	***44***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CDL: Clandestine Drug Lab Listing

A review of the CDL list, as provided by EDR, and dated 07/17/2024 has revealed that there is 1 CDL site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
Not reported		2 / 10	45

Other Ascertainable Records

Financial Assurance: Financial Assurance Information Listing

A review of the Financial Assurance list, as provided by EDR, has revealed that there is 1 Financial Assurance site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
A DRIAN FUELS LLC	***4665 W US 223 ROUTE***	***1 / 10***	***44***
Database: FIN ASSURANCE 3, Date of Government Version: 06/24/2024			

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

A review of the CORRACTS list, as provided by EDR, and dated 06/03/2024 has revealed that there is 1 CORRACTS site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
BRAZEWAY INC.	***2711 E. MAUMEE STREE***	***NW 1/2 - 1 (0.974 mi.)***	***A8 / 1***	***56***
EPA ID:: MID005035910				

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

A review of the LUST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 LUST site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
ADRIAN OIL BURNER SE	***3438 E US HIGHWAY 22***	***SSW 1/4 - 1/2 (0.382 mi.)***	***4 / 4***	***48***
Release Status: Open Substance Release: Unknown				

Substance Release: Diesel,Kerosene
Facility Id: 9190
Facility Id: 00009190

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and UST Site Database

A review of the BROWNFIELDS list, as provided by EDR, has revealed that there is 1 BROWNFIELDS site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
ADRIAN OIL BURNER SE	***3438 E US HIGHWAY 22***	***SSW 1/4 - 1/2 (0.382 mi.)***	***4 / 4***	***48***
Database: BROWNFIELDS, Date of Government Version: 04/16/2024 Facility Id: 00009190 Ernie Id Number: 46000037				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

PART 201: Part 201 Site List

A review of the PART 201 list, as provided by EDR, and dated 07/15/2024 has revealed that there are 3 PART 201 sites within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
LAIDLAW WASTE SYSTEM	***1983 N OGDEN HWY***	***N 1/2 - 1 (0.542 mi.)***	***5 / 2***	***53***
Facility Status: Contact Lead Division for current status Facility ID: 46000009				
DREXEL PARK WELLS	***E. MAUMEE AT PARR***	***NW 1/2 - 1 (0.923 mi.)***	***7 / 1***	***55***
Facility Status: Interim Response conducted Facility ID: 46000159				
BRAZEWAY INC-ADRIAN	***2711 EAST MAUMEE STR***	***NW 1/2 - 1 (0.974 mi.)***	***A9 / 1***	***135***
Facility Status: Interim Response in progress Facility ID: 46000168				

INVENTORY: Inventory of Facilities

A review of the INVENTORY list, as provided by EDR, and dated 07/15/2024 has revealed that there is 1 INVENTORY site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
ADRIAN OIL BURNER SE	***3438 E US HIGHWAY 22***	***SSW 1/4 - 1/2 (0.382 mi.)***	***4 / 4***	***48***
Facility ID: 00009190				

DEL PART 201: Delisted List of Contaminated Sites

A review of the DEL PART 201 list, as provided by EDR, and dated 07/15/2024 has revealed that there is 1 DEL PART 201 site within approximately1 mile of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
MICH PRODUCERS DAIRY Facility Id: 46000014	3518 OGDEN HWY	S 1/2 - 1 (0.625 mi.)	6 / 5	55

Other Ascertainable Records

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

A review of the PFAS ECHO list, as provided by EDR, and dated 07/01/2024 has revealed that there is 1 PFAS ECHO site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
CENTRAL LENAWEE WWTP	***4350 DEERFIELD ROAD***	***N 0 - 1/8 (0.102 mi.)***	***3 / 5***	***45***

BEA: Baseline Environmental Assessment Database

A review of the BEA list, as provided by EDR, and dated 08/15/2024 has revealed that there is 1 BEA site within approximately 0.5 miles of the requested target property.

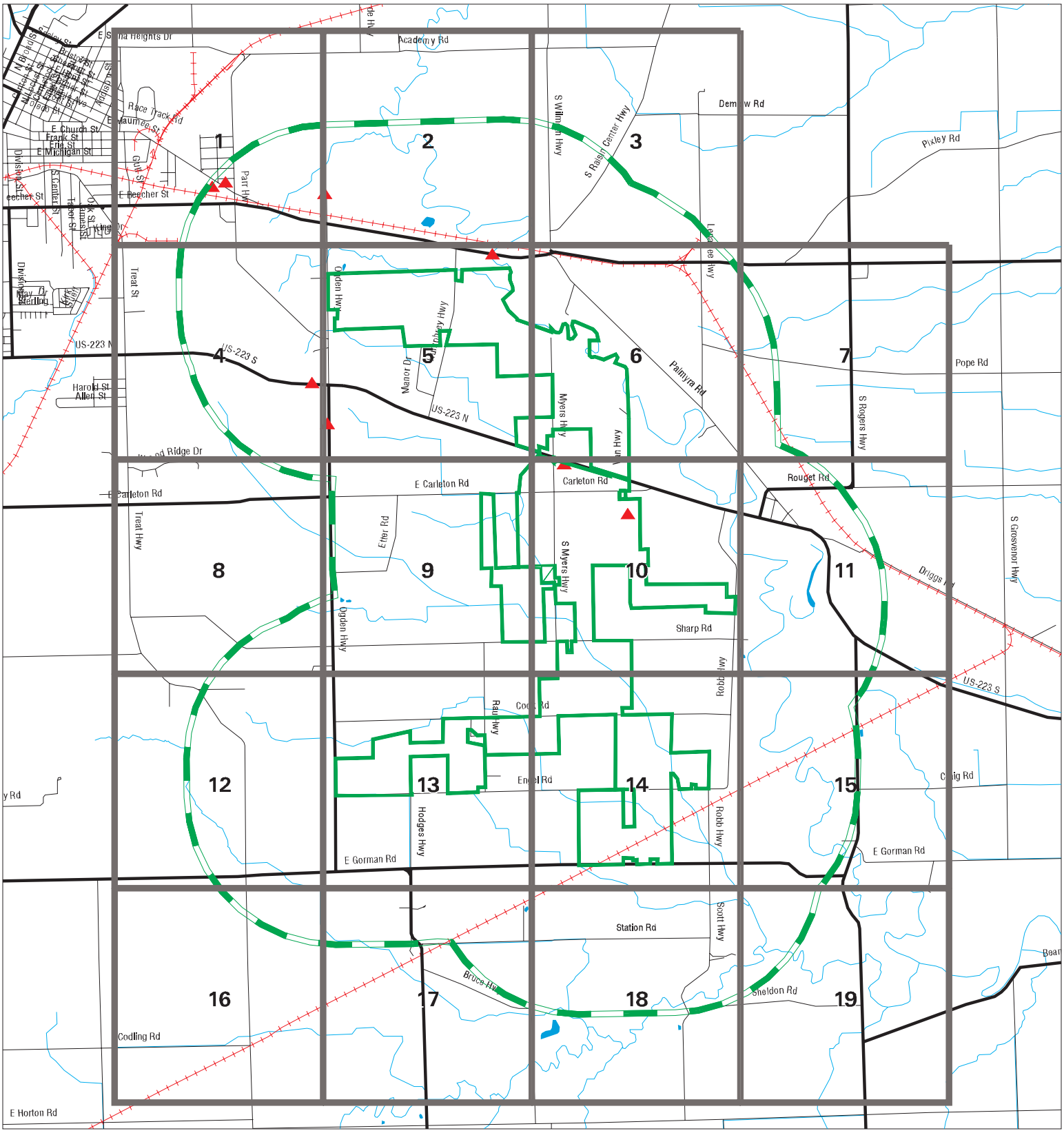
Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
ADRIAN OIL BURNER SE	***3438 E US HIGHWAY 22***	***SSW 1/4 - 1/2 (0.382 mi.)***	***4 / 4***	***48***

MAPPED SITES SUMMARY

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
1 / 10	A DRIAN FUELS LLC	4665 W US 223 ROUTE	LUST, Financial Assurance	TP		
2 / 10			CDL	TP		
3 / 5	CENTRAL LENAWEE WWTP	4350 DEERFIELD ROAD	FINDS, ECHO, PFAS ECHO, BIOSOLIDS	538	0.102	North
4 / 4	ADRIAN OIL BURNER SE	3438 E US HIGHWAY 22	LUST, UST, BROWNFIELDS, INVENTORY, BEA, ...	2015	0.382	SSW
5 / 2	LAIDLAW WASTE SYSTEM	1983 N OGDEN HWY	INVENTORY, PART 201, AIRS, WDS	2860	0.542	North
6 / 5	MICH PRODUCERS DAIRY	3518 OGDEN HWY	DEL PART 201	3302	0.625	South
7 / 1	DREXEL PARK WELLS	E. MAUMEE AT PARR	PART 201, INVENTORY	4875	0.923	NW
A8 / 1	BRAZEWAY INC.	2711 E. MAUMEE STREE	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-	5144	0.974	NW
A9 / 1	BRAZEWAY INC-ADRIAN	2711 EAST MAUMEE STR	AUL, INVENTORY, PART 201, NPDES, WDS, EN...	5144	0.974	NW

Key Map - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/2 1 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24 12:22 PM

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	1	NR	1
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500	1	0	0	1	NR	NR	2

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
PART 201	1.000		0	0	0	3	NR	3
INVENTORY	0.500		0	0	1	NR	NR	1
CDL	TP	1	NR	NR	NR	NR	NR	1
DEL PART 201	1.000		0	0	0	1	NR	1
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		1	0	NR	NR	NR	1
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
BEA	0.500		0	0	1	NR	NR	1
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP	1	NR	NR	NR	NR	NR	1
LEAD	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
ENVIRO	TP		NR	NR	NR	NR	NR	0
SSCUP	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA PART 201	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		3	1	0	4	5	0	13

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION		
7 / 1	DREXEL PARK WELLS	E. MAUMEE AT PARR	PART 201, INVENTORY	4875	0.923	NW
A8 / 1	BRAZEWAY INC.	2711 E. MAUMEE STREE	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-	5144	0.974	NW
A9 / 1	BRAZEWAY INC-ADRIAN	2711 EAST MAUMEE STR	AUL, INVENTORY, PART 201, NPDES, WDS, EN...	5144	0.974	NW

Focus Map - 2 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

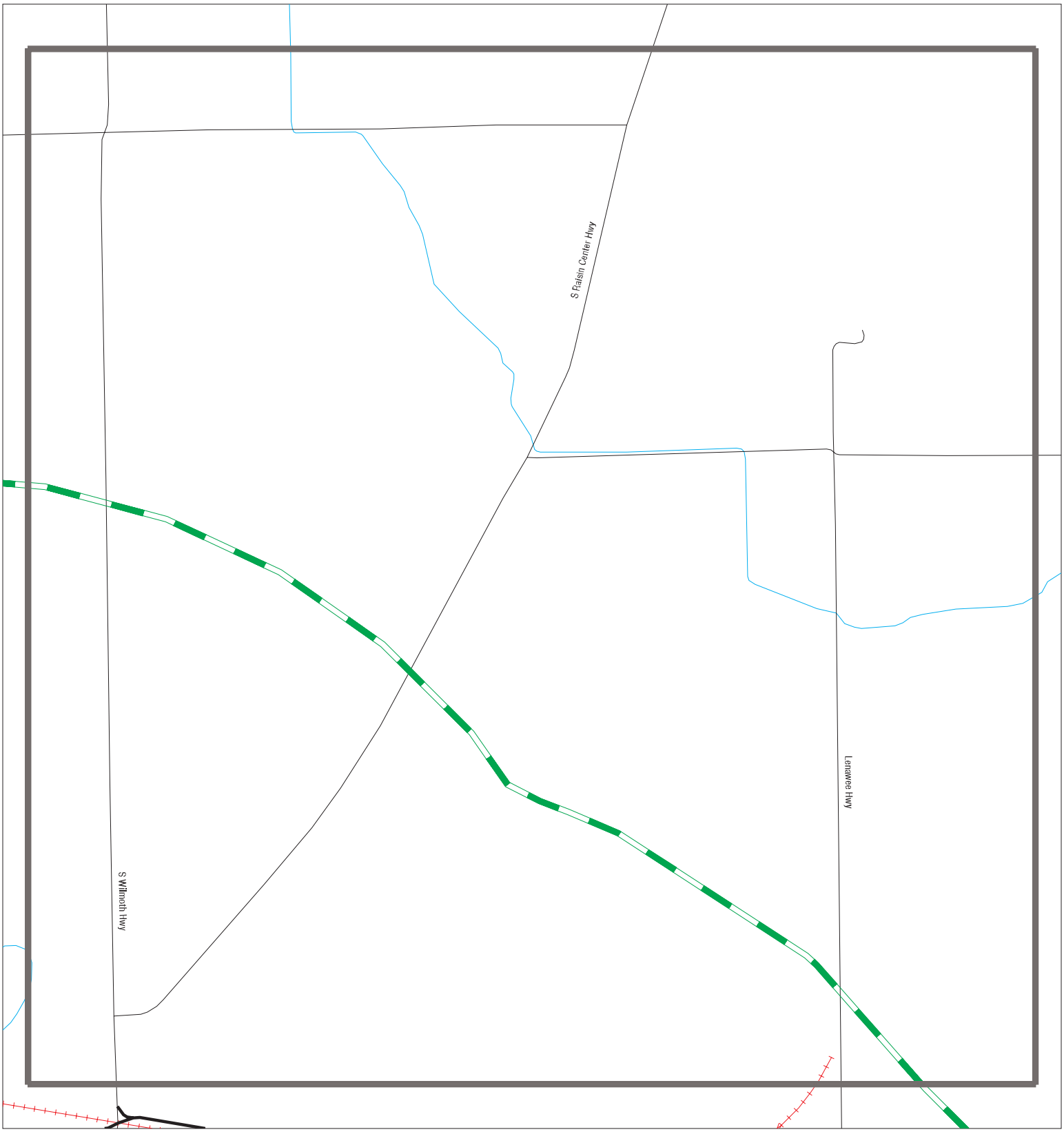
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MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
5 / 2	LAIDLAW WASTE SYSTEM	1983 N OGDEN HWY	INVENTORY, PART 201, AIRS, WDS	2860 0.542 North

Focus Map - 3 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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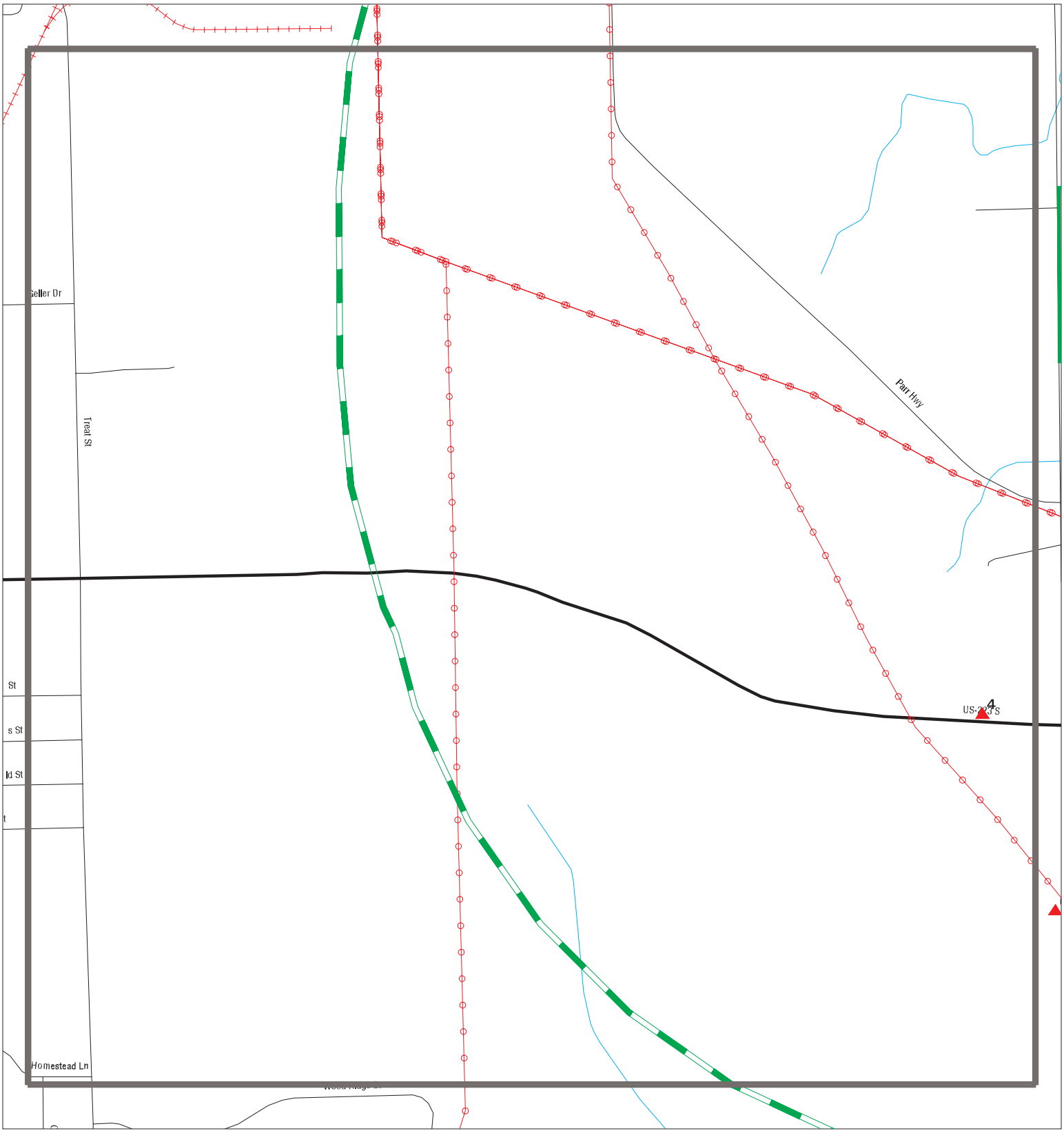
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 4 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

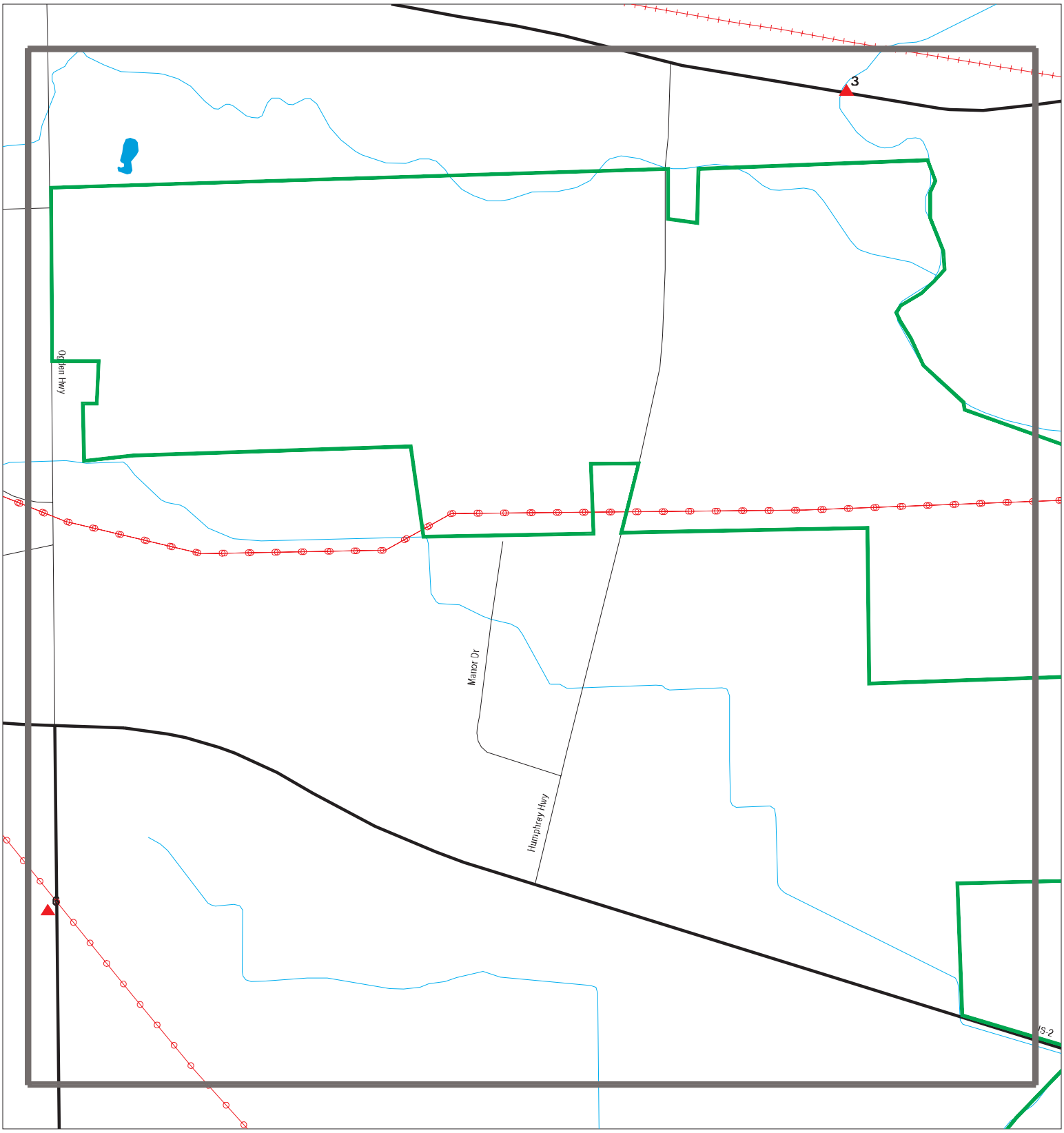
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MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
4 / 4	ADRIAN OIL BURNER SE	3438 E US HIGHWAY 22	LUST, UST, BROWNFIELDS, INVENTORY, BEA, ...	2015 0.382 SSW

Focus Map - 5 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
3 / 5	CENTRAL LENAWEE WWTP	4350 DEERFIELD ROAD	FINDS, ECHO, PFAS ECHO, BIOSOLIDS	538 0.102 North
6 / 5	MICH PRODUCERS DAIRY	3518 OGDEN HWY	DEL PART 201	3302 0.625 South

Focus Map - 6 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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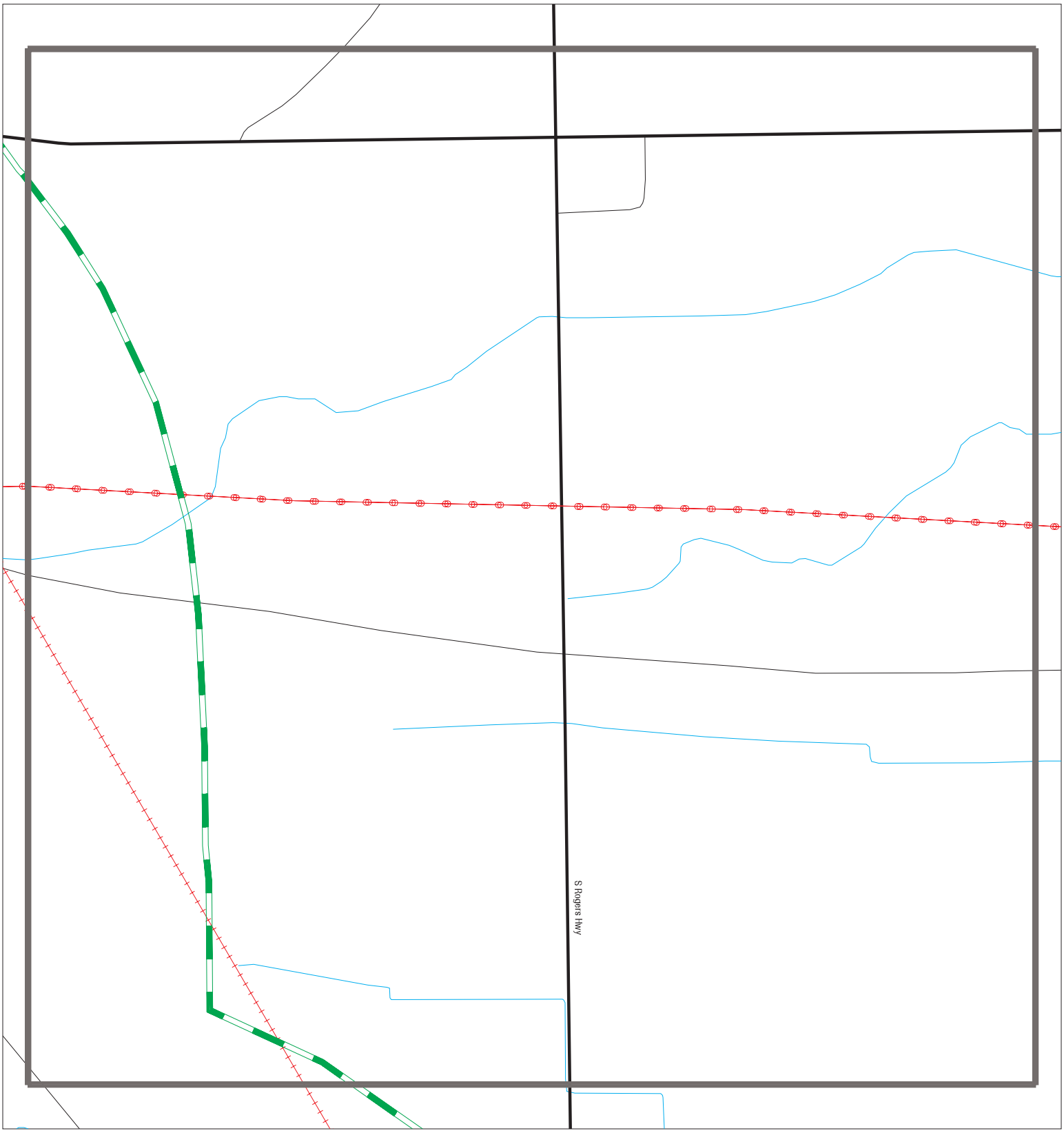
MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 7 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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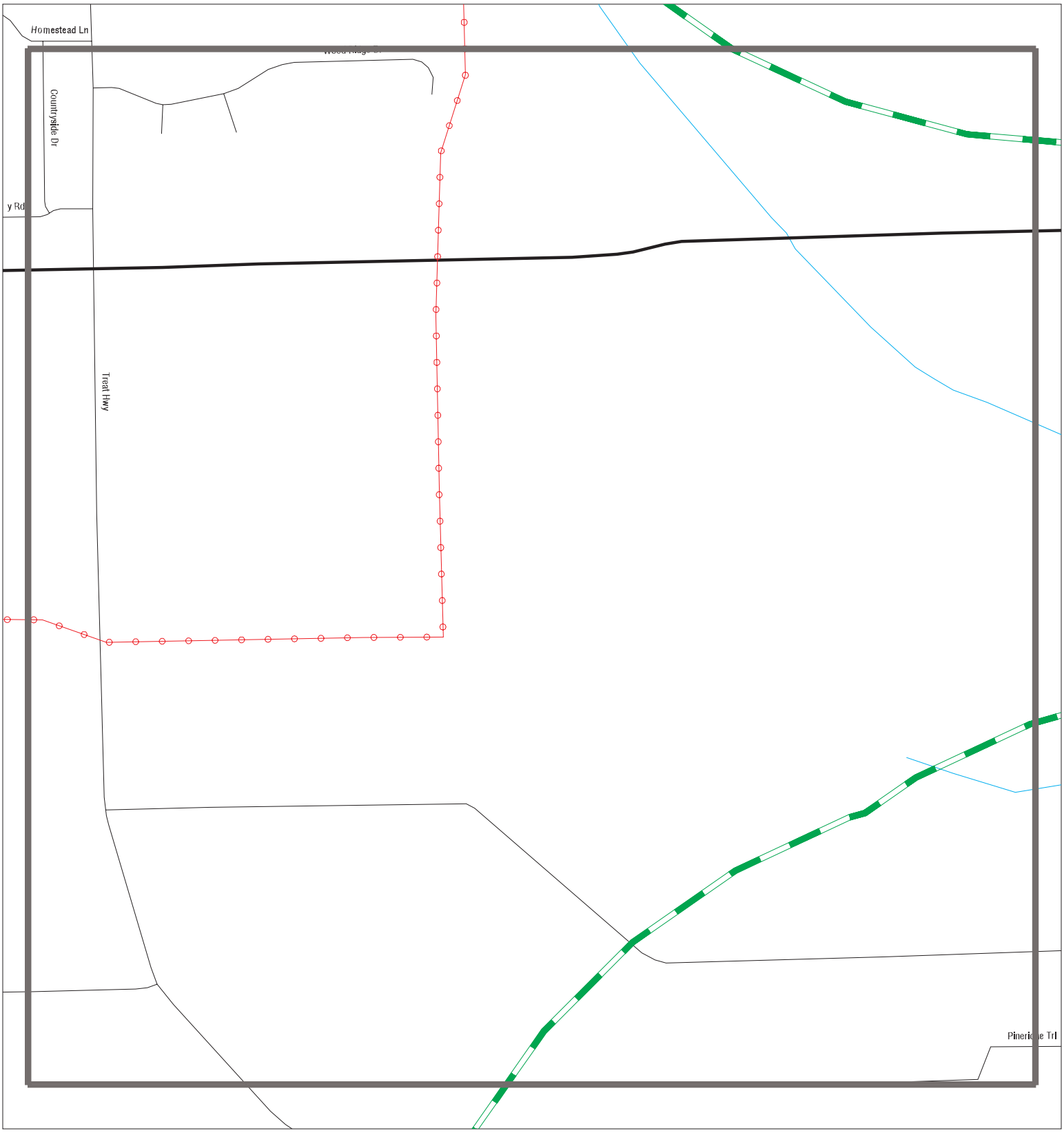
MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 8 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 9 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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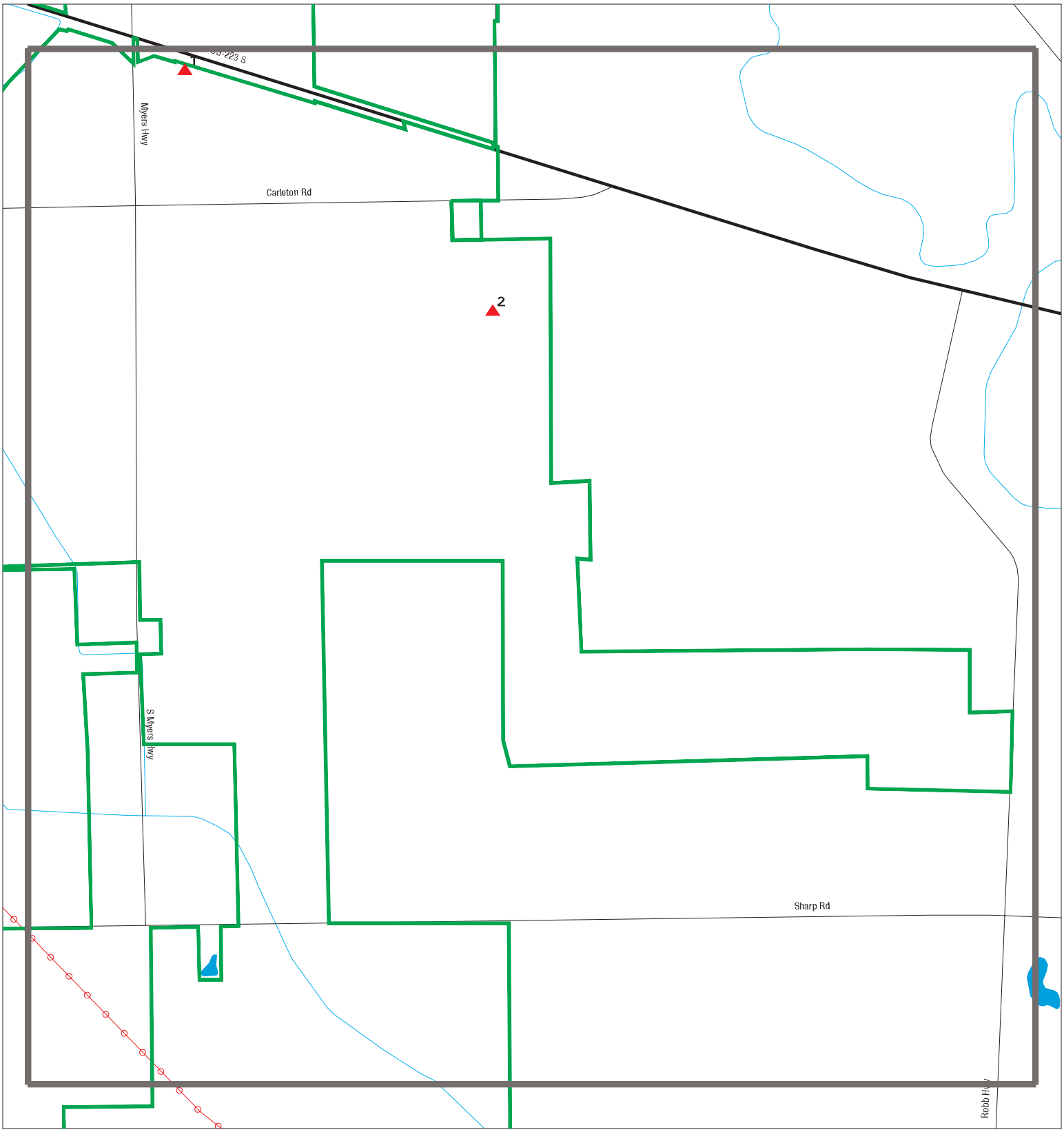
MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 10 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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MAPPED SITES SUMMARY - FOCUS MAP 10

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
1 / 10	A DRIAN FUELS LLC	4665 W US 223 ROUTE	LUST, Financial Assurance	TP
2 / 10			CDL	TP

Focus Map - 11 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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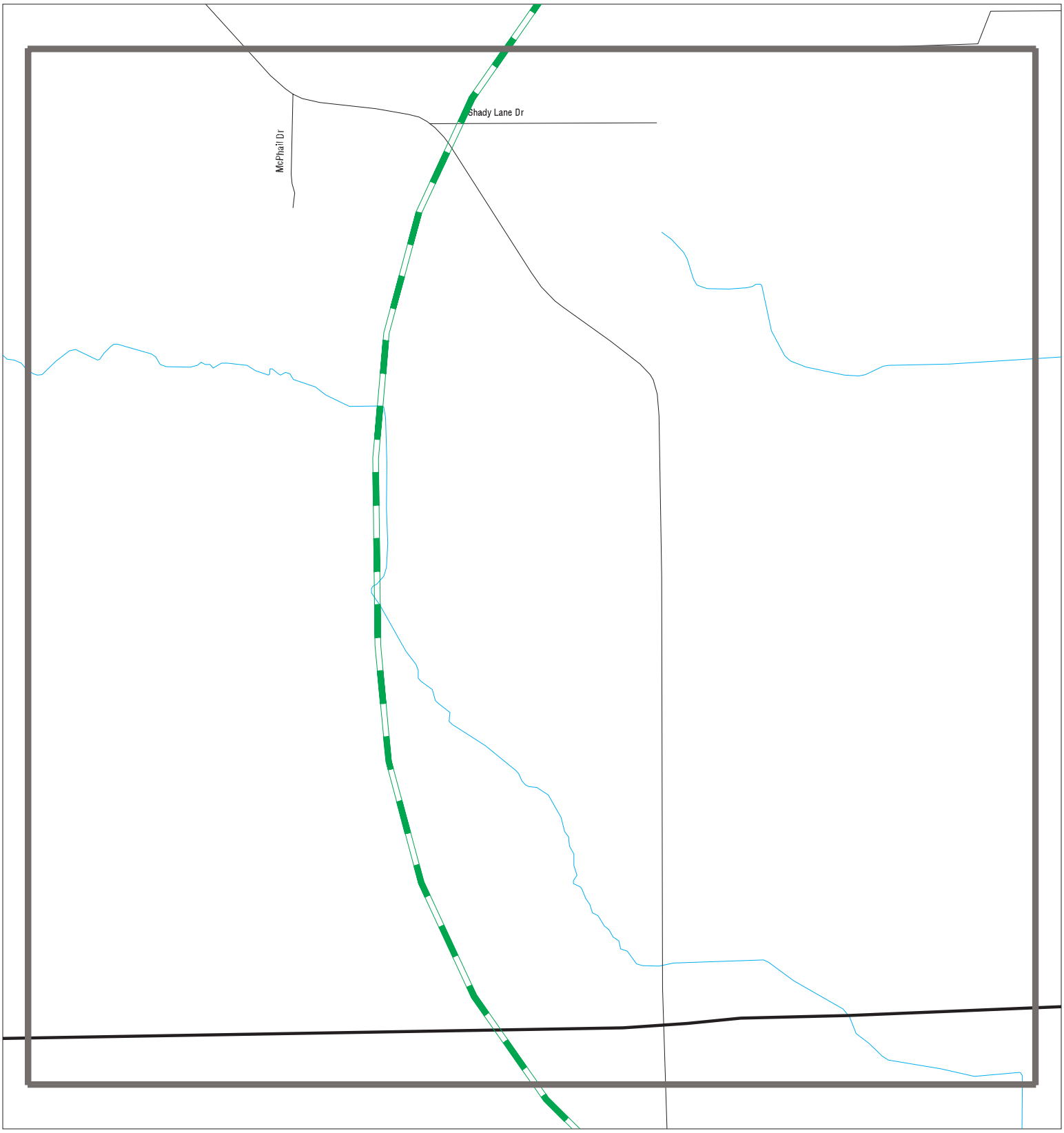
MAPPED SITES SUMMARY - FOCUS MAP 11

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 12 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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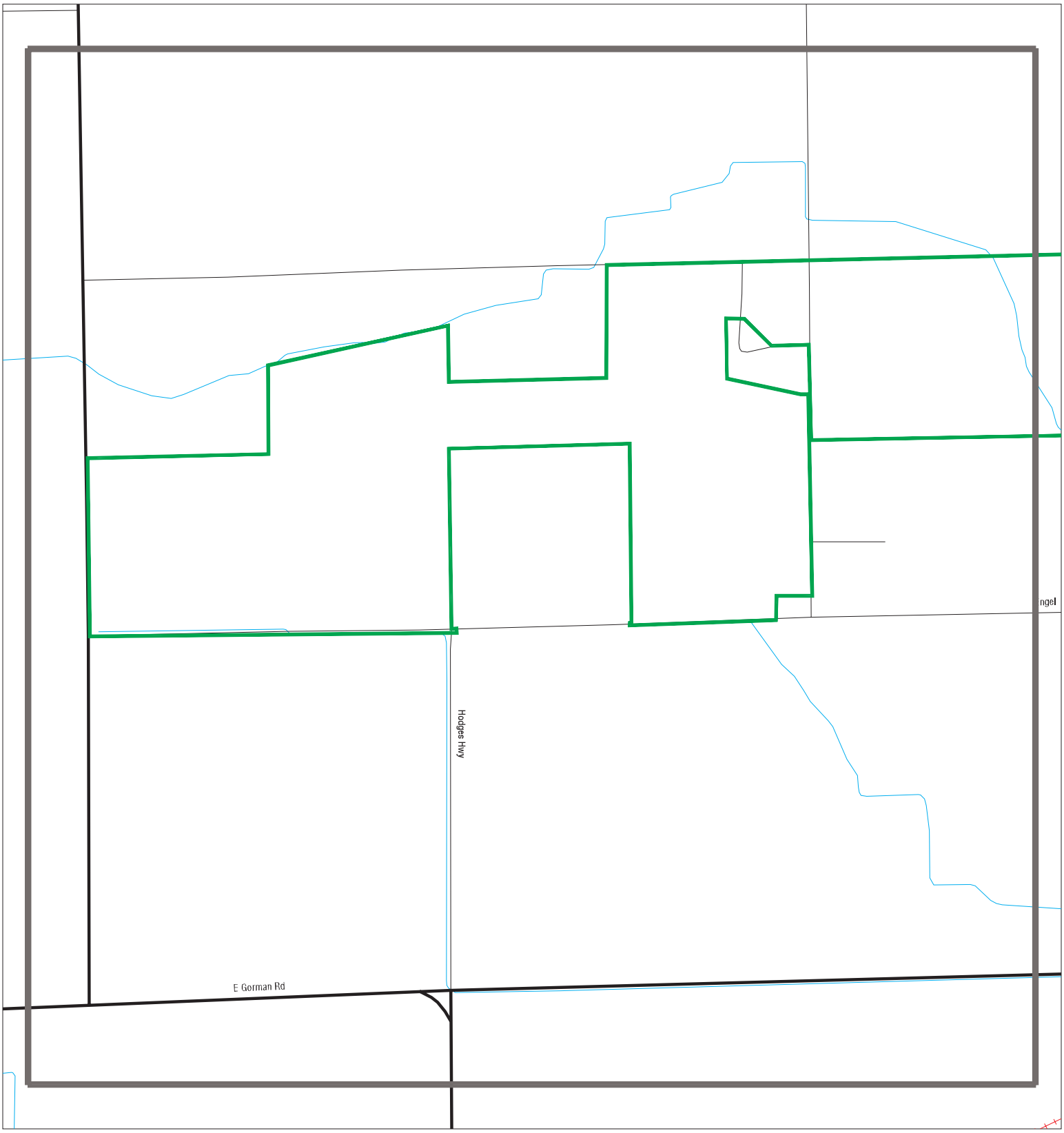
MAPPED SITES SUMMARY - FOCUS MAP 12

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 13 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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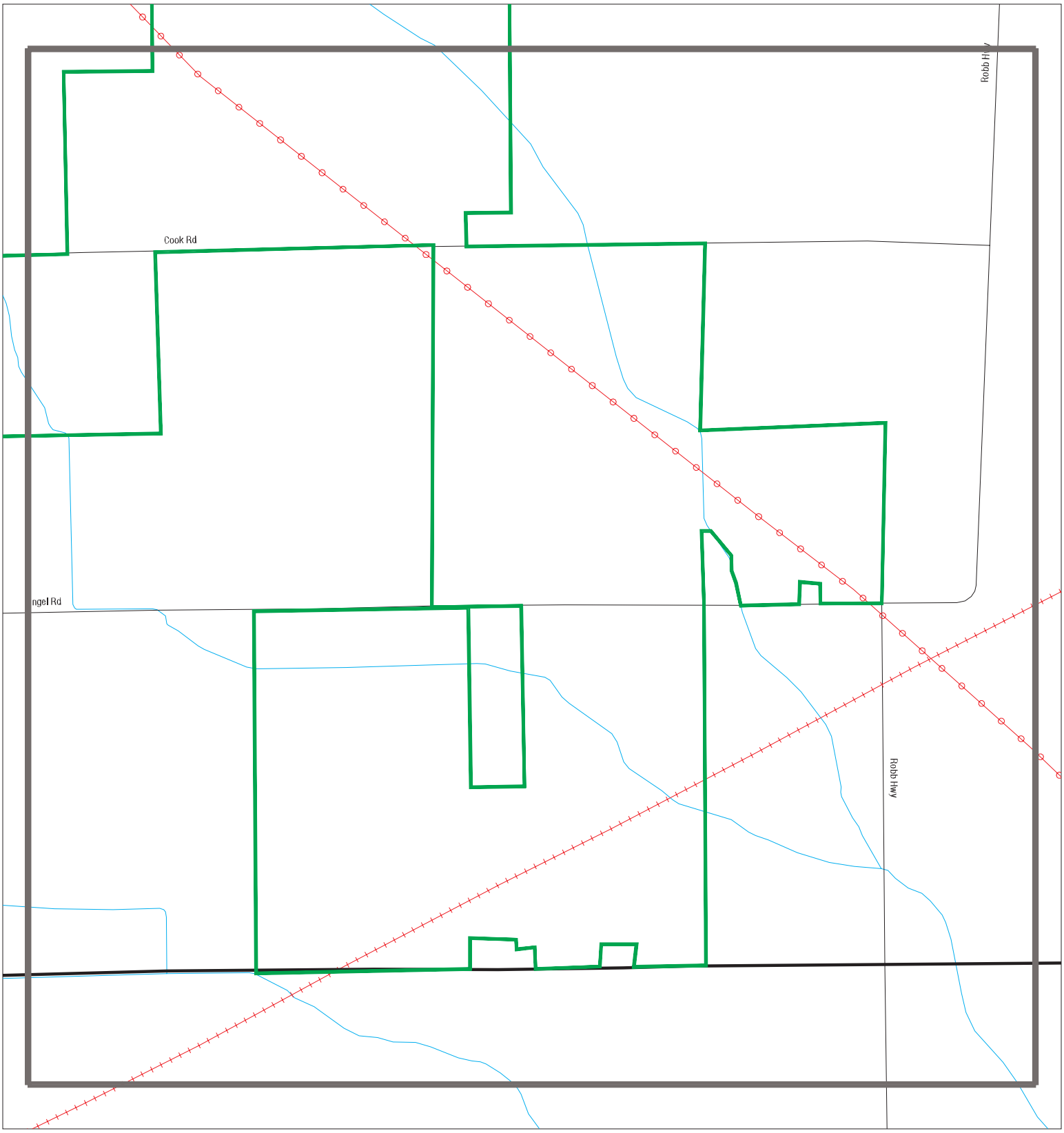
MAPPED SITES SUMMARY - FOCUS MAP 13

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 14 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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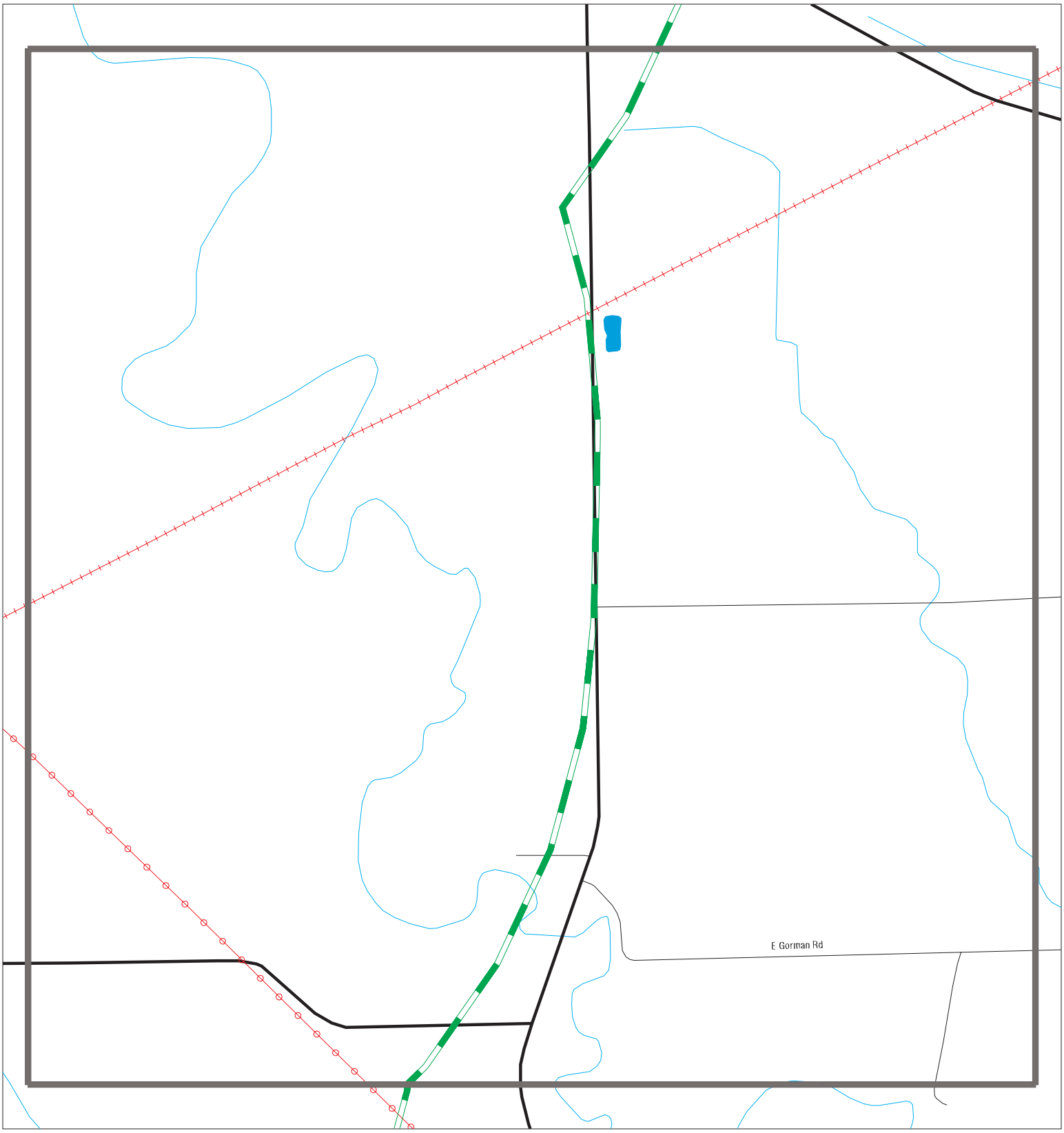
MAPPED SITES SUMMARY - FOCUS MAP 14

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 15 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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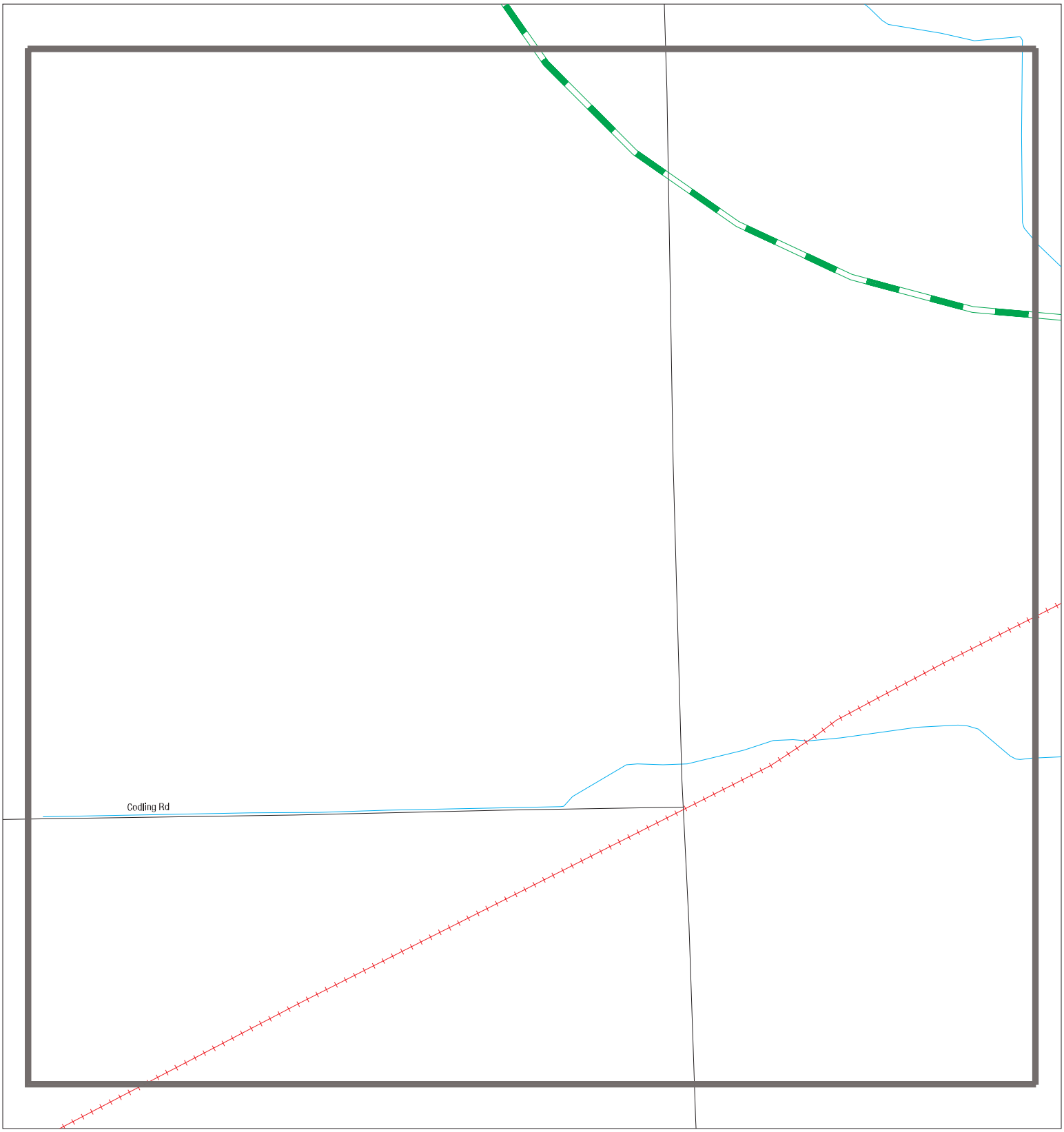
MAPPED SITES SUMMARY - FOCUS MAP 15

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 16 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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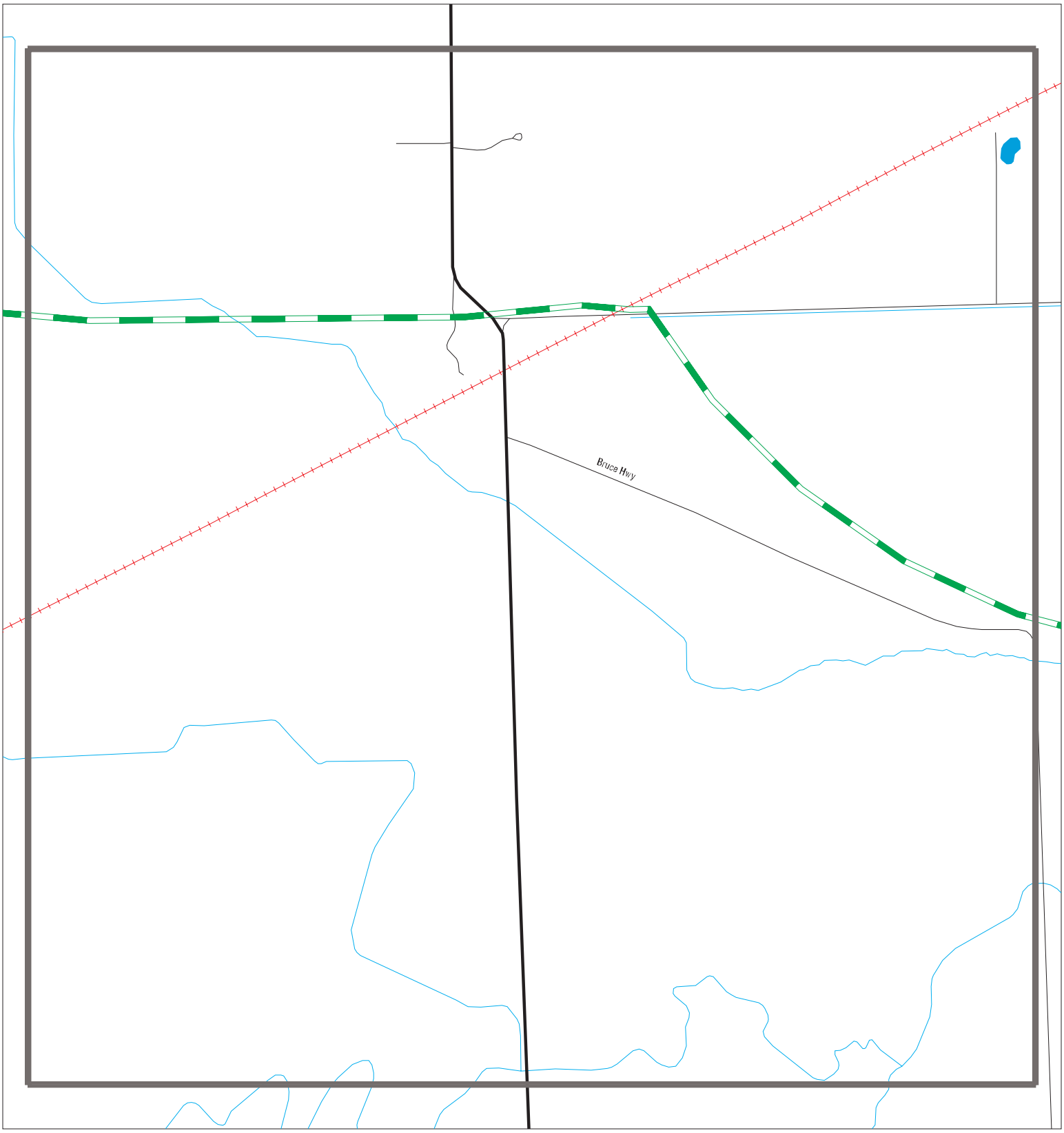
MAPPED SITES SUMMARY - FOCUS MAP 16

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 17 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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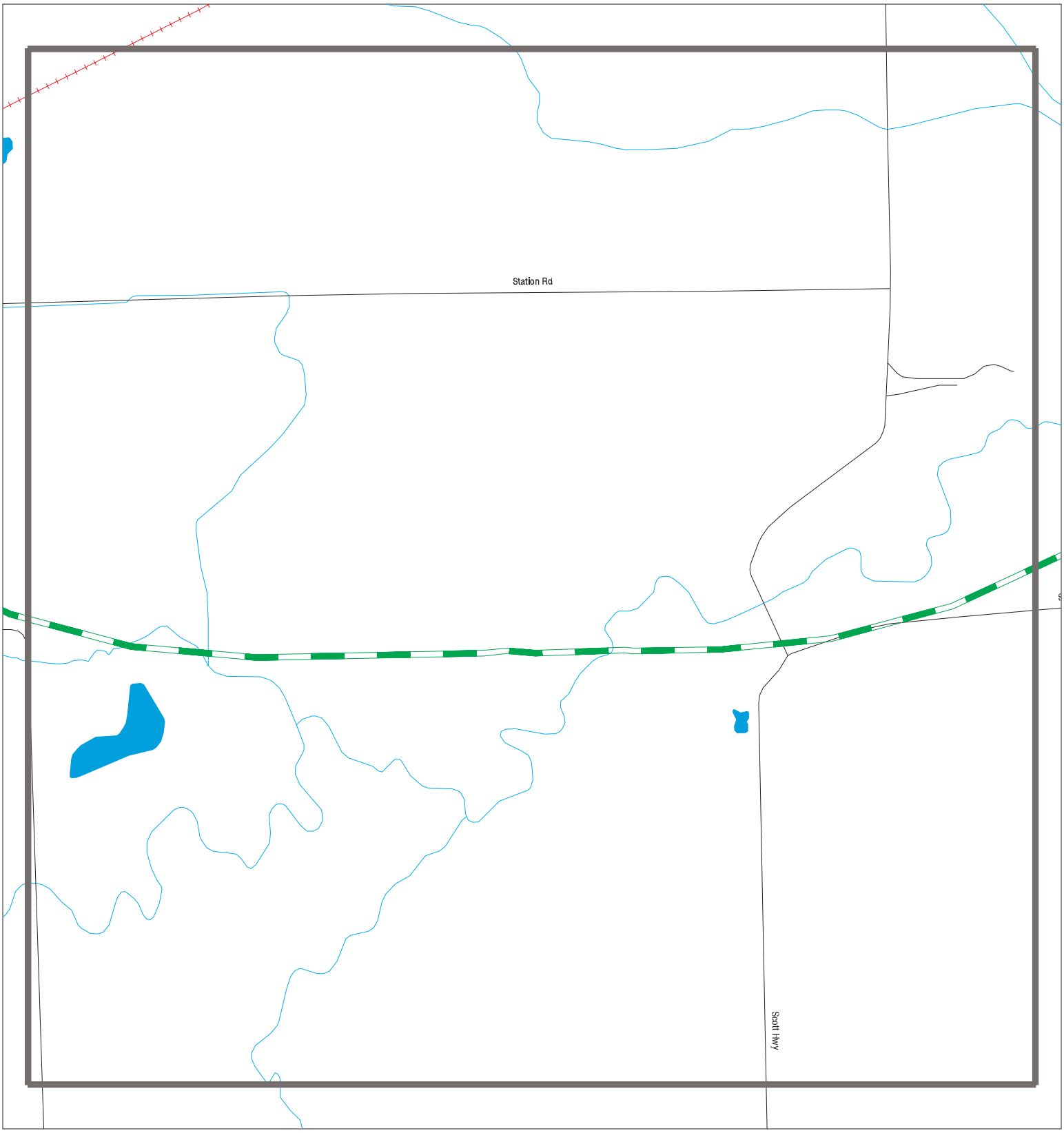
MAPPED SITES SUMMARY - FOCUS MAP 17

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 18 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site ADDRESS: 78878 Rouget Road Site CITY/STATE: Palmyra MI ZIP: 49268	CLIENT: SWCA Environmental Consultants CONTACT: Steve Obrien INQUIRY #: 7816996.2s DATE: 11/08/24

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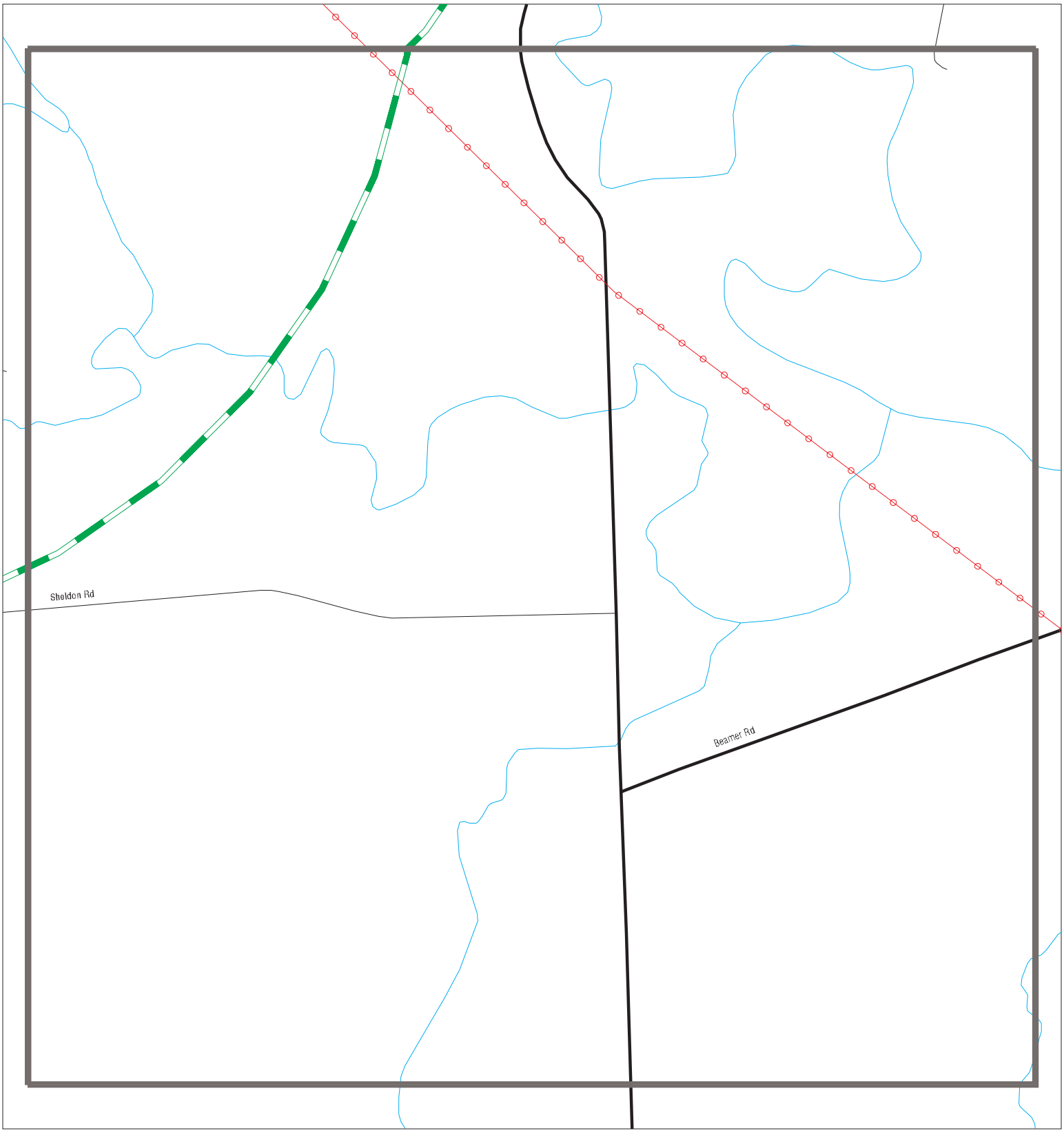
MAPPED SITES SUMMARY - FOCUS MAP 18

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 19 - 7816996.2s



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
Power Line
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA

0 1/8 1/4 Miles

SITE NAME: 78878 Rouget Road Site	CLIENT: SWCA Environmental Consultants
ADDRESS: 78878 Rouget Road Site	CONTACT: Steve Obrien
CITY/STATE: Palmyra MI	INQUIRY #: 7816996.2s
ZIP: 49268	DATE: 11/08/24

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MAPPED SITES SUMMARY - FOCUS MAP 19

Target Property:
78878 ROUGET ROAD SITE
PALMYRA, MI 49268

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

1 **A DRIAN FUELS LLC** **LUST** **S114564742**
Target **4665 W US 223 ROUTE 4** **Financial Assurance** **N/A**
Property **ADRIAN, MI 49221**

Actual:
714 ft.

Focus Map:
10

LUST:

Name:	A DRIAN FUELS LLC
Address:	4665 W US 223 ROUTE 4
City,State,Zip:	ADRIAN, MI 49221-
Facility ID:	00005933
Source:	STATE OF MICHIGAN
Owner Name:	MunaMusharbash
Owner Address:	Not reported
Owner City,St,Zip:	UNKNOWN, MI
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Jackson
Site Name:	Kelley's Sunoco
Latitude:	41.86471
Longitude:	-83.96154
Date of Collection:	10/05/2004
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Regulatory Program:	Not reported
Risk Condition:	Not reported
Project Manager:	Not reported
Senate District:	Not reported
House District:	Not reported
US Congressional District:	Not reported

Leak Number:	C-0116-96
Release Date:	02/28/1996
Substance Released:	Unknown
Release Status:	Closed
Release Closed Date:	10/16/2003

FIN ASSURANCE 3:

Name:	ADRIAN FUELS, LLC
Address:	4665 W US 223 ROUTE 4
City,State,Zip:	ADRIAN, MI 49221
Facility ID:	00005933
Exempt:	No
Expiration Date:	07/12/2024
Bond Rating Tests:	Not reported
Commerical Insurance:	Not reported
Guarantee:	Not reported
Letter of Credit:	Not reported
Risk Retention Group:	Not reported
Self Insurance:	Not reported
State Funds:	CHECKED
Surety Bond:	Not reported
Trust Funds:	Not reported
Year:	2022

2 **CDL** **S128067666**
Target **N/A**
Property **PALMYRA TWP, MI**

Actual: **710 ft.**

Focus Map: **10**

CDL:

Name:	Not reported
Address:	Not reported
City:	PALMYRA TWP
Date:	Not reported
Type:	Not reported
Cross street:	Not reported
Lab type:	Not reported
Agency:	MSP Monroe
Complaint #:	Not reported
Oic:	Not reported
Child:	Not reported
Fire:	Not reported
Injuries:	Not reported
Who:	Not reported
Lab:	Not reported
Dump:	Not reported
Glass:	Not reported
Unknown:	Not reported
<2:	Not reported
2 - 8oz:	Not reported
9oz - 1lb:	Not reported
2 - 9lb:	Not reported
10 - 19lb:	Not reported
20lb >:	Not reported
Chemical:	Methamphetamines
Quantity Seized:	1000
ORI Number:	Not reported
Incident Number:	140001482
Incident Date:	04/01/2021
Entry Date:	Not reported
Loss Type:	Seized
Unit of Measure:	GM
Latitude:	41.859863
Longitude:	-83.953257
ORI Name:	Not reported
Micr Incidents ID:	Not reported
Drug Desc:	Not reported

---

3 **CENTRAL LENAWEE WWTP** **FINDS** **1018321636**
North **4350 DEERFIELD ROAD** **ECHO** **N/A**
< 1/8 **ADRIAN, MI 49221** **PFAS ECHO**
0.102 mi. **BIOSOLIDS**
538 ft.

Actual: **703 ft.**

Focus Map: **5**

FINDS:
Registry ID: 110009011924

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The National Pollutant Discharge Elimination System (NPDES) module of the Integrated Compliance Information System (ICIS). Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and

CENTRAL LENAWEE WWTP (Continued) **1018321636**

reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1018321636
Registry ID:	110009011924
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110009011924
Name:	CENTRAL LENAWEE WWTP
Address:	4350 DEERFIELD ROAD
City,State,Zip:	ADRIAN, MI 49221

PFAS ECHO:

Name:	Central Lenawee Wwtp
Address:	Not reported
City,State,Zip:	ADRIAN, MI
Latitude:	41.886128
Longitude:	-83.977991
Count:	1
County:	LENAWEE
Status:	Active
Region:	05
Industry:	Waste Management
ECHO Facility Report:	https://echo.epa.gov/detailed-facility-report?fid=110009011924
Facility Percent Minority:	33.54
Facility Derived Tribes:	-
Facility Population:	453.81
EPA Programs:	CWA
Federal Facility:	No
Federal Agency:	-
Facility FIPS Code:	26091
Facility Indian Country Flag:	N
Facility Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Facility Derived HUC:	04100002
Facility Derived WBD:	041000020307
Facility Derived CD113:	07
Facility Derived CB2010:	260910612002044
Facility Major Flag:	-
Facility Active Flag:	Y
Facility Inspection Count:	3
Facility Date Last Inspection:	5/9/2023
Facility Days Last Inspection:	417
Facility Informal Count:	1
Facility Date Last Informal Action:	1/4/2024
Facility Formal Action Count:	0
Facility Date Last Formal Action:	-
Facility Total Penalties:	0
Facility Penalty Count:	-
Facility Date Last Penalty:	-
Facility Last Penalty AMT:	-
Facility QTRS With NC:	1
Facility Programs With SNC:	0
Facility Compliance Status:	Violation Identified
Facility SNC Flag:	N
AIR Flag:	N

CENTRAL LENAWEE WWTP (Continued) **1018321636**

NPDES Flag:	Y
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AIR IDS:	-
CAA Permit Types:	-
CAA NAICS:	-
CAA SICS:	-
NPDES IDS:	MI0056308
CWA Permit Types:	Non-M
CWA NAICS:	221320
CWA SICS:	4952
RCRA IDS:	-
RCRA Permit Types:	-
RCRA NAICS:	-
SDWA IDS:	-
SDWA System Types:	-
SDWA Compliance Status:	-
SDWA SNC Flag:	N
TRI IDS:	-
TRI Releases Transfers:	-
TRI On Site Releases:	-
TRI Off Site Transfers:	-
TRI Reporter:	-
Facility IMP Water Flag:	Y
EJSCREEN Flag US:	N

EJSCREEN Report:

BIOSOLIDS:

NPDES ID:	MI0056308
Registry ID:	110009011924
CWP Name:	CENTRAL LENAWEE WWTP
CWP Street:	4350 DEERFIELD ROAD
CWP City,State,Zip:	ADRIAN, MI 49221
CWP County:	LENAWEE
CWP EPA Region:	5
CWP Indian Country:	N
CWP Tribal Land Code:	Not reported
CWP Version Number:	0
CWP Permit Status Code:	ADC
CWP Permit Status Description:	Admin Continued
CWP Permit Type Code:	NPD
CWP Permit Type Description:	NPDES Individual Permit
CWP Expiration Date:	2024-10-01 00:00:00
CWP Facility Type Indicator:	NON-POTW
Master External Permit Number:	Not reported
Issuing Agency:	State
CWP Issue Date:	2020-07-23 00:00:00
CWP Effective Date:	2020-09-01 00:00:00
CWP Termination Date:	Not reported
Permit Components:	Not reported
Biosolids:	Y

4
SSW
1/4-1/2
0.382 mi.
2015 ft.

Actual:
800 ft.

Focus Map:
4

ADRIAN OIL BURNER SERVICE
3438 E US HIGHWAY 223
ADRIAN, MI 49221

LUST **U000258322**
UST **N/A**
BROWNFIELDS
INVENTORY
BEA
WDS

LUST:

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN, MI 49221
Facility ID:	9190
Source:	24000
Owner Name:	Pontbriand, Stephen
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Owner Contact:	Not reported
Owner Phone:	(906) 776-3502
Country:	Not reported
District:	Jackson
Site Name:	Adrian Oil Burner Service
Latitude:	41.87278
Longitude:	-83.99473
Date of Collection:	Not reported
Method of Collection:	The geographic coordinate determination method based on interpolation-photo.
Accuracy:	20
Accuracy Value Unit:	Not reported
Horizontal Data:	North American Datum of 1983
Point Line Area:	Center of a facility or station
Desc Category:	Not reported
Regulatory Program:	Not reported
Risk Condition:	Not reported
Project Manager:	Not reported
Senate District:	Not reported
House District:	Not reported
US Congressional District:	Not reported

Leak Number:	19696
Release Date:	09/21/1992
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

Leak Number:	246
Release Date:	01/07/2000
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

Leak Number:	C-0026-00
Release Date:	01/07/2000
Substance Released:	Unknown
Release Status:	Open
Release Closed Date:	Not reported

Leak Number:	C-1647-92
Release Date:	09/21/1992
Substance Released:	Diesel,Kerosene

ADRIAN OIL BURNER SERVICE (Continued) **U000258322**

Release Status: Open
Release Closed Date: Not reported

UST:

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN 49221-9207
Facility Type:	CLOSED
Facility ID:	00009190
Owner Name:	TOM GRAF
Owner Address:	3438 E US HIGHWAY 223
Owner City:	ADRIAN
Owner State:	MI
Owner Zip:	49221-9207
Owner Contact:	Not reported
Owner Phone:	5172639095
Contact:	THOMAS GRAF
Contact Phone:	(517) 263-9095
Date of Collection:	12/26/2013
Accuracy:	100
Horizontal Datum:	NAD83
Accuracy Value Unit:	FEET
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Interpolation-Map
District:	Region 2 - Jackson District Office
Tank ID:	4
Capacity:	10000
Tank Status:	Removed from Ground
Substance:	Diesel
Install Date:	04/16/1966
Remove Date:	12/16/1999
Tank Number:	Not reported
Tank Details Compartments:	Not reported
Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	41.87252
Longitude:	-83.99480

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN 49221-9207
Facility Type:	CLOSED
Facility ID:	00009190
Owner Name:	TOM GRAF
Owner Address:	3438 E US HIGHWAY 223
Owner City:	ADRIAN
Owner State:	MI
Owner Zip:	49221-9207
Owner Contact:	Not reported
Owner Phone:	5172639095
Contact:	THOMAS GRAF
Contact Phone:	(517) 263-9095

ADRIAN OIL BURNER SERVICE (Continued) **U000258322**

Date of Collection:	12/26/2013
Accuracy:	100
Horizontal Datum:	NAD83
Accuracy Value Unit:	FEET
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Interpolation-Map
District:	Region 2 - Jackson District Office
Tank ID:	3
Capacity:	15000
Tank Status:	Removed from Ground
Substance:	Diesel
Install Date:	04/16/1966
Remove Date:	12/16/1999
Tank Number:	Not reported
Tank Details Compartments:	Not reported
Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	41.87252
Longitude:	-83.99480

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN 49221-9207
Facility Type:	CLOSED
Facility ID:	00009190
Owner Name:	TOM GRAF
Owner Address:	3438 E US HIGHWAY 223
Owner City:	ADRIAN
Owner State:	MI
Owner Zip:	49221-9207
Owner Contact:	Not reported
Owner Phone:	5172639095
Contact:	THOMAS GRAF
Contact Phone:	(517) 263-9095
Date of Collection:	12/26/2013
Accuracy:	100
Horizontal Datum:	NAD83
Accuracy Value Unit:	FEET
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Interpolation-Map
District:	Region 2 - Jackson District Office
Tank ID:	2
Capacity:	20000
Tank Status:	Removed from Ground
Substance:	Diesel
Install Date:	04/16/1966
Remove Date:	12/16/1999
Tank Number:	Not reported
Tank Details Compartments:	Not reported

ADRIAN OIL BURNER SERVICE (Continued) **U000258322**

Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	41.87252
Longitude:	-83.99480

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN 49221-9207
Facility Type:	CLOSED
Facility ID:	00009190
Owner Name:	TOM GRAF
Owner Address:	3438 E US HIGHWAY 223
Owner City:	ADRIAN
Owner State:	MI
Owner Zip:	49221-9207
Owner Contact:	Not reported
Owner Phone:	5172639095
Contact:	THOMAS GRAF
Contact Phone:	(517) 263-9095
Date of Collection:	12/26/2013
Accuracy:	100
Horizontal Datum:	NAD83
Accuracy Value Unit:	FEET
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Interpolation-Map
District:	Region 2 - Jackson District Office
Tank ID:	1
Capacity:	6000
Tank Status:	Removed from Ground
Substance:	Gasoline
Install Date:	04/16/1966
Remove Date:	12/17/1999
Tank Number:	Not reported
Tank Details Compartments:	Not reported
Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	41.87252
Longitude:	-83.99480

BROWNFIELDS:

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN, MI
Facility ID:	00009190
Region:	1
Status:	Not reported
Properry Use:	Not reported

ADRIAN OIL BURNER SERVICE (Continued) **U000258322**

BEA:	Not reported
Ernie Id Number:	46000037
X Coordinate:	Not reported
Y Coordinate:	Not reported
Project Name:	Not reported
Date Year Funded:	Not reported
Total Brownfield Incentives:	Not reported
Approved Amount:	Not reported
Grant Award Amount:	Not reported
Loan Award Amount:	Not reported
Waterfront Award Amount:	Not reported
Brownfield Site Assessment:	Not reported
Development Type:	Not reported

INVENTORY:

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN, MI 49221
Township:	Palmyra
District:	Jackson
Data Source:	Risks Present and Require Action in Short-term
Lust Name:	Adrian Oil Burner Service
Regulatory Program:	213
Release Status:	Open
Project Manager:	White, Jane Emily
Latitude:	41.87278764
Longitude:	-83.99473377

BEA:

Name:	ADRIAN OIL BURNER SERVICE
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN, MI 492219207
Secondary Address:	Not reported
BEA Number:	Not reported
District:	Not reported
Date Received:	05/17/2019
Submitter Name:	Not reported
Petition Determination:	Not reported
Petition Disclosure:	Not reported
Category:	Not reported
Determination 20107A:	Not reported
Reviewer:	Not reported
Division Assigned:	Not reported
Location ID:	00009190
Submittal Type:	Baseline Environmental Assessment
Submittal Number:	00009190-BEA-1
Approval Status:	RRD Received
Workflow Status:	Submitted
Date Submitted:	05/22/2019
Date Completed:	5/6/2019
Township:	Adrian
Work Unit:	Jackson
Comments:	Not reported
Organization:	Not reported
Contact:	Not reported
Contact Type:	Not reported

ADRIAN OIL BURNER SERVICE (Continued) **U000258322**

Organization Street Address:	Not reported
Organization City:	Not reported
Organization State:	Not reported
Organization Zip Code:	Not reported
Organization County:	Not reported
Contact Street Address:	Not reported
Contact City:	Not reported
Contact Zip Code:	Not reported
Contact State:	Not reported

WDS:

Name:	ADRIAN OIL BURNER
Address:	3438 E US HIGHWAY 223
City,State,Zip:	ADRIAN, MI 49221
Site Id:	MIG000058890
WMD Id:	417224
Site Specific Name:	ADRIAN OIL BURNER
Mailing Address:	3438 E US HIGHWAY 223
Mailing City/State/Zip:	49221
Mailing County:	LENAWEE

---

5 **LAIDLAW WASTE SYSTEMS** **INVENTORY** **S105144294**
North **1983 N OGDEN HWY** **PART 201** **N/A**
1/2-1 **ADRIAN, MI 49221** **AIRS**
0.542 mi. **WDS**
2860 ft.

Actual:
784 ft.

Focus Map:
2

INVENTORY:

Name:	LAIDLAW WASTE SYSTEMS
Address:	1983 N OGDEN HWY
City,State,Zip:	ADRIAN, MI 49221
Township:	temptownship
District:	Jackson
Data Source:	Contact Lead Division
Lust Name:	Not reported
Regulatory Program:	201
Release Status:	Not reported
Project Manager:	Hutsell, Deanna
Latitude:	41.902868
Longitude:	-84.001994

PART 201:

Name:	LAIDLAW WASTE SYSTEMS
Address:	1983 N OGDEN HWY
City,State,Zip:	ADRIAN, MI 49221
Facility ID:	46000009
Facility Status:	Contact Lead Division for current status
Latitude:	41.902868
Source:	Not reported
Longitude:	-84.001994
SAM Score:	Not reported
SAM Score Date:	2004-07-06
Township:	07S
Range:	04E
Section:	6
Quarter:	SE
Quarter/Quarter:	SE

LAIDLAW WASTE SYSTEMS (Continued) **S105144294**

Pollutants: Chlorobenzene; Chloroethane
Location Type: 201
Work Unit: Not reported
Project Manager: Hutsell, Deanna
Risk Condition: Contact Lead Division

AIRS:
Name: LAIDLAW WASTE SYSTEMS, INC
Address: 1983 N OGDEN HIGHWAY
City,State,Zip: ADRIAN, MI 49221
State Registration Number: N2369
Naics Code: Not reported
Contact Email: Not reported
Contact Name: ROBERT WILLIS
Contact Phone: Not reported
Contact Address: (same as site address)
Contact City,St,Zip: Not reported
Permit Number: 105-91
Date Received: 01/24/1991
Application Reason: AERATION CHAMBER
Record Type: Not reported
State County FIPS: Not reported
Facility Category: Not reported
SIC Primary: Not reported
Tribal Code: Not reported
Facility Status Code: Not reported
Facility Status: InActive
Supplemental Location Text: Not reported
Business Name: Not reported
Principal Product: Not reported
Principal Product Description: Not reported
UTM Zone (Geo Coordinates Universal Transverse Mercator System): Not reported
UTM Horizontal Coord: Not reported
UTM Vertical Coord: Not reported
Mailing Name: Not reported
Mailing Contact Person: Not reported
Mailing Street: Not reported
Mailing City: Not reported
Mailing State: Not reported
Mailing Zip: Not reported
Mailing Zip 4 Extension: Not reported
Compliance Person: Not reported
Compliance Area Code: Not reported
Compliance Phone Number: Not reported
Emission Inventory Contact Person: Not reported
EI Contact Area Code: Not reported
EI Contact Phone Number: Not reported
Permit Contact Person: Not reported
Permit Contact Person Area Code: Not reported
Permit Contact Person Phone Number: Not reported
Federal Employer Id Number: Not reported
Of Employees: Not reported
Reporting Year: Not reported
Date Record Was Created: Not reported

WDS:

LAIDLAW WASTE SYSTEMS (Continued) **S105144294**

Name:	ALLIED WASTE INDUSTRIES INC
Address:	1983 N OGDEN HWY
City,State,Zip:	ADRIAN, MI 49221
Site Id:	MID985586981
WMD Id:	403504
Site Specific Name:	GREAT LAKES WASTE SERVICES
Mailing Address:	1983 N OGDEN HWY
Mailing City/State/Zip:	49221
Mailing County:	LENAWEE

6
South
1/2-1
0.625 mi.
3302 ft.

MICH PRODUCERS DAIRY CO **DEL PART 201** **S105965634**
3518 OGDEN HWY **N/A**
ADRIAN, MI

Actual:
772 ft.

Focus Map:
5

DEL_PART201:

Name:	MICH PRODUCERS DAIRY CO
Address:	3518 OGDEN HWY
City,State,Zip:	ADRIAN, MI
Facility ID:	46000014
Status:	Deleted - available documentation does not support listing
Latitude:	Not reported
Longitude:	Not reported
Township:	Not reported
Source:	Not reported
Pollutants:	Not reported
SAM Score:	Not reported
SAM Score Date:	Not reported
Range:	Not reported
Section:	Not reported
Quarter:	Not reported
Quarter/Quarter:	Not reported
Facility Status:	Not reported
Location Type:	Not reported
Work Unit:	Not reported
Project Manager:	Not reported
Risk Condition:	Not reported

7
NW
1/2-1
0.923 mi.
4875 ft.

DREXEL PARK WELLS **PART 201** **S103086365**
E. MAUMEE AT PARR **INVENTORY** **N/A**
ADRIAN, MI 49221

Actual:
816 ft.

Focus Map:
1

PART 201:

Name:	DREXEL PARK WELLS
Address:	E. MAUMEE AT PARR
City,State,Zip:	ADRIAN, MI 49221
Facility ID:	46000159
Facility Status:	Interim Response conducted
Latitude:	41.892091
Source:	Unknown
Longitude:	-84.005575
SAM Score:	Not reported
SAM Score Date:	2004-05-21

DREXEL PARK WELLS (Continued) **S103086365**

Township:	07S
Range:	03E
Section:	1
Quarter:	SE
Quarter/Quarter:	SE
Pollutants:	1,4-Dioxane
Location Type:	201
Work Unit:	Not reported
Project Manager:	Hutsell, Deanna
Risk Condition:	Risks Present and Require Action in Short-term

INVENTORY:

Name:	DREXEL PARK WELLS
Address:	E. MAUMEE AT PARR
City,State,Zip:	ADRIAN, MI 49221
Township:	Not reported
District:	Jackson
Data Source:	Risks Present and Require Action in Short-term
Lust Name:	Not reported
Regulatory Program:	201
Release Status:	Not reported
Project Manager:	Hutsell, Deanna
Latitude:	41.892091
Longitude:	-84.005575

A8 **BRAZEWAY INC.** **SEMS-ARCHIVE** **1000443278**
NW **2711 E. MAUMEE STREET** **CORRACTS** **MID005035910**
1/2-1 **ADRIAN, MI 49221** **RCRA-TSDF**
0.974 mi. **RCRA-VSQG**
5144 ft. **Site 1 of 2 in cluster A** **ICIS**
US AIRS
Actual: **E MANIFEST**
800 ft.

Focus Map: **1**

SEMS Archive:

Site ID:	0507021
EPA ID:	MID005035910
Name:	BRAZEWAY INCORPORATED
Address:	2711 EAST MAUMEE STREET
Address 2:	Not reported
City,State,Zip:	ADRIAN, MI 49221
Cong District:	02
FIPS Code:	26091
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Deferred to RCRA (Subtitle C)

SEMS Archive Detail:

Region:	05
Site ID:	0507021
EPA ID:	MID005035910
Site Name:	BRAZEWAY INCORPORATED
NPL:	N
FF:	N
OU:	00
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Finish Date: 1992-12-18 05:00:00
Qual: D
Current Action Lead: EPA Perf

Region: 05
Site ID: 0507021
EPA ID: MID005035910
Site Name: BRAZEWAY INCORPORATED
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1992-04-30 04:00:00
Finish Date: 1992-04-30 04:00:00
Qual: Not reported
Current Action Lead: EPA Perf

Region: 05
Site ID: 0507021
EPA ID: MID005035910
Site Name: BRAZEWAY INCORPORATED
NPL: N
FF: N
OU: 00
Action Code: VS
Action Name: ARCH SITE
SEQ: 1
Start Date: Not reported
Finish Date: 1995-12-18 05:00:00
Qual: Not reported
Current Action Lead: EPA Perf In-Hse

CORRACTS:
Name: BRAZEWAY INC
Address: 2711 E MAUMEE ST
Address 2: Not reported
EPA ID: MID005035910
Area Name: ENTIRE FACILITY
Corrective Action: DETERMINATION OF NEED FOR AN INVESTIGATION-INVESTIGATION IS NOT NECESSARY
Actual Date: 20090501
Air Release Indicator: N
Groundwater Release Indicator: Not reported
Soil Release Indicator: N
Surface Water Release Indicator: N

Name: BRAZEWAY INC
Address: 2711 E MAUMEE ST
Address 2: Not reported
EPA ID: MID005035910
Area Name: ENTIRE FACILITY
Corrective Action: CA PRIORITIZATION-LOW CA PRIORITY
Actual Date: 19920928
Air Release Indicator: N

BRAZEWAY INC. (Continued) **1000443278**

Groundwater Release Indicator: Not reported
Soil Release Indicator: N
Surface Water Release Indicator: N

Name: BRAZEWAY INC
Address: 2711 E MAUMEE ST
Address 2: Not reported
EPA ID: MID005035910
Area Name: ENTIRE FACILITY
Corrective Action: ADDITIONAL INFORMATION NECESSARY [CATEGORY B] - INITIAL LOAD
Actual Date: 20140806
Air Release Indicator: N
Groundwater Release Indicator: Not reported
Soil Release Indicator: N
Surface Water Release Indicator: N

RCRA TSDF:
Treatment Storage and Disposal Type: Storage
Full Enforcement Universe: Not reported
Corrective Action Workload Universe: No
Permit Renewals Workload Universe: Not reported
Permit Workload Universe: Not reported
Permit Progress Universe: Storage
Post-Closure Workload Universe: Not reported
Closure Workload Universe: Not reported
Operating TSDF Universe: Not reported
Commercial TSD Indicator: No
Active Site Fed-Reg Treatment Storage and Disposal Facility: Not reported
Active Site Converter Treatment storage and Disposal Facility: Not reported
Active Site State-Reg Treatment Storage and Disposal Facility: Not reported
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: No
TSDFs Only Subject to CA under Discretionary Auth Universe: Yes

Biennial: List of Years
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

RCRA Listings:
Date Form Received by Agency: 20180424
Handler Name: Brazeway Inc

BRAZEWAY INC. (Continued) **1000443278**

Handler Address:	2711 E Maumee St
Handler City,State,Zip:	ADRIAN, MI 49221
EPA ID:	MID005035910
Contact Name:	LAWRENCE C FORCE II
Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Contact Telephone:	517-265-2121
Contact Fax:	517-263-6414
Contact Email:	CFORCE@BRAZEWAY.COM
Contact Title:	Not reported
EPA Region:	05
Land Type:	Private
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	2711 E MAUMEE ST
Mailing City,State,Zip:	ADRIAN, MI 49221
Owner Name:	Brazeway Inc
Owner Type:	Private
Operator Name:	L Charles Force Ii
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	Yes
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	Low
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Handler Date of Last Change: 20180910
Recognized Trader-Importer: No
Recognized Trader-Exporter: No
Importer of Spent Lead Acid Batteries: No
Exporter of Spent Lead Acid Batteries: No
Recycler Activity Without Storage: No
Manifest Broker: No
Sub-Part P Indicator: No

Biennial: List of Years
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D001
Waste Description: Ignitable Waste

Waste Code: D002
Waste Description: Corrosive Waste

Waste Code: F001
Waste Description: The Following Spent Halogenated Solvents Used In Degreasing: Tetrachloroethylene, Trichlorethylene, Methylene Chloride, 1,1,1-Trichloroethane, Carbon Tetrachloride And Chlorinated Fluorocarbons; All Spent Solvent Mixtures/Blends Used In Degreasing Containing, Before Use, A Total Of Ten Percent Or More (By Volume) Of One Or More Of The Above Halogenated Solvents Or Those Solvents Listed In F002, F004, And F005; And Still Bottoms From The Recovery Of These Spent Solvents And Spent Solvent Mixtures.

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: L CHARLES FORCE II	
Legal Status:	Private
Date Became Current:	20160101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCUAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: MICHELLE MALARNEY	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
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Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
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Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
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Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
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Owner/Operator Telephone Ext:	Not reported
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Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
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Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
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Owner/Operator Telephone Ext:	Not reported
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Owner/Operator Indicator:	Operator
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Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
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Legal Status:	Private
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
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Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
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Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
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Owner/Operator Address:	Not reported
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
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Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: L CHARLES FORCE II
Legal Status: Private
Date Became Current: 20160101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: 2711 E MAUMEE ST

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip:	ADRIAN, MI 49221-3534
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: L CHARLES FORCE II	
Legal Status:	Private
Date Became Current:	20160101
Date Ended Current:	Not reported
Owner/Operator Address:	2711 E MAUMEE ST
Owner/Operator City,State,Zip:	ADRIAN, MI 49221-3534
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
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Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
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Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
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Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
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Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
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Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

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Legal Status:	Private
Date Became Current:	20030306
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Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
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Owner/Operator Telephone Ext: Not reported
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Owner/Operator Email: Not reported

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Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
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Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
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Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

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Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
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Owner/Operator City,State,Zip: Not reported
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Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
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Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
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Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: BRAZEWAY INC	
Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
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Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
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Owner/Operator Indicator: Operator
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Legal Status: Private
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Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: 2711 E MAUMEE ST
Owner/Operator City,State,Zip: ADRIAN, MI 49221-3534
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
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Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
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Owner/Operator Fax: Not reported
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Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name: BRAZEWAY INC	
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Date Became Current:	19460101
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Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private
Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
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Owner/Operator Telephone Ext:	Not reported
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: BRAZEWAY INC
Legal Status: Private
Date Became Current: 19460101
Date Ended Current: Not reported
Owner/Operator Address: Not reported
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Owner/Operator Name: DAVID SKRZYPCHAK
Legal Status: Private
Date Became Current: 20030306
Date Ended Current: Not reported
Owner/Operator Address: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
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Legal Status:	Private
Date Became Current:	20030306
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Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
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Owner/Operator City,State,Zip:	Not reported
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Owner/Operator Telephone Ext:	Not reported
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Owner/Operator Indicator:	Owner
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Legal Status:	Private
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Legal Status:	Private
Date Became Current:	19460101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name: DAVID SKRZYPCHAK	
Legal Status:	Private

BRAZEWAY INC. (Continued) **1000443278**

Date Became Current:	20030306
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
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Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
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Legal Status:	Private
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Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	19810331
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20100218
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No

BRAZEWAY INC. (Continued) **1000443278**

Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20120314
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19950728
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19800811
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20000417
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20020228
Handler Name: BRAZEWAY INC

BRAZEWAY INC. (Continued) **1000443278**

Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20030306
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20030519
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	Yes
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20030909
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	Yes
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20040227
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No

BRAZEWAY INC. (Continued) **1000443278**

Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20060320
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20080227
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20090403
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20110421
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Receive Date: 20120521
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20120521
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20120813
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20130619
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20140630
Handler Name: BRAZEWAY INC
Federal Waste Generator Description: Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No

BRAZEWAY INC. (Continued) **1000443278**

Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20150622
Handler Name:	BRAZEWAY INC
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20161114
Handler Name:	BRAZEWAY INC
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20180123
Handler Name:	BRAZEWAY INC
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20180424
Handler Name:	BRAZEWAY INC
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes

BRAZEWAY INC. (Continued) **1000443278**

Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20000414
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20020301
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20040301
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20060301
Handler Name: BRAZEWAY INC	
Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	Yes
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported
Receive Date:	20080301
Handler Name: BRAZEWAY INC	

BRAZEWAY INC. (Continued) **1000443278**

Federal Waste Generator Description:	Large Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	331316
NAICS Description:	ALUMINUM EXTRUDED PRODUCT MANUFACTURING
NAICS Code:	56291
NAICS Description:	REMEDIATION SERVICES
NAICS Code:	562910
NAICS Description:	REMEDIATION SERVICES

Has the Facility Received Notices of Violations:

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20011005
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20050419
Enforcement Identifier:	002
Date of Enforcement Action:	20041021
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	LDR - General
Date Violation was Determined:	19940711
Actual Return to Compliance Date:	19950505
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19940916
Enforcement Identifier:	001
Date of Enforcement Action:	19940711
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20011005
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20050419
Enforcement Identifier:	002
Date of Enforcement Action:	20041021
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Contingency Plan and Emergency Procedures
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20011005
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20031231
Enforcement Identifier:	003
Date of Enforcement Action:	20011005
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	REFERRAL TO ATTORNEY GENERAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - Pre-transport
Date Violation was Determined:	20120618
Actual Return to Compliance Date:	20120927
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20120626
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Contingency Plan and Emergency Procedures
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Universal Waste - Small Quantity Handlers
Date Violation was Determined:	20171121
Actual Return to Compliance Date:	20180322
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20180205
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 20171121
Actual Return to Compliance Date: 20180322
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20180205
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Container Use and Management
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-General Facility Standards
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Preparedness and Prevention
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Universal Waste - Small Quantity Handlers
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120807
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20011005
Actual Return to Compliance Date: 20041021
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: 20031231
Enforcement Identifier: 001
Date of Enforcement Action: 20020225
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120807
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - General
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 20171121
Actual Return to Compliance Date: 20180322
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20171226
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: TSD IS-Container Use and Management
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20011005
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20031231
Enforcement Identifier:	001
Date of Enforcement Action:	20020225
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: LDR - General
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120807
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20011005
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20031231
Enforcement Identifier:	001
Date of Enforcement Action:	20020225
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	INITIAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Permits - Conditions
Date Violation was Determined:	20011218
Actual Return to Compliance Date:	20041021
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20050419
Enforcement Identifier:	002
Date of Enforcement Action:	20041021
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20011005
Actual Return to Compliance Date: 20041021
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: 20031231
Enforcement Identifier: 003
Date of Enforcement Action: 20011005
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: REFERRAL TO ATTORNEY GENERAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Used Oil - Generators
Date Violation was Determined:	20120618
Actual Return to Compliance Date:	20120807
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20120626
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - Pre-transport
Date Violation was Determined:	20171121
Actual Return to Compliance Date:	20180322
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20171122
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20011005
Actual Return to Compliance Date: 20041021
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: 20050419
Enforcement Identifier: 002
Date of Enforcement Action: 20041021
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20020709
Actual Return to Compliance Date:	20020805
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	20020813
Enforcement Identifier:	001
Date of Enforcement Action:	20020710
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Universal Waste - Small Quantity Handlers
Date Violation was Determined:	20120618
Actual Return to Compliance Date:	20120927
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20120626
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Records/Reporting
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120807
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: LDR - General
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120626
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Permits - Conditions
Date Violation was Determined: 20011218
Actual Return to Compliance Date: 20041021
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: 20060101
Enforcement Identifier: 001
Date of Enforcement Action: 20041021
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: STATE RCRA/REFER TO STATE SUPERF/REMEDIA
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - Pre-transport
Date Violation was Determined: 20070320
Actual Return to Compliance Date: 20071218
Return to Compliance Qualifier: Documented
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20071106
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: PPA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - Records/Reporting
Date Violation was Determined: 20120618
Actual Return to Compliance Date: 20120927
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20120626
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number:Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: State Statute or Regulation
Date Violation was Determined: 20171121
Actual Return to Compliance Date: 20171226
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20171122
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Universal Waste - Small Quantity Handlers
Date Violation was Determined: 20171121
Actual Return to Compliance Date: 20180322
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20171122
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	No
Agency Which Determined Violation:	Not reported
Violation Short Description:	Not reported
Date Violation was Determined:	Not reported
Actual Return to Compliance Date:	Not reported
Return to Compliance Qualifier:	Not reported
Violation Responsible Agency:	Not reported
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	Not reported
Date of Enforcement Action:	Not reported
Enforcement Responsible Agency:	Not reported
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	Not reported
Appeal Initiated Date:	Not reported
Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	Not reported
Enforcement Responsible Person:	Not reported
Enforcement Responsible Sub-Organization:	Not reported
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported
Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	19940711
Actual Return to Compliance Date:	19950505
Return to Compliance Qualifier:	Observed
Violation Responsible Agency:	State
Scheduled Compliance Date:	19940916
Enforcement Identifier:	001
Date of Enforcement Action:	19940711
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Universal Waste - Small Quantity Handlers
Date Violation was Determined: 20171121
Actual Return to Compliance Date: 20180322
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 20171226
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: State
Violation Short Description: Generators - General
Date Violation was Determined: 20011005
Actual Return to Compliance Date: 20041021
Return to Compliance Qualifier: Documented
Violation Responsible Agency: State
Scheduled Compliance Date: 20031231
Enforcement Identifier: 003
Date of Enforcement Action: 20011005
Enforcement Responsible Agency: State
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: REFERRAL TO ATTORNEY GENERAL
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 20011005
Evaluation Responsible Agency: State
Found Violation: Yes
Evaluation Type Description: SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier: Not reported
Evaluation Responsible Sub-Organization: Not reported
Actual Return to Compliance Date: 20041021
Scheduled Compliance Date: 20050419
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

Evaluation Date: 19940623

BRAZEWAY INC. (Continued) **1000443278**

Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19950505
Scheduled Compliance Date:	19940916
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20011005
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20050419
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20011005
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20041021
Evaluation Responsible Agency:	State
Found Violation:	Yes

BRAZEWAY INC. (Continued) **1000443278**

Evaluation Type Description:	NO LONGER A SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20011005
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	19950505
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOLLOW-UP INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20011005
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Evaluation Date:	20011218
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20050419
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20011005
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120807
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20041021
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NO LONGER A SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20050419
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20020709
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20020805
Scheduled Compliance Date:	20020813
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20011218
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NON-FINANCIAL RECORD REVIEW
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021
Scheduled Compliance Date:	20060101
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20070320
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	PPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20071218
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20120618
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20120927
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20171226
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported
Evaluation Date:	20171121
Evaluation Responsible Agency:	State

BRAZEWAY INC. (Continued) **1000443278**

Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19971030
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19940623
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19950505
Scheduled Compliance Date:	19940916
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20171121
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20180322
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	20041021
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	NO LONGER A SIGNIFICANT NON-COMPLIER
Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20041021

BRAZEWAY INC. (Continued) **1000443278**

Scheduled Compliance Date:	20031231
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

ICIS:

Enforcement Action ID:	MI000A0000260910001400006
FRS ID:	110000409861
Action Name:	BRAZEWAY INC 260910001400006
Facility Name:	BRAZEWAY INC
Facility Address:	2711 E MAUMEE ADRIAN, MI 49221
Enforcement Action Type:	Notice of Violation
Facility County:	LENAWEE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3354
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	41.89116
Longitude in Decimal Degrees:	-84.00474
Permit Type Desc:	Not reported
Program System Acronym:	MI00000000000A2864
Facility NAICS Code:	331316
Tribal Land Code:	Not reported

Enforcement Action ID:	MI000A0000260910001400005
FRS ID:	110000409861
Action Name:	BRAZEWAY INC 260910001400005
Facility Name:	BRAZEWAY INC
Facility Address:	2711 E MAUMEE ADRIAN, MI 49221
Enforcement Action Type:	Notice of Violation
Facility County:	LENAWEE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3354

BRAZEWAY INC. (Continued) **1000443278**

Federal Facility ID: Not reported
Latitude in Decimal Degrees: 41.89116
Longitude in Decimal Degrees: -84.00474
Permit Type Desc: Not reported
Program System Acronym: MI00000000000A2864
Facility NAICS Code: 331316
Tribal Land Code: Not reported

Enforcement Action ID: MI000A0000260910001400004
FRS ID: 110000409861
Action Name: BRAZEWAY INC 260910001400004
Facility Name: BRAZEWAY INC
Facility Address: 2711 E MAUMEE
ADRIAN, MI 49221
Enforcement Action Type: Notice of Violation
Facility County: LENAWEE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3354
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 41.89116
Longitude in Decimal Degrees: -84.00474
Permit Type Desc: Not reported
Program System Acronym: MI00000000000A2864
Facility NAICS Code: 331316
Tribal Land Code: Not reported

US AIRS MINOR:
Envid: 1000443278
Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
D and B Number: Not reported
Primary SIC Code: 3354
NAICS Code: 331316
Default Air Classification Code: MIN
Facility Type of Ownership Code: POF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS MINOR:
Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-01-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864

BRAZEWAY INC. (Continued) **1000443278**

Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-08-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-03-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-10-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

BRAZEWAY INC. (Continued) **1000443278**

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1994-09-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-04-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-08-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-09-08 00:00:00
Activity Status Date: 1989-09-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 05
Programmatic ID: AIR MI00000000000A2864
Facility Registry ID: 110000409861
Air Operating Status Code: OPR
Default Air Classification Code: MIN
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-01-17 00:00:00
Activity Status Date: 1990-01-17 00:00:00
Activity Group: Enforcement Action

BRAZEWAY INC. (Continued) **1000443278**

Activity Type: Administrative - Informal
Activity Status: Achieved

E MANIFEST:

Manifest Tracking Number:	011748767FLE
Last Updated Date:	20190301
Shipped Date:	20190207
Received Date:	20190213
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	MID005035910
Generator Name:	Brazeway Inc
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	2711 E MAUMEE ST
Generator Mail Street 2:	Not reported
Generator Mail City:	ADRIAN
Generator Mail State:	MI
Generator Mail Zip:	49221
Generator Location Street Number:	Not reported
Generator Location Street 1:	2711 E MAUMEE ST
Generator Location Street 2:	Not reported
Generator Location City:	ADRIAN
Generator Location Zip:	49221
Generator Location State:	MI
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	MID980991566
Designated Facility Name:	Eq Detroit Inc
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	1923 FREDERICK ST
Designated Facility Mail City:	DETROIT
Designated Facility Mail Zip:	48211
Designated Facility Mail State:	MI
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	1923 FREDERICK ST
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	DETROIT
Designated Facility Location Zip:	48211
Designated Facility Location State:	MI
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	017017948FLE
Last Updated Date:	20230309
Shipped Date:	20230210
Received Date:	20230301
Manifest Status:	Corrected
Submission Type:	DataImage5Copy
Origin Type:	Service
Generator EPA ID:	MID005035910
Generator Name:	Brazeway Inc.
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	2711 E. MAUMEE STREET
Generator Mail Street 2:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Generator Mail City:	ADRIAN
Generator Mail State:	MI
Generator Mail Zip:	49221
Generator Location Street Number:	Not reported
Generator Location Street 1:	2711 E. MAUMEE STREET
Generator Location Street 2:	Not reported
Generator Location City:	ADRIAN
Generator Location Zip:	49221
Generator Location State:	MI
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	MID980991566
Designated Facility Name:	Eq Detroit, Inc.
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	1923 FREDERICK STREET
Designated Facility Mail City:	DETROIT
Designated Facility Mail Zip:	48211
Designated Facility Mail State:	MI
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	1923 FREDERICK STREET
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	DETROIT
Designated Facility Location Zip:	48211
Designated Facility Location State:	MI
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	017017949FLE
Last Updated Date:	20230327
Shipped Date:	20230210
Received Date:	20230214
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	MID005035910
Generator Name:	Brazeway Inc
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	2711 E MAUMEE ST
Generator Mail Street 2:	Not reported
Generator Mail City:	ADRIAN
Generator Mail State:	MI
Generator Mail Zip:	49221
Generator Location Street Number:	Not reported
Generator Location Street 1:	2711 E MAUMEE ST
Generator Location Street 2:	Not reported
Generator Location City:	ADRIAN
Generator Location Zip:	49221
Generator Location State:	MI
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	PAD000797548
Designated Facility Name:	Fielding Environmental Llc
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	150 W 4TH AVE
Designated Facility Mail City:	FREEDOM
Designated Facility Mail Zip:	Not reported

BRAZEWAY INC. (Continued) **1000443278**

Designated Facility Mail State:	PA
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	150 W 4TH AVE
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	FREEDOM
Designated Facility Location Zip:	15042
Designated Facility Location State:	PA
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	017017952FLE
Last Updated Date:	20230427
Shipped Date:	20230210
Received Date:	20230221
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	MID005035910
Generator Name:	Brazeway Inc
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	2711 E MAUMEE ST
Generator Mail Street 2:	Not reported
Generator Mail City:	ADRIAN
Generator Mail State:	MI
Generator Mail Zip:	49221
Generator Location Street Number:	Not reported
Generator Location Street 1:	2711 E MAUMEE ST
Generator Location Street 2:	Not reported
Generator Location City:	ADRIAN
Generator Location Zip:	49221
Generator Location State:	MI
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	OHR000034025
Designated Facility Name:	Lamps Inc Dba Environmental Recycling
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	PO BOX 167
Designated Facility Mail City:	BOWLING GREEN
Designated Facility Mail Zip:	43402
Designated Facility Mail State:	OH
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	527 E WOODLAND CIR
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	BOWLING GREEN
Designated Facility Location Zip:	43402
Designated Facility Location State:	OH
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

PCB Information:

Manifest Tracking Number:	017017952FLE
Waste Line Number:	1
Article or Container ID:	BAW 021623A
Bulk Identity:	Not reported
Date of Removal:	20230209

BRAZEWAY INC. (Continued) **1000443278**

Load Type: ArticleInContainer
Load Type Description: Article in Container
Waste Type: SOLID
Weight: 25

Transporter:
Manifest Tracking Number: 017017952FLE
Transporter Line Number: 1
Transporter EPA ID: MID059912956
Transporter Name: Sqs Inc Dba Environmental Recycling Group

Manifest Tracking Number: 017017952FLE
Transporter Line Number: 2
Transporter EPA ID: OHR000034025
Transporter Name: Lamps Inc Dba Environmental Recycling

Waste Line:
Manifest Tracking Number: 017017952FLE
Waste Line Number: 1
U.S. DOT Hazardous Indicator: Y
U.S. DOT ID Number: UN3432
U.S. DOT Description: Rq Un3432, Waste Polychlorinated Biphenyls, Solid, 9 , Ii Erg#171
Non-Hazardous Waste Description: Not reported
Number of Containers: 1
Container Type Code: DF
Container Type Description: Fiberboard or plastic drums, barrels, kegs
Waste Quantity: 25
Quantity Unit of Measure Code: K
Quantity Unit of Measure Description: Kilograms
Waste Quantity, in Tons: 0.027562484
Acute Waste Quantity, in Tons: 0
Non-Acute Waste Quantity, in Tons: 0.027562484
Waste Quantity, in Kilograms: 25
Acute Waste Quantity, in Kilograms: 0
Non-Acute Waste Quantity, in Kilorgrams: 25
Management Method Code: Not reported
Management Method Description: Not reported
Waste Residue Indicator: N
Quantity Discrepancy Indicator: Y
Waste Type Discrepancy Indicator: N
Waste Density: Not reported
Waste Density Unit of Measure Code: Not reported
Waste Density Unit of Measure Description: Not reported
Form Code: Not reported
Form Code Description: Not reported
Source Code: Not reported
Source Code Description: Not reported
Waste Minimization Code: Not reported
Waste Minimization Code Description: Not reported
Consent Number: Not reported
EPA Waste Indicator: N

A9 **BRAZEWAY INC-ADRIAN** **AUL** **S107696329**
NW **2711 EAST MAUMEE STREET** **INVENTORY** **N/A**
1/2-1 **ADRIAN, MI 49221** **PART 201**
0.974 mi. **NPDES**
5144 ft. **Site 2 of 2 in cluster A** **WDS**
ENVIRO

Actual:
800 ft.

Focus Map:
1

AUL:

Name:	BRAZEWAY - RAILROAD PROPERTY
Address:	2711 EAST MAUMEE STREET
City,State,Zip:	MADISON CHARTER TOWNSHIP, MI 49221
Status:	Recorded
Site Name:	Brazeway
Property:	Off-Site
Land Use Restriction Type:	RC
Program Type:	Part 201
Program Support Assigned User:	Nicholas Ekel
Program Support Assigned Date:	03/31/2015
Legal Description Of Property:	Site Address
Based On The Deq Ref #:	11120106044
MDEQ Reference Number:	RC-RRD-201-06-044
Property Or Description Restricted Area:	Not reported
Lead Division:	RRD
File Name Of Hyperlinked Legal Doc:	U:\\KERMIT\\11120106044.PDF
Mapped Polygons Area In Acres:	2.3410000000000002
Mapped Polygons Area In Square Miles:	0.0036
Date Data Entry Started:	05/06/2015
Date Data Entry Finished:	05/06/2015
Individual Or Staff Assoc With The Mapping:	Nicholas Ekel
Program Used To Map Restricted Features:	ArcGIS 10.2
Date Legal Paperwork Stamped/Filed/Register Of Deeds:	09/13/2006
Commercial I Land Use Restriction:	0
Commercial Ii Land Use Restriction:	0
Commercial Iii Land Use Restriction:	0
Commercial Iv Land Use Restriction:	0
Industrial Land Use Restriction:	0
Residential Land Use Restriction:	1
Recreational Land Use Restriction:	1
Multiple Land-Use Restrictions:	0
Site Specific Restrictions:	1
Groundwater Consumption Restrictions:	1
Groundwater Contact Restrictions:	0
Special Well Construction Requirements:	0
Special Building Restrictions:	0
Excavation And Soil Movement Restrictions:	0
Soil Movement Requirements:	1
There Is A Restriction On All Construction:	1
Monitoring Well Protected, No Tampering Or Removal:	0
There Is An Exposure Barrier In Place:	0
There Is A Health And Safety Plan:	0
There Is A Permanent Marker On The Site:	1
Comment:	20150331 - LRUR was sent in by Sybil Kolon of RRD - Nick Ekel
Map Comments:	20150331 - LRUR is NOT mapped in KERMIT - Nick Ekel 20150506 - LRUR is mapped in KERMIT - Nick Ekel

Name:	BRAZEWAY
Address:	2711 EAST MAUMEE STREET
City,State,Zip:	MADISON CHARTER TOWNSHIP, MI 49221
Status:	Recorded

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

Site Name:	Brazeway
Property:	on-site
Land Use Restriction Type:	RC
Program Type:	Part 201
Program Support Assigned User:	Nicholas Ekel
Program Support Assigned Date:	03/10/2014
Legal Description Of Property:	Site Address
Based On The Deq Ref #:	11120113014
MDEQ Reference Number:	RC-RRD-201-13-014
Property Or Description Restricted Area:	Not reported
Lead Division:	RD
File Name Of Hyperlinked Legal Doc:	U:\\KERMIT\\11120113014.PDF
Mapped Polygons Area In Acres:	2.9228000000000001
Mapped Polygons Area In Square Miles:	0.0045
Date Data Entry Started:	03/10/2014
Date Data Entry Finished:	03/10/2014
Individual Or Staff Assoc With The Mapping:	Nicholas Ekel
Program Used To Map Restricted Features:	ArcGIS 10.1
Date Legal Paperwork Stamped/Filed/Register Of Deeds:	05/24/2013
Commercial I Land Use Restriction:	0
Commercial Ii Land Use Restriction:	0
Commercial Iii Land Use Restriction:	0
Commercial Iv Land Use Restriction:	0
Industrial Land Use Restriction:	0
Residential Land Use Restriction:	1
Recreational Land Use Restriction:	0
Multiple Land-Use Restrictions:	0
Site Specific Restrictions:	1
Groundwater Consumption Restrictions:	1
Groundwater Contact Restrictions:	0
Special Well Construction Requirements:	0
Special Building Restrictions:	1
Excavation And Soil Movement Restrictions:	0
Soil Movement Requirements:	0
There Is A Restriction On All Construction:	0
Monitoring Well Protected, No Tampering Or Removal:	0
There Is An Exposure Barrier In Place:	1
There Is A Health And Safety Plan:	0
There Is A Permanent Marker On The Site:	0
Comment:	April 18, 2013 RRD project manager requested DEQ reference # for site.
Map Comments:	20140310 - LRUR is NOT mapped in KERMIT - Nick Ekel 20140310 - LRUR is mapped in KERMIT - Nick Ekel

Name:	BRAZEWAY
Address:	2711 EAST MAUMEE
City,State,Zip:	ADRIAN CITY, MI 49221
Status:	Issued
Site Name:	Not reported
Property:	On-Site
Land Use Restriction Type:	Other IC
Program Type:	Other
Program Support Assigned User:	Nicholas Ekel
Program Support Assigned Date:	02/01/2016
Legal Description Of Property:	Site ID# 46000168
Based On The Deq Ref #:	10100014001
MDEQ Reference Number:	Other IC-RRD-000-14-001
Property Or Description Restricted Area:	Not reported

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

Lead Division:	RRD
File Name Of Hyperlinked Legal Doc:	U:\\KERMIT\\10100014001.PDF
Mapped Polygons Area In Acres:	88.3309
Mapped Polygons Area In Square Miles:	0.138
Date Data Entry Started:	02/02/2016
Date Data Entry Finished:	02/02/2016
Individual Or Staff Assoc With The Mapping:	Nicholas Ekel
Program Used To Map Restricted Features:	ArcGIS 10.3
Date Legal Paperwork Stamped/Filed/Register Of Deeds:	09/10/2014
Commercial I Land Use Restriction:	0
Commercial Ii Land Use Restriction:	0
Commercial Iii Land Use Restriction:	0
Commercial Iv Land Use Restriction:	0
Industrial Land Use Restriction:	0
Residential Land Use Restriction:	0
Recreational Land Use Restriction:	0
Multiple Land-Use Restrictions:	0
Site Specific Restrictions:	1
Groundwater Consumption Restrictions:	1
Groundwater Contact Restrictions:	0
Special Well Construction Requirements:	0
Special Building Restrictions:	0
Excavation And Soil Movement Restrictions:	0
Soil Movement Requirements:	0
There Is A Restriction On All Construction:	0
Monitoring Well Protected, No Tampering Or Removal:	0
There Is An Exposure Barrier In Place:	0
There Is A Health And Safety Plan:	0
There Is A Permanent Marker On The Site:	0
Comment:	Not reported
Map Comments:	20160201 - LRUR is NOT mapped in KERMIT - Nick Ekel 20160202 - LRUR is mapped in KERMIT - Nick Ekel

INVENTORY:

Name:	BRAZEWAY
Address:	2711 EAST MAUMEE
City,State,Zip:	ADRIAN, MI 49221
Township:	Madison
District:	Jackson
Data Source:	Risks Present and Require Action in Short-term
Lust Name:	Not reported
Regulatory Program:	201
Release Status:	Not reported
Project Manager:	Hutsell, Deanna
Latitude:	41.89178897
Longitude:	-84.00829623

PART 201:

Name:	BRAZEWAY
Address:	2711 EAST MAUMEE
City,State,Zip:	ADRIAN, MI 49221
Facility ID:	46000168
Facility Status:	Interim Response in progress
Latitude:	41.89178897
Source:	Aluminum Extruded Products
Longitude:	-84.00829623

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

SAM Score: Not reported
SAM Score Date: 2004-05-21
Township: 07S
Range: 03E
Section: 1
Quarter: SE
Quarter/Quarter: SE
Pollutants: 1,4-Dioxane; PCE; TCE
Location Type: 201
Work Unit: Not reported
Project Manager: Hutsell, Deanna
Risk Condition: Risks Present and Require Action in Short-term

MI NPDES:
Name: BRAZEWAY INC-ADRIAN
Address: 2711 EAST MAUMEE STREET
City,State,Zip: ADRIAN, MI 49221
Permit Number: NEC186360
Permitee PO Box: Not reported
Permitee Email: Not reported
Issue Date: 09/22/2015
Effective Date: 09/22/2015
Expiration Date: 09/22/2020
Permittee Name: Brazeway Incorporated
Permittee Address: 2711 East Maumee Street
Permittee Addr2: Not reported
Permittee City,St,Zip: Adrian, MI 49221
Permit Type: Not reported
Facility Name 2: Not reported
Facility Name 3: Not reported
Facility Name 4: Not reported
Designed Name: Not reported
Latitude: 41.8912
Lat Direction: Not reported
Lat Type Code: Not reported
Longitude: -84.0062
Lon Direction: Not reported
Lon Type Code: Not reported
Hydrologic Unit Code: Not reported
Permit Status: Closed
COC Permit Category: NPDES Industrial Storm Water No Exposure Certificate (NEC)
DEQ District Email: Jackson
DEQ Permit Compliance Manager: Matt Konieczki
DEQ Permit Compliance Manager Email: Not reported

Name: BRAZEWAY INC-ADRIAN
Address: 2711 EAST MAUMEE STREET
City,State,Zip: ADRIAN, MI 49221
Permit Number: NEC155980
Permitee PO Box: Not reported
Permitee Email: Not reported
Issue Date: 12/09/2005
Effective Date: 12/09/2005
Expiration Date: 12/09/2010
Permittee Name: Brazeway, Incorporated
Permittee Address: 2711 East Maumee Street
Permittee Addr2: Not reported

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

Permittee City,St,Zip:	Adrian, MI 49221
Permit Type:	Not reported
Facility Name 2:	Not reported
Facility Name 3:	Not reported
Facility Name 4:	Not reported
Designed Name:	Not reported
Latitude:	41.8912
Lat Direction:	Not reported
Lat Type Code:	Not reported
Longitude:	-84.0062
Lon Direction:	Not reported
Lon Type Code:	Not reported
Hydrologic Unit Code:	Not reported
Permit Status:	Closed
COC Permit Category:	NPDES Industrial Storm Water No Exposure Certificate (NEC)
DEQ District Email:	Jackson
DEQ Permit Compliance Manager:	Greg Merricle (INACTIVE)
DEQ Permit Compliance Manager Email:	Not reported

Name:	BRAZEWAY INC-ADRIAN
Address:	2711 EAST MAUMEE STREET
City,State,Zip:	ADRIAN, MI 49221
Permit Number:	NEC187097
Permitee PO Box:	Not reported
Permitee Email:	Not reported
Issue Date:	01/21/2021
Effective Date:	01/21/2021
Expiration Date:	01/21/2026
Permittee Name:	Brazeway LLC
Permittee Address:	2711 E MAUMEE ST
Permittee Addr2:	Not reported
Permittee City,St,Zip:	ADRIAN, MI 49221
Permit Type:	Not reported
Facility Name 2:	Not reported
Facility Name 3:	Not reported
Facility Name 4:	Not reported
Designed Name:	Not reported
Latitude:	41.8912
Lat Direction:	Not reported
Lat Type Code:	Not reported
Longitude:	-84.0062
Lon Direction:	Not reported
Lon Type Code:	Not reported
Hydrologic Unit Code:	Not reported
Permit Status:	In Effect
COC Permit Category:	NPDES Industrial Storm Water No Exposure Certificate (NEC)
DEQ District Email:	Jackson
DEQ Permit Compliance Manager:	Matt Konieczki
DEQ Permit Compliance Manager Email:	konieczkim@michigan.gov

WDS:

Name:	BRAZEWAY INC
Address:	2711 E MAUMEE ST
City,State,Zip:	ADRIAN, MI 49221
Site Id:	MID005035910
WMD Id:	393005
Site Specific Name:	BRAZEWAY INC

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

Mailing Address: 2711 E MAUMEE ST
Mailing City/State/Zip: 49221
Mailing County: LENAWEE

ENVIRO:
Site ID: -4258905625801294899
Name: BRAZEWAY INC-ADRIAN
Address: 2711 EAST MAUMEE STREET
Latitude: 41.8912
Longitude: -84.0062
Site URL: https://mienviro.michigan.gov/nsite/Profile/-4258905625801294899?standalone=1

Document File:
Site ID: -4258905625801294899
Document ID: -8500654752657027372
Document Name: HP5-Y4ZE-YE9WN V1.pdf
Document Type: Misc. Application and Request Docs
Document Description: Application/Request: HP5-Y4ZE-YE9WN. Submission PDF
Document Date: 1/21/2021 12:00:00 AM
Site Number: 112419
URL: https://mienviro.michigan.gov/ncore/downloadpdf/-8500654752657027372,

Site ID: -4258905625801294899
Document ID: -864971759924330859
Document Name: Brazeway.pdf
Document Type: Inspection Report
Document Description: Inspection/Evaluation: E-16T7-YRNM-KJT3 on 01/22/2021. Inspection Letter
Document Date: 1/22/2021 12:00:00 AM
Site Number: 112419
URL: https://mienviro.michigan.gov/ncore/downloadpdf/-864971759924330859,

Site ID: -4258905625801294899
Document ID: -5183915099561020731
Document Name: 36452.pdf
Document Type: Conversion - Compliance Action
Document Description: Permit: NEC155980 v1.0.
Document Date: 12/9/2005 12:00:00 AM
Site Number: 112419
URL: https://mienviro.michigan.gov/ncore/downloadpdf/-5183915099561020731,

Site ID: -4258905625801294899
Document ID: 728274299393988240
Document Name: Inspection Report.pdf
Document Type: Inspection Report
Document Description: Inspection/Evaluation: E-16T7-YRNM-KJT3 on 01/22/2021.
Document Date: 1/22/2021 12:00:00 AM
Site Number: 112419
URL: https://mienviro.michigan.gov/ncore/downloadpdf/728274299393988240,

Environmental Intentions:
Site ID: -4258905625801294899
Site Number: 112419
Program ID: NEC187097
Start Date Description: Effective
Start Date: 1/21/2021 12:00:00 AM

BRAZEWAY INC-ADRIAN (Continued) **S107696329**

End Date Description:	Expiration / Termination
End Date:	1/21/2026 12:00:00 AM
Type Code:	NPDES_NEC
ENV INT Number:	NEC187097
Type Description Long:	Permit Number: NEC187097 v1. 0. Category: NPDES Industrial Storm Water No Exposure Certificate (NEC). Status: In Effect
Type Description:	NPDES Industrial Storm Water No Exposure Certificate (NEC)
Contact Name:	Matt Konieczki | (517) 867-0745 | konieczkim@michigan.gov
ENV INT Notes:	Not reported

Evaluations:

Site ID:	-4258905625801294899
Source ID:	-4258905625801294899
Program Code:	NPDES
Program Description:	WRD - NPDES
Evaluation Gen. Type:	Storm Water Industrial/Commercial Inspection -- Permit: NEC186360
Evaluation Gen. Description:	Storm Water Industrial/Commercial Inspection -- Permit: NEC186360. Evaluation Reference: E-16T7-YRNM-KJT3
Evaluation Type:	Storm Water Industrial/Commercial Inspection
Evaluation SEQ:	1
Evaluation Date:	1/22/2021 12:00:00 AM
Notes:	Not reported

Count: 30 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ADRIAN	1003871767	MICHIGAN PRODUCTS DAIRY COMPANY	OGDEN HIGHWAY	49221	SEMS-ARCHIVE
ADRIAN	1007444601	LENAWEE DISPOSAL SERVICE	OGDEN HWY .4 MILE NORTH OF DEERFIELD RD		ODI
ADRIAN	S131671105	1336 & 1406 E MAUMEE	1336 & 1406 EAST MAUMEE STREET	49221	PART 201, INVENTORY
ADRIAN	S128479261		US-223, OUTSIDE OF ADRIAN		SPILLS
ADRIAN	S128477112		US-223		SPILLS
ADRIAN	S132247278		(UNSURE OF STREET NUMBER) OGDEN HIGHWAY		SPILLS
ADRIAN	S128484459		NORTH OGDEN HWY.		SPILLS
ADRIAN	S128483972		OGDEN HIGHWAY		SPILLS
ADRIAN	S132230646		(UNSURE OF STREET NUMBER) OGDEN HIGHWAY		SPILLS
ADRIAN	S128485476		OGDEN RD.		SPILLS
ADRIAN	1027033141	LENAWEE DISPOSAL SERVICE, INC. LANDFILL	1983 NORTH OGDEN HIGHWAY	49221	FINDS
ADRIAN	1027794788	AUTO-OWNERS INSURANCE	5725 W US HIGHWAY 223	49221	E MANIFEST
ADRIAN	1027865045	SCOTTY'S BODY SHOP	2410 US HIGHWAY 223	49221	E MANIFEST
ADRIAN	S132187136	HALLIWILL FARMS	8400 HIGHWAY US-223 WEST	49221	AIRS
ADRIAN	S131593733	GLOBAL REMEDIATION TECHNOLOGIES, INC	3446 HIGHWAY US-223 EAST	49221	AIRS
ADRIAN	S111955944	SILVER FOAM DISTRIBUTING	1/2 M N OF TREAT HWY, US-223	49221	WDS
BLISSFIELD	S110532017	BLISSFIELD RR	US-223 (ADRIAN STREET)		BROWNFIELDS
BLISSFIELD	S128468060		WEST OF 11355 US-223 IN BLISSFIELD		SPILLS
BLISSFIELD	S112199414		CORNER US-223 AND MAPLE ST		SPILLS
BLISSFIELD	S128486870		CORNER US-223 AND MAPLE ST		SPILLS
LENAWEE COUNTY	S129919272	BLISSFIELD RR	US-223 (ADRIAN ST.)		SSCUP
LENAWEE COUNTY	S128463634		US-223/EAST OF DIVISION ST.		SPILLS
PALMYRA	S128475450		US-223 CROSSROAD OF DRIGGS - PALMYRA		SPILLS
PALMYRA	1016453605	SAVOY ENERGY LP	COOK RD N41*50'21.7"=41.84N	49268	RCRA NonGen / NLR
PALMYRA	1014924803	SAVOY ENERGY LP	CARLETON DR	49268	RCRA NonGen / NLR
PALMYRA	1025807444	SAVOY ENERGY LP	COOK RD N4150'21.7 =41.84N	49268	FINDS
PALMYRA	1015948459	SAVOY ENERGY LP	CARLETON DR	49268	FINDS, ECHO
PALMYRA	1016707567	SAVOY ENERGY LP	COOK RD N41*50'21.7 =41.84N	49268	ECHO
PALMYRA	S114405242	SAVOY ENERGY LP	COOK RD N41*50'21.7"=41.84N	49268	WDS
PALMYRA	S111985362	SAVOY ENERGY LP	CARLETON DR	49268	WDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/07/2024
Date Data Arrived at EDR: 06/25/2024
Date Made Active in Reports: 09/19/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 09/24/2024
Next Scheduled EDR Contact: 01/09/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/08/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/08/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/31/2013
Date Made Active in Reports: 11/20/2013
Number of Days to Update: 20

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/17/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/11/2024
Number of Days to Update: 86

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4035
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9837
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/15/2024
Date Data Arrived at EDR: 03/19/2024
Date Made Active in Reports: 06/17/2024
Number of Days to Update: 90

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

UST 2: Underground Storage Tank Listing
A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 01/08/2024
Date Data Arrived at EDR: 01/18/2024
Date Made Active in Reports: 04/09/2024
Number of Days to Update: 82

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/20/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 1

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4828
Last EDR Contact: 08/13/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 04/16/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4805
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/19/2024
Date Made Active in Reports: 07/24/2024
Number of Days to Update: 5

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 10/15/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/11/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/11/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 84

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-5719
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5136
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/08/2024
Number of Days to Update: 8

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

DEL PART 201: Delisted List of Contaminated Sites

A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion.
A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83
Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/09/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 09/30/2024
Number of Days to Update: 83
Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-7603
Last EDR Contact: 10/08/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/08/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-8427
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/12/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 58

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/12/2024
Next Scheduled EDR Contact: 11/26/2024
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/11/2024
Date Data Arrived at EDR: 07/11/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 1

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 08/27/2024
Date Data Arrived at EDR: 09/03/2024
Date Made Active in Reports: 09/19/2024
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 07/12/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 05/23/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/06/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 89

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/27/2023
Date Made Active in Reports: 02/22/2024
Number of Days to Update: 87
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/22/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2024
Date Data Arrived at EDR: 07/08/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 80

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/08/2024
Next Scheduled EDR Contact: 11/26/2024
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/14/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7
Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50
Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/20/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97
Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/22/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/13/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 82
Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98
Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/22/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8
Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 08/20/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/23/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/13/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/13/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 57

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/13/2024
Next Scheduled EDR Contact: 11/26/2024
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 09/05/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: No Update Planned

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database

US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database

EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 07/24/2023
Date Data Arrived at EDR: 04/18/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

PFAS: PFAS Contaminated Sites Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 02/15/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/24/2024
Number of Days to Update: 79

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

AQUEOUS FOAM: Aqueous Film Forma Foam Listing

Sites with Aqueous Film Forming Foam contamination, as reported to the Department of Environment, Great Lakes & Energy. AFFF is a fire suppressant used to extinguish flammable liquid fires such as fuel fires.

Date of Government Version: 06/07/2024
Date Data Arrived at EDR: 06/24/2024
Date Made Active in Reports: 08/19/2024
Number of Days to Update: 56

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/12/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 86

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-7074
Last EDR Contact: 09/05/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-284-7699
Last EDR Contact: 10/07/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/15/2024
Date Data Arrived at EDR: 08/16/2024
Date Made Active in Reports: 11/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environment, Great Lakes, and Energy
Telephone: 586-753-3754
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/25/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/02/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4586
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/02/2024
Date Data Arrived at EDR: 04/04/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 89

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-6610
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 06/20/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/16/2024
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

FIN ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 06/24/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 07/15/2024
Number of Days to Update: 13

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD: Lead Information Registry Listing

All properties in this registry received a lead-based paint inspection or a lead risk assessment, and a lead abatement service. A lead-based paint inspection identifies any lead present on the property. The lead risk assessment determines if any of the lead found is a hazard. Lead abatement services address or remove the lead hazards.

Date of Government Version: 02/28/2024
Date Data Arrived at EDR: 02/29/2024
Date Made Active in Reports: 05/21/2024
Number of Days to Update: 82

Source: Department of Health & Human Services
Telephone: 517-335-9390
Last EDR Contact: 08/20/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 82

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 08/20/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Quarterly

MI MANIFEST: Hazardous Waste Manifest Data

A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a hazardous waste manifest to accompany such shipment.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 12/12/2023
Number of Days to Update: 172

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-6838
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 06/25/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 07/10/2024
Number of Days to Update: 14

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1300
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 07/16/2024
Date Data Arrived at EDR: 07/18/2024
Date Made Active in Reports: 10/08/2024
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1515
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 12/08/2023
Date Data Arrived at EDR: 12/11/2023
Date Made Active in Reports: 03/05/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-6562
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

ENVIRO: Michigan Enviro Information

MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

Date of Government Version: 06/28/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/03/2024
Number of Days to Update: 5

Source: Department of Environment, Great Lakes, & Energy
Telephone: 800-662-9278
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

SSCUP: State Owned Sites Cleanup Program List

Public Act 380 of 1996 amended Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, by adding Section 20108c and creating the State Sites Cleanup Fund (SSCUF) and the State Sites Cleanup Program (SSCUP). Its intent was to fund environmental cleanups at contaminated sites where the state is a liable party as an owner or operator of the site, as defined in Section 20126 of Part 201.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-5153
Last EDR Contact: 10/15/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 08/28/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

STREET AND ADDRESS INFORMATION

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EGLE PFAS Response

Adrian Landfill Incorporated (Adrian, Lenawee County)

Disclaimer: Web content may not be routinely updated on this page.

Please contact the Site Lead for the most up-to-date status of this site.

EGLE site lead

Brett Coulter, CoulterB1@Michigan.gov.

Waste Disposal Questions

Please note that this landfill is CLOSED and does not accept waste.

Background

Adrian Landfill Incorporated is located at 1970 Ogden Highway and operated by Republic Services Incorporated. The Department of Environment, Great Lakes, and Energy requested the site sample for PFAS due to the potential of groundwater contamination from the site and the proximity of potential drinking water receptors. The highest groundwater PFOS+PFOA result in monitoring wells was 85.7 ppt.

This facility is adjacent to the River Raisin, which is a major surface water feature and used for drinking water and irrigation. As part of the statewide public water supply sampling EGLE conducted in 2019, the River Raisin was sampled monthly from May through October; additional samples were also taken in 2019. Results are available on the MPART web site. Groundwater flow direction is east-southeast; nearby surface water flow in the River Raisin is to the south-southeast. Groundwater from the site discharges to the River Raisin, as does the treated groundwater from the pumping and treatment system.

Content posted May 2020.

Site map

See an aerial view of the location of the site.

Expand the map >

Drinking water

No residential well testing is planned as determined from a review of the PFAS results. PFAS is contained onsite with a pumping and treatment system that discharges the treated groundwater to the River Raisin.

Anticipated activities

Services will submit a plan to monitor PFAS along with the current monitoring activities.

Historical timeline

2019

- On August 1, 2019, Lakeshore Environmental Inc., on behalf of Republic Services, collected groundwater samples from seven on-site monitoring wells.
- On September 12, 2019, Republic Services contacted EGLE with groundwater sample results and indicated that one sample exceeded Part 201 drinking water criteria with a result of 74.9 ppt PFOS+PFAS. EGLE approved Republic Services to collect a confirmation sample to verify the result since the result was very close to the criteria value.
- On October 4, 2019, Lakeshore Environmental collected two groundwater confirmation samples from on-site monitoring wells, MW-1 and MW-25. Monitoring well MW-1 and MW-25 are in a downgradient location of the landfill, near the east-southeast corner.
- On October 25, 2019, EGLE received the groundwater sample results. The highest groundwater PFOS+PFOA result was 85.7 ppt from monitoring well MW-1. PFAS was detected in monitoring well MW-25 but below Part 201 criteria.

2020

- On February 14, 2020, an effluent sample from the purge and treatment system (which is discharged to the River Raisin) was sampled. The result was 34.9 ppt PFOS + PFOA, below the Part 201 criteria.
- On August 1, 2019, Lakeshore Environmental Inc., on behalf of Republic Services, collected groundwater samples from seven on-site monitoring wells.
- On September 12, 2019, Republic Services contacted EGLE with groundwater sample results and indicated that one sample exceeded Part 201 drinking water criteria with a result of 74.9 ppt PFOS+PFAS. EGLE approved Republic Services to collect a confirmation sample to verify the result since the result was very close to the criteria value.
- On October 4, 2019, Lakeshore Environmental collected two groundwater confirmation samples from on-site monitoring wells, MW-1 and MW-25. Monitoring well MW-1 and MW-25 are in a downgradient location of the landfill, near the east-southeast corner.
- On October 25, 2019, EGLE received the groundwater sample results. The highest groundwater PFOS+PFOA result was 85.7 ppt from monitoring well MW-1. PFAS was detected in monitoring well MW-25 but below Part 201 criteria.
- On February 14, 2020, an effluent sample from the purge and treatment system (which is discharged to the River Raisin) was sampled. The result was 34.9 ppt PFOS + PFOA, below the Part 201 criteria.

Sampling Results Summary: PFOS and PFOA Only

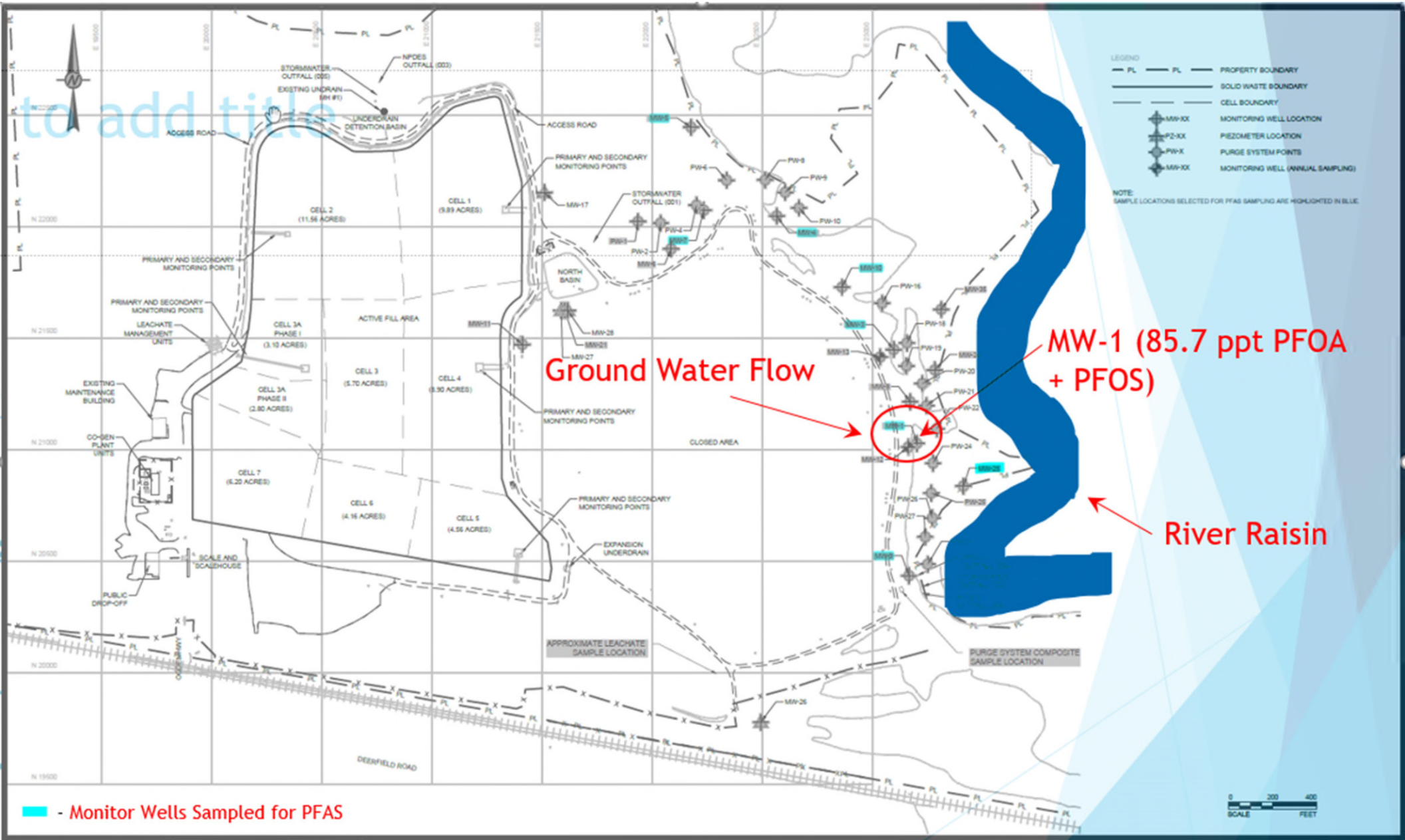
Type of Sample	Date Sampled (or Range)	Numberof Samples	Number of Results Received	Number of Non-Detects	Number Between Non-detect and Standard*	Number Greater Than or Equal to Standard
Groundwater	August 2019 - February 2020	10	10	1	7	2
Cumulative		10	10	1	7	2

**Groundwater results are compared to EGLE Part 201 Criteria of 70 ppt PFOS+PFOA.*

Sampling Notes

- None at this time.

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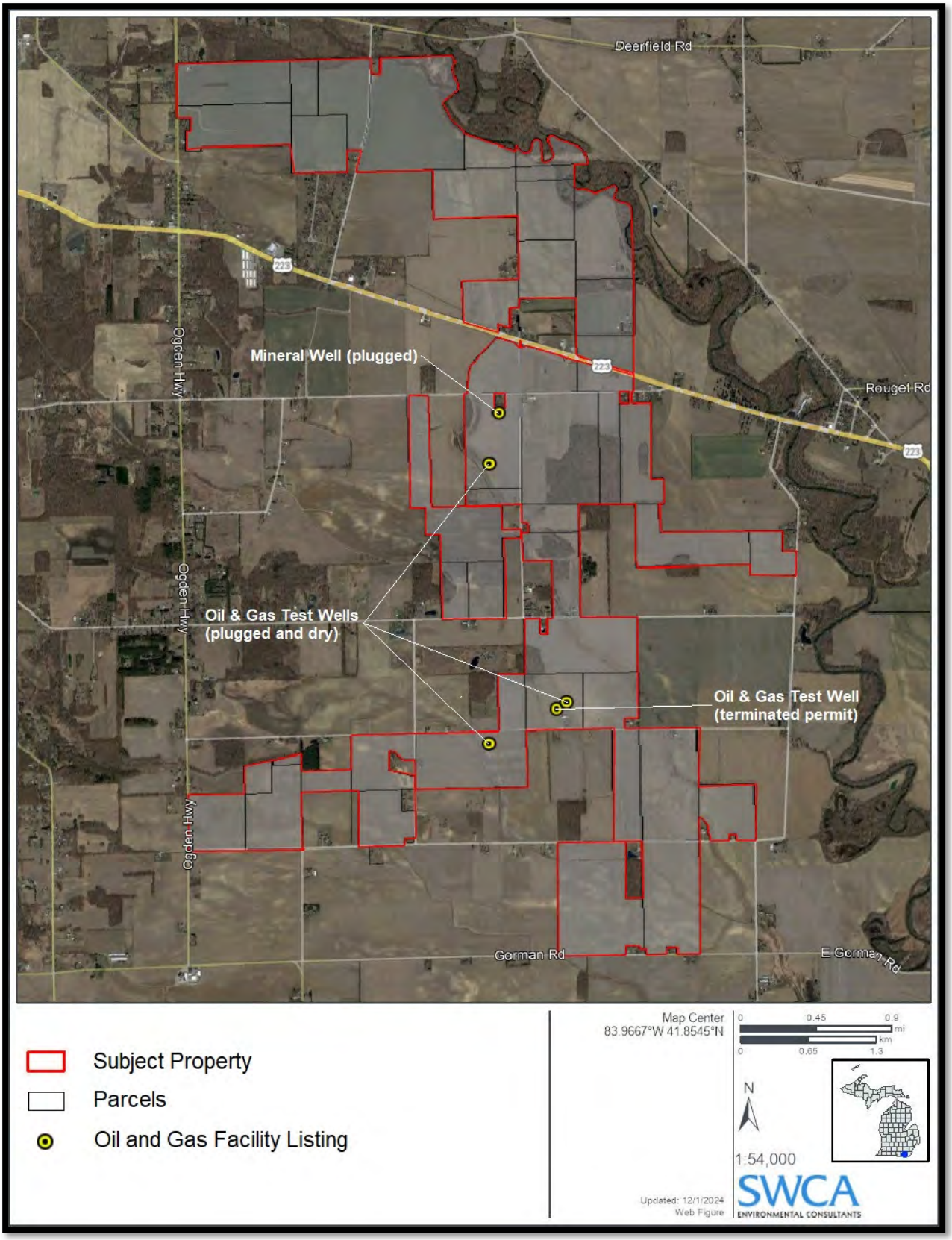


Brown AND Caldwell

DATE: April 2019

ADRIAN LANDFILL - 2019 GROUNDWATER MONITORING
SAMPLE LOCATIONS MAP - CLOSED AREA

FIGURE
2


Deerfield Rd
223
Ogden Hwy
Mineral Well (plugged)
Rouget Rd
Oil & Gas Test Wells
(plugged and dry)
Oil & Gas Test Well
(terminated permit)
Gorman Rd
E Gorman Rd
Subject Property
Parcels
Oil and Gas Facility Listing
Map Center
83.9667°W 41.8545°N
0 0.45 0.9
mi
km
0 0.65 1.3
N
1:54,000
Updated: 12/1/2024
Web Figure
SWCA
ENVIRONMENTAL CONSULTANTS

APPENDIX E

Subject Property Photographs



Photo 1. A typical barn on the subject property.



Photo 2. The interior of the barn in Photo 1.



Photo 3. This barn is in the northern portion of the subject property.



Photo 4. The interior of the barn in photo 3.



Photo 5. Electrical transmission lines running through a typical farm field on the subject property.



Photo 6. The interior of a barn in the northwestern corner of the subject property.



Photo 7. These drums were in a building in the northwestern corner of the subject property.



Photo 8. One of a few dilapidated and/or collapsed buildings on the subject property.



Photo 9. A typical farmhouse and farm dog on the subject property.



Photo 10. This open-ended storage structure is in the east of the subject property along Van Highway.



Photo 11. This 300 gallon polyethylene tote and empty above ground fuel tank are visible next to the structure in Photo 10.



Photo 12. Moderately stained soil inside the structure in photo 10.



Photo 13. Sheep inside a barn at the same farmstead as photo 10.



Photo 14. An aboveground storage tank obscured by weeds, south of the farmstead in Photo 10.



Photo 15. A pile of tires south of the farmstead in Photo 10.



Photo 16. This covered structure and aboveground fuel tank are at a farmstead southeast of Carleton Road and Meyers Highway.



Photo 17. A pallet of herbicide inside the structure in Photo 16.



Photo 18. These buildings are at the same farmstead as the structure in Photo 16.



Photo 19. These grain bins are typical of those seen throughout the subject property.



Photo 20. View of a typical farm field in the middle portion of the subject property.



Photo 21. The interior of a barn in the southern portion of the subject property.



Photo 22. The residence at a farmstead north of Cook Road on the subject property.



Photo 23. A few burn piles behind the farmstead in Photos 21 and 22.



Photo 24. This barn is in the southeast of the subject property, south of Cooks Road.



Photo 25. The interior of the barn in Photo 24.



Photo 26. A collapsed structure near the barn in Photo 24.



Photo 27. The interior of a barn east of Rau Highway, in the southwestern portion of the subject property.



Photo 28. A typical agricultural field in the southern portion of the subject property.



Photo 29. One of a few scrap and vegetative debris piles on the subject property.



Photo 30. One of several barns on the subject property.

Rouget Road Solar Farm

Exhibit A-1.5: Alternatives MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 N Clark St.
30th Floor
Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants
200 W 22nd St.
Suite 220
Lombard, IL 60148

EXHIBIT A-1.5 – ALTERNATIVES

A-1.5.(a) – Provide a map and description of each alternative site location, proposed site layout, or other alternatives that are or were considered, including rationale for why alternative locations were not selected for development. If the proposed site of the energy facility is undeveloped land, the applicant must provide a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen for the project site.

This narrative provides a detailed explanation of the rationale for selecting the Palmyra Township site for the proposed Rouget Road Solar Farm ("Project"). The site was identified and refined through an industry-standard, criteria-driven process. The Project footprint evolved based on feasibility assessments, environmental review, and landowner participation. The chosen site represents the most practical and efficient location for the Project, considering technical, regulatory, environmental, and market-based factors.

Siting projects is the first step along the road to success. RWE's process for finding and evaluating potential project sites follows the components described below. In general, RWE site selection is based on strong solar energy potential, proximity of adequate interconnection to the electricity grid, willing landowners, accessible sites, compatible land use, and limited environmental constraints. The approximate 1,606-acre Site Plan Boundary within the 2,133-acre Project Boundary has been continuously refined from the early stages of development through the preapplication stage as identification of environmental features, existing infrastructure, equipment, public input, and Project efficiency were incorporated into the facility design. As described, the Applicant applied and/or considered a variety of criteria when proposing the location of this Project: strong land fundamentals and compatible land use; existing transmission interconnection infrastructure; and limited environmental constraints. The Project Area is primarily comprised of relatively flat, open, agricultural land conducive to a solar energy facility with landowners interested in leasing and/or selling land for the Project. Transmission interconnection for the Project will be accommodated by the future Rouget 138-kV transmission line, eliminating the need for long gen-tie lines. The Project Area has been used for agricultural practices and provides few natural environmental constraints, and most of those that were identified could be avoided by Project design.

For more information, see also **Appendix I**, **Exhibit 1**, Direct Testimony of Kevin Cole ("K. Cole"), at pp. 8.

Site Identification Process and Key Selection Criteria

RWE employs a systematic, region-wide screening process to identify suitable project areas throughout Michigan and the broader U.S. Once a promising area is identified, development efforts focus on refining the Project footprint through land control, engineering analysis, and environmental due diligence. The Palmyra Township site was selected based on the following key criteria:

- **Transmission Infrastructure**: The site is located near existing high-voltage transmission infrastructure with sufficient available capacity. This made it an attractive candidate for interconnection under the Midcontinent Independent System Operator ("MISO") system and aligns with long-term grid integration planning.
- **Topography**: The Project area is relatively flat, minimizing the need for grading and reducing the cost and complexity of construction. Flat terrain also supports efficient solar array layout and optimal energy production.

- **Land Use Compatibility**: Surrounding land uses are largely agricultural or low-density residential, which are generally compatible with utility-scale solar development. The Project was designed to minimize visual and operational conflicts with neighboring properties.
- **Landowner Participation**: The final Project footprint reflects a high level of voluntary participation by contiguous landowners. The ability to secure sufficient acreage in a compact, buildable configuration was a decisive factor in the site's selection.
- **Regulatory Environment**: At the time of site identification and early development, Palmyra Township maintained a favorable ordinance that permitted utility-scale solar under a clearly defined process. This regulatory posture supported investment in project design, land acquisition, and community outreach. However, in February 2025, the Township adopted a substantially more restrictive ordinance that has made it impossible to obtain a Special Use Permit ("SUP") at the local level for a project of this size and type. This regulatory change occurred after significant development and due diligence investments had been made.
- **Regional Development Experience**: RWE is actively developing a portfolio of seven other utility-scale solar projects across Southern Michigan, one of which has already received full local permitting approval. These projects reflect a broader strategic siting effort within the state and demonstrate RWE's commitment to working within a variety of local and regulatory frameworks. The Palmyra Township site emerged from this broader screening process as a technically and commercially optimal location.

RWE's ongoing development of seven other solar projects in Southern Michigan, including one that has successfully completed local permitting, provides important context for understanding the company's site selection strategy. These efforts reflect a broader regional siting assessment that considers local ordinance conditions, infrastructure availability, land use compatibility, and landowner interest. The Palmyra Township site was selected as part of this larger portfolio strategy due to its alignment with these factors at the time. The need to proceed under the centralized siting process is project-specific and reflects subsequent local ordinance changes—not a pattern of avoiding local processes.

Unlike a process where multiple fully developed sites are compared side-by-side, solar developers typically identify promising regions based on these criteria and then refine the footprint by excluding parcels with environmental constraints or without willing participation. This was the approach for the Rouget Road Solar Project.

Evolution of the Project Footprint

Through independent review and the MISO interconnection process, the existing Beecher-Pixley 138-kV transmission line was identified as an interconnection point for the Project due to open capacity on the line. The interconnection decision narrowed the Applicant's land focus area. The development of the site was iterative and responsive to both environmental constraints and the pattern of landowner participation.

Alternatives Considered but Not Selected

Non-Participating Parcels (Alternative 1)

As part of the site selection process for the Project, the Applicant conducted a comprehensive evaluation of parcels across Lenawee County, with a focus on Palmyra Township. The goal was to identify land that met the technical, environmental, and logistical requirements for a utility-scale solar installation while aligning with community values and minimizing potential impacts.

Several parcels within or adjacent to the project area were suitable from a technical standpoint but were not selected because landowners declined participation. As landowner willingness was a threshold requirement for feasibility, the footprint was refined to include only contiguous participating parcels. Parcels originally considered for the Project compared to the current Project boundary are shown in Figure 1. As shown, the parcels originally evaluated spanned further north and south of the final Project area.

A comprehensive landowner engagement process was conducted to determine willingness to participate, and only those parcels with willing landowners and suitable characteristics were included in the project boundary. One of the primary reasons for excluding certain parcels was the inability to secure lease agreements with landowners. While many landowners expressed interest in participating, others declined participation at the time, which limited the availability of contiguous acreage necessary for efficient project design and infrastructure layout. In addition, some parcels were located within or adjacent to environmentally sensitive areas, including wetlands and forested tracts. These areas posed potential challenges related to permitting, habitat disruption, and long-term ecological impacts, and were therefore avoided to maintain the Project's commitment to environmental stewardship.

Proximity to existing residences was another key consideration. Parcels located near homes or within areas of higher population density were excluded to minimize visual impacts, preserve rural character, and address community concerns about land use compatibility. The project team worked closely with local stakeholders to ensure that the final site configuration respected residential buffers and maintained a low profile within the landscape.

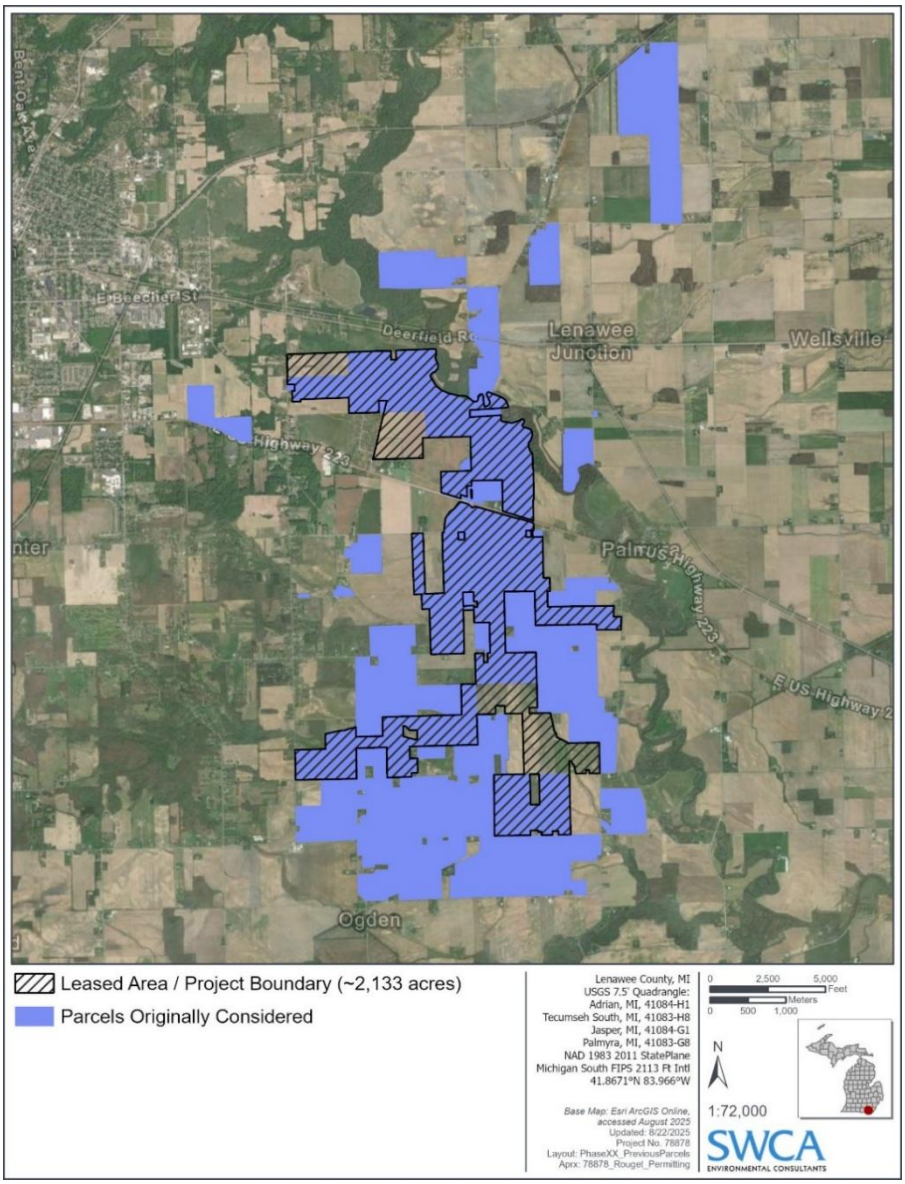


Figure 1. The above figure shows parcels chosen to be incorporated in the Project Boundary compared to parcels originally considered.

East Side of the River (Alternative 2)

One significant constraint was the presence of the River Raisin running along the eastern side of the broader Project area. Initially, RWE secured land on both sides of the river. However, due to the geotechnical complexity and permitting challenges associated with an approximate 80-foot river crossing (bore or span), the potential impacts to federal and/or state listed mussel species, and the geographic distribution of willing landowners, the final footprint was consolidated entirely on the west side of the river. For these reasons, the east-side parcels were rejected. Figure 1 illustrates the original parcels under consideration located on the east side of the River Raisin.

Brownfield Land (Alternative 3)

In accordance with MCL 460.1225(1)(n) and Michigan Public Service Commission ("MPSC") requirements, the Applicant evaluated other feasible alternative previously developed locations such as vacant industrial properties and brownfields and determined that no sites of sufficient size or suitability exist within Lenawee County or Palmyra Township to accommodate the proposed facility.

The Applicant also considered the potential for siting the Project on brownfield land. However, any brownfield parcels identified in the region were determined to be too small in scale to support a project of this capacity. In addition, surrounding parcels were not available or suitable for expansion. As a result, brownfield siting was not feasible for this Project.

According to data from the Remediation and Redevelopment Division ("RRD") and Michigan Department of Environment, Great Lakes, and Energy ("EGLE"), there are eight (8) brownfield sites within Lenawee County (Figure 2). The total acreage for these sites is 82.07 acres across all of Lenawee County, with the largest site being 47.9 acres. These brownfield sites are far too small to support a 175-megawatt commercial solar facility. Comprehensive desktop and field investigations were conducted in June 2023, November 2024, and March 2025 to identify and assess wetlands, streams, floodplains, and other water resources. No additional brownfields or developed lands have been listed since that time.

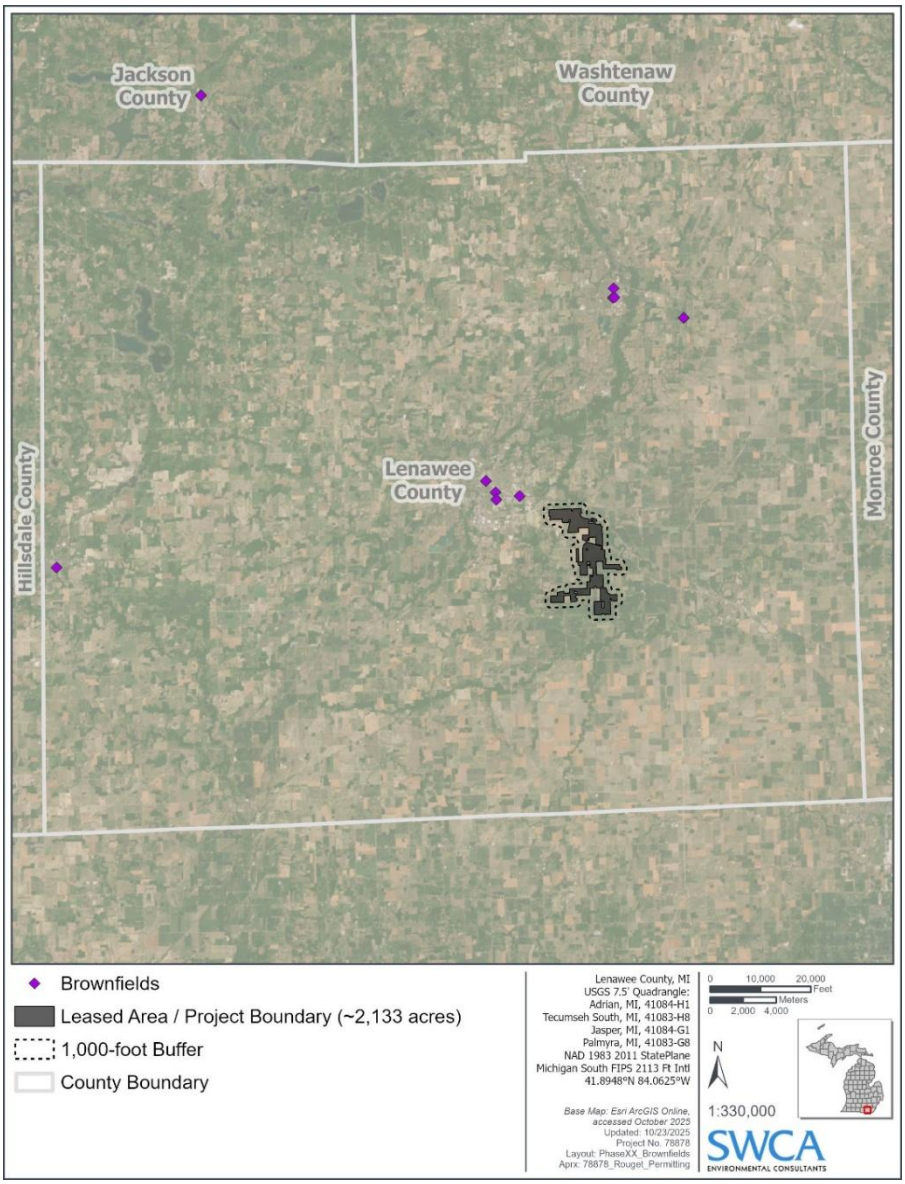


Figure 2. The above figure shows the location of nearby brownfield sites, all of which are small in size and within residential areas.

Vacant Industrial Property (Alternative 4)

Vacant industrial properties in Lenawee County and adjacent counties were also screened. The State Land Bank Authority of Michigan has a central database of vacant property including industrial properties. No vacant industrial properties were identified. One 1.4-acre property, classified as “other vacant”, was identified in Lenawee County (Figure 3a).



Figure 3a. 1.4-acre vacant lot in Lenawee County.

The Lenawee County Landbank Authority was created to manage and develop tax-foreclosed properties in Lenawee County. No vacant industrial properties were identified. Eight vacant lots, not identified as industrial, were identified but none exceeded 21 contiguous acres, and none was proximate to suitable interconnection points (Figure 3b). These properties were therefore not feasible alternatives for a project of this scale.

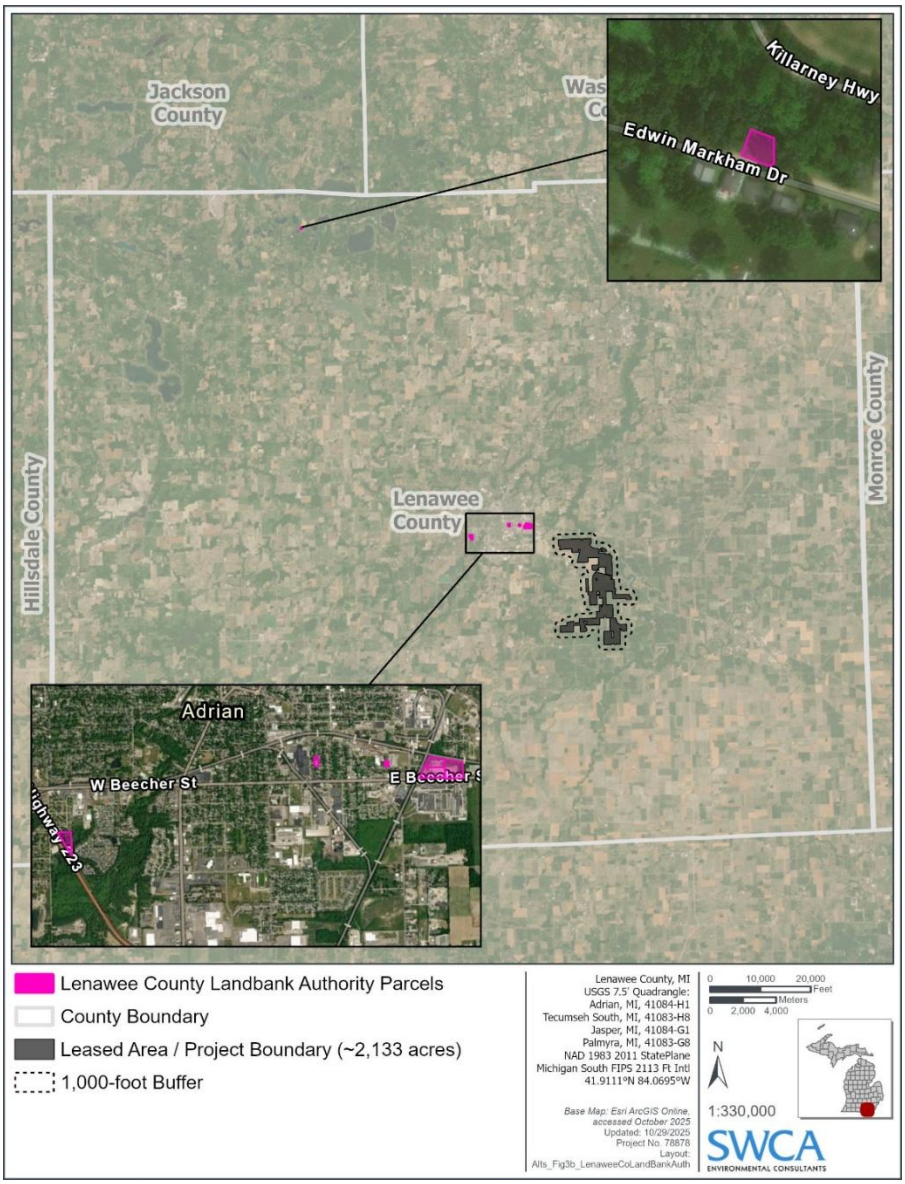


Figure 3b. Eight vacant lots totaling 21-acres in Lenawee County.

Consideration of the Palmyra Township Solar District (Alternative 5)

During the initial siting and planning phases of the Project, Palmyra Township designated a 600-acre solar district located north of US 223, west of Humphrey Highway, and east and south of River Raisin (Figure 4a). This solar district was created to support utility-scale solar development and was considered a viable area for renewable energy investment. The solar district is in northern Palmyra Township, within the northern portion of the Project. The Applicant evaluated the designated 600-acre solar district as a potential location for the Project. After detailed analysis, it was determined that the 600-acre district was not large enough to accommodate the full scope and infrastructure requirements of the Project. As a result, while the Project footprint encompasses portions of the designated solar district, it extends beyond the boundaries of the designated solar district to ensure sufficient space for solar arrays, access roads, substations, and other necessary facilities.

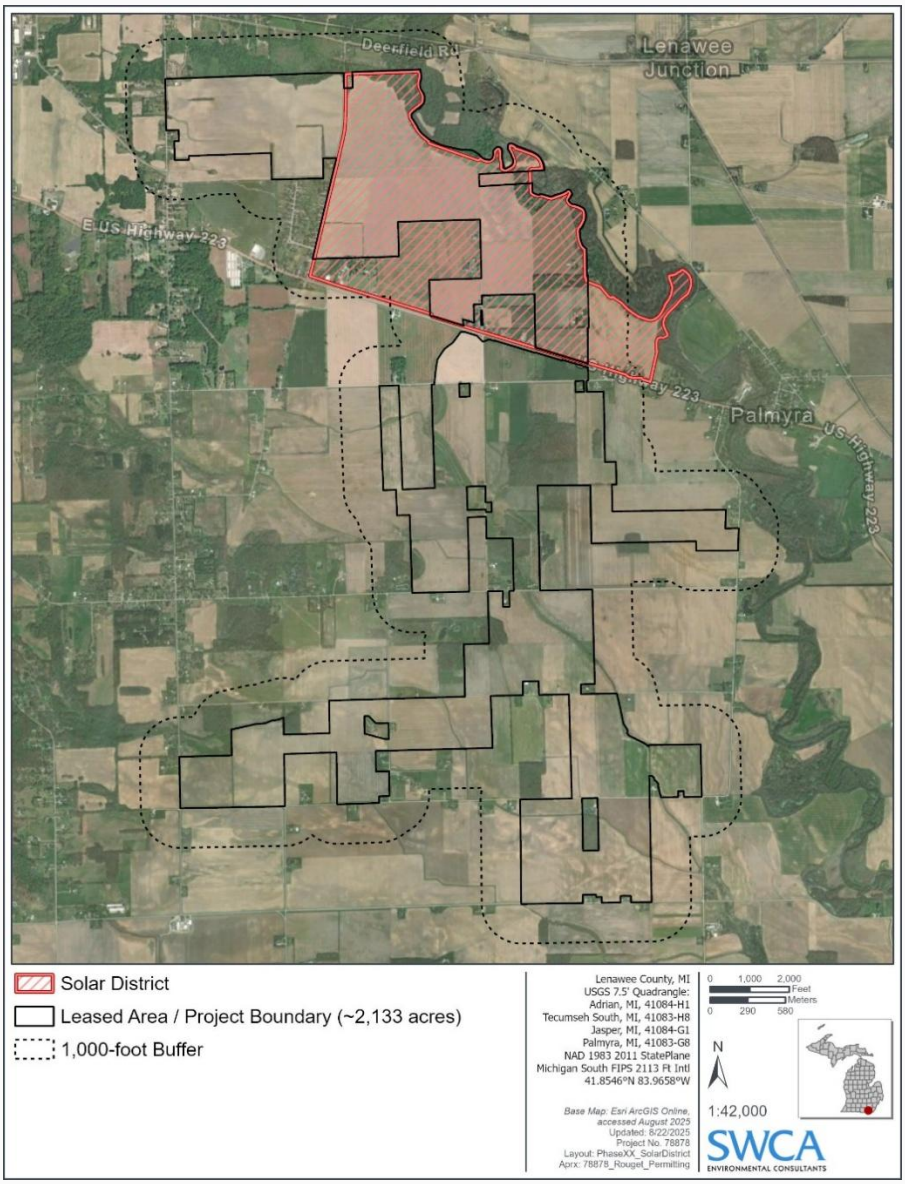


Figure 4a. The above figure shows the location of the Palmyra Township Solar District. The Project utilizes a large portion of the designated area; however, the area is not large enough to encompass the entire Project.

Palmyra Planning Commission presented an updated solar overlay district on October 14, 2025 to include a 1,000-acre buildable area as show in Figure 4b. The updated solar overlay district expanded to the south of U.S. 223 to Sharp Road in places, west near Ogden Highway. The eastern boundary does not border roads. While the updated Solar District encompasses more of the Project area, it is still not sufficient to meet the Project needs.

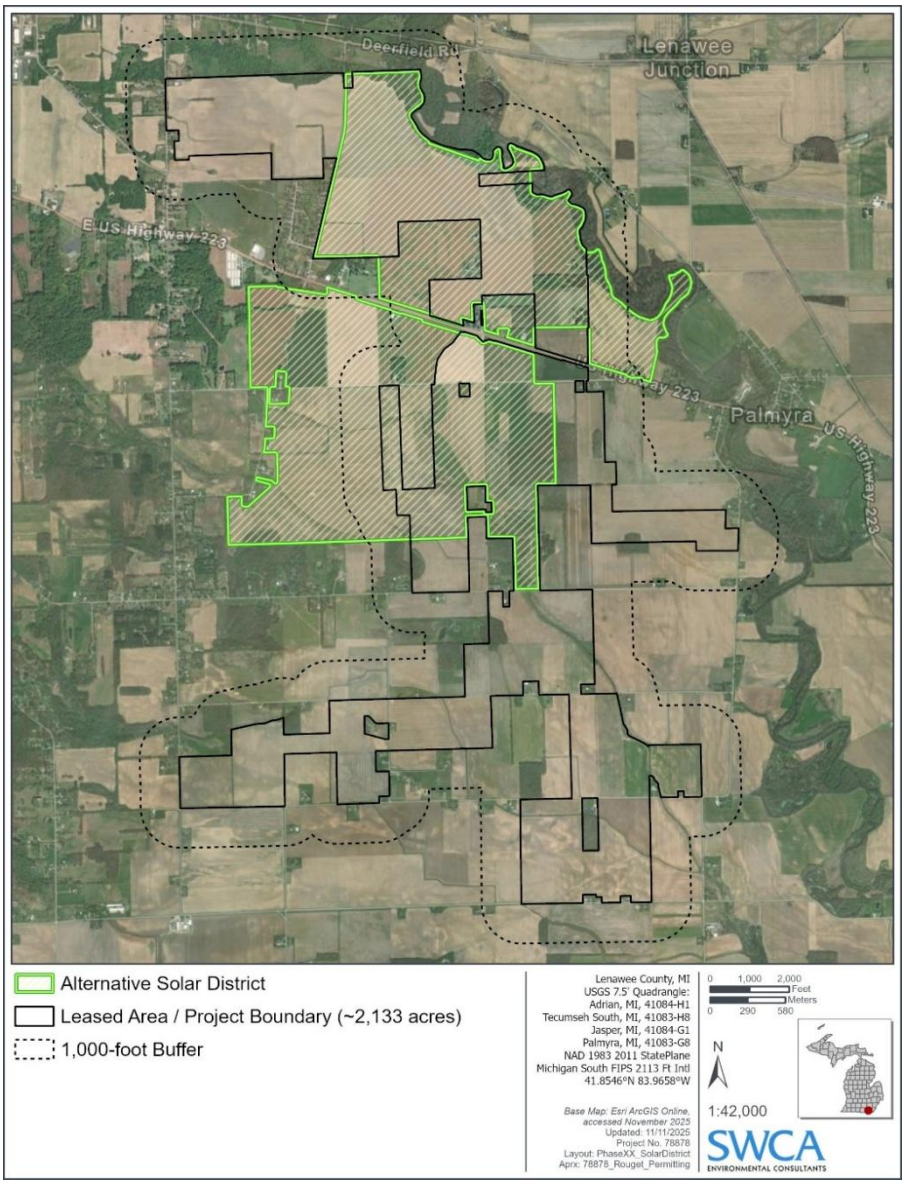


Figure 4b. The above figure shows the location of the updated Palmyra Township Solar District. While the updated Solar District encompasses more of the Project area, it is still not sufficient to meet the Project needs.

Internal Site Alternatives

Numerous internal site alternatives—including different parcel groupings and layout configurations—were considered but ultimately rejected based on engineering constraints, environmental limitations, or landowner non-participation. Environmental features such as wetlands/waterways, vegetative habitat, RTE species habitat, noise sensitivity, etc. were then assessed, first by desktop analysis and then by on-site evaluation. Other adjustments to the site layout were made to:

- Avoid regulated wetlands and other environmentally sensitive areas;
- Comply with applicable setbacks from public roads and non-participating residences;

- Exclude parcels where landowners declined participation.

These decisions reflect a site selection process driven not only by technical feasibility but also by environmental stewardship and stakeholder input. Ultimately, the transmission area focus, environmental assessments, landowner interest, and community feedback resulted in what is now the Site Plan Boundary.

Infrastructure (Alternative 6)

Access and infrastructure limitations also influenced parcel selection. Some parcels lacked adequate road access or would have required significant upgrades to support construction traffic and long-term maintenance. These logistical challenges made certain areas less feasible from a cost and operations standpoint. Additionally, soil conditions were carefully evaluated across the Project area. Based on a review of the USDA soil survey, parcels with poor drainage, high erosion potential, or unsuitable load-bearing capacity were deemed impractical for supporting solar panel foundations and associated infrastructure. Initial access road locations were changed to minimize the number of entry points into the Project and to reduce impacts (Figure 5). Setbacks were also made to overhead utility lines.

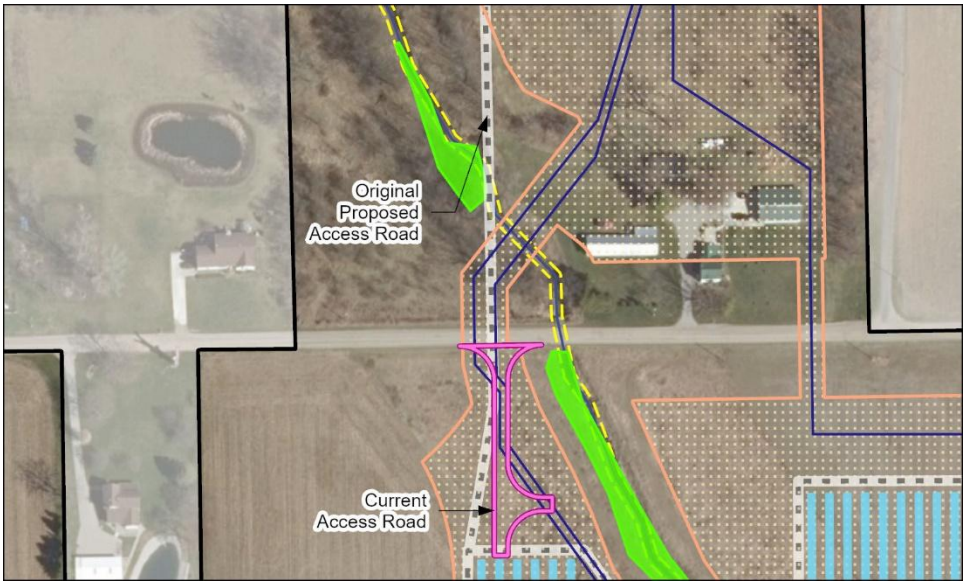


Figure 5. The above photo shows an example of an infrastructure alternative. The original proposed access road was moved south for better access to panels and to avoid tree impacts.

Environmental and Community Considerations (Alternative 7)

By prioritizing parcels that offered favorable solar exposure, minimal environmental and community impacts, and strong logistical feasibility, the Applicant was able to design a project that aligns with both technical requirements and local values. The final site configuration reflects a balance between maximizing renewable energy generation and preserving the agricultural and ecological integrity of Lenawee County. Initial solar panel locations were changed from the initial design to avoid wetlands, streams, county drains, and heavily forested areas (see Figure 6).

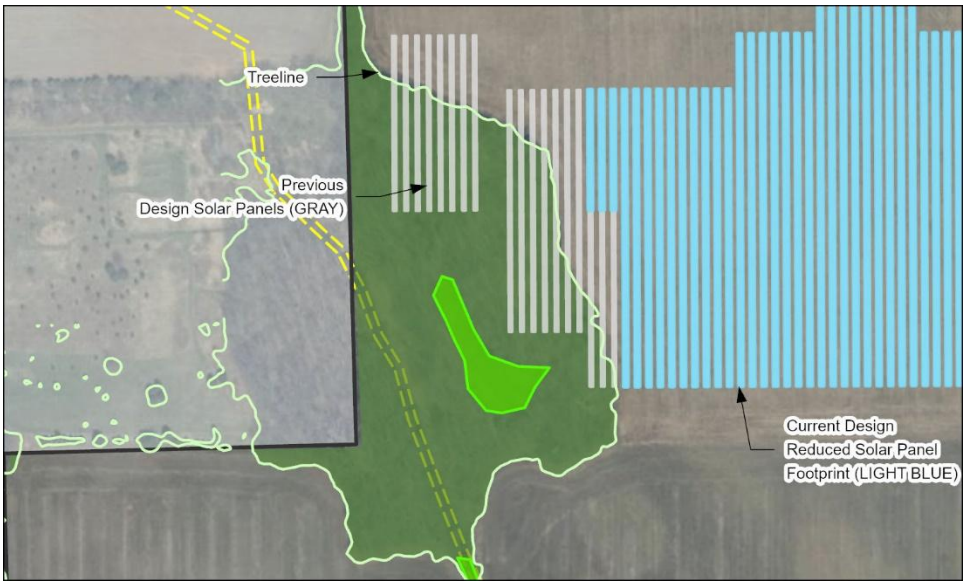


Figure 6. The above photo shows an earlier Project design that had solar panels in a forested area. Solar panels were moved out of this area to reduce environmental impacts.

Wetland considerations (Alternative 8)

Wetland delineation surveys identified two large wetlands associated with River Raisin (WA025 and WA027) (Figure 7). To avoid any potential impacts on these wetlands and the River Raisin, the Applicant decided to omit this parcel from design consideration. Wetland WA007 in the northern Project area (Figure 8) was determined to be a jurisdictional wetland per EGLE as noted in the Project pre-application letter dated July 28, 2025 (see **Appendix II Exhibit A-4.4** for the letter). Following this determination the Applicant has decided to avoid impacts and install a 50-foot buffer around this wetland.

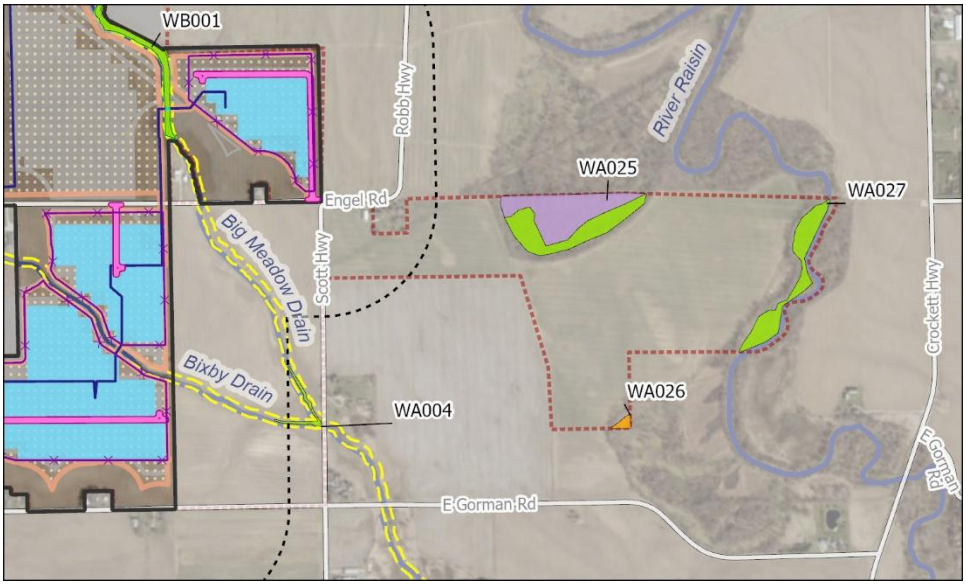


Figure 7. The above figure shows the parcel containing WA025 and WA027. The Applicant decided to omit this parcel from the Project to avoid impacts to these large wetlands.



Figure 8. The above figure shows WA007 which was found to be jurisdictional by EGLE. The Project design was then updated to avoid impacts to this wetland.

Wetland Setback (Alternative 9)

During the initial design phase, the Applicant considered a 25-foot setback for wetlands (Figure 9). A 25-foot setback is typical for avoidance measures. However, the Applicant decided to implement a 50-foot setback around wetlands to provide additional avoidance measures for potential direct and indirect impacts. This buffer zone during construction will provide additional habitat areas for wildlife.

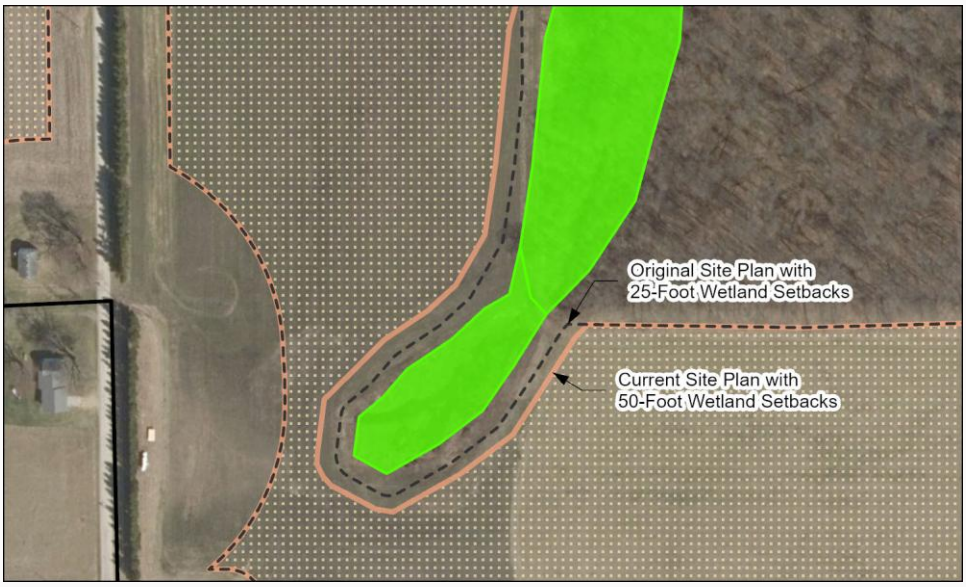


Figure 9. The above photo shows an example of the original 25-foot setback from wetlands along with the updated 50-foot setback.

Additional Land (Alternative 10)

During the initial design phase, the Applicant determined that there was insufficient land under lease to meet the 175MW threshold. Discussions with adjacent landowners identified an approximate 100-acre parcel that was added to the Project boundary (Figure 10).

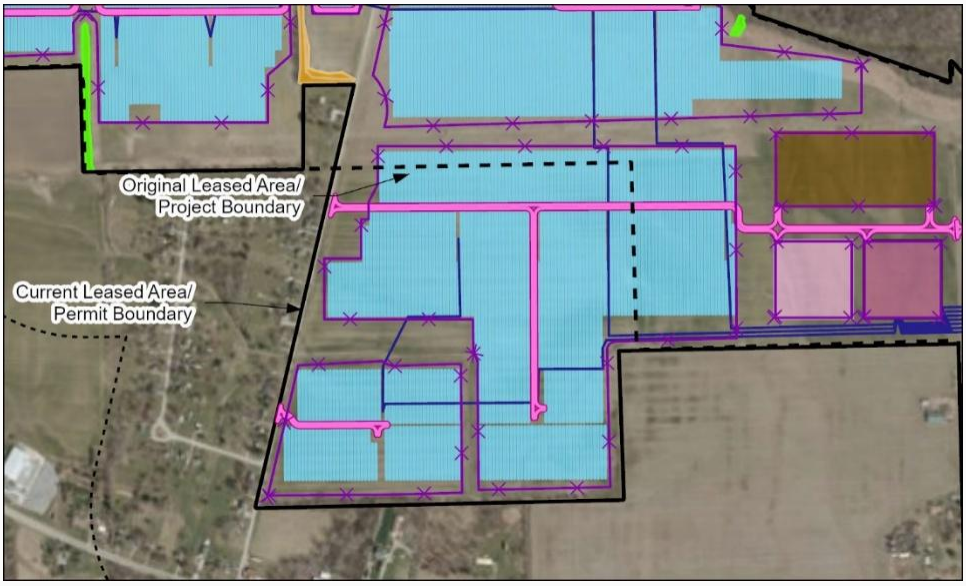


Figure 10. The above figure shows the original Project boundary compared to the current Project boundary after the addition of the approximate 100-acre parcel.

Removal of Panels due to Siting Constraints (Alternative 11)

During the initial design phase, the Applicant had proposed panels within an approximate 57-acre parcel (PA0-121-4050-00) (Figure 11). However, the parcel was bisected by a county drain which hindered access. An additional road entrance on Robb Highway would have been required for access to the eastern portion of the parcel. The western portion of the parcel required access from an adjoining parcel. The current site layout removed panels from this parcel and instead will be used as a laydown yard.

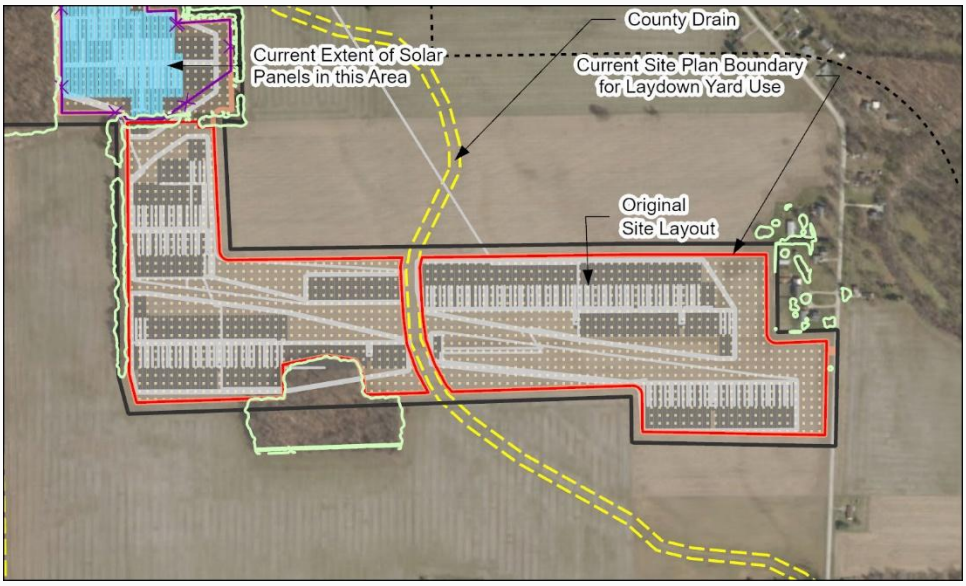


Figure 11. The above figure shows the siting constraints of the parcel split by a county drain leaving it difficult to access leading to the removal of solar panels from this area.

Minimization of Forest Impact (Alternative 12)

During the initial design phase, panels were included within a forested area surrounding a palustrine forested wetland ("PFO"). Approximately 37-acres of forest would have been cleared for the alternative. The Applicant revised the site plan to avoid all but 0.43 acres of forest impacts in this area (Figure 12).

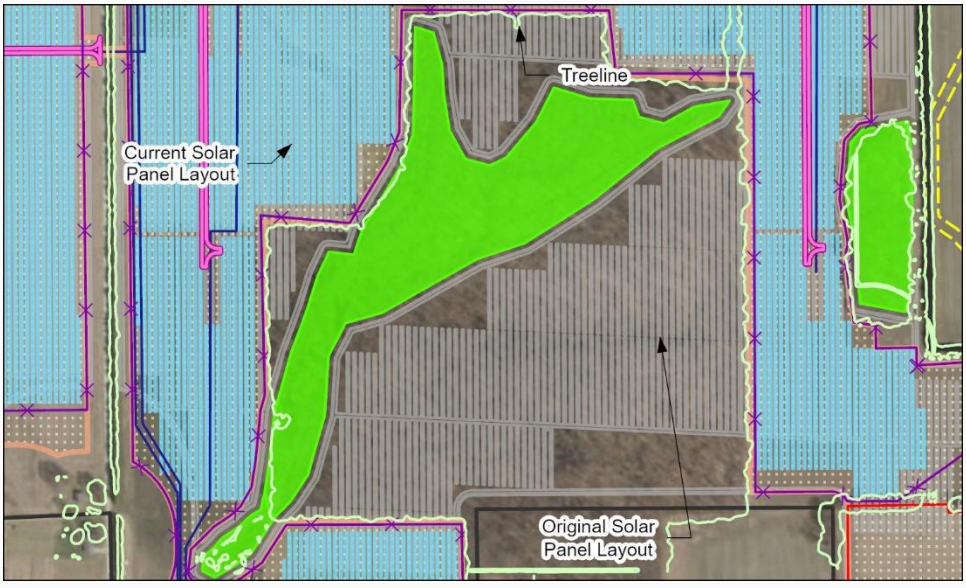


Figure 12. The above figure shows the original solar panel layout over a forested area compared to the current solar panel layout that avoids the forest.

Facility Layout and Site Design

The layout of the Project has been optimized to use available land while providing environmental and visual setbacks to achieve a minimal impact to natural resources and adjacent residents' viewshed. The setbacks have been made proactively by the Applicant to limit impacts to the various resources as well as meet regulatory requirements, if applicable. The location of the facility within the Project Area was designed based on many constraints identified through desktop and field environmental, engineering, and resource surveys and prioritized setbacks from natural resources like streams, wetlands, and woodlots in addition to setbacks from infrastructure and adjacent residences. Table 1 provides a summary of all the resources avoided with facility panel modules and the associated setbacks accommodated as part of the facility layout. The associated setbacks are based on MPSC requirements and the Applicant's desire to avoid sensitive resources to the extent possible. The Project meets and exceeds these setbacks.

Table 1. Rouget Road Solar Project Constraints and Setbacks

Constraint	**Setback from Leased Parcel Boundary***
Non-participating residences	300 feet
Non-participating parcels	50 feet from the nearest shared boundary
Public road right-of-way	50 feet
Streams	50 feet
Wetlands**	50 feet
Electric transmission right-of-way	50 feet

*MPSC setback requirements are from the facility perimeter fencing edge. During layout assessment, the Applicant used the leased parcel boundary.

** Wetlands have been avoided to the extent practicable. One wetland was determined by EGLE to be non-jurisdictional and will be filled for installation of solar panels. Solar facilities, panels and internal access road, impact two wetlands. Consultation with EGLE is on-going. If these wetlands are determined to be jurisdictional, then the design will be updated to remove panels to avoid an EGLE Individual permit.

The ground coverage ratio was selected to obtain the most efficient energy production while minimizing the overall footprint of the Project. In the current Project design, facility panel modules have been set back a minimum of 300 feet from the adjacent residences. Facility panel modules have also been set back a minimum of 50 feet from public road pavement edges and 50 feet from all non-participating parcels. To design the facility layout, the Applicant used wetland, stream, and forested habitat data obtained from the field survey efforts and then implemented design setbacks from those identified features, unless an alternative construction method could be implemented to avoid direct stream and wetland impacts (e.g., horizontal directional drilling or spanning with infrastructure). The Applicant implemented a 50-foot setback from wetlands and a 50-foot setback from streams along with the regulated 50-foot setback from county drains. The exception to this setback was for collection cables, gen-tie lines, and perimeter fencing where the equipment can be installed via horizontal directional drilling or bore method to avoid impacts or the feature can be spanned to avoid impacts. Proposed stream crossings and construction methods are illustrated in **Appendix II Exhibit A-1.1**. Where possible, the Applicant also avoided areas of upland forest with the design to minimize the need for forest clearing. The current design avoids direct impacts to streams and county drains. One wetland was determined to be non-jurisdictional by EGLE and will be filled for installation of solar panels. Two wetlands within the Project will be impacted by solar panels, supporting facilities, and an internal access road. Consultation with EGLE is on-going. If these wetlands are

determined to be jurisdictional, then the design will be updated to remove panels to avoid an EGLE Individual permit. The internal access road crossing will require a general or minor permit from EGLE. Tree clearing has been minimized.

Commercial and Market Drivers

In addition to siting considerations, the selected location aligns with several key commercial and market imperatives:

- The project has an executed MISO interconnection agreement, with a mandatory commercial operation deadline of December 2028. Delays in siting or permitting could jeopardize this schedule and the associated capacity allocation.
- The site supports offtake agreements and delivery obligations that are central to the Project's financial viability and integration into the regional energy market.

These drivers further reinforce the importance of selecting a site that is technically and legally developable under applicable state processes.

Rationale for Selecting the Current Site

The selected Project footprint:

- Aligns with willing landowners and provides the necessary contiguous land base.
- Provides direct access to existing transmission infrastructure without requiring long, new transmission corridors.
- Avoids significant wetlands, endangered species habitat, and other environmentally sensitive areas.
- Complies with applicable setback requirements and minimizes conflict with adjacent land uses.
- Falls within a jurisdiction with a receptive ordinance and regulatory framework for solar development.

Conclusion

The Rouget Road Solar Farm site was selected through a comprehensive and practical process that aligns with industry norms for utility-scale solar development. The site meets all core requirements for technical feasibility, regulatory compliance (at the time of selection), environmental protection, and commercial execution. The evolution of the Project footprint involved the rejection of several alternative configurations due to physical, regulatory, and stakeholder constraints.

The subsequent change to the local ordinance—occurring after substantial investments had been made—underscores the necessity of proceeding through the Michigan Public Service Commission’s centralized siting process under Public Act 233. The Applicant respectfully submits that this site remains the optimal and most practicable location for the Project, and that its selection is fully consistent with the applicable legal standards under Sections 2266 and 2267 of the Act.

Rouget Road Solar Farm

Exhibit A-1.6: Changes MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
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30th Floor
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PREPARED BY

SWCA Environmental Consultants
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EXHIBIT A-1.6 – CHANGES

A-1.6.(a) – Provide a map and description of any known potential modifications or variations in the proposed Site Plan that are being considered at the time of filing and that will be finalized prior to construction.

The Applicant has made considerable effort to depict the facility layout in its final form to the extent possible at this stage of development. As a result, there is one remaining known potential modification or variation in the proposed Site Plan that is being considered at the time of filing. This potential change is reflected in the map below.

Based on the current Project design, the facility, which is composed of all components and infrastructure necessary for solar energy generation, will occupy approximately 1,042 acres of the approximate 1,606-acre Site Plan Boundary. The Applicant is proposing, however, to permit the entirety of the Project Area (2,133 acres). This is because the exact placement of facility components may change prior to final engineering and final equipment selections in any multitude of ways that cannot be presently anticipated until the Project is closer to or actually under construction. Such adjustments in the location of facility components are nonetheless fully expected to be within the Site Plan Boundary represented in this Application as noted on Sheets 7 through 19 of the Site Plan (**Appendix II, Exhibit A-1.1**).

- The following are *general* types of changes that, while not presently under consideration, *could* conceivably be considered and which may result in the need for updated maps. These are too nebulous, however, at present to support the creation of an alternative map, unlike the item under present consideration, which is described further below as Change #1: Changes in technology
    - Project equipment has not been procured at the time of this Application submittal, and final equipment selection will be made prior to the commencement of construction. Panels, racking, trackers, and inverters are all subject to change, although the Project will make its best attempt to use similar technologies to that which is currently proposed. Changes in technology may warrant modifications of the layout to satisfy all requirements of PA 233.
    - Tracker selection may affect slope tolerance/grading requirements.
    - Inverter selection may affect sound levels produced that would require locations to be moved away from residences and roads for compliance with sound requirements.
- Array locations and orientation within approved site plan boundary
    - Portions of solar arrays may be removed entirely or shifted within the approximate 1,606 acres site plan boundary due to feasibility and landowner requests. As such, the fenced area may change. These changes will not impact additional environmental resources not noted in this Application.
- Access road locations
    - Access road locations may change due to feasibility, landowner requests, and approval from the Lenawee County Road Commission, as noted on Sheets 7 through 19 of the Site Plan in **Appendix II, Exhibit A-1.1** Planned Facilities. Currently, there are no planned access road crossings of wetlands, streams, or county drains. However, as noted in **Appendix II, Exhibit A-1.3** and **Appendix II, Exhibit A-6.2**, a general or minor permit from EGLE would be obtained if

design plans change and access road crossing of a wetland, stream, or county drain is required.

- Collection line locations
    - At this stage in development, the Project has not conducted electrical design, so the size, quantity, and locations of underground collection lines are subject to change. These potential changes have been noted on Sheets 7 through 19 of the Site Plan in **Appendix II, Exhibit A-1.1** Planned Facilities. As noted in **Appendix II, Exhibit A-1.3** and **Appendix II, Exhibit A-6.2**, the Project may require either a general or minor permit from EGLE for the collection line boring under wetlands, streams, or county drains if the bore hole is greater than 6 inches in diameter; final bore hole size cannot be determined at this stage of development.
- Preliminary stormwater basin design
    - The Project has coordinated with the Lenawee County Drain Commission for their stormwater requirements and design criteria for solar projects, although the stormwater plan has not yet been reviewed and approved. Size and location of stormwater basins included in the Project are subject to change.

See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 21.

A-1.6.(b) – Minor changes are not required to be submitted. A minor change is any change within the project footprint that still allows the facilities to meet all of the criteria outlined in PA 233, does not create new or additional impacts and does not require new permits; however, a minor change does not include any of the following:

1. **A change that would expand the footprint or perimeter of the Site Plan.**
2. **A change in planned technologies (such as the addition of an energy storage facility to an existing site or other technological changes increasing noise or impacting permit requirements).**
3. **Reduced setback distances from any part of the planned facilities to occupied structures, non-participating property lines, or rights-of-way if the new setbacks violate any setback requirements in PA 233.**
4. **Any change that affects water detention or retention or other stormwater runoff.**
5. **An increase in the height of the tallest equipment or structures.**
6. **Repowering.**
7. **Any increase of noise impacts to non-participating structures above the 55 dB average hourly limit.**

Rouget Road Solar Farm understands that minor changes to the Site Plan will not require re-submission if the changes do not create new or additional impacts, as described in the seven criteria above.

Change #1: Boring to Avoid Tree Clearing

The Applicant is evaluating whether boring can be extended under the Keeber County Drain and adjacent forested area (~630 feet) (Figure 1). This design adjustment may reduce tree clearing from the currently anticipated 7.96 acres. Final acreage will be determined during final design in consultation with MDNR, USFWS, and the Lenawee County Drain Commission. The Applicant will adhere to a Not Likely to Adversely Affect final effect determination such that a biological opinion and mitigation will not be required. Any changes will remain within applicable permit thresholds, as reflected in **Appendix II Exhibit A-6.3** Agency Consultation Table.

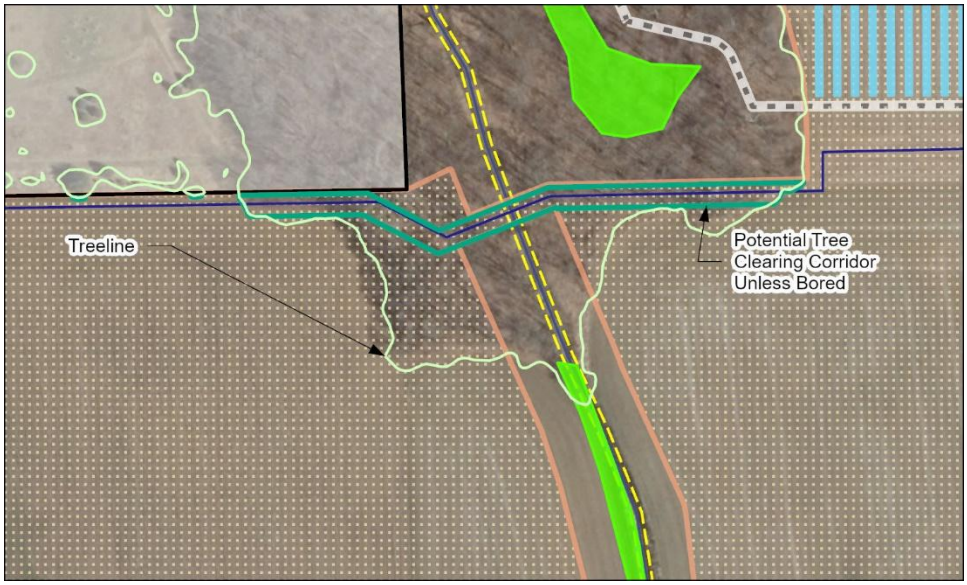


Figure 1. Illustrating the location of anticipated tree clearing for the installation of collection lines. The Applicant may elect to bore instead.

Change #2: Avoiding cultural resource sensitivities

The Applicant is evaluating revisions to the Project layout, in coordination with SHPO, to avoid cultural resource sensitivities identified during field reconnaissance. To avoid these sensitivities, solar arrays, the Project substation, and associated facilities may be relocated within the existing limits of disturbance (LOD). These revisions are not anticipated to result in additional impacts. Because cultural resource location information is sensitive and confidential, Figure 2a and Figure 2b illustrating this change are provided under confidential cover.

If required, the Applicant will complete or update the following studies and reports before construction to demonstrate continued compliance with PA 233 and the Application Filing Instructions and Procedures (AFIP)

- Exhibit A-1.1 Planned Facilities including Vegetation Management and Landscape Screening Plan
- Exhibit A-1.2 Area Land Use Information
- Exhibit A-1.3 Attachments:
    - Visual Resources Evaluation
    - Traffic Analysis

- Exhibit A-1.7 - Sound Report
- Exhibit A-1.9 Emergency Response Plan
- Exhibit A-1.10 Fire Response Plan
- Exhibit A-13 Decommissioning Plan

The following agencies and entities will be contacted for coordination, with regulatory authorizations obtained as applicable:

- **Lenawee County Road Commission ("LCRC")** – The Applicant will coordinate with the Road Commission regarding construction activities involving boring beneath county roads for placement of the collection line and will ensure the activity is incorporated into the applicable road use agreement.
- **Lenawee County Drain Commission ("LCDC")** – The Applicant will coordinate with the CCDC to support the development of road crossing plans and the project-specific stormwater management plan. In general, the change in substation location will reconfigure the current draft best management practices within the updated layout.
- **Michigan Department of Agriculture and Rural Development ("MDARD")** – The Applicant will coordinate with MDARD to update necessary authorizations for parcels enrolled in the Farmland and Open Space Preservation Program (PA 116) as well as the decommissioning plan financial assurances.
- **Emergency and Fire Services** – The Applicant will coordinate with Lenawee County Emergency Management, Palmyra Fire Department, and the Lenawee County Sheriff's Department to provide updated project mapping and to supply an updated Emergency Response Plan and Fire Response Plan.

No additional coordination with the following agencies is anticipated because the proposed layout revisions are not expected to affect resources under their jurisdiction.

- **EGLE**
- **U.S. Fish and Wildlife Service**
- **Michigan Natural Features Inventory**
- **Michigan Department of Natural Resources**

Change #3: Reduction in LOD

The Applicant is working with the landowner to evaluate an increased setback from the affected area as shown in Figure 3. The proposed revision would reduce the Project's LOD and is not anticipated to result in additional impacts as shown. Changes to facility components (solar arrays and access road) at this location are not expected. If facility changes are required, then they are expected to be limited to removing or reducing solar arrays and access road areas; no new or expanded facility components are anticipated.

If required, the Applicant will complete or update the following studies and reports before construction to demonstrate continued compliance with PA 233 and the Application Filing Instructions and Procedures (AFIP):

- Exhibit A-1.1 Planned Facilities including Vegetation Management and Landscape Screening Plan
- Exhibit A-1.2 Area Land Use Information
- Exhibit A-1.9 Emergency Response Plan
- Exhibit A-1.10 Fire Response Plan
- Exhibit A-13 Decommissioning Plan

The following agencies, offices, or entities will be contacted for coordination, with regulatory authorization obtained as applicable:

- **MDARD** – The Applicant will coordinate with MDARD to update necessary authorizations for parcels enrolled in the Farmland and Open Space Preservation Program (PA 116) as well as the decommissioning plan financial assurances.
- **LCDC** – The Applicant will coordinate with the CCDC to support the development of road crossing plans and the project-specific stormwater management plan. In general, the change in LOD likely will not change the stormwater management measures and may reduce them.
- **Emergency and Fire Services** – The Applicant will coordinate with Lenawee County Emergency Management, Palmyra Fire Department, and the Lenawee County Sheriff's Department to provide updated project mapping and to supply an updated Emergency Response Plan and Fire Response Plan.

No additional coordination with the following agencies or offices is anticipated because the proposed layout revisions are not expected to affect resources under their jurisdiction.

- **EGLE**
- **USFWS**
- **MNFI**
- **MDNR**
- **SHPO**
- **LCRC**
- **LCDC**

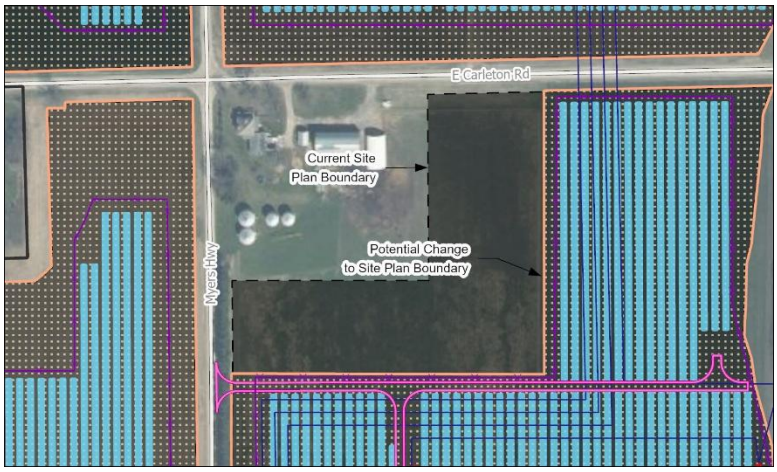


Figure 3. The LOD may be reduced from the existing black line to the orange line.

Change #4: Solar Array Revision

The Applicant is evaluating revisions to the Project layout, in coordination with landowners, that may remove solar panels from the identified parcels while retaining underground collection lines, as shown in (Figure 4). The parcels under consideration are:

- PA0-129-3305-00
- PA0-129-3800-00

The proposed revision would reduce the LOD. However, because the extents of the collection line easements have not yet been determined, those easements cannot be mapped at this time. This change is not anticipated to result in additional impacts, require additional field studies, or add or expand facility components.

If required, the Applicant will complete or update the following studies and reports before construction to demonstrate continued compliance with PA 233 and the AFIP:

- Exhibit A-1.1 Planned Facilities including Vegetation Management and Landscape Screening Plan
- Exhibit A-1.2 Area Land Use Information
- Exhibit A-1.3 Attachments:
    - Visual Resources Evaluation
    - Traffic Analysis
- Exhibit A-1.7 Sound Report
- Exhibit A-1.9 Emergency Response Plan
- Exhibit A-1.10 Fire Response Plan
- Exhibit A-13 Decommissioning Plan

The Applicant will coordinate with the following agencies, offices, or entities, and will obtain regulatory authorizations as applicable:

- **MDARD** – The Applicant will coordinate with MDARD to update necessary authorizations for parcels enrolled in the Farmland and Open Space Preservation Program (PA 116) as well as the decommissioning plan financial assurances.
- **LCDC** – The Applicant will coordinate with LCDC to support the development of road crossing plans and the project--specific stormwater management plan. In general, removing solar arrays and retaining only underground collection lines is expected to reduce the stormwater management measures needed.
- **Emergency and Fire Services** – The Applicant will coordinate with Lenawee County Emergency Management, Palmyra Fire Department, and the Lenawee County Sheriff's Department to provide updated project mapping and to supply an updated Emergency Response Plan and Fire Response Plan.

No additional coordination with the following agencies or offices is anticipated because the proposed layout revisions are not expected to affect additional resources under their jurisdiction.

- **EGLE**
- **USFWS**
- **MNFI**
- **MDNR**
- **SHPO**
- **LCRC**

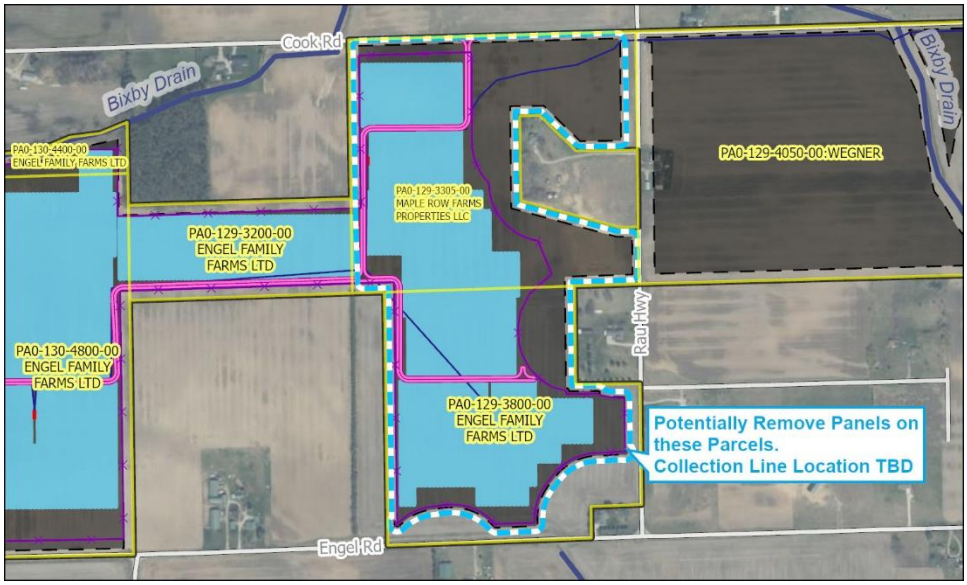


Figure 4. Parcel PA0-129-3305-00 and PA0-129-3800-00, identified by the blue and white bordered box, is under consideration for removal of solar panels. Underground collection lines may still be installed within the parcel, and the final collection line easement location will be determined during final design.

Rouget Road Solar Farm

Exhibit A-1.7: Sound Report MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

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PREPARED BY

SWCA Environmental Consultants

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EXHIBIT A-1.7 – SOUND REPORT AND MONITORING PROTOCOL

A-1.7.(a) – Submit a report detailing the sound modeling results along with proposed pre-construction (optional) and post-construction sound monitoring plans to be completed upon receipt of a siting certificate from the Commission as well as mitigation plans to ensure that sound emitted from the facilities will remain below the statutory limit throughout the operational life of the facilities. An overview of the sound report requirements is provided below.

1. **Sound modeling must be conducted following the requirements of International Organization for Standardization (ISO) 9613-2 (2024), "Engineering method for the prediction of sound pressure levels outdoors."**
2. **The purpose of the Sound Report is to provide the Commission with information necessary to assess if the facility meets the noise limits defined in MCL 460.1226.**
3. **All sound studies shall be completed by or under the direction of a qualified noise control engineer whose qualifications are documented in the report.**
4. **The sound monitoring should generally follow the requirements of the American National Standards Institute (ANSI) S12.18 and ANSI S12.9 Part 3, where applicable.**
5. **Reporting shall include, but is not limited to, the following:**
   - **i. Facility Description.**
     - **a. Maps and descriptions of sources and monitoring locations, including the distance from each to the nearest facility equipment.**
     - **b. Sound Modeling Results.**
     - **c. Discussion including an assessment of the noise impacts and ability to meet MCL 460.1226.**
6. **Submit a Pre-construction Sound Monitoring Protocol (optional) in accordance with the guidance in Attachment D.**

   Pre-construction ambient sound monitoring was conducted for the Project in accordance with PA 233 Application Filing Requirements (**Appendix II Exhibit A-1.7**). Predictive sound modeling was completed using the ISO 9613-2:2024 standard to estimate facility-related sound levels at nearby noise-sensitive receptors. SWCA performed long-term ambient noise monitoring at six representative locations across the Project Area during two periods in spring 2025. Monitoring followed ANSI S12.18 and S12.9 Part 3 procedures using ANSI Type 1 equipment. Instrumentation was calibrated and meteorological conditions were logged to ensure data quality. Results from this pre-construction monitoring are presented in the Noise Technical Report (see **Appendix II Exhibit A-1.7**), including a full assessment of ambient conditions, calibration logs, and an evaluation of biogenic sound influence in accordance with ANSI/ASA S12.100. This monitoring establishes a baseline against which post-construction sound levels can be compared to evaluate compliance with the statutory 55-dBA limit defined in Michigan Compiled Law (MCL) 460.1226.

   See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 7, 17-18.

7. **Submit a Post-construction Sound Monitoring Protocol in accordance with the guidance provided in Attachment D.**

A detailed Post-Construction Sound Monitoring Protocol is provided as Attachment E of the Noise Technical Report (see **Appendix II Exhibit A-1.7**). Following completion of construction and commencement of operations, SWCA or another qualified acoustical consultant will conduct sound monitoring at a representative selection of non-participating residences adjacent to the Project. The protocol includes the methodology for equipment setup, data collection, calibration, meteorological screening, and data analysis. Monitoring will follow ANSI S12.18 and S12.9 Part 3, and results will be compared to the statutory limit of 55 dBA L_{eq} (1-hour) at the nearest outer wall of any non-participating dwelling, in accordance with MCL 460.1226 and MPSC requirements. If post-construction sound levels are found to exceed compliance thresholds, corrective measures and a mitigation plan will be implemented to ensure operational noise is brought within regulatory limits. Follow-up monitoring will be conducted as necessary to confirm continued compliance.

See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 17-18.

Noise Technical Report for the Rouget Road Solar Farm, Lenawee County, Michigan

SEPTEMBER 2026

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PREPARED BY

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NOISE TECHNICAL REPORT FOR THE ROUGET ROAD SOLAR FARM, LENAWEE COUNTY, MICHIGAN

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September 2026

EXECUTIVE SUMMARY

This report documents the findings of a pre-construction noise assessment conducted for the proposed Rouget Road Solar Farm (Project) in Lenawee County, Michigan. The assessment was prepared in accordance with the Michigan Public Service Commission's (MPSC) *Act 233 Application Filing Requirements and Procedures*, including Exhibit A-1.7 and Attachment D.

The purpose of the study was to evaluate the potential noise impacts associated with the operation of the proposed photovoltaic facility and to demonstrate compliance with the statutory sound limit of 55 dBA (average hourly) at the nearest external wall of any nonparticipating occupied structure. To establish existing acoustic conditions, ambient sound monitoring was conducted at six representative locations across the Project area. Monitoring followed ANSI (American National Standards Institute) S12.18 and S12.9 Part 3 protocols to ensure data quality and regulatory consistency. Predictive sound modeling was completed using the ISO 9613-2:2024 standard to estimate facility-related sound levels at nearby noise-sensitive receptors.

Results of the assessment show that existing ambient sound levels across the Project area range from approximately 38 to 53 dBA L_{eq}, consistent with rural agricultural communities in Michigan. Modeled sound levels from project operations remain below the 55 dBA limit at all nonparticipating residences, confirming compliance with applicable MPSC requirements.

This report is intended to support the Project's siting application and to provide a clear, technically robust record of baseline conditions, modeling methodology, and anticipated acoustic outcomes for regulatory and public review.

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1 INTRODUCTION

SWCA Environmental Consultants (SWCA) prepared this Noise Technical Report to support the proposed Rouget Road Solar Farm (Project), which will be developed by Rouget Road Solar Farm, LLC (Applicant). Rouget Road Solar Farm, LLC is a wholly owned subsidiary of RWE Clean Energy, LLC. The Project is located in Lenawee County, Michigan (Figure 1).

The Applicant plans to construct, operate, and maintain a utility-scale photovoltaic solar facility on approximately 2,133 acres of private, primarily agricultural, land located about 4 miles east of Adrian, Michigan (Project area). The area is predominantly agricultural with scattered residences and is intersected by several local roadways.

This report provides an analysis of noise impacts for both the construction and operational phases of the Project. The analysis evaluates potential noise levels at noise-sensitive areas (NSAs), specifically at the nearest outer wall to ensure compliance with applicable standards and guidelines.

The primary objective of this noise assessment is to demonstrate that activities associated with the Project will not result in noise levels that exceed the maximum allowable limits described in all regulatory settings.

The Michigan Public Service Commission (MPSC) has issued a document titled *"Act 233 Application Filing Requirements and Procedures"* (MPSC 2024), which outlines the standards and procedures applicable to renewable energy and energy storage facility siting certificate applications. This document serves as the basis for the content and structure of this noise report. Specifically, Exhibit A-1.7 and Attachment D of the filing requirements provide detailed guidance on sound modeling, pre- and post-construction monitoring protocols, reporting, and mitigation requirements. This report has been prepared in accordance with those guidelines to ensure compliance with the sound level standards set forth by the MPSC under Act 233 of 2023.

2 PROJECT AND STUDY DESCRIPTION

The Project involves the construction and operation of a proposed photovoltaic (PV) solar facility within an approximately 2,133-acre Project area in Lenawee County, Michigan, primarily zoned as agricultural land. The area surrounding the Project area is largely agricultural, with residential buildings sparsely scattered, reflecting its rural character. The Project area is located southeast of Adrian, Michigan, with the closest NSAs being residences situated near the property boundaries.

Potential noise impacts from the Project's construction and operational phases were evaluated by analyzing the exposure of NSAs to excessive noise from proposed sources.

Construction activities for the Project will include earthwork and the construction of the solar arrays. Noise levels generated during construction were predicted using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM), a widely used national model for estimating construction-related noise impacts.

The operational noise analysis presented in this report has been prepared in accordance with the MPSC Act 233 Application Filing Requirements and Procedures (October 10, 2024). This document outlines the standards for evaluating sound impacts from proposed energy facilities as part of the siting certificate application process under Public Act 233.

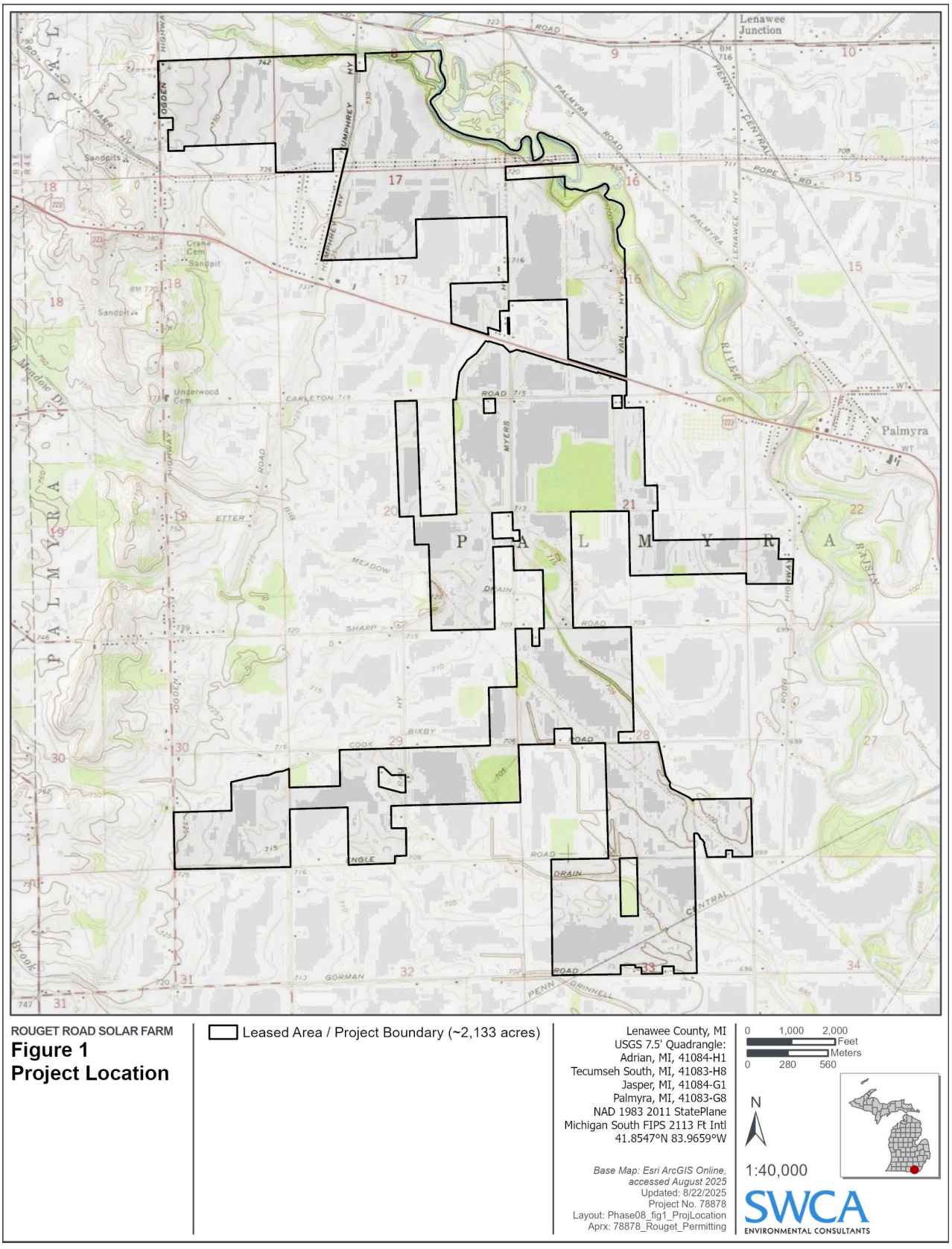


Figure 1. Project Location Map and Proposed Layout

As specified in Exhibit A-1.7 of the MPSC requirements, energy facilities must demonstrate compliance with operational noise limits through predictive modeling and post-construction monitoring. The applicable sound limit is 55 dBA (average hourly) at the nearest external wall of any nonparticipating occupied structure. Modeling must follow the methodology defined in ISO 9613-2:2024.

This analysis includes predictive sound modeling to assess compliance with the above standard during facility operations. The approach, modeling parameters, and receptor selection have been developed to meet the structure and technical expectations outlined in the MPSC guidance. All figures and maps included comply with MPSC Exhibit A-1.1 and A-1.2 requirements, including depiction of nonparticipating structures, property boundaries, and statutory sound isopleths.

3 SOUND FUNDAMENTALS – BACKGROUND

Sound is defined as a form of energy that is transmitted by pressure variations, which the animal or human ear can detect. Noise can be defined as any unpleasant or unwanted sound that is unintentionally added to a desired sound or environment. The effects of noise on humans include interference with communication, learning, rest, sleep, and physiological health. There are two main properties of sound: the amplitude and the frequency. Amplitude refers to the energy level that reaches the ear (how loud we perceive the sound), while frequency is the number of cycles or oscillations per unit of time completed by the source. Frequency is normally expressed in hertz (Hz).

Sound power is defined as the measurement of the ability of a source to produce sound. It is independent of the acoustic environment in which it is located. The sound power level (L_{pw}) of a source is the amount of energy it produces relative to a reference value and is normally expressed in decibels (dB). The decibel is a logarithmic scale to describe the sound pressure ratio.

Humans perceive a frequency range of about 20 Hz to about 20,000 Hz. Therefore, an internationally standardized frequency weighting, the A-weighting scale, was designed to produce a singular numerical noise level value that represents the noise over the audible range of frequencies of a healthy human ear. The A-weighted decibel (dBA) scale reflects the fact that the human ear is not as sensitive to sound at the lower frequencies as it is at the higher frequencies and is used in the context of human auditory perception.

3.1 Definition of Acoustical Terms

Several different descriptors of time-averaged sound levels are used to account for fluctuations of sound intensity over time. The sound descriptors calculated by the sound meters and used in this report to describe environmental sound are defined below.

- Ambient sound level is defined as the composite of noise from all sources near and far, the normal or existing level of environmental noise at a given location.
- Decibel (dB) is the physical unit commonly used to measure sound levels. Technically, a dB is a unit of measurement that describes the amplitude of sound equal to 20 times the base 10 logarithm of the ratio of the reference pressure to the sound of pressure, which is 20 micropascals (μPa). As noted above, the dBA scale is used for human auditory perception.
- Equivalent Continuous Noise Level (L_{eq}) is the energy average A-weighted noise level during the measurement period.
- The root-mean-squared maximum noise level (L_{max}) characterizes the maximum noise level as defined by the loudest single noise event over the measurement period.

- Day-Night Average Sound Level (L_{dn}) is the A-weighted equivalent sound level for a 24-hour period with an additional 10 dB weighting imposed on the equivalent sound levels occurring during nighttime hours (10 p.m. [22:00] to 7 a.m. [07:00]).
- Daytime Sound Level (L_d) is defined as the equivalent sound level for a 15-hour period between 7 a.m. (0700) and 10 p.m. (2200).
- Nighttime Sound Level (L_n) is defined as the equivalent sound level for a 9-hour period between 10 p.m. (2200) and 7 a.m. (0700).
- Residual Sound Level (L_{90}) is the level that is exceeded 90% of the time over a specified period. The residual sound level excludes intruding sound from sporadic anthropogenic noises, wildlife, and wind gusts that raise the average and maximum levels over a measurement period.

3.2 Sound Levels of Representative Sounds and Noises

The U.S. Environmental Protection Agency (EPA) has developed an index to assess noise impacts from various sources using residential receptors. Residential development is not recommended if L_{dn} values exceed 65 dBA (EPA 1979). Noise levels in a quiet rural area at night are typically between 32 and 35 dBA. Quiet urban nighttime noise levels range from 40 to 50 dBA. Levels above 70 dBA tend to be associated with task interference. Levels between 50 and 55 dBA are associated with raised voices in a normal conversation. Noise levels during the day in noisy urban areas are frequently as high as 70 to 80 dBA. Noise levels above 110 dBA become intolerable. Table 1 presents sound levels for some common noise sources and the human response to those decibel levels.

Table 1. Sound Levels of Representative Sounds and Noises

Source and Distance	Sound Level (dBA)	Human Response
Jet takeoff (nearby)	150	
Jet takeoff (15 m/50 feet)	140	
50-hp siren (30 m/100 feet)	130	
Loud rock concert (near stage)	120	Pain threshold
Construction noise (3 m/10 feet)	110	Intolerable
Jet takeoff (610 m/2,000 feet)	100	
Heavy truck (8 m/25 feet)	90	
Garbage disposal (0.6 m/2 feet)	80	Constant exposure endangers hearing
Busy traffic	70	
Normal conversation	60	
Light traffic (30 m/100 feet)	50	Quiet
Library	40	
Soft whisper (4.5 m/15 feet)	30	Very quiet
Rustling leaves	20	
Normal breathing	10	Barely audible
Threshold of hearing	0	

Source: Beranek (1988).

Table 2 provides criteria that have been used to estimate an individual's perception of increases in sound. Generally, an average person perceives an increase of 3 dBA or less as barely perceptible. An increase of 10 dBA is perceived as a doubling of the sound.

Table 2**. Average Human Ability to Perceive Changes in Sound Levels**

Increase in Sound Level (dBA)	Human Perception of Sound
2–3	Barely perceptible
5	Readily noticeable
10	Doubling of the sound
20	Dramatic change

Source: Bolt, Beranek and Newman, Inc. (1973).

4 EXISTING CONDITIONS

4.1 Existing Land Use and Site Conditions

The proposed Project site is located in Lenawee County, Michigan, situated within a predominantly rural and agricultural region. The landscape is characterized by open farmland, gently rolling terrain, and a mix of cultivated fields and low-density residential properties. Vegetative cover is relatively sparse, though intermittent patches of woodland and hedgerows provide some natural screening across the landscape.

As illustrated in Figure 1, the Project area features an irregular layout with multiple branching segments where facility construction and associated infrastructure are planned. Land use within and immediately surrounding the Project area is dominated by agricultural activity, consistent with the regional character of Lenawee County. Residential dwellings are distributed throughout the area, primarily along county roads, with typical rural spacing and no concentrated developments or urban centers in close proximity.

The rural setting contributes to relatively low ambient sound levels and minimal anthropogenic activity outside of seasonal farming operations and routine vehicular traffic. This land use profile is important for establishing baseline environmental conditions relevant to the noise impact assessment.

The climate in Lenawee County is classified as humid continental, typical of southern lower Michigan. This climate zone features four distinct seasons, with cold winters, warm to hot summers, and moderate humidity year-round. Average daily temperatures range from a low of 19°F in January to a high of 83°F in July, as shown in Table 3. Such variation implies significant seasonal shifts in ground conditions, frozen and snow-covered surfaces in winter, versus soft or vegetated ground in warmer months.

Precipitation is relatively well distributed throughout the year, with monthly averages ranging from 2.4 inches (October) to 6.9 inches (February). Precipitation totals include both rainfall and snow accumulation and contribute to seasonal ground saturation and vegetation cycles.

Table 3. Climatological Conditions Near Adrian, Michigan

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Normal Daily Max Temperature (°F)	32	35	46	59	70	79	83	80	73	61	48	36
Normal Daily Min Temperature (°F)	19	20	29	39	50	59	63	61	53	43	33	24
Normal Daily Mean Temperature (°F)	24	26	36	48	59	69	73	70	63	51	40	29
Average Precipitation (inches)	5.9	6.9	5.2	3.1	3.0	3.1	2.8	3.0	2.8	2.4	2.9	5.9

Source: WeatherSpark (n.d.)
Note: °F = Degrees Fahrenheit.
Note: Precipitation Totals are total rainfall plus total snowfall

4.2 Existing Sound Conditions

4.2.1 *Measurement Locations*

To characterize the existing acoustic environment at the proposed Rouget Road Solar Farm, SWCA Environmental Consultants conducted an ambient sound survey over two separate periods: March 31 to April 1, 2025, and April 3 to April 4, 2025. The objective of this survey was to establish baseline (pre- construction) sound levels in the project vicinity for comparison with modeled operational sound levels.

A total of six long-term sound monitoring locations (LT-1 through LT-6) were strategically selected based on land use patterns, proximity to noise-sensitive receptors, and spatial coverage across the Project area. These locations were intended to be representative of the range of ambient sound conditions expected within and adjacent to the Project footprint. A summary of the monitoring sites is provided in Table 4, with their geographic positions illustrated in Figure 2. Site photographs are included in Appendix A.

All monitoring procedures were conducted in accordance with the MPSC's Act 233 Application Filing Requirements and Procedures (MPSC 2024), specifically Exhibit A-1.7 and Attachment D. These guidelines outline technical requirements for pre-construction sound monitoring, including standards for instrumentation, deployment, data quality, and exclusion criteria. Measurements were completed using ANSI Type 1 precision sound level meters, with microphones mounted on tripods at a height of approximately 1.5 meters and equipped with environmental-grade wind screens. Instruments were field-calibrated before and after each deployment to ensure accuracy. Sound level data were collected continuously and reviewed to exclude invalid data associated with precipitation or other transient noise events, consistent with the requirements of ANSI S12.18 and ANSI S12.9 Part 3 (ANSI, 1992, 2013).

The existing sound environment at the Project site reflects the site's rural character. The primary contributors to ambient sound levels include traffic from nearby roads, particularly US-223 and local county routes, as well as agricultural activities such as machinery operation. Vehicle engines, tire noise, and occasional horn use were all clearly audible during the monitoring period, particularly during peak travel times. These traffic-related sounds contributed significantly to the overall background noise levels.

In addition to anthropogenic sources, natural sounds such as wind movement through vegetation and intermittent wildlife activity—primarily birds and insects—were also observed. However, these natural sounds were generally of lower intensity and occurred less frequently than traffic or agricultural noise.

Overall, the combination of roadway traffic and farming operations establishes the prevailing sound conditions within the Project area.

Table 4. Monitoring Locations

Monitor	Monitor Location		Elevation (feet amsl)
	Latitude	Longitude	
LT-1	41° 49.999'N	83° 56.653'W	718
LT-2	41° 49.558'N	83° 57.046'W	715
LT-3	41° 51.700'N	83° 57.280'W	713
LT-4	41° 52.610'N	83° 58.575'W	738
LT-5	41° 52.131'N	83° 57.761'W	713
LT-6	41° 50.366'N	83° 58.427'W	721

Note: amsl = Above Mean Sea Level.

4.2.2 *Calibration Checks*

A Larson Davis Model CAL200 Precision Acoustic Calibrator, which generates a 1 kHz reference tone at 114 dBA, was used to perform calibration checks on each sound level meter. Calibration was conducted both immediately before and after each monitoring deployment to verify instrument stability and accuracy over the duration of the measurement period. The calibrator itself is compliant with IEC 60942 Class 1 and is traceable to standards established by the National Institute of Standards and Technology (NIST).

All pre- and post-deployment calibration checks were within ±0.5 dBA, which is well within the MPSC's allowable tolerance of ±1.0 dBA for field calibration consistency. No drift outside of acceptable tolerances was observed, and no instruments were determined to be out of calibration at any point during the monitoring period.

Documentation of the instrument serial numbers, calibration logs, and field data sheets is provided in Appendix B.

4.2.3 *Instrument Description*

Ambient noise monitoring was conducted using three Larson Davis Model 831C Precision Integrating Sound Level Meters, each compliant with ANSI S1.4-2014 and IEC 61672-1 Class 1 standards for Type 1 instrumentation, as required by the MPSC Application Filing Requirements and Procedures (2024). These meters were paired with PCB Piezotronics PRM831 preamplifiers and PCB 377B02 half-inch free-field microphones, forming a high-precision acoustic measurement system suitable for environmental noise studies. The instrumentation used at each long-term monitoring location is listed in Table 5.

In accordance with MPSC guidelines outlined in Attachment D, microphones were mounted on tripods at a standard height of 1.5 meters (5 feet) aboveground level and placed at least 25 feet away from vertical reflective surfaces, such as buildings or fences, to reduce potential measurement bias from reflected sound. Each microphone was fitted with a weather-resistant windscreen and bird spike to minimize environmental interference. All cabling was securely fixed to prevent movement-related noise during deployment.

To ensure temporal consistency across all sites, each sound level meter was programmed and time-synchronized using Larson Davis G4 LD Utility software, allowing for precise comparison and alignment of timestamped data collected from the six monitoring locations.

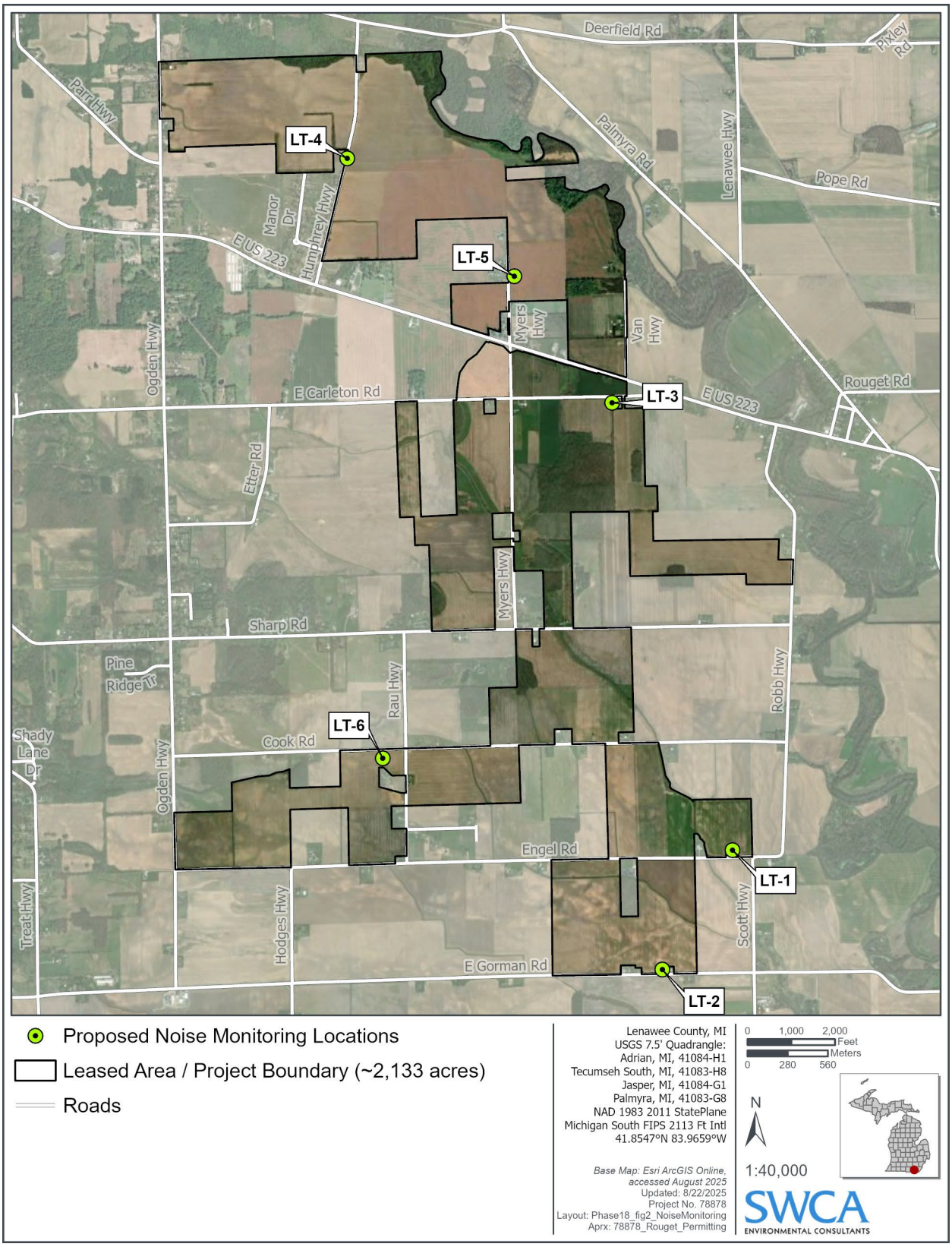


Figure 2. Monitoring Locations.

Calibration was performed before and after each deployment using a Larson Davis CAL200 Precision Acoustic Calibrator, which emits a 1 kHz tone at 114 dB SPL and is compliant with IEC 60942 Class 1 standards. Calibration is traceable to the NIST. All pre- and post-deployment checks confirmed calibration drift remained within ±1.0 dBA.

Table 5. Instrumentation

Monitoring Location	Sound Level Meter	Preamplifier	0.5-inch free-field microphone
LT-1	Larson Davis 831C (S/N 10535)	PRM831 (S/N 02180)	377B02 (S/N 095604)
LT-2	Larson Davis 831C (S/N 12529)	PRM831 (S/N 02322)	377B02 (S/N 360301)
LT-3	Larson Davis 831C (S/N 10534)	PRM831 (S/N 02236)	377B02 (S/N 334329)
LT-4	Larson Davis 831C (S/N 10535)	PRM831 (S/N 02180)	377B02 (S/N 095604)
LT-5	Larson Davis 831C (S/N 12529)	PRM831 (S/N 02322)	377B02 (S/N 360301)
LT-6	Larson Davis 831C (S/N 10534)	PRM831 (S/N 02236)	377B02 (S/N 334329)

Note: S/N = Serial Number.

4.2.4 *Meteorological Data*

Approximately 24 hours of continuous noise data were collected at each designated monitoring location over the course of the survey.

To ensure the integrity and reliability of the noise measurements, each sound level meter was equipped with an SEN031 weather unit. These weather units recorded key meteorological parameters—including temperature, humidity, wind speed, and wind direction—throughout the monitoring period. The collected noise data were subsequently validated against the corresponding weather data to identify and exclude any intervals potentially influenced by adverse conditions, such as high winds or precipitation, which can artificially inflate sound levels or affect microphone sensitivity. Details of the weather conditions observed during each 24-hour monitoring period are summarized in Table 6.

Table 6. Weather Conditions for March 31, 2025 through April 4, 2025

Monitoring Location	Monitoring Start	Monitoring End	Wind Speed (mph)		Temperature (°F)		Humidity (% relative humidity)	
			Range	Avg.	Range	Avg.	Range	Avg.
LT-1	3/31/2025	4/1/2025	0.2 – 23.3	8.6	27.7 – 44.8	35.9	38.3 – 75.0	62.5
LT-2	3/31/2025	4/1/2025	0.2 – 21.5	6.7	27.9 – 45.7	36.0	35.4 – 74.9	60.1
LT-3	4/3/2025	4/4/2025	0.2 – 29.9	6.6	38.3 – 62.1	48.6	38.5 – 78.4	59.6
LT-4	4/3/2025	4/4/2025	0.2 – 26.3	5.9	38.1 – 64.6	48.5	38.7 – 77.1	60.1
LT-5*	4/3/2025	4/4/2025	0.0 – 26.1	2.6	37.0 – 62.4	49.0	43.9 – 81.0	65.1
LT-6	3/31/2025	4/1/2025	0.2 – 21.6	8.3	27.3 – 43.7	35.6	36.1 – 73.7	61.2

Note: mph = miles per hour; avg. = average; °F = Degrees Fahrenheit.
*LT-5's weather unit was found to be blown over during the course of the survey.

During the monitoring period, the weather sensor at LT-5 was found to have been displaced due to wind, resulting in unreliable meteorological data for a substantial portion of the survey. Importantly, the sound level meter was mounted on a separate, undisturbed platform, ensuring that all acoustic measurements at LT-5 remained valid and unaffected by the weather sensor failure. To support weather-related data screening for LT-5, meteorological data from the nearby LT-4 station—which remained fully operational—was used as a surrogate for validation purposes.

In accordance with the MPSC's Act 233 Application Filing Requirements and Procedures (MPSC 2024), Attachment D, data must be excluded when sustained wind speeds exceed 5 meters per second (approximately 11.2 miles per hour) at the microphone. Additional exclusions are recommended during periods of precipitation, anomalous events, or when environmental conditions exceed equipment specifications.

In accordance with these requirements, all acoustic data collected during periods of excessive wind or precipitation were excluded from the analysis to ensure data accuracy and reliability. Additionally, any hourly intervals in which more than 50% of the data were compromised by such environmental conditions were removed from the dataset. This approach aligns with MPSC guidance on minimum data quality thresholds and ensures that only valid, representative data contribute to the final assessment.

4.2.5 *Existing Sound Levels*

To establish baseline ambient sound levels near the Project area, an ambient sound survey was conducted. Long-term sound monitoring was performed from March 31, 2025, to April 1, 2025, and April 3, 2025, and April 4, 2025, to document the acoustic environment surrounding the proposed Project site. The survey captured sound levels at multiple locations to provide a comprehensive understanding of the existing noise conditions. Table 7 presents a summary of the validated A-weighted ambient sound measurements recorded at each monitoring location. Reported metrics include the L_{eq}, L_n, L_d, and L_{dn}.

Table 7. Summary of A-weighted Ambient Sound Measurements

Monitoring Location	Monitoring Start	Monitoring End	Elapsed Time	Measured Sound Levels (dBA)			
				L_{eq}	L_d	L_n	L_{dn}
LT-1	2025-03-31 16:25:30	2025-04-01 17:01:52	24:36:22	40.7	40.9	40.4	46.9
LT-2	2025-03-31 16:43:01	2025-04-01 17:18:53	24:35:51	47.6	49.3	40.5	49.8
LT-3	2025-04-03 13:41:24	2025-04-04 17:32:32	27:51:08	53.4	54.3	51.0	58.1
LT-4	2025-04-03 14:18:41	2025-04-04 17:19:49	27:01:07	52.9	54.0	48.7	56.4
LT-5	2025-04-03 14:01:51	2025-04-04 17:42:29	26:37:25	48.2	50.0	39.7	49.9
LT-6	2025-03-31 17:08:33	2025-04-01 17:31:26	24:22:53	38.3	39.9	33.5	41.6

The baseline ambient sound environment is consistent with rural agricultural communities in Michigan. Measured sound levels varied across monitoring sites, reflecting differences in proximity to roads, agricultural areas, and other land uses, as described in Section 4.2.1.

4.2.6 *Evaluation of Biogenic Sound Influence*

In accordance with the MPSC Filing Requirements and Procedures (MPSC 2024), ambient sound data must be evaluated for the potential influence of biogenic sources—particularly insects, birds, and amphibians—which can introduce tonal sounds that disproportionately elevate A-weighted (L_{Aeq}) sound levels. This influence is especially relevant in rural environments and during specific seasonal conditions.

Biogenic sounds tend to occupy the high-frequency range, often above 1 kHz, and can substantially affect the spectral energy content of measured sound. When present in significant amounts, these sounds may artificially inflate measured A-weighted levels. To assess their influence, the ANS frequency-weighting filter was applied to the spectral data, following the method described in ANSI/ASA S12.100 (ANSI, 2014). The ANS filter attenuates sound energy above the 1 kHz octave band, thereby minimizing the contribution of high-frequency biogenic sources.

Per MPSC guidance, biogenic sounds are considered significant when the difference between the A-weighted and ANS-weighted equivalent sound levels ($\Delta = L_{Aeq} - L_{ANS}$) is 3 dB or greater. In such cases, both A-weighted and ANS-weighted sound levels must be reported.

The ANS analysis was conducted for each hour of the survey period across all six long-term monitoring locations. A summary of the results is presented in Appendix C, with affected hours identified below:

- LT-1: No significant biogenic effects observed.
- LT-2: April 1, 2025 – 9:00 a.m. to 2:00 p.m., and 4:00 p.m.
- LT-3: April 4, 2025 – 12:00 a.m., 4:00 a.m., 7:00 a.m., 8:00 a.m., and 4:00 p.m.
- LT-4: April 3, 2025 – 10:00 p.m., 11:00 p.m.; April 4, 2025 – 8:00 a.m.
- LT-5: April 4, 2025 – 9:00 a.m.
- LT-6: April 1, 2025 – 10:00 a.m.

Table 8 summarizes the overall A-weighted and ANS-weighted equivalent sound levels for each monitoring location for the full monitoring period (excluding other invalid data such as precipitation and wind). These values provide a site-wide assessment of the average influence of biogenic sound.

Table 8. Summary of ANS-Weighted Ambient Sound Measurements

Monitoring Location	L_{Aeq}	L_{ANS}	Δ = A - ANS	Biogenic Effect?
LT-1	40.7	40.1	0.6	No
LT-2	47.6	43.3	4.3	Yes
LT-3	53.4	51.0	2.4	No
LT-4	52.9	50.6	2.3	No
LT-5	47.6	46.1	1.5	No
LT-6	38.3	37.1	1.2	No

The results show that only LT-2 exhibited a statistically significant biogenic effect, with an average Δ of 4.3 dBA over the monitoring period. However, LT-2 is not located adjacent to any notable wetland, forested, or otherwise biogenically active habitat that would explain the elevated readings relative to other

sites. Given the absence of unique land cover features at LT-2 and the fact that significant biogenic effects were limited to isolated hours at other locations, the observed influence is considered minor and not representative of broader site conditions.

Therefore, for the purpose of evaluating operational noise impacts, A-weighted (L_{Aeq}) values will be used, as they reflect the most relevant metric for compliance and public health considerations under MPSC guidance.

4.3 Regulatory Setting

Noise regulations relevant to the proposed Project are established at the state and local levels, with the intent to protect public health and welfare by limiting exposure to environmental noise. The regulatory framework applicable to the Rouget Road Solar Farm is summarized below.

4.3.1 *Applicable Noise Standards*

4.3.1.1 FEDERAL

There are currently no applicable federal noise standards that govern operational sound levels from utility-scale solar energy facilities. While federal agencies such as the EPA have historically published noise criteria for public health guidance, they do not establish enforceable limits for this type of development.

4.3.1.2 STATE

At the state level, noise standards applicable to solar energy facilities are established under Michigan Compiled Laws (MCL) 460.1226, which specifies:

"The solar energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute."

— MCL 460.1226(2)(b), 2023

This standard sets a maximum modeled operational sound limit of 55 dBA L_{eq} (1-hour) at the exterior wall of the nearest dwelling on an adjacent nonparticipating property. The regulation explicitly requires the use of the A-weighted decibel scale (dBA) and mandates modeling in accordance with methods recognized by the ANSI.

The MPSC reinforces this requirement in its Act 233 Application Filing Requirements and Procedures, stating that this standard must be met for a project to be eligible for approval. Compliance with the 55 dBA limit must be demonstrated through predictive modeling that accounts for worst-case operational sound levels under normal facility operation.

4.3.1.3 LOCAL

4.3.1.3.1 Lenawee County Noise Ordinance

A review of Lenawee County's ordinances reveals no county-level noise standards specific to solar facilities or ambient sound limits.

4.3.1.3.2 Palmyra Township

Palmyra Township enacted Ordinance 25-04 ("Solar Energy Systems PA 233"), effective February 18, 2025, which includes noise requirements for Level 3 solar energy systems. The ordinance states:

"The Level 3 Solar Energy System must not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute."

This mirrors the state requirement under MCL 460.1226, mandating compliance at the nearest nonparticipating residence. As such, Palmyra Township's ordinance reinforces the 55 dBA L_{eq} (1-hour) modeling limit and aligns with the state's A-weighted standard for noise assessment.

5 NOISE IMPACTS

The following section provides results and interpretation of potential impacts from noise generated by the Project during construction and operation phases.

5.1 Applicable Noise Standards and Compliance Criteria

The Rouget Road Solar Farm is located within Palmyra Township in Lenawee County, Michigan. The area surrounding the Project includes a mix of agricultural and low-density rural residential properties, including nonparticipating parcels with residential dwellings that are considered noise-sensitive receptors under applicable regulatory frameworks.

Noise standards applicable to the Project are established at the state and local levels. The primary enforceable limit is set forth in MCL 460.1226, which governs the siting of utility-scale solar facilities under Public Act 233 of 2023. Palmyra Township Ordinance 25-04 incorporates this same standard for Level 3 solar energy systems, thereby reinforcing its applicability at the local level.

5.1.1 *Operational Noise Compliance Criteria*

Operational noise from the Project must comply with the statutory limit defined in MCL 460.1226(2)(b), which states:

"The solar energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute."

Palmyra Township's ordinance mirrors this requirement, mandating compliance at the same receptor location and with the same acoustic standard.

The MPSC further reinforces this limit in its Act 233 Application Filing Requirements, which require applicants to demonstrate compliance through predictive modeling based on worst-case operational conditions. Modeling must follow ISO 9613-2 (2024) sound propagation methodology and be prepared or reviewed by a qualified noise control engineer, as outlined in Exhibit A-1.7.

Accordingly, modeled operational noise impacts from the Project will be considered non-compliant if they exceed:

- 55 dBA L_{eq} (1-hour average) at the outer wall of the nearest dwelling on an adjacent nonparticipating property.

5.1.2 *Construction Noise Compliance Considerations*

The MPSC does not establish specific numeric limits for construction-related noise under Act 233. However, per the Application Filing Requirements and Procedures, applicants must demonstrate that construction activities are planned and conducted in a manner that minimizes impacts to nonparticipating properties and nearby sensitive receptors.

As such, construction-related noise will be considered a potential compliance issue if it:

- Results in documented complaints from nearby nonparticipating residents that are not resolved in accordance with the Project's complaint resolution process; or
- Fails to demonstrate that reasonable measures have been taken to minimize noise impacts on adjacent dwellings, in accordance with MPSC expectations.

5.2 Noise Assessment Components

A noise assessment is based on the following components: a sound-generating source, a medium through which the source transmits, the pathways taken by these sounds, and an evaluation of the proximity to NSAs. Soundscapes are affected by the following factors:

- Source. The sources of sound are any generators of small back-and-forth motions (i.e., motions that transfer their motional energy to the transmission path where it is propagated). The acoustic characteristics of the sources are essential. Sources must generate sounds of sufficient strength, approximate pitch, and duration so that the sound may be perceived and can cause adverse effects compared with the natural ambient sounds.
- Transmission path or medium. The transmission path or medium for sound or noise is most often the atmosphere (i.e., air). For the noise to be transmitted, the transmission path must support the free propagation of the small vibratory motions that make up the sound. Atmospheric conditions (e.g., wind speed and direction, temperature, humidity, precipitation) influence the attenuation of sound. Barriers and/or discontinuities (e.g., existing structures, topography, foliage, ground cover, etc.) that attenuate the flow of sound may compromise the path. For example, sound will travel very well across reflective surfaces such as water and pavement but can attenuate across rough surfaces (e.g., grass, loose soil).
- Proximity to NSAs. An NSA is defined as a location where a state of quietness is a basis for use or where excessive noise interferes with the normal use of the location. Typical NSAs include residential areas, parks, and wilderness areas, but also include passive parks and monuments, schools, hospitals, churches, and libraries.

5.3 Construction Noise

Construction noise levels are influenced by a variety of factors, including the type and condition of equipment used, the nature of specific construction tasks, the timing and duration of work activities, and

site-specific conditions. Construction generally occurs in multiple phases, each involving different equipment and operations, resulting in varying noise characteristics throughout the Project timeline.

5.3.1 *Equipment and Machinery*

Construction of the Project will proceed in sequential phases, each requiring a distinct set of equipment depending on the specific construction activity, such as site clearing, grading, utility trenching, foundation work, and panel installation. Consequently, noise emissions will vary over time and space across the site.

Typical construction equipment expected to be used includes earthmoving machinery, utility trenchers, foundation equipment (such as pile drivers), and support vehicles. Maximum noise levels from such equipment typically range from approximately 75 dBA to 101 dBA at 50 feet, depending on the equipment type, operational conditions, and duty cycle.

Table 9 summarizes representative maximum noise levels for common equipment types.

Table 9. Noise Levels for Common Construction Equipment

Equipment Type	Typical Maximum Noise Levels at 50 Feet (dBA)
Compactor (ground)	95
Crane	95
Dozer	82
Drum Mixer	80
Dump Truck	76
Generator	81
Grader	85
Pickup Truck	75
Pile Driver	101
Roller	80
Tractor	84
Trencher	80

Source: RCNM Software Version 1.1 (FHWA 2011).

Construction noise levels can vary considerably based on equipment type, size, condition, operational schedules, and site-specific characteristics such as terrain and ground cover. The Rouget Road Solar Farm will be built in multiple phases, with each phase requiring different construction activities and associated equipment, resulting in variable noise levels throughout the construction period.

For this assessment, the pile installation phase is identified as the loudest construction activity, primarily due to the use of impact pile drivers for installing solar racking foundations. Table 10 summarizes the anticipated equipment and daily operation schedule for a single pile driving activity area.

Table 10. Anticipated Construction Equipment

Phase	Equipment Used (single pile driving activity area)		
	Type	Number	Hours/Day
Pile Installation	Pickup Truck	3	8
	Impact Pile Driver	1	8
	Pneumatic Tools	1	8

Construction noise was modeled using the FHWA's RCNM, Version 1.1. This model uses standardized maximum sound levels based on measurements from real-world construction sites.

Although Table 10 reflects equipment for a single pile driving operation, up to four such operations may occur concurrently at different areas of the Project site. These operations will be spatially separated, which will significantly reduce the cumulative sound level at any one receptor due to increased distance and sound dispersion.

To provide a conservative, worst-case analysis, construction noise was also modeled assuming four pile driving operations occurring simultaneously at equal distances from a single nonparticipating residence. While this scenario likely overstates actual exposure, it ensures that potential impacts are not underestimated.

The predicted construction noise levels are presented in Table 11 as a function of distance from active construction areas. This approach reflects the fact that the Project is surrounded by numerous residences and rural properties at varying distances, making it more appropriate to illustrate noise exposure as a function of proximity rather than at specific receptor points.

The analysis focuses on the pile installation phase, which is expected to produce the highest construction noise levels due to the use of impact pile drivers. To ensure a conservative assessment, the modeling assumes continuous, full-load operation of all equipment and does not account for real-world noise attenuation due to terrain, structures, or vegetation.

Table 11. Predicted Construction Noise Levels

Phase	Distance to Activity	Predicted L_{eq} – 1 Operation	Predicted L_{eq} – 4 Operations
	(feet)	(dBA)	(dBA)
Pile Installation	100	88.3	94.3
	250	80.4	86.4
	500	74.3	80.3
	1000	68.3	74.3
	2640	59.9	65.9
	5280	53.9	59.9

As noted in Section 5.1.2, the MPSC does not specify numeric construction noise limits under Act 233. Instead, applicants must demonstrate that construction noise impacts are reasonably minimized and that activities occur within acceptable daytime hours. This analysis provides a conservative upper bound to help evaluate potential short-term impacts to nearby properties.

5.4 Operational Noise

This section evaluates the potential for operational noise from the Rouget Road Solar Project to affect nearby sensitive receptors, in accordance with the methodology specified by the MPSC under Act 233 of 2023.

As required by MCL 460.1226(2)(b) and reinforced in the MPSC Application Filing Requirements, operational noise must be evaluated using sound modeling conducted in accordance with ISO 9613-2 (2024) as recognized by the ANSI. The analysis must demonstrate that modeled sound levels do not exceed the statutory limit at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property.

The operational noise modeling for this Project was performed following the detailed procedures outlined in Attachment D of the MPSC guidance, including assumptions for worst-case normal operations and cumulative equipment output. The results were evaluated against the statewide compliance threshold of 55 dBA L_{eq} (1-hour average) at the specified receptor location.

This threshold is enforceable under MCL 460.1226 and is also codified in Palmyra Township Ordinance 25-04, which applies to Level 3 solar energy systems. No other federal or local numeric operational noise limits are applicable to this facility.

Accordingly, the Project is considered compliant with operational noise requirements if:

- Modeled sound levels do not exceed 55 dBA L_{eq} (1-hour) at the outer wall of the nearest dwelling on an adjacent nonparticipating property

This value serves as the sole enforceable regulatory threshold for operational noise, as required for certification under Act 233.

5.4.1 *Operational Activities*

During the operational phase of the Project, the primary sources of sound will originate from electrical conversion and power management equipment necessary to support solar energy generation. These sources include solar trackers, inverters, and a main power transformer.

The key operational equipment is described below:

- SG4400UD-MV-US Inverters: These central inverters convert direct current (DC) electricity generated by the PV modules into alternating current (AC) for delivery to the grid. Inverters emit a consistent, low-level broadband sound during daylight hours, primarily due to high-frequency switching electronics and internal cooling fans. This sound is typically characterized as a steady hum or soft buzzing.

- Step-Up Transformer: The Project includes a single main power transformer, which steps up the voltage for transmission to the utility grid. Power transformers generate a continuous, low-frequency hum during normal operation, primarily caused by magnetostriction in the transformer core.

- Nextracker XTR 0.75 Solar Trackers: These single-axis trackers slowly rotate throughout the day to follow the position of the sun, improving solar capture efficiency. Movement is motor-driven

and intermittent, typically consisting of brief adjustments every few minutes. The resulting mechanical noise is minimal and momentary in nature.

Although individual equipment types produce relatively low sound levels, the combined noise output from all operating components has been conservatively modeled to assess compliance with applicable regulatory thresholds.

5.4.2 *Noise Profile*

The sound power level (L_{pw}) for each major noise source associated with the Project are presented in Table 12. These values were derived from available manufacturer specifications where possible. In cases where manufacturer data was unavailable, sound levels were estimated using industry-standard reference data or calculated based on similar equipment types and operational characteristics.

Table 12. Equipment Sound Power Levels

Equipment	1/1 Octave Spectrum (dB)										L_{pw} (dBA)	Qty
	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz		
PV Trackers[1]	70.3	70.3	59.3	66.3	77.3	71.3	82.3	63.3	62.3	-	78.2	5.790
PV Inverters[2]	89.1	87.7	85.9	82.3	84.8	83.1	86	76.3	54.3	-	89.8	48
Transformer[3]	97.4	103.2	105.1	100.6	100.2	94.0	88.8	84.0	77.1	76.0	97.5	1

[1] Based on manufacturer data for the Nextracker Horizon™ single-axis tracker, as provided in a technical letter from Nextracker, Inc. (2020). Each tracker row is powered by a 24V brushless DC motor that operates intermittently for 5 seconds every 2 minutes. Full-load sound pressure levels measured at 1 meter range up to 69.6 dBA, with estimated sound power levels derived using ISO 3746 propagation assumptions. (Nextracker 2020).

[2] Based on third-party acoustic testing of the Sungrow SG4400UD-MV-US inverter, conducted at >90% load and in accordance with ISO 3746:2010 standards. (Sungrow, 2023)

[3] Sound power levels were estimated using industry-standard data and engineering calculation methods consistent with IEEE Std C57.12.90 (2015) and NEMA TR-1 guidelines for liquid-immersed distribution transformers. Assumes no enclosure or shielding. IEEE Standard C57.12.90-2015; NEMA TR-1-1993 (1993)

The baseline sound power level for the PV trackers assumes continuous operation, consistent with standard ISO 3746 estimation methodology. However, this does not reflect actual site conditions. Based on manufacturer-supplied operating information, each tracker motor operates intermittently for approximately 150 seconds per hour (i.e., 5 seconds every 2 minutes). To account for this limited duty cycle, the modeled sound energy contribution from the trackers was scaled down proportionally to reflect their true operational time.

5.4.3 *Tonality Consideration*

In accordance with the MPSC Act 233 Application Filing Requirements, and specifically the procedures outlined in Exhibit A-1.7, all modeled operational sound sources must be evaluated for tonal characteristics as defined by ISO and ANSI acoustic standards. Where such tonal features are identified or reasonably expected, a 5 dBA tonal penalty must be added to the source's sound power level in the modeling analysis.

At the time this report was prepared, one-third octave band sound level data were not available for any of the primary equipment proposed for the Rouget Road Solar Project.

Due to the absence of complete spectral data and to ensure alignment with MPSC requirements, a 5 dBA tonal adjustment was conservatively applied to all A-weighted sound power levels listed in Table 12. This

assumption reflects a precautionary approach consistent with MPSC guidance and ensures that potential tonal characteristics are fully accounted for in the operational noise modeling.

This adjustment increases the modeled source levels used in ISO 9613-2 propagation modeling, thereby providing a more conservative estimate of potential sound impacts at nearby nonparticipating dwellings.

5.4.4 *Assessment Methodology*

Operational noise from the Rouget Road Solar Project was evaluated using SoundPLAN noise modeling software, which implements the ISO 9613-2:2024 standard, Attenuation of Sound during Propagation Outdoors. This internationally recognized methodology is prescribed by the MPSC for solar facility noise assessments conducted under Act 233. It is designed to model far-field sound levels under meteorological conditions that favor sound propagation, such as light downwind conditions or nocturnal temperature inversions.

All modeling inputs and parameters conform to Exhibit A-1.7 of the MPSC's Application Filing Requirements and Procedures (MPSC 2024). The model calculates sound propagation using manufacturer-supplied or estimated sound power levels and applies physical and environmental attenuation factors such as geometric divergence, air absorption, ground absorption, and topographic shielding.

The model used manufacturer-reported or conservatively estimated A-weighted sound power levels for all major sources, including inverters, solar trackers, and the main power transformer. A 5 dBA tonal penalty was applied to all equipment in the model due to the lack of one-third octave band data necessary to confirm or rule out tonality, in accordance with MPSC guidance outlined in Exhibit A-1.7.

Meteorological assumptions used in the model included a temperature of 10 degrees Celsius, relative humidity of 70%, and barometric pressure of 1,013 millibars. These inputs represent cold, humid conditions, which result in relatively low atmospheric attenuation and are considered favorable for sound propagation. Air absorption coefficients were automatically calculated by SoundPLAN based on these conditions and the frequency-dependent attenuation rates defined in ISO 9613-2.

Ground absorption was modeled using a ground factor of 0.5, representing a mix of reflective and porous surfaces typical of agricultural or rural settings. This assumption reflects the actual ground cover conditions found across the site, which include a combination of crops, grasses, and compacted surfaces. All sound sources were assumed to emit sound uniformly in all directions (i.e., no directivity corrections were applied), consistent with typical modeling for this type of facility.

No foliage attenuation was included in the modeling, in accordance with MPSC instructions that vegetation should not be considered a reliable source of sound reduction unless explicitly maintained and quantified.

The modeling incorporated receptors representing all nonparticipating residential structures within 1,000 feet of the Project boundary. Although the MPSC guidance calls for analysis of all dwellings within one mile of any facility sound source, a reduced radius of 1,000 feet was selected due to the high number and density of receptors in the area. This distance was determined to still capture worst-case exposure levels, as modeled sound levels decrease rapidly with distance and are most critical near the facility perimeter.

Each modeled receptor was assigned both a first-floor height of 1.5 meters and a second floor height of 4.0 meters to reflect typical residential building elevations. No meteorological correction factor (C_{met}) was applied to the model, and no uncertainty buffer was added to the predicted levels.

Finally, in accordance with ISO 9613-2 methodology and MPSC requirements, a +6 dBA façade correction was added to all predicted free-field sound pressure levels at building façades to account for pressure doubling at exterior walls.

This modeling framework reflects a conservative and regulatory-compliant methodology, consistent with current MPSC standards, and provides a reliable basis for determining operational compliance with the applicable 55 dBA L_{eq} (1-hour) threshold.

5.4.5 *Operational Noise Impacts*

This section evaluates the potential for operational noise generated by the Rouget Road Solar Project to affect nearby sensitive receptors and assesses compliance with applicable regulatory thresholds. The analysis is based on modeled sound levels at all identified nonparticipating structures located within 1,000 feet of the Project boundary.

Compliance is determined by comparing modeled exterior sound pressure levels at the outer wall of each nonparticipating dwelling to the 55 dBA L_{eq} (1-hour) limit established under MCL 460.1226(2)(b) and reinforced by Palmyra Township Ordinance 25-04. This enforceable threshold represents the maximum allowable operational sound level at the nearest dwelling on adjacent nonparticipating properties and is the sole regulatory criterion applicable to the Project. Federal guidance values, such as the U.S. EPA's long-term residential exposure guideline, were not used in this analysis, as the state statute provides a specific and binding limit.

The following subsections present modeled results and discuss potential impacts under worst-case propagation conditions and full operational loading.

5.4.5.1 COMPLIANCE EVALUATION AT NONPARTICIPATING STRUCTURES

To evaluate compliance, noise emissions from the Project's key equipment—including inverters, the main power transformer, and solar trackers—were modeled using ISO 9613-2:2024 within the SoundPLAN software. Equipment sound power levels included a +5 dBA tonal penalty in accordance with MPSC Exhibit A-1.7, and the model assumed meteorological conditions favorable for sound propagation (10°C, 70% humidity) with a ground factor of 0.5. Because ISO 9613-2 predicts free-field sound pressure levels, a +6 dBA adjustment was applied to all modeled levels to account for façade reflection effects, as required when evaluating compliance at building walls.

While MCL 460.1226 references "the nearest dwelling," the modeling approach used here included all structures on nonparticipating properties within 1,000 feet of the project boundary, regardless of confirmed residential status. This conservative approach was adopted due to the difficulty in conclusively identifying dwelling types for every structure, and ensures that potential worst-case exposures are not underestimated.

Table 13 lists the 10 nonparticipating structures with the highest modeled façade-adjusted sound levels. These values represent worst-case predicted operational noise exposures across the Project area. A complete list of predicted noise levels at all modeled structures is provided in Appendix D. These results provide a detailed evaluation of the facility's compliance with Michigan MCL 460.1226 and its potential impact on the surrounding area.

Table 13. Highest Predicted Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Receiver Elevation	Modeled Free-Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-117-2700-00	F2	254034.5	4639845	222.52	45.3	45.1	51.3	51.1
PA0-117-2700-00	F1	254034.5	4639845	220.02	44.5	44.3	50.5	50.3
PA0-117-2700-00	F2	254054.5	4639816	222.47	44.4	44.2	50.4	50.2
PA0-117-2700-00	F1	254054.5	4639816	219.97	43.6	43.2	49.6	49.2
PA0-117-2800-00	F2	254080.2	4639669	222.42	41.9	41.3	47.9	47.3
PA0-117-2800-00	F2	254072.9	4639638	222.52	41.5	40.9	47.5	46.9
PA0-117-2800-00	F2	254043.4	4639648	222.55	41.5	40.9	47.5	46.9
PA0-117-2800-00	F1	254080.2	4639669	219.92	41.0	40.3	47.0	46.3
PA0-117-2800-00	F2	254033.8	4639576	222.59	40.8	40.1	46.8	46.1
PA0-117-2800-00	F2	254002.7	4639596	222.4	40.8	40.2	46.8	46.2

[a] Receiver ID. Duplicate IDs indicate either multiple modeled floor levels at the same structure or multiple structures located on the same nonparticipating property.

[b] Floor level. F1 = first floor (modeled at a height of 1.5 meters); F2 = second floor (modeled at a height of 4.0 meters).

[c] Modeled free-field sound levels. Values reflect ISO 9613-2 predictions including a +5 dBA tonal penalty applied to all equipment sources in accordance with MPSC guidelines.

[d] Modeled façade-adjusted sound levels. Values include both a +5 dBA tonal penalty and a +6 dBA correction for sound pressure doubling at building façades, as required for assessing compliance at the nearest outer wall.

[e] Leq,d (daytime equivalent sound level). Includes operational noise from inverters, trackers, and transformers, reflecting full-load daytime conditions.

[f] Leq,n (nighttime equivalent sound level). Includes only inverters and transformers; tracker operation is not modeled at night.

The modeled results presented in Table 13 show the 10 highest predicted operational sound levels at nonparticipating structures within the modeling area. After applying the required +5 dBA tonal penalty and +6 dBA façade correction, the highest façade-adjusted sound level was 51.3 dBA L_{eq} (1-hour) during daytime conditions. All other structures in the top 10 list exhibited façade-adjusted levels ranging between 46.8 dBA and 50.5 dBA, with nighttime levels slightly lower due to the absence of tracker operation.

These results demonstrate that none of the modeled structures exceeded the 55 dBA L_{eq} (1-hour) threshold established under MCL 460.1226(2)(b) and the corresponding Palmyra Township Ordinance, indicating that the Project is expected to comply with applicable operational noise limits. Because these values reflect full-load operation under sound-favorable conditions and include conservative modeling assumptions, actual sound levels experienced during regular operations are expected to be equal to or lower than those shown.

For any noise-related complaints, the Project will follow the formal complaint resolution process submitted as Appendix II Exhibit A-1.16.

The isopleth maps generated for this noise impact assessment are presented in Appendix E. These maps illustrate compliance with Michigan MCL 460.1226's 55 dBA threshold. The isopleth map displays the modeled 55 dBA contour (A-weighted) to confirm that operational noise levels do not exceed this limit at

any of the nearest NSAs. These visual representations effectively show the extent of noise propagation and validate adherence to all applicable noise standards.

The isopleth maps presented in Appendix E illustrate the modeled A-weighted sound level contours generated by the Project under full operational conditions. These maps display the 55 dBA L_{eq} (1-hour) compliance contour, which corresponds to the regulatory threshold established under MCL 460.1226. The figures confirm that operational sound levels remain at or below 55 dBA at all nonparticipating structures included in the modeling. By visualizing the spatial extent of sound propagation, the isopleths provide clear confirmation of regulatory compliance, illustrating that the Project's operational noise is effectively contained within acceptable limits.

In addition to the predictive modeling presented herein, a Post-Construction Sound Monitoring Protocol has been developed to verify actual operational sound levels following commissioning. This protocol outlines the procedures for field measurements, data screening, and compliance evaluation and is included in Appendix F of this report. Together, the modeled results and post-construction monitoring plan demonstrate a comprehensive approach to ensuring long-term compliance with MCL 460.1226 and the Michigan Public Service Commission's siting requirements.

In the unlikely event that post-construction sound monitoring indicates that sound generated by the solar energy facility exceeds the 55 dBA L_{eq} (1-hour) threshold as modeled or measured at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property, the Project will implement additional noise mitigation measures as outlined in Appendix G to promptly reduce sound levels and ensure compliance with MCL 460.1226(2)(b) and the Michigan Public Service Commission's Act 233 Application Filing Requirements.

6 QUALIFICATIONS

All aspects of this study were either conducted by or directly overseen by Dr. Carlos Ituarte Villarreal. Dr. Ituarte has over 10 years of professional experience conducting environmental noise assessments, including baseline sound monitoring, ISO 9613-2 predictive modeling, and compliance evaluations for energy infrastructure projects. He holds a Ph.D. in Environmental Science and Engineering and leads the Noise and Air Quality Team at SWCA Environmental Consultants.

Although INCE Board Certification is listed as a preferred qualification under the MPSC's Act 233 guidance, it is not required. Dr. Ituarte's academic training, technical expertise, and extensive project experience provides a clear and sufficient basis for his role as the supervising noise control engineer, consistent with the qualifications standard described in Exhibit A-1.7 and Attachment D.

7 LITERATURE CITED

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APPENDIX A

Long-Term Monitoring Location Photographs

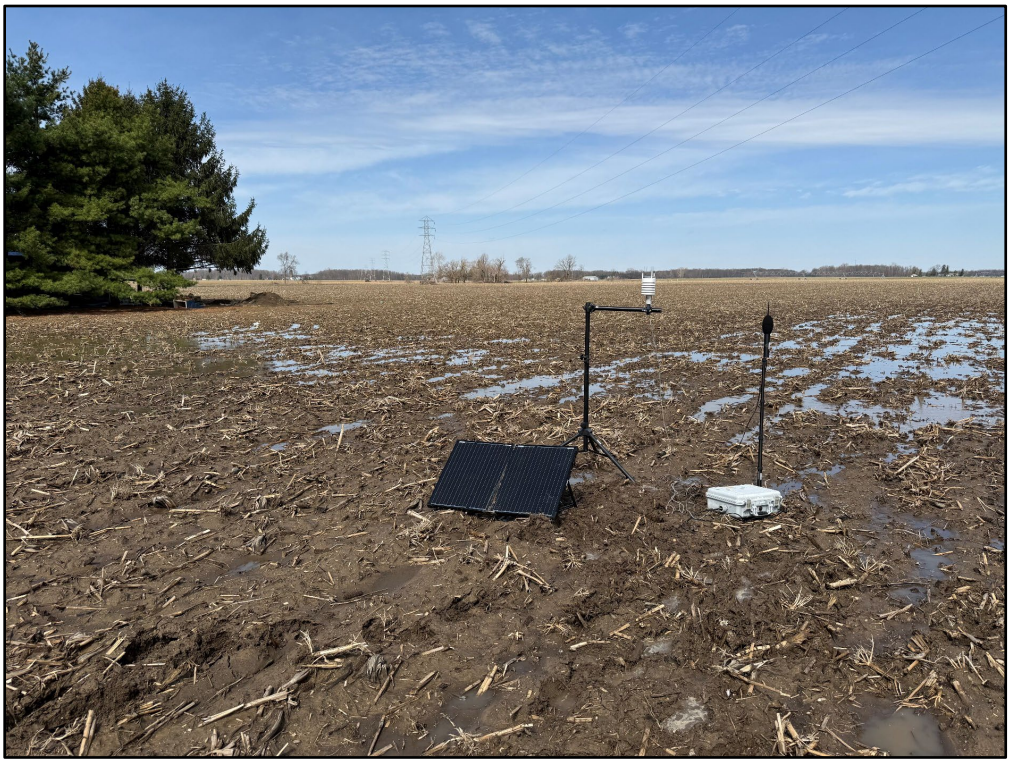


Photo A-1. Monitoring Location LT-1.

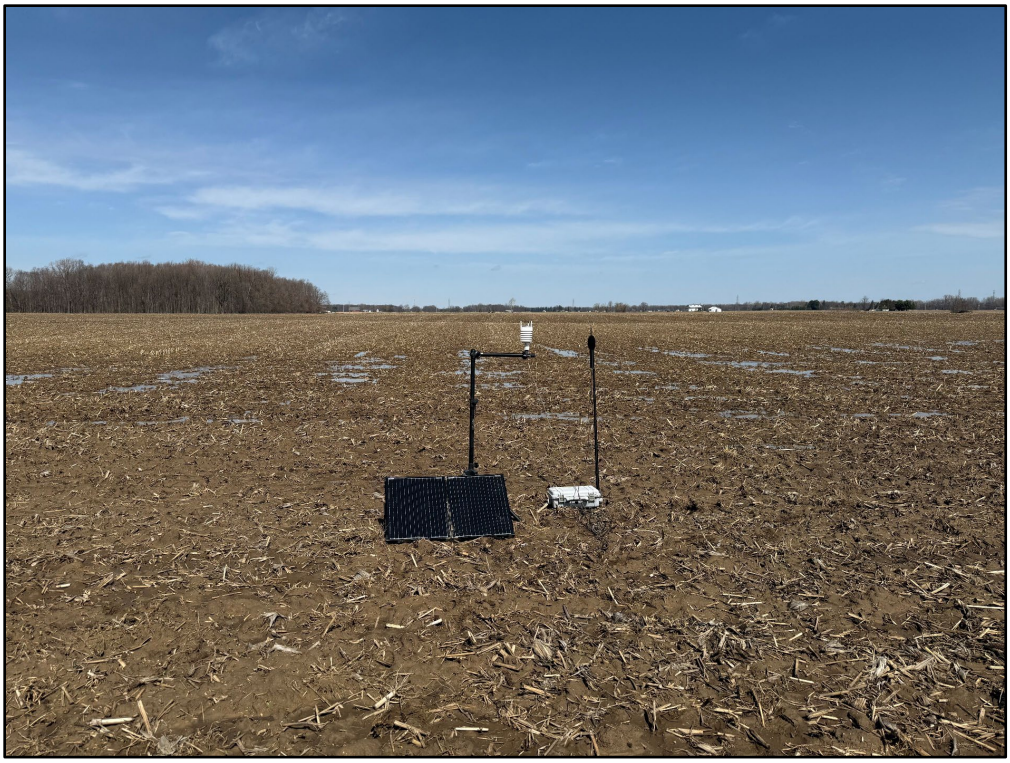


Photo A-2. Monitoring Location LT-2.

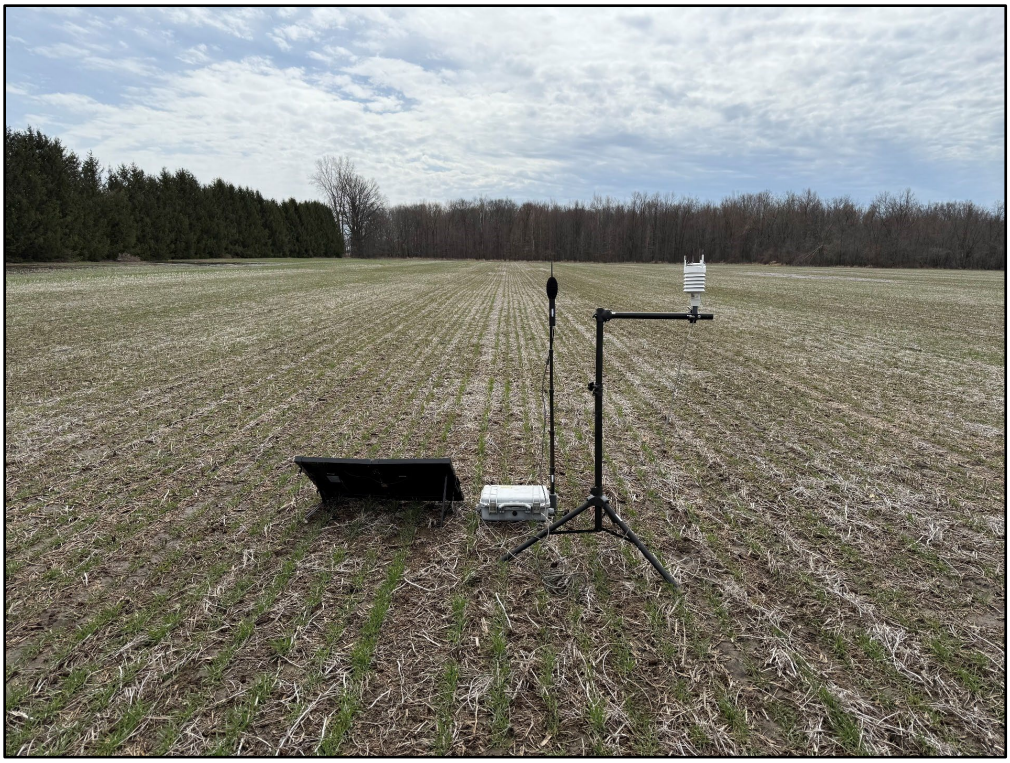


Photo A-3. Monitoring Location LT-3.

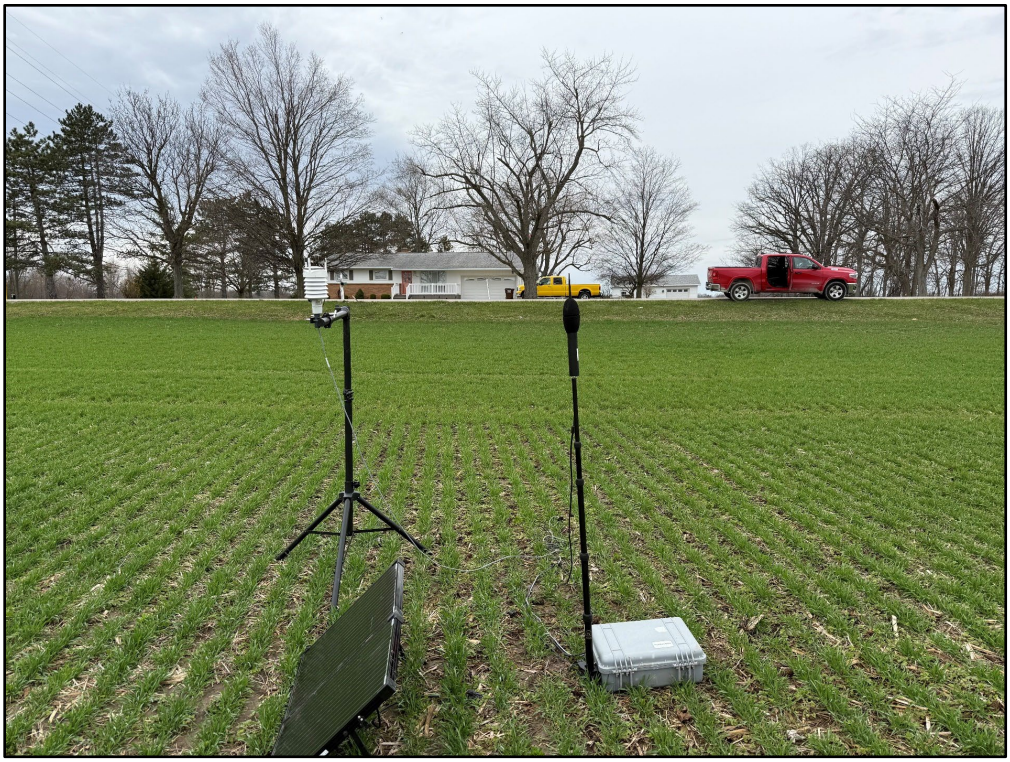


Photo A-4. Monitoring Location LT-4.



Photo A-5. Monitoring Location LT-5.



Photo A-6. Monitoring Location LT-6.

APPENDIX B

Survey Data Sheets

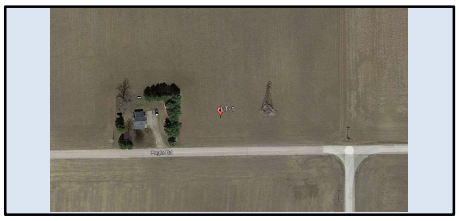
Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-1

Coordinates
Lat: 41° 49.999'
Lon: -83° 56.653'
Elevation (ft): 718



Ground Type tilled muddy field

Topography very flat

Observed Weather
Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0010535

Preamplifier Model : PRM2103
S/N: 2180

Microphone Model : 377B02
S/N: 95604

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-03-31 16:25:30
End Time: 2025-04-01 17:01:52

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			

Monitoring Data

Parameter										
Duration hh:mm	24:36:22.898									
Memory										
Battery										
Calibration Error	-0.25									
Exceedance Events										
Overall Peak										
Overall Laeq	44.20									
LDN	49.10									
Day	45.10									
Night	42.10									

Data File(s)	File Size
Rouget.003.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

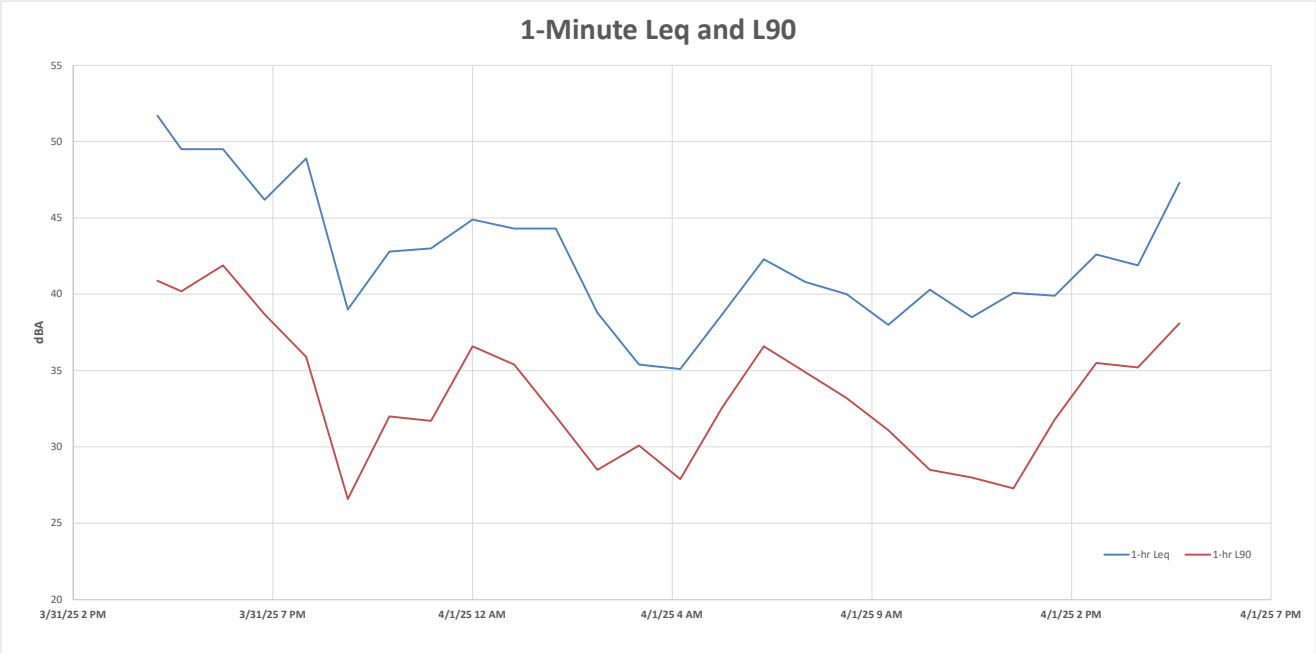
PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-1

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-03-31	16:25:30	00:34:30.0	51.7	34.4	78.8	56.1	53.6	46.5	40.9
2025-03-31	17:00:00	01:00:00.0	49.5	34.8	69.7	54.8	51.9	45.4	40.2
2025-03-31	18:00:00	01:00:00.0	49.5	35.5	62.4	54.7	52.5	47.0	41.9
2025-03-31	19:00:00	01:00:00.0	46.2	33.8	60.5	49.7	48.7	44.7	38.7
2025-03-31	20:00:00	01:00:00.0	48.9	29.0	65.6	54.4	51.5	45.3	35.9
2025-03-31	21:00:00	01:00:00.0	39.0	21.4	53.7	45.8	43.3	33.5	26.6
2025-03-31	22:00:00	01:00:00.0	42.8	24.6	54.6	48.1	46.9	40.1	32.0
2025-03-31	23:00:00	01:00:00.0	43.0	26.9	51.6	48.1	47.2	40.5	31.7
2025-04-01	00:00:00	01:00:00.0	44.9	29.3	57.6	48.7	48.0	43.9	36.6
2025-04-01	01:00:00	01:00:00.0	44.3	27.0	55.1	48.7	47.8	42.6	35.4
2025-04-01	02:00:00	01:00:00.0	44.3	26.8	61.3	50.1	48.4	37.7	32.0
2025-04-01	03:00:00	01:00:00.0	38.8	25.3	51.2	44.5	42.4	35.4	28.5
2025-04-01	04:00:00	01:00:00.0	35.4	24.7	49.6	40.0	38.4	33.3	30.1
2025-04-01	05:00:00	01:00:00.0	35.1	24.2	46.4	39.4	38.4	33.4	27.9
2025-04-01	06:00:00	01:00:00.0	38.7	29.8	58.9	42.7	40.9	36.2	32.6
2025-04-01	07:00:00	01:00:00.0	42.3	34.1	60.6	45.6	43.5	39.9	36.6
2025-04-01	08:00:00	01:00:00.0	40.8	30.8	51.6	45.8	44.4	38.2	34.9
2025-04-01	09:00:00	01:00:00.0	40.0	28.4	54.3	44.7	43.1	37.5	33.2
2025-04-01	10:00:00	01:00:00.0	38.0	26.2	52.5	42.9	41.0	35.4	31.1
2025-04-01	11:00:00	01:00:00.0	40.3	24.8	63.1	44.5	41.0	32.4	28.5
2025-04-01	12:00:00	01:00:00.0	38.5	25.6	56.8	43.0	40.0	32.1	28.0
2025-04-01	13:00:00	01:00:00.0	40.1	24.5	63.3	43.2	39.8	31.9	27.3
2025-04-01	14:00:00	01:00:00.0	39.9	27.8	58.9	44.8	42.7	36.5	31.8
2025-04-01	15:00:00	01:00:00.0	42.6	31.4	57.6	47.2	45.6	40.5	35.5
2025-04-01	16:00:00	01:00:00.0	41.9	30.1	55.4	46.7	44.7	39.6	35.2
2025-04-01	17:00:00	00:01:52.9	47.3	35.6	64.0	52.4	47.7	40.9	38.1

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-1



Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-2

Coordinates
Lat: 41° 49.558'
Lon: -83° 57.046'
Elevation (ft): 715



Ground Type tilled muddy field

Topography very flat

Observed Weather
Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0012529

Preamplifier Model : PRM2103
S/N: 2322

Microphone Model : 377B02
S/N: 360301

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-03-31 16:43:01
End Time: 2025-04-01 17:18:53

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			
residential noise			

Monitoring Data

Parameter										
Duration hh:mm	24:35:51.297									
Memory										
Battery										
Calibration Error	-0.14									
Exceedance Events										
Overall Peak										
Overall Laeq	48.00									
LDN	50.00									
Day	49.60									
Night	40.70									

Data File(s)	File Size
Rouget.002.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

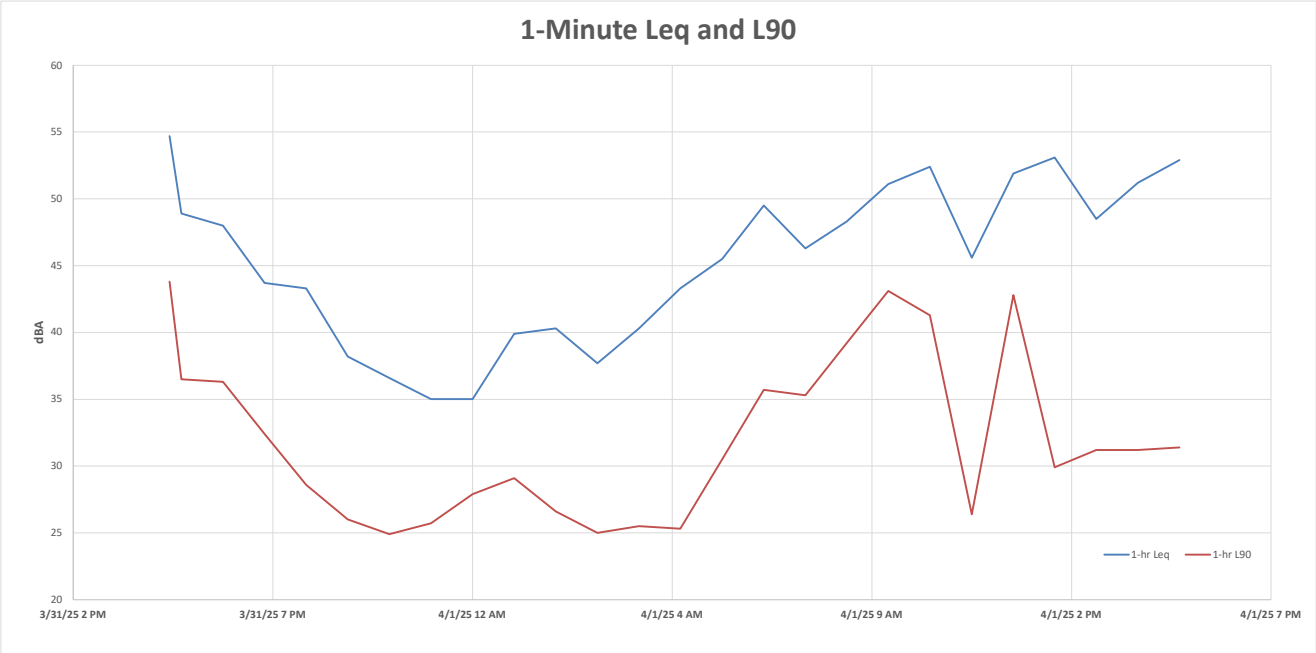
PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-2

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-03-31	16:43:01	00:16:58.2	54.7	39.1	75.1	58.6	55.9	47.3	43.8
2025-03-31	17:00:00	01:00:00.0	48.9	30.4	66.6	56.1	52.5	42.1	36.5
2025-03-31	18:00:00	01:00:00.0	48.0	29.5	71.3	52.9	48.4	41.0	36.3
2025-03-31	19:00:00	01:00:00.0	43.7	27.6	63.9	47.2	43.8	37.1	32.4
2025-03-31	20:00:00	01:00:00.0	43.3	23.1	64.4	46.7	44.6	38.2	28.6
2025-03-31	21:00:00	01:00:00.0	38.2	21.9	61.5	40.5	37.8	30.4	26.0
2025-03-31	22:00:00	01:00:00.0	36.6	21.0	59.5	38.1	35.8	29.6	24.9
2025-03-31	23:00:00	01:00:00.0	35.0	21.1	62.0	37.7	35.3	29.4	25.7
2025-04-01	00:00:00	01:00:00.0	35.0	22.8	50.5	39.7	38.2	32.5	27.9
2025-04-01	01:00:00	01:00:00.0	39.9	24.7	63.8	41.1	39.1	33.8	29.1
2025-04-01	02:00:00	01:00:00.0	40.3	22.7	62.8	45.8	44.4	34.5	26.6
2025-04-01	03:00:00	01:00:00.0	37.7	21.7	65.1	38.5	36.8	31.1	25.0
2025-04-01	04:00:00	01:00:00.0	40.3	22.4	65.2	35.3	33.3	29.1	25.5
2025-04-01	05:00:00	01:00:00.0	43.3	21.5	66.2	45.4	39.1	31.5	25.3
2025-04-01	06:00:00	01:00:00.0	45.5	27.4	66.5	50.3	44.7	34.2	30.5
2025-04-01	07:00:00	01:00:00.0	49.5	32.9	73.2	56.0	52.2	39.7	35.7
2025-04-01	08:00:00	01:00:00.0	46.3	29.6	68.7	48.9	45.7	39.8	35.3
2025-04-01	09:00:00	01:00:00.0	48.3	32.2	66.4	52.4	50.7	45.3	39.2
2025-04-01	10:00:00	01:00:00.0	51.1	30.5	65.4	55.0	53.8	49.5	43.1
2025-04-01	11:00:00	01:00:00.0	52.4	25.2	64.5	56.2	55.1	51.6	41.3
2025-04-01	12:00:00	01:00:00.0	45.6	22.7	63.6	50.7	48.4	37.5	26.4
2025-04-01	13:00:00	01:00:00.0	51.9	24.3	67.9	55.3	54.2	50.9	42.8
2025-04-01	14:00:00	01:00:00.0	53.1	25.0	74.3	56.3	55.0	49.2	29.9
2025-04-01	15:00:00	01:00:00.0	48.5	25.1	66.6	55.5	51.4	39.4	31.2
2025-04-01	16:00:00	01:00:00.0	51.2	25.3	72.4	55.9	53.9	48.0	31.2
2025-04-01	17:00:00	00:18:53.1	52.9	26.5	72.2	58.8	54.9	41.4	31.4

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-2



Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-3

Coordinates
Lat: 41° 51.701'
Lon: -83° 57.297'
Elevation (ft): 717



Ground Type tilled muddy field

Topography very flat

Observed Weather Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0010534

Preamplifier Model : PRM2103
S/N: 2236

Microphone Model : 377B02
S/N: 334329

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-04-03 13:41:24
End Time: 2025-04-04 17:32:32

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			
residential noise			

Monitoring Data

Parameter										
Duration hh:mm	27:51:08.0									
Memory										
Battery										
Calibration Error	-0.11									
Exceedance Events										
Overall Peak										
Overall Laeq	53.60									
LDN	58.10									
Day	54.40									
Night	51.00									

Data File(s)	File Size
Rouget.002.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-3

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-04-03	13:41:24	00:18:35.3	54.8	46.9	76.4	57.4	56.3	53.1	50.3
2025-04-03	14:00:00	01:00:00.0	54.1	43.1	65.2	58.2	57.0	52.7	48.7
2025-04-03	15:00:00	01:00:00.0	55.6	46.7	68.6	59.3	58.2	54.2	51.2
2025-04-03	16:00:00	01:00:00.0	54.1	45.8	65.0	57.9	56.6	52.8	49.9
2025-04-03	17:00:00	01:00:00.0	54.2	44.0	68.6	58.2	56.6	52.4	49.0
2025-04-03	18:00:00	01:00:00.0	52.4	40.0	69.6	57.3	55.3	50.1	45.8
2025-04-03	19:00:00	01:00:00.0	53.4	39.0	67.5	58.4	56.6	50.8	44.9
2025-04-03	20:00:00	01:00:00.0	53.2	36.4	66.4	58.1	56.3	51.2	45.1
2025-04-03	21:00:00	01:00:00.0	51.6	32.3	66.4	56.5	54.9	49.3	39.8
2025-04-03	22:00:00	01:00:00.0	51.0	30.2	73.2	55.8	53.8	46.4	37.5
2025-04-03	23:00:00	01:00:00.0	47.4	27.0	63.0	54.1	51.2	41.2	32.1
2025-04-04	00:00:00	01:00:00.0	44.2	24.1	57.8	50.5	48.5	37.7	29.2
2025-04-04	01:00:00	01:00:00.0	44.7	24.1	61.1	51.5	49.2	35.6	27.2
2025-04-04	02:00:00	01:00:00.0	48.6	24.2	66.3	55.1	52.2	38.7	27.1
2025-04-04	03:00:00	01:00:00.0	49.0	27.3	63.5	55.7	53.1	42.0	32.4
2025-04-04	04:00:00	01:00:00.0	50.5	27.1	64.1	56.3	54.3	45.7	34.3
2025-04-04	05:00:00	01:00:00.0	53.8	35.5	69.1	59.3	57.5	50.6	43.9
2025-04-04	06:00:00	01:00:00.0	55.9	39.5	69.0	61.1	58.9	53.8	47.9
2025-04-04	07:00:00	01:00:00.0	57.2	44.5	70.7	61.6	60.2	55.6	51.0
2025-04-04	08:00:00	01:00:00.0	55.2	42.5	65.8	59.3	58.2	53.6	48.7
2025-04-04	09:00:00	01:00:00.0	56.2	41.0	69.7	61.1	59.7	53.7	47.1
2025-04-04	10:00:00	01:00:00.0	55.8	38.5	70.7	60.9	59.1	53.0	46.8
2025-04-04	11:00:00	01:00:00.0	54.3	40.1	69.1	59.3	57.7	51.6	46.3
2025-04-04	12:00:00	01:00:00.0	53.7	37.5	71.7	58.4	56.7	51.1	45.7
2025-04-04	13:00:00	01:00:00.0	52.0	37.8	64.9	56.7	55.0	50.1	45.1
2025-04-04	14:00:00	01:00:00.0	54.3	36.1	64.8	59.3	57.7	51.9	46.8
2025-04-04	15:00:00	01:00:00.0	53.2	39.1	66.8	57.4	55.9	51.5	46.0
2025-04-04	16:00:00	01:00:00.0	55.0	42.1	77.3	58.8	57.4	53.1	48.9
2025-04-04	17:00:00	00:32:32.7	53.7	42.4	68.9	56.9	56.1	52.5	47.9

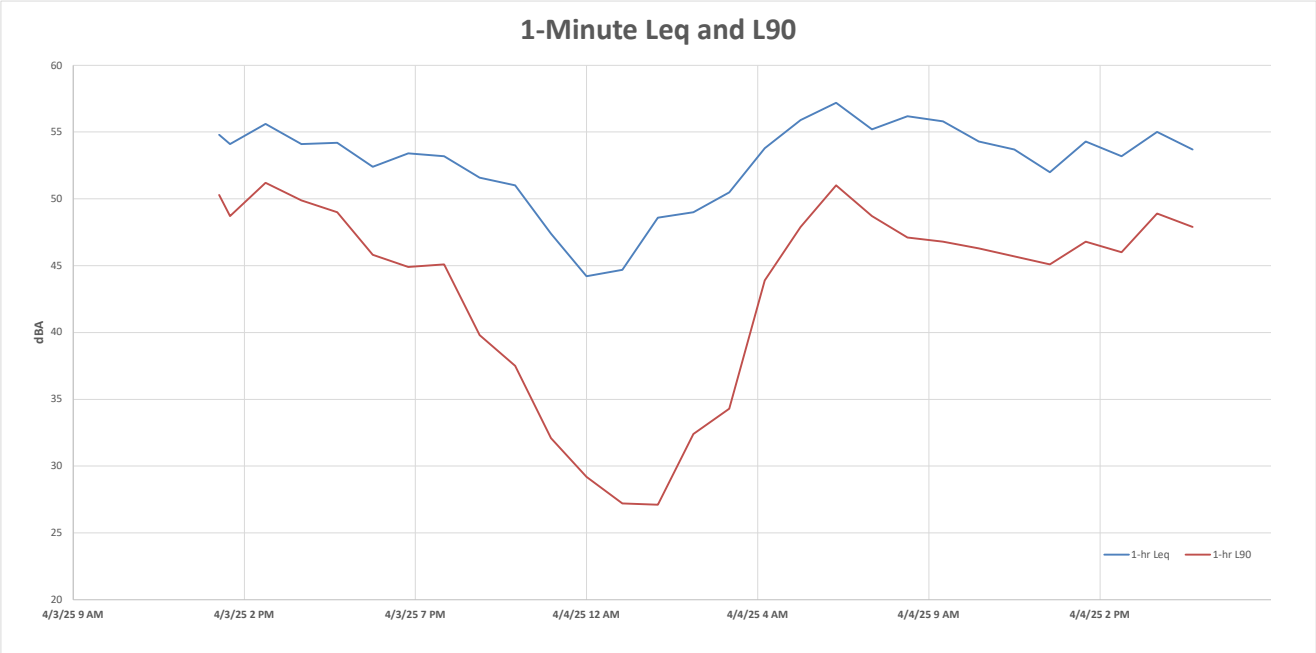
Total		**27:51:08**	**53.6**	**24.1**	**77.3**	**58.7**	**57.0**	**51.0**	**38.4**

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-3



Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-4

Coordinates
Lat: 41° 52.610'
Lon: -83° 58.575'
Elevation (ft): 738



Ground Type tilled muddy field

Topography very flat

Observed Weather
Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0010535

Preamplifier Model : PRM2103
S/N: 2180

Microphone Model : 377B02
S/N: 95604

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-04-03 14:18:41
End Time: 2025-04-04 17:19:49

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			

Monitoring Data

Parameter										
Duration hh:mm	27:01:07.703									
Memory										
Battery										
Calibration Error	-0.14									
Exceedance Events										
Overall Peak										
Overall Laeq	52.90									
LDN	56.40									
Day	54.10									
Night	48.80									

Data File(s)	File Size
Rouget.004.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-4

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-04-03	14:18:41	00:41:18.7	55.1	41.7	75.7	61.4	59.3	49.5	44.7
2025-04-03	15:00:00	01:00:00.0	55.9	43.7	68.2	62.0	60.3	51.2	46.6
2025-04-03	16:00:00	01:00:00.0	56.0	42.1	73.0	62.2	60.5	50.4	45.7
2025-04-03	17:00:00	01:00:00.0	55.6	39.5	67.9	62.2	60.5	49.5	44.4
2025-04-03	18:00:00	01:00:00.0	53.0	37.4	65.5	60.3	57.8	45.8	41.4
2025-04-03	19:00:00	01:00:00.0	54.3	35.7	73.6	61.3	58.6	44.2	39.3
2025-04-03	20:00:00	01:00:00.0	53.3	32.9	71.7	60.5	57.8	41.8	37.1
2025-04-03	21:00:00	01:00:00.0	55.6	31.4	84.6	59.3	54.6	37.6	34.0
2025-04-03	22:00:00	01:00:00.0	47.9	29.5	66.8	53.4	47.6	35.7	32.3
2025-04-03	23:00:00	01:00:00.0	45.3	25.4	65.8	47.9	41.4	31.3	27.6
2025-04-04	00:00:00	01:00:00.0	41.7	24.6	66.4	44.1	39.5	29.6	26.1
2025-04-04	01:00:00	01:00:00.0	39.5	24.3	62.8	41.8	38.5	28.3	25.7
2025-04-04	02:00:00	01:00:00.0	43.5	24.7	64.4	47.0	43.9	30.6	27.2
2025-04-04	03:00:00	01:00:00.0	44.5	26.0	63.6	49.1	45.0	34.0	28.2
2025-04-04	04:00:00	01:00:00.0	45.5	26.3	64.5	49.3	42.7	31.3	28.6
2025-04-04	05:00:00	01:00:00.0	50.8	28.6	70.7	58.7	54.0	37.9	33.2
2025-04-04	06:00:00	01:00:00.0	55.4	34.7	73.2	62.1	60.1	44.3	39.1
2025-04-04	07:00:00	01:00:00.0	57.1	39.5	76.1	63.3	61.5	49.4	43.1
2025-04-04	08:00:00	01:00:00.0	55.5	38.7	78.4	61.2	59.1	47.7	42.8
2025-04-04	09:00:00	01:00:00.0	53.7	39.6	67.9	60.8	58.2	46.7	42.4
2025-04-04	10:00:00	01:00:00.0	50.2	34.2	69.4	56.8	53.7	43.2	38.6
2025-04-04	11:00:00	01:00:00.0	50.0	35.6	67.2	56.7	53.3	43.1	38.9
2025-04-04	12:00:00	01:00:00.0	50.4	36.4	68.0	57.1	53.9	43.6	39.5
2025-04-04	13:00:00	01:00:00.0	49.9	35.5	67.9	57.2	54.2	42.7	38.8
2025-04-04	14:00:00	01:00:00.0	53.2	36.3	74.8	58.6	55.8	44.1	40.4
2025-04-04	15:00:00	01:00:00.0	53.1	36.6	72.9	59.4	57.5	46.1	40.0
2025-04-04	16:00:00	01:00:00.0	53.2	36.9	73.8	59.6	57.3	45.8	40.9
2025-04-04	17:00:00	00:19:49.0	51.9	39.8	70.6	58.7	55.5	44.3	41.7

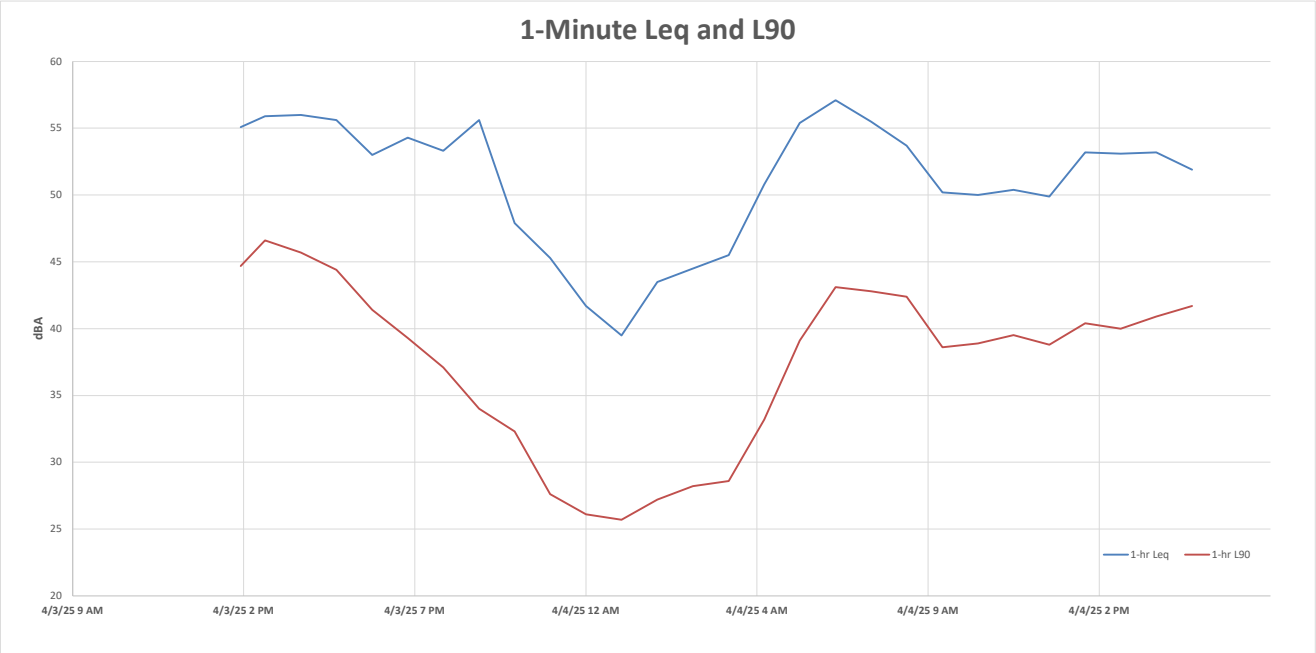
Total		**27:01:08**	**52.9**	**24.3**	**84.6**	**59.9**	**56.8**	**43.4**	**30.3**

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-4



Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-5

Coordinates
Lat: 41° 52.131'
Lon: -83° 57.761'
Elevation (ft): 713



Ground Type tilled muddy field

Topography very flat

Observed Weather
Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0012529

Preamplifier Model : PRM2103
S/N: 2322

Microphone Model : 377B02
S/N: 360301

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-04-03 14:01:51
End Time: 2025-04-04 17:42:29

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			

Monitoring Data

Parameter										
Duration hh:mm	26:37:25.898									
Memory										
Battery										
Calibration Error	-0.11									
Exceedance Events										
Overall Peak										
Overall Laeq	48.50									
LDN	49.90									
Day	50.00									
Night	39.80									

Data File(s)	File Size
Rouget.004.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-5

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-04-03	14:01:51	00:58:08.6	54.6	44.5	80.1	57.9	56.8	52.6	48.6
2025-04-03	15:00:00	01:00:00.0	56.1	47.5	66.8	59.9	58.8	54.9	51.3
2025-04-03	16:00:00	01:00:00.0	53.5	45.9	65.4	57.0	55.8	52.5	49.5
2025-04-03	17:00:00	01:00:00.0	51.8	41.6	60.0	55.5	54.5	50.7	47.1
2025-04-03	18:00:00	01:00:00.0	50.2	38.8	62.3	54.6	53.2	48.2	44.2
2025-04-03	19:00:00	01:00:00.0	48.1	38.9	64.7	51.9	50.2	46.2	42.9
2025-04-03	20:00:00	01:00:00.0	46.5	34.5	62.1	50.2	48.8	45.3	40.5
2025-04-03	21:00:00	01:00:00.0	43.7	32.1	59.2	48.5	47.0	41.4	36.4
2025-04-03	22:00:00	01:00:00.0	41.5	29.5	59.6	46.2	44.7	39.1	33.6
2025-04-03	23:00:00	01:00:00.0	36.7	26.6	50.8	42.8	39.3	33.2	29.4
2025-04-04	00:00:00	01:00:00.0	35.9	25.6	50.5	41.1	39.3	33.0	28.2
2025-04-04	01:00:00	01:00:00.0	33.4	23.9	44.9	37.5	36.1	32.0	27.8
2025-04-04	02:00:00	01:00:00.0	38.9	25.4	56.9	44.1	42.0	32.8	27.6
2025-04-04	03:00:00	01:00:00.0	40.0	26.6	57.3	44.8	42.0	35.9	29.7
2025-04-04	04:00:00	01:00:00.0	38.4	27.0	56.4	42.8	40.3	34.3	30.4
2025-04-04	05:00:00	01:00:00.0	39.1	29.4	58.4	42.4	41.0	37.3	34.4
2025-04-04	06:00:00	00:57:09.2	44.7	35.3	59.4	49.1	47.6	42.7	38.2
2025-04-04	07:18:13	00:02:02.6	46.6	42.1	53.3	50.5	49.1	45.4	43.4
2025-04-04	07:41:19	00:02:38.4	45.9	42.9	50.5	47.8	47.0	45.6	44.0
2025-04-04	08:05:02	00:54:57.5	46.0	40.7	60.0	49.3	48.3	44.6	42.9
2025-04-04	09:00:00	01:00:00.0	48.9	40.3	73.1	49.1	48.1	45.2	42.7
2025-04-04	10:00:00	01:00:00.0	45.8	39.0	60.6	48.7	47.6	44.7	41.7
2025-04-04	11:00:00	01:00:00.0	46.5	39.1	55.8	50.3	49.2	45.4	42.6
2025-04-04	12:00:00	01:00:00.0	46.7	38.0	63.7	50.1	48.5	45.0	42.0
2025-04-04	13:00:00	01:00:00.0	45.8	36.2	61.5	48.7	47.6	44.5	41.5
2025-04-04	14:00:00	01:00:00.0	44.9	38.0	54.6	48.3	47.3	44.0	41.5
2025-04-04	15:00:00	01:00:00.0	45.9	38.6	58.6	48.7	48.0	45.2	42.3
2025-04-04	16:00:00	01:00:00.0	47.2	39.9	62.3	50.2	49.3	46.6	43.9
2025-04-04	17:00:00	00:42:29.6	50.4	41.8	78.9	52.2	50.4	46.8	44.4

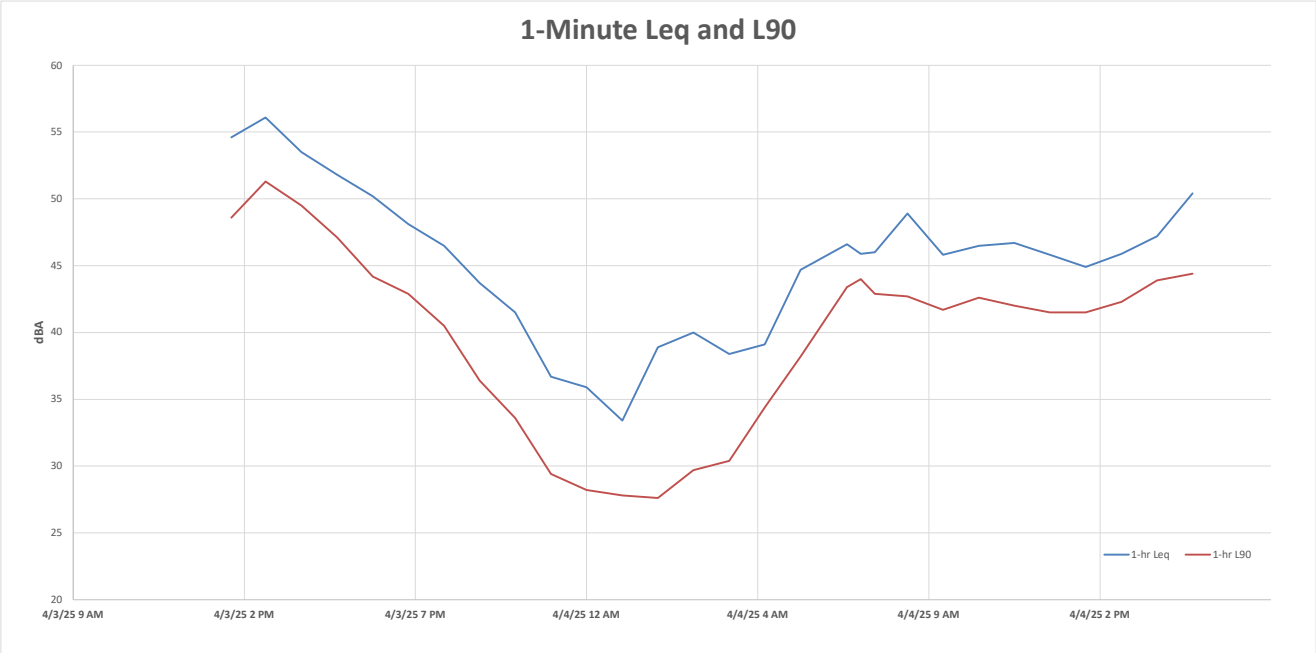
Total		**26:37:26**	**48.5**	**23.9**	**80.1**	**54.4**	**52.2**	**44.3**	**32.6**

Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-5



Field Technician Greg Bowman

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Monitoring Location

Site ID LT-6

Coordinates
Lat: 41° 50.366'
Lon: - 83° 58.427'
Elevation (ft): 715



Ground Type tilled muddy field

Topography very flat

Observed Weather Partly Cloudy, Fair

Equipment

Sound Meter Model : SoundAdvisor™ Model 831C
S/N: 0010534

Preamplifier Model : PRM2103
S/N: 2236

Microphone Model : 377B02
S/N: 334329

Calibrator Model : CAL200
S/N:

Settings A-weighted, slow, 1-min, 1-hr

Monitoring Data Start Time: 2025-03-31 17:08:33
End Time: 2025-04-01 17:31:26

Dominant Background Noise Source(s) with Distance

Source	Distance (ft)	Source	Distance (ft)
Nearby Traffic			

Monitoring Data

Parameter										
Duration hh:mm	24:22:53.602									
Memory										
Battery										
Calibration Error	-0.14									
Exceedance Events										
Overall Peak										
Overall Laeq	39.70									
LDN	42.80									
Day	41.20									
Night	34.50									

Data File(s)	File Size
Rouget.001.s	

Comments and Events

Event	Day	Time	Comment

Field Technician Greg Bowman

Noise Measurement Datasheet

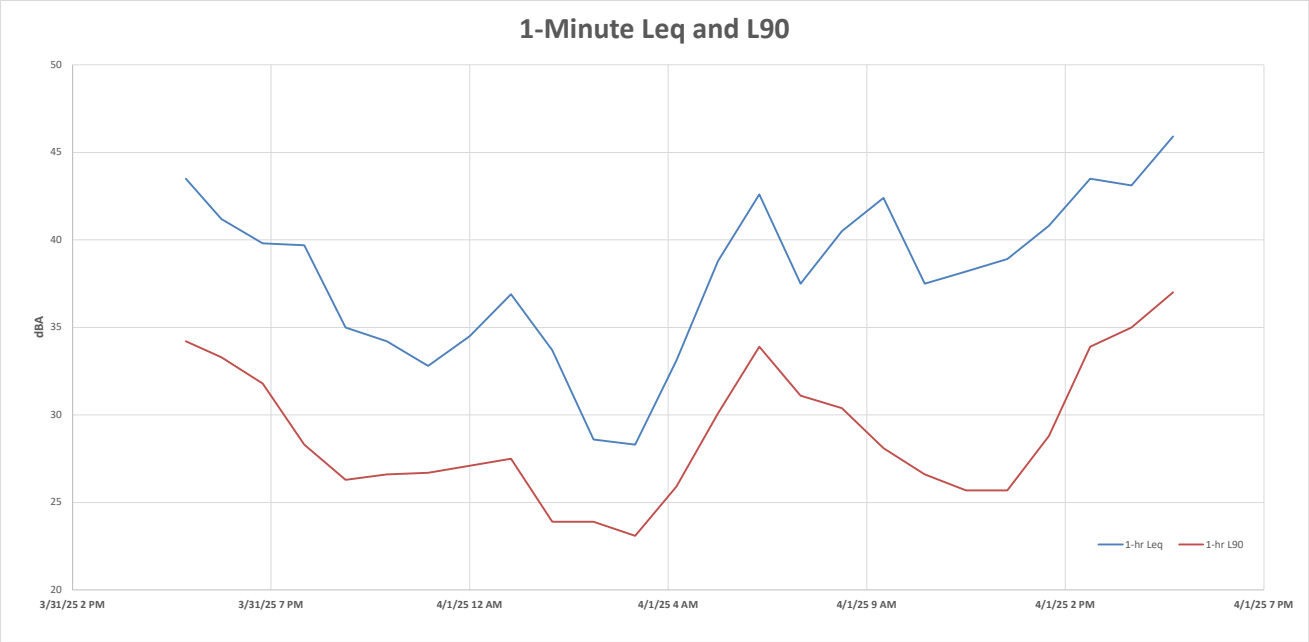
PROJECT Rouget Solar Pre-Construction Survey
Site ID LT-6

Date	Time	Duration	Leq	Lmin	Lmax	L5	L10	L50	L90
		hh:mm	dBA	dBA	dBA	dBA	dBA	dBA	dBA
2025-03-31	17:08:33	00:51:26.8	43.5	30.8	73.4	46.4	44.1	37.9	34.2
2025-03-31	18:00:00	01:00:00.0	41.2	27.1	55.1	47.1	44.5	37.2	33.3
2025-03-31	19:00:00	01:00:00.0	39.8	28.2	64.1	44.9	42.1	35.9	31.8
2025-03-31	20:00:00	01:00:00.0	39.7	23.3	57.6	45.6	43.1	35.3	28.3
2025-03-31	21:00:00	01:00:00.0	35.0	23.3	58.9	38.0	34.3	29.0	26.3
2025-03-31	22:00:00	01:00:00.0	34.2	24.1	50.0	40.7	36.4	29.7	26.6
2025-03-31	23:00:00	01:00:00.0	32.8	22.7	47.7	37.9	35.7	30.2	26.7
2025-04-01	00:00:00	01:00:00.0	34.5	24.0	48.5	39.7	38.0	31.9	27.1
2025-04-01	01:00:00	01:00:00.0	36.9	23.9	59.3	41.6	39.1	32.7	27.5
2025-04-01	02:00:00	01:00:00.0	33.7	21.3	53.4	39.9	37.5	28.4	23.9
2025-04-01	03:00:00	01:00:00.0	28.6	20.5	44.0	32.2	31.0	26.5	23.9
2025-04-01	04:00:00	01:00:00.0	28.3	20.5	38.3	32.5	31.1	26.9	23.1
2025-04-01	05:00:00	01:00:00.0	33.1	23.7	48.6	37.3	35.5	29.6	25.9
2025-04-01	06:00:00	01:00:00.0	38.8	27.1	57.1	41.9	38.5	33.3	30.1
2025-04-01	07:00:00	01:00:00.0	42.6	30.7	70.2	44.0	41.3	36.1	33.9
2025-04-01	08:00:00	01:00:00.0	37.5	28.1	52.4	43.0	41.0	34.4	31.1
2025-04-01	09:00:00	01:00:00.0	40.5	27.3	64.6	44.8	41.7	33.8	30.4
2025-04-01	10:00:00	01:00:00.0	42.4	24.7	68.1	42.3	39.6	32.3	28.1
2025-04-01	11:00:00	01:00:00.0	37.5	23.0	56.8	43.0	40.7	32.2	26.6
2025-04-01	12:00:00	01:00:00.0	38.2	22.5	56.7	44.4	41.2	31.1	25.7
2025-04-01	13:00:00	01:00:00.0	38.9	22.8	59.6	43.6	39.8	30.4	25.7
2025-04-01	14:00:00	01:00:00.0	40.8	25.5	56.7	46.2	44.2	36.0	28.8
2025-04-01	15:00:00	01:00:00.0	43.5	28.2	60.6	48.0	46.1	40.7	33.9
2025-04-01	16:00:00	01:00:00.0	43.1	27.1	59.2	47.4	45.7	40.7	35.0
2025-04-01	17:00:00	00:31:26.8	45.9	31.3	68.5	47.3	45.9	41.4	37.0

Noise Measurement Datasheet

PROJECT Rouget Solar Pre-Construction Survey

Site ID LT-6



Field Technician Greg Bowman

APPENDIX C

OBA Data and ANS Analysis

Rouget Road Solar
LT-1 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
3/31/25 4:00 PM				
3/31/25 5:00 PM				
3/31/25 6:00 PM				
3/31/25 7:00 PM	43.9	43.4	0.5	No
3/31/25 8:00 PM	43.4	42.9	0.5	No
3/31/25 9:00 PM	38.0	37.8	0.2	No
3/31/25 10:00 PM	41.5	41.3	0.2	No
3/31/25 11:00 PM	41.6	41.4	0.2	No
4/1/25 12:00 AM	43.4	43.2	0.2	No
4/1/25 1:00 AM	42.5	42.2	0.3	No
4/1/25 2:00 AM	39.3	38.6	0.7	No
4/1/25 3:00 AM	38.2	37.9	0.3	No
4/1/25 4:00 AM	35.4	35.1	0.3	No
4/1/25 5:00 AM	35.1	34.7	0.4	No
4/1/25 6:00 AM	38.8	38.0	0.7	No
4/1/25 7:00 AM	42.4	41.7	0.8	No
4/1/25 8:00 AM	40.4	39.5	0.9	No
4/1/25 9:00 AM	39.6	39.0	0.6	No
4/1/25 10:00 AM	37.8	37.2	0.6	No
4/1/25 11:00 AM	40.4	40.2	0.3	No
4/1/25 12:00 PM	38.5	37.9	0.6	No
4/1/25 1:00 PM	40.1	39.7	0.3	No
4/1/25 2:00 PM	39.8	38.9	0.8	No
4/1/25 3:00 PM	41.8	40.4	1.4	No
4/1/25 4:00 PM	40.8	39.3	1.6	No
4/1/25 5:00 PM				
Overall	40.7	40.1	0.6	No

1/3 Lzeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM																																						
3/31/25 6:00 PM																																						
3/31/25 7:00 PM	75.9	73.9	71.8	69.9	68.2	66.3	64.3	61.7	58.3	54.3	50.3	48.8	44.2	41.5	40.0	36.8	36.6	34.2	31.2	33.4	42.7	35.1	31.6	29.4	26.5	24.2	22.5	20.9	17.6	21.0	11.8	10.0	9.5	7.9	6.9	6.6	104346704.2	80.2
3/31/25 8:00 PM	75.5	73.5	71.4	69.7	67.8	65.8	63.8	61.1	57.7	53.8	50.0	47.3	44.5	42.9	43.5	37.3	36.6	33.6	30.3	32.9	41.9	34.1	31.4	29.2	26.4	23.9	22.6	22.3	21.0	17.0	15.1	13.0	11.8	11.5	8.7	7.4	96094631.12	79.8
3/31/25 9:00 PM	71.3	69.2	67.1	65.4	63.5	61.4	59.0	56.0	52.2	48.1	44.6	41.3	38.8	36.4	34.1	32.4	34.8	30.5	26.4	29.3	36.9	27.8	24.6	21.2	17.7	14.7	12.2	10.8	9.2	8.5	8.5	8.2	8.9	7.4	7.0	8.0	35592809.25	75.5
3/31/25 10:00 PM	74.0	71.8	69.9	68.1	66.2	64.1	62.0	59.1	55.4	51.0	47.1	43.7	40.8	38.2	35.2	33.7	33.1	31.0	29.4	31.8	41.3	31.7	27.4	24.5	21.4	18.6	15.5	12.8	10.4	9.0	8.6	8.4	8.5	7.5	6.8	7.1	66503278.18	78.2
3/31/25 11:00 PM	74.2	72.1	70.2	68.4	66.6	64.5	62.3	59.4	55.7	51.4	47.5	44.1	41.1	38.1	34.7	31.8	32.1	28.0	25.0	31.7	41.7	32.0	27.4	24.5	21.3	18.5	15.4	12.7	10.8	9.1	8.7	8.3	7.9	7.4	6.7	6.2	70388707.05	78.5
4/1/25 12:00 AM	75.6	73.6	71.5	69.9	68.0	65.9	63.8	61.0	57.4	53.2	49.1	45.7	42.7	39.6	36.4	33.7	33.7	29.7	26.3	32.8	43.5	33.5	29.3	26.6	23.4	20.7	17.6	14.5	12.0	9.7	9.1	8.6	8.2	7.7	6.7	6.2	97568742.41	79.9
4/1/25 1:00 AM	75.5	73.5	71.3	69.5	67.7	65.7	63.6	61.1	57.4	53.1	49.0	45.5	42.3	39.3	36.0	33.1	32.6	28.7	26.1	32.1	42.2	33.1	29.7	27.1	24.0	21.2	18.1	14.9	12.0	9.8	9.1	8.7	8.3	7.8	6.8	6.3	94211810.38	79.7
4/1/25 2:00 AM	73.8	71.8	69.6	67.9	66.0	64.1	61.8	59.0	55.6	51.7	47.9	44.8	42.2	39.5	36.5	34.7	37.1	31.8	27.4	30.2	35.2	30.4	29.1	27.0	23.9	21.2	17.9	15.7	13.4	11.2	10.0	9.2	8.2	7.7	6.7	6.2	63708303.53	78.0
4/1/25 3:00 AM	72.4	70.4	68.3	66.6	64.7	62.6	60.3	57.3	53.5	49.5	45.8	42.9	40.0	37.4	34.1	32.0	34.8	29.1	24.8	30.5	36.9	27.9	24.7	21.6	18.2	15.8	12.5	12.1	10.9	9.7	9.1	8.6	8.2	7.4	6.7	6.7	46600426.29	76.7
4/1/25 4:00 AM	70.1	68.2	66.3	64.4	62.4	60.5	57.8	54.4	50.4	46.6	43.4	40.5	37.8	35.2	32.2	30.6	32.9	27.7	25.6	29.5	32.4	26.6	22.9	19.3	15.6	12.8	10.2	11.0	10.2	9.4	9.0	8.5	7.8	7.2	6.5	6.1	27814480.93	74.4
4/1/25 5:00 AM	66.0	64.1	62.2	60.3	58.4	56.3	53.2	50.0	46.6	43.8	43.2	41.5	37.5	36.7	34.1	31.9	32.8	28.8	28.5	28.7	29.3	28.0	23.8	19.2	16.1	16.6	12.4	13.7	11.7	10.1	9.3	8.7	8.2	7.1	6.6	6.7	10811769.06	70.3
4/1/25 6:00 AM	69.1	67.4	65.4	63.6	61.8	59.7	57.0	54.1	50.6	47.7	46.9	46.1	43.1	40.1	38.1	36.4	37.4	32.3	31.2	31.1	31.9	30.7	27.5	24.5	21.3	20.3	19.4	18.5	18.4	16.5	15.0	21.5	13.0	7.9	7.3	8.1	2298130 5.11	73.6
4/1/25 7:00 AM	70.6	68.9	66.9	64.9	63.1	61.3	58.9	55.8	52.4	55.6	50.9	49.8	47.3	45.5	45.7	39.0	39.5	36.1	33.3	33.8	34.7	34.1	31.2	28.0	25.7	25.1	24.4	23.8	21.1	20.5	17.2	20.2	12.6	8.9	9.0	8.0	32642155.19	75.1
4/1/25 8:00 AM	70.7	69.1	67.3	65.3	63.3	61.3	58.9	56.1	52.9	49.9	48.0	48.0	44.0	41.6	41.8	36.3	37.7	34.4	30.6	31.5	35.0	31.3	29.2	27.3	24.7	23.3	21.8	21.9	22.1	21.0	18.2	14.9	11.7	9.1	7.2	8.1	33823718.51	75.3
4/1/25 9:00 AM	71.5	69.9	68.0	65.9	63.8	61.6	59.3	56.5	53.4	50.4	48.6	47.3	43.5	40.2	39.3	36.3	38.6	32.9	30.4	31.2	34.3	30.6	28.7	26.0	22.2	19.0	19.9	20.9	17.0	18.1	15.1	10.4	8.9	8.1	6.9	6.4	39704692.26	76.0
4/1/25 10:00 AM	70.2	68.5	66.6	64.2	62.1	60.0	57.4	54.6	51.7	48.9	47.5	46.4	42.5	38.6	37.5	33.8	36.7	31.1	30.2	29.9	32.1	28.5	26.6	23.7	19.9	17.9	17.5	18.8	19.9	15.3	11.4	10.1	8.5	8.0	6.9	6.2	28590709.13	74.6
4/1/25 11:00 AM	66.9	65.5	63.5	61.3	59.1	57.0	54.5	51.8	48.9	46.3	44.6	42.7	47.8	48.2	41.6	38.5	40.8	37.2	32.3	32.7	33.4	28.4	25.2	22.1	20.1	16.6	18.0	18.6	14.9	12.7	9.3	8.6	8.1	7.7	6.8	6.2	14098807.71	71.5
4/1/25 12:00 PM	66.8	65.3	63.4	61.4	59.3	57.1	54.6	51.6	48.3	45.3	43.7	43.6	43.4	42.9	38.5	36.5	36.3	34.0	31.2	30.0	30.8	31.2	27.6	24.8	21.3	19.5	18.8	18.7	16.1	14.1	11.2	9.3	8.4	7.7	6.8	6.3	13827068.83	71.4
4/1/25 1:00 PM	66.5	64.6	62.3	60.4	58.1	55.8	53.3	50.6	47.4	45.2	44.3	44.3	40.8	45.0	41.1	42.1	37.3	34.7	35.8	33.9	32.3	30.0	26.6	23.3	20.1	17.9	17.7	18.0	18.7	15.5	11.5	9.4	8.5	7.7	6.8	6.3	11713037.51	70.7
4/1/25 2:00 PM	71.6	70.3	68.4	66.1	64.0	62.0	59.4	56.5	53.2	50.0	47.6	48.4	44.8	40.4	40.3	38.6	38.1	33.8	30.9	30.4	31.3	31.1	30.0	27.5	24.7	21.5	20.4	19.1	18.8	15.9	10.9	9.7	8.6	7.9	6.9	6.3	41884359.52	76.2
4/1/25 3:00 PM	74.1	73.0	71.1	69.1	67.0	64.8	62.4	59.6	56.4	53.2	49.5	46.8	43.6	40.8	41.7	37.4	38.0	35.5	32.7	32.1	32.6	33.2	33.4	32.3	29.7	26.3	23.4	20.6	16.7	13.3	11.1	10.3	9.4	8.6	7.2	6.4	77874584.41	78.9
4/1/25 4:00 PM	73.7	72.4	70.7	68.6	66.4	64.4	61.9	59.0	55.6	51.9	49.3	47.2	44.1	41.7	41.0	35.4	36.4	32.0	29.1	30.6	31.1	32.3	32.7	31.6	29.0	25.8	22.6	21.7	18.2	14.8	12.6	11.2	9.6	8.4	7.1	6.3	69650677.14	78.4
4/1/25 5:00 PM																																						

1/3 LAeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM																																						
3/31/25 6:00 PM																																						
3/31/25 7:00 PM	-9.5	-3.7	1.4	6.3	11.8	15.9	19.5	22.2	23.8	24.0	24.1	26.4	25.1	25.3	26.8	26.0	27.9	27.6	26.4	30.2	40.8	34.3	31.6	30.0	27.5	25.4	23.8	22.1	18.6	21.6	11.7	8.9	7.0	3.6	0.2	-2.7	24352.11736	43.9
3/31/25 8:00 PM	-9.9	-4.1	1.0	6.1	11.4	15.4	19.0	21.6	23.2	23.5	23.8	24.9	25.4	26.7	30.3	26.5	27.9	27.0	25.5	29.7	40.0	33.3	31.4	29.8	27.4	25.1	23.9	23.5	22.0	17.6	15.0	11.9	9.3	7.2	2.0	-1.9	21985.70344	43.4
3/31/25 9:00 PM	-14.1	-8.4	-3.3	1.8	7.1	11.0	14.2	16.5	17.7	17.8	18.4	18.9	19.7	20.2	20.9	21.6	26.1	23.9	21.6	26.1	35.0	27.0	24.6	21.8	18.7	15.9	13.5	12.0	10.2	9.1	8.4	7.1	6.4	3.1	0.3	-1.3	6304.543244	38.0
3/31/25 10:00 PM	-11.4	-5.8	-0.5	4.5	9.8	13.7	17.2	19.6	20.9	20.7	20.9	21.3	21.7	22.0	22.0	22.9	24.4	24.4	24.6	28.6	39.4	30.9	27.4	25.1	22.4	19.8	16.8	14.0	11.4	9.6	8.5	7.3	6.0	3.2	0.1	-2.2	14145.97224	41.5
3/31/25 11:00 PM	-11.2	-5.5	-0.2	4.8	10.2	14.1	17.5	19.9	21.2	21.1	21.3	21.7	22.0	21.9	21.5	21.0	23.4	21.4	20.2	28.5	39.8	31.2	27.4	25.1	22.3	19.7	16.7	13.9	11.8	9.7	8.6	7.2	5.4	3.1	0.0	-3.1	14551.04335	41.6
4/1/25 12:00 AM	-9.8	-4.0	1.1	6.3	11.6	15.5	19.0	21.5	22.9	22.9	22.9	23.3	23.6	23.4	23.2	22.9	25.0	23.1	21.5	29.6	41.6	32.7	29.3	27.2	24.4	21.9	18.9	15.7	13.0	10.3	9.0	7.5	5.7	3.4	0.0	-3.1	21895.54855	43.4
4/1/25 1:00 AM	-9.9	-4.1	0.9	5.9	11.3	15.3	18.8	21.6	22.9	22.8	22.8	23.1	23.2	23.1	22.8	22.3	23.9	22.1	21.3	28.9	40.3	32.3	29.7	27.7	25.0	22.4	19.4	16.1	13.0	10.4	9.0	7.6	5.8	3.5	0.1	-3.0	17802.07481	42.5
4/1/25 2:00 AM	-11.6	-5.8	-0.8	4.3	9.6	13.7	17.0	19.5	21.1	21.4	21.7	22.4	23.1	23.3	23.3	23.9	28.4	25.2	22.6	27.0	33.3	29.6	29.1	27.6	24.9	22.4	19.2	16.9	14.4	11.8	9.9	8.1	5.7	3.4	0.0	-3.1	8440.477789	39.3
4/1/25 3:00 AM	-13.0	-7.2	-2.1	3.0	8.3	12.2	15.5	17.8	19.0	19.2	19.6	20.5	20.9	21.2	20.9	21.2	26.1	22.5	20.0	27.3	35.0	27.1	24.7	22.2	19.2	17.0	13.8	13.3	11.9	10.3	9.0	7.5	5.7	3.1	0.0	-2.6	6580.731082	38.2
4/1/25 4:00 AM	-15.3	-9.4	-4.1	0.8	6.0	10.1	13.0	14.9	15.9	16.3	17.2	18.1	18.7	19.0	19.0	19.8	24.2	21.1	20.8	26.3	30.5	25.8	22.9	19.9	16.6	14.0	11.5	12.2	11.2	10.0	8.9	7.4	5.3	2.9	-0.2	-3.2	3487.630983	35.4
4/1/25 5:00 AM	-19.4	-13.5	-8.2	-3.3	2.0	5.9	8.4	10.5	12.1	13.5	17.0	19.1	18.4	20.5	20.9	21.1	24.1	22.2	23.7	25.5	27.4	27.2	23.8	19.8	17.1	17.8	13.7	14.9	12.7	10.7	9.2	7.6	5.7	2.8	-0.1	-2.6	3268.180546	35.1
4/1/25 6:00 AM	-16.3	-10.2	-5.0	0.0	5.4	9.3	12.2	14.6	16.1	17.4	20.7	23.7	24.0	23.9	24.9	25.6	28.7	25.7	26.4	27.9	30.0	29.9	27.5	25.1	22.3	21.5	20.7	19.7	19.4	17.1	14.9	20.4	10.5	3.6	0.6	-1.2	7507.076201	38.8
4/1/25 7:00 AM	-14.8	-8.7	-3.5	1.3	6.7	10.9	14.1	16.3	17.9	25.3	24.7	27.4	28.2	29.3	32.5	28.2	30.8	29.5	28.5	30.6	32.8	33.3	31.2	28.6	26.7	26.3	25.7	25.0	22.1	21.1	17.1	19.1	10.1	4.6	2.3	-1.3	17393.04358	42.4
4/1/25 8:00 AM	-14.7	-8.5	-3.1	1.7	6.9	10.9	14.1	16.6	18.4	19.6	21.8	25.6	24.9	25.4	28.6	25.5	29.0	27.8	25.8	28.3	33.1	30.5	29.2	27.9	25.7	24.5	23.1	23.1	23.1	21.6	18.1	13.8	9.2	4.8	0.5	-1.2	11077.40417	40.4
4/1/25 9:00 AM	-13.9	-7.7	-2.4	2.3	7.4	11.2	14.5	17.0	18.9	20.1	22.4	24.9	24.4	24.0	26.1	25.5	29.9	26.3	25.6	28.0	32.4	29.8	28.7	26.6	23.2	20.2	21.2	22.1	18.0	18.7	15.0	9.3	6.4	3.8	0.2	-2.9	9121.23854	39.6
4/1/25 10:00 AM	-15.2	-9.1	-3.8	0.6	5.7	9.6	12.6	15.1	17.2	18.6	21.3	24.0	23.4	22.4	24.3	23.0	28.0	24.5	25.4	26.7	30.2	27.7	26.6	24.3	20.9	19.1	18.8	20.0	20.9	15.9	11.3	9.0	6.0	3.7	0.2	-3.1	6082.314117	37.8
4/1/25 11:00 AM	-18.5	-12.1	-6.9	-2.3	2.7	6.6	9.7	12.3	14.4	16.0	18.4	20.3	28.7	32.0	28.4	27.7	32.1	30.6	27.5	29.5	31.5	27.6	25.2	22.7	21.1	17.8	19.3	19.8	15.9	13.3	9.2	7.5	5.6	3.4	0.1	-3.1	11044.27918	40.4
4/1/25 12:00 PM	-18.6	-12.3	-7.0	-2.2	2.9	6.7	9.8	12.1	13.8	15.0	17.5	21.2	24.3	26.7	25.3	25.7	27.6	27.4	26.4	26.8	28.9	30.4	27.6	25.4	22.3	20.7	20.1	19.9	17.1	14.7	11.1	8.2	5.9	3.4	0.1	-3.0	7138.084803	38.5
4/1/25 1:00 PM	-18.9	-13.0	-8.1	-3.2	1.7	5.4	8.5	11.1	12.9	14.9	18.1	21.9	21.7	28.8	27.9	31.3	28.6	28.1	31.0	30.7	30.4	29.2	26.6	23.9	21.1	19.1	19.0	19.2	19.7	16.1	11.4	8.3	6.0	3.4	0.1	-3.0	10141.15674	40.1
4/1/25 2:00 PM	-13.8	-7.3	-2.0	2.5	7.6	11.6	14.6	17.0	18.7	19.7	21.4	26.0	25.7	24.2	27.1	27.8	29.4	27.2	26.1	27.2	29.4	30.3	30.0	28.1	25.7	22.7	21.7	20.3	19.8	16.5	10.8	8.6	6.1	3.6	0.2	-3.0	9478.511685	39.8
4/1/25 3:00 PM	-11.3	-4.6	0.7	5.5	10.6	14.4	17.6	20.1	21.9	22.9	23.3	24.4	24.5	24.6	28.5	26.6	29.3	28.9	27.9	28.9	30.7	32.4	33.4	32.9	30.7	27.5	24.7	21.8	17.7	13.9	11.0	9.2	6.9	4.3	0.5	-2.9	15155.58001	41.8
4/1/25 4:00 PM	-11.7	-5.2	0.3	5.0	10.0	14.0	17.1	19.5	21.1	21.6	23.1	24.8	25.0	25.5	27.8	24.6	27.7	25.4	24.3	27.4	29.2	31.5	32.7	32.2	30.0	27.0	23.9	22.9	19.2	15.4	12.5	10.1	7.1	4.1	0.4	-3.0	12154.25102	40.8
4/1/25 5:00 PM																																						

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM																																						
3/31/25 6:00 PM																																						
3/31/25 7:00 PM	-9.5	-3.7	1.4	6.3	11.8	15.9	19.5	22.2	23.8	24.0	24.1	26.4	25.1	25.3	26.8	26.0	27.9	27.6	26.4	30.2	40.8	34.3	31.6														21790.39973	43.4
3/31/25 8:00 PM	-9.9	-4.1	1.0	6.1	11.4	15.4	19.0	21.6	23.2	23.5	23.8	24.9	25.4	26.7	30.3	26.5	27.9	27.0	25.5	29.7	40.0	33.3	31.4														19396.98453	42.9
3/31/25 9:00 PM	-14.1	-8.4	-3.3	1.8	7.1	11.0	14.2	16.5	17.7	17.8	18.4	18.9	19.7	20.2	20.9	21.6	26.1	23.9	21.6	26.1	35.0	27.0	24.6														5962.951245	37.8
3/31/25 10:00 PM	-11.4	-5.8	-0.5	4.5	9.8	13.7	17.2	19.6	20.9	20.7	20.9	21.3	21.7	22.0	22.0	22.9	24.4	24.4	24.6	28.6	39.4	30.9	27.4														13436.74591	41.3
3/31/25 11:00 PM	-11.2	-5.5	-0.2	4.8	10.2	14.1	17.5	19.9	21.2	21.1	21.3	21.7	22.0	21.9	21.5	21.0	23.4	21.4	20.2	28.5	39.8	31.2	27.4														13850.07261	41.4
4/1/25 12:00 AM	-9.8	-4.0	1.1	6.3	11.6	15.5	19.0	21.5	22.9	22.9	22.9	23.3	23.6	23.4	23.2	22.9	25.0	23.1	21.5	29.6	41.6	32.7	29.3														20772.43846	43.2
4/1/25 1:00 AM	-9.9	-4.1	0.9	5.9	11.3	15.3	18.8	21.6	22.9	22.8	22.8	23.1	23.2	23.1	22.8	22.3	23.9	22.1	21.3	28.9	40.3	32.3	29.7														16533.79776	42.2
4/1/25 2:00 AM	-11.6	-5.8	-0.8	4.3	9.6	13.7	17.0	19.5	21.1	21.4	21.7	22.4	23.1	23.3	23.3	23.9	28.4	25.2	22.6	27.0	33.3	29.6	29.1														7190.575429	38.6
4/1/25 3:00 AM	-13.0	-7.2	-2.1	3.0	8.3	12.2	15.5	17.8	19.0	19.2	19.6	20.5	20.9	21.2	20.9	21.2	26.1	22.5	20.0	27.3	35.0	27.1	24.7														6190.613855	37.9
4/1/25 4:00 AM	-15.3	-9.4	-4.1	0.8	6.0	10.1	13.0	14.9	15.9	16.3	17.2	18.1	18.7	19.0	19.0	19.8	24.2	21.1	20.8	26.3	30.5	25.8	22.9														3246.45601	35.1
4/1/25 5:00 AM	-19.4	-13.5	-8.2	-3.3	2.0	5.9	8.4	10.5	12.1	13.5	17.0	19.1	18.4	20.5	20.9	21.1	24.1	22.2	23.7	25.5	27.4	27.2	23.8														2954.732807	34.7
4/1/25 6:00 AM	-16.3	-10.2	-5.0	0.0	5.4	9.3	12.2	14.6	16.1	17.4	20.7	23.7	24.0	23.9	24.9	25.6	28.7	25.7	26.4	27.9	30.0	29.9	27.5														6363.275918	38.0
4/1/25 7:00 AM	-14.8	-8.7	-3.5	1.3	6.7	10.9	14.1	16.3	17.9	25.3	24.7	27.4	28.2	29.3	32.5	28.2	30.8	29.5	28.5	30.6	32.8	33.3	31.2														14632.80726	41.7
4/1/25 8:00 AM	-14.7	-8.5	-3.1	1.7	6.9	10.9	14.1	16.6	18.4	19.6	21.8	25.6	24.9	25.4	28.6	25.5	29.0	27.8	25.8	28.3	33.1	30.5	29.2														8935.613297	39.5
4/1/25 9:00 AM	-13.9	-7.7	-2.4	2.3	7.4	11.2	14.5	17.0	18.9	20.1	22.4	24.9	24.4	24.0	26.1	25.5	29.9	26.3	25.6	28.0	32.4	29.8	28.7														7872.361058	39.0
4/1/25 10:00 AM	-15.2	-9.1	-3.8	0.6	5.7	9.6	12.6	15.1	17.2	18.6	21.3	24.0	23.4	22.4	24.3	23.0	28.0	24.5	25.4	26.7	30.2	27.7	26.6														5243.572193	37.2
4/1/25 11:00 AM	-18.5	-12.1	-6.9	-2.3	2.7	6.6	9.7	12.3	14.4	16.0	18.4	20.3	28.7	32.0	28.4	27.7	32.1	30.6	27.5	29.5	31.5	27.6	25.2														10405.64559	40.2
4/1/25 12:00 PM	-18.6	-12.3	-7.0	-2.2	2.9	6.7	9.8	12.1	13.8	15.0	17.5	21.2	24.3	26.7	25.3	25.7	27.6	27.4	26.4	26.8	28.9	30.4	27.6														6195.004462	37.9
4/1/25 1:00 PM	-18.9	-13.0	-8.1	-3.2	1.7	5.4	8.5	11.1	12.9	14.9	18.1	21.9	21.7	28.8	27.9	31.3	28.6	28.1	31.0	30.7	30.4	29.2	26.6

Rouget Road Solar
LT-2 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
3/31/25 4:00 PM				
3/31/25 5:00 PM	48.5	46.3	2.2	No
3/31/25 6:00 PM	48.2	46.6	1.7	No
3/31/25 7:00 PM	43.3	41.4	1.9	No
3/31/25 8:00 PM	42.8	40.9	2.0	No
3/31/25 9:00 PM	38.2	36.7	1.5	No
3/31/25 10:00 PM	36.6	35.1	1.6	No
3/31/25 11:00 PM	35.1	34.2	0.9	No
4/1/25 12:00 AM	34.2	33.3	0.9	No
4/1/25 1:00 AM	40.0	38.6	1.4	No
4/1/25 2:00 AM	38.7	36.6	2.1	No
4/1/25 3:00 AM	37.7	35.6	2.1	No
4/1/25 4:00 AM	40.3	38.2	2.0	No
4/1/25 5:00 AM	43.4	41.5	1.8	No
4/1/25 6:00 AM	45.6	44.4	1.2	No
4/1/25 7:00 AM	49.6	47.0	2.5	No
4/1/25 8:00 AM	45.9	44.3	1.6	No
4/1/25 9:00 AM	48.1	42.8	5.3	Yes
4/1/25 10:00 AM	51.1	43.1	8.0	Yes
4/1/25 11:00 AM	52.4	42.8	9.6	Yes
4/1/25 12:00 PM	45.6	42.4	3.2	Yes
4/1/25 1:00 PM	51.9	44.1	7.9	Yes
4/1/25 2:00 PM	53.1	48.2	4.9	Yes
4/1/25 3:00 PM	48.5	46.2	2.4	No
4/1/25 4:00 PM	51.2	46.1	5.2	Yes
4/1/25 5:00 PM				
Overall	47.6	43.3	4.3	Yes

1/3 Leq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM	75.8	73.8	71.4	69.0	66.8	64.5	62.1	59.6	56.3	52.7	50.0	49.7	46.0	44.9	44.3	43.6	44.5	41.3	39.6	38.7	39.0	39.5	40.5	39.6	38.0	34.7	32.1	31.0	29.6	27.1	23.8	18.1	11.6	8.5	6.0	4.9	95494357.94	79.8
3/31/25 6:00 PM	75.4	73.4	71.1	68.7	66.4	63.9	61.6	59.0	55.7	52.1	49.7	47.8	52.0	44.0	54.3	45.6	42.6	39.1	37.2	37.5	37.7	37.9	39.3	38.2	36.7	33.9	31.0	30.1	29.0	24.7	20.2	16.6	11.1	7.9	5.8	4.8	87162482.81	79.4
3/31/25 7:00 PM	72.6	70.4	68.0	65.9	63.5	61.2	59.0	56.1	53.0	49.3	47.7	45.5	45.1	40.4	40.2	38.3	38.0	36.0	34.3	34.7	34.2	35.2	34.9	33.9	32.0	29.0	26.3	25.8	25.4	21.1	17.6	13.2	9.5	7.3	5.6	4.8	44552954.96	76.5
3/31/25 8:00 PM	72.9	70.9	68.7	66.7	64.2	62.1	59.8	57.2	53.8	50.3	48.8	44.1	43.5	41.4	39.0	40.3	37.9	35.2	33.8	33.6	33.1	33.7	34.7	33.5	32.3	29.2	26.4	23.1	21.2	18.1	17.8	12.7	8.4	6.9	5.5	4.7	50216081.93	77.0
3/31/25 9:00 PM	68.2	66.0	63.9	61.6	59.2	57.0	54.5	51.5	47.9	44.3	41.6	40.5	37.9	35.5	34.7	34.5	36.6	32.0	28.9	28.5	28.7	29.7	30.6	28.5	26.1	23.4	20.2	17.2	14.3	11.9	10.0	8.2	6.9	6.1	5.3	4.7	16411398.51	72.2
3/31/25 10:00 PM	69.1	67.2	64.9	62.6	60.5	58.1	55.4	52.3	48.4	45.6	41.9	38.5	37.4	34.8	33.1	33.3	32.9	30.6	29.5	28.3	27.4	27.8	27.9	26.6	25.1	22.3	19.3	16.4	14.0	12.0	10.2	8.4	7.1	6.2	5.3	4.7	20622214.66	73.1
3/31/25 11:00 PM	68.5	66.6	64.2	61.8	59.7	57.5	54.8	51.8	48.1	44.4	41.3	38.2	36.2	34.1	32.1	34.4	33.2	27.7	26.4	27.0	27.4	27.9	26.0	23.6	20.5	17.6	15.1	12.4	10.5	9.6	8.7	7.6	6.8	6.2	5.3	4.7	17750331.18	72.5
4/1/25 12:00 AM	71.3	69.2	67.1	64.6	62.4	60.1	57.6	54.8	51.4	47.3	43.6	40.4	37.4	34.8	31.9	29.6	30.0	26.7	25.5	26.3	26.5	26.5	25.3	22.9	19.9	16.8	13.8	11.0	9.0	8.8	8.2	7.4	6.7	6.3	5.4	4.7	33801801.23	75.3
4/1/25 1:00 AM	72.3	70.4	68.2	65.8	63.6	61.3	59.0	56.3	52.8	48.8	45.1	42.2	47.9	40.7	43.2	41.4	33.8	30.5	28.3	28.7	28.8	29.6	31.1	29.4	28.1	25.1	21.9	18.9	15.6	12.9	11.0	9.0	7.3	6.4	5.4	4.7	43474854.21	76.4
4/1/25 2:00 AM	71.8	69.9	67.8	65.5	63.1	60.8	58.7	55.9	52.5	49.2	45.5	42.6	40.1	37.3	34.5	32.7	34.5	30.0	27.9	28.5	28.9	29.8	30.7	29.9	28.6	25.7	22.1	18.6	15.0	11.9	9.8	8.3	7.1	6.3	5.4	4.7	39021101.81	75.9
4/1/25 3:00 AM	68.6	67.0	64.9	62.2	59.9	57.5	55.2	52.3	48.8	45.9	42.8	40.5	38.0	36.6	33.8	31.7	33.1	29.0	27.7	27.6	28.7	30.2	28.6	28.3	27.9	24.7	21.4	17.6	14.7	12.4	10.9	9.2	7.6	6.5	5.4	4.6	19218995.72	72.8
4/1/25 4:00 AM	64.3	62.2	59.8	57.6	55.5	53.3	50.5	47.3	44.0	41.2	39.5	39.9	38.4	43.7	42.5	36.1	33.2	30.3	29.1	29.4	31.9	31.3	31.3	30.7	29.8	27.3	24.3	21.3	18.4	15.9	13.2	10.7	8.6	6.9	5.5	4.6	6710560.628	68.3
4/1/25 5:00 AM	63.7	61.7	59.2	56.8	54.9	52.7	49.9	48.0	44.8	42.8	47.2	46.3	43.1	45.9	39.4	38.4	40.5	36.3	34.1	33.6	34.3	34.8	34.7	34.1	32.1	29.3	26.9	24.4	21.6	19.3	16.6	13.7	10.6	7.9	5.7	4.6	6029704.632	67.8
4/1/25 6:00 AM	66.9	65.4	62.9	60.3	58.3	56.2	53.6	51.0	48.7	46.9	48.9	47.9	50.8	51.8	46.4	41.9	42.5	37.9	37.8	38.1	35.9	35.9	35.8	34.3	32.3	29.7	28.0	25.5	24.4	22.3	18.8	14.4	10.7	7.8	5.8	4.6	13544050.66	71.3
4/1/25 7:00 AM	69.1	67.6	65.0	62.4	60.4	58.3	55.9	53.2	51.2	48.9	50.6	51.8	53.8	50.3	48.6	45.8	43.9	40.8	39.5	38.8	39.5	40.0	40.2	41.0	38.7	37.8	34.2	31.4	31.9	27.6	23.9	19.4	13.1	10.1	6.7	4.9	22239920.92	73.5
4/1/25 8:00 AM	72.6	71.1	69.5	66.9	64.6	62.5	60.0	57.4	54.3	51.2	52.9	50.6	48.4	47.2	45.6	43.4	44.1	40.1	36.6	34.9	35.6	36.9	36.7	35.5	33.3	30.3	28.5	29.1	27.8	26.8	24.3	21.6	11.3	8.7	6.3	4.8	52118859.6	77.2
4/1/25 9:00 AM	72.3	71.2	69.5	66.6	64.4	62.2	59.8	57.2	54.4	51.5	49.7	50.3	48.8	45.0	44.8	41.1	42.3	37.7	34.5	33.8	34.3	35.0	35.6	35.0	34.2	33.4	38.3	40.7	37.3	34.6	28.2	18.2	12.8	12.3	7.2	5.1	50453055.21	77.0
4/1/25 10:00 AM	71.0	69.6	68.2	65.6	63.2	61.1	58.8	56.1	53.5	50.9	49.5	51.1	49.5	44.5	41.7	40.5	41.8	37.4	34.9	34.9	35.2	35.9	36.8	36.4	36.4	36.7	42.3	44.3	42.9	38.4	29.6	26.6	16.2	16.6	9.9	5.7	373225548.52	75.7
4/1/25 11:00 AM	67.7	66.5	64.3	61.8	59.4	57.3	54.9	52.4	49.9	47.5	46.0	44.5	46.4	47.6	41.2	40.5	42.3	38.9	36.9	35.1	34.9	35.4	35.2	35.2	36.0	37.5	44.1	46.4	44.2	40.5	31.2	27.1	18.8	18.2	10.9	6.1	16998771.98	72.3
4/1/25 12:00 PM	66.1	65.1	63.4	60.8	58.6	56.3	53.7	51.3	49.0	46.8	45.5	45.0	43.5	42.0	40.8	39.8	39.1	36.9	35.6	35.8	35.3	36.1	36.2	34.6	32.9	31.4	34.7	35.8	30.4	28.2	23.6	20.1	16.2	9.5	6.5	5.0	12539039.69	71.0
4/1/25 1:00 PM	65.6	64.3	62.5	60.1	57.8	55.6	53.1	50.4	48.0	45.9	46.5	45.2	43.2	47.7	43.9	42.1	42.2	42.0	40.0	37.0	36.5	36.3	35.1	34.3	35.3	36.4	43.1	45.3	44.2	39.8	31.0	26.5	21.5	18.6	11.0	6.4	10839056.64	70.3
4/1/25 2:00 PM	66.0	64.4	62.8	60.7	58.5	56.1	53.5	51.1	50.2	47.6	50.3	50.7	52.3	49.0	46.7	48.6	49.6	42.6	40.3	39.4	39.0	40.9	41.4	41.0	38.9	39.5	42.7	44.2	43.5	40.2	31.7	26.3	22.4	18.1	11.4	7.2	12320232.57	70.9
4/1/25 3:00 PM	66.7	64.9	63.0	61.4	58.9	56.6	53.8	51.3	48.7	49.4	51.5	49.5	49.1	51.5	44.1	43.8	42.8	40.3	39.4	38.7	39.2	39.6	39.3	37.9	36.0	34.0	35.9	36.3	32.6	29.1	24.2	22.3	16.5	10.5	6.8	5.1	13423939.56	71.3
4/1/25 4:00 PM	67.7	66.1	64.6	62.4	60.1	57.8	54.9	52.5	50.5	48.1	54.0	50.4	47.2	50.3	49.7	45.2	43.8	41.7	39.7	37.0	36.8	38.2	39.2	38.5	37.5	36.7	42.0	43.8	39.8	36.2	30.0	27.6	22.1	14.7	8.6	5.6	17628870.27	72.5
4/1/25 5:00 PM																																						

1/3 LAeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM	-9.6	-3.8	1.0	5.4	10.4	14.1	17.3	20.1	21.8	22.4	23.8	27.3	26.9	28.7	31.1	32.8	35.8	34.7	34.8	35.5	37.1	38.7	40.5	40.2	39.0	35.9	33.4	32.2	30.6	27.7	23.7	17.0	9.1	4.2	-0.7	-4.4	71179.68276	48.5
3/31/25 6:00 PM	-10.0	-4.2	0.7	5.1	10.0	13.5	16.8	19.5	21.2	21.8	23.5	25.4	32.9	27.8	41.1	34.8	33.9	32.5	32.4	34.3	35.8	37.1	39.3	38.8	37.7	35.1	32.3	31.3	30.0	25.3	20.1	15.5	8.6	3.6	-0.9	-4.5	66819.57156	48.2
3/31/25 7:00 PM	-12.8	-7.2	-2.4	2.3	7.1	10.8	14.2	16.6	18.5	19.0	21.5	23.1	26.0	24.2	27.0	27.5	29.3	29.4	29.5	31.5	32.3	34.4	34.9	34.5	33.0	30.2	27.6	27.0	26.4	21.7	17.5	12.1	7.0	3.0	-1.1	-4.5	21394.01798	43.3
3/31/25 8:00 PM	-12.5	-6.7	-1.7	3.1	7.8	11.7	15.0	17.7	19.3	20.0	22.6	21.7	24.4	25.2	25.8	29.5	29.2	28.6	29.0	30.4	31.2	32.9	34.7	34.1	33.3	30.4	27.7	24.3	22.2	18.7	17.7	11.6	5.9	2.6	-1.2	-4.6	19168.12272	42.8
3/31/25 9:00 PM	-17.2	-11.6	-6.5	-2.0	2.8	6.6	9.7	12.0	13.4	14.0	15.4	18.1	18.8	19.3	21.5	23.7	27.9	25.4	24.1	25.3	26.8	28.9	30.6	29.1	27.1	24.6	21.5	18.4	15.3	12.5	9.9	7.1	4.4	1.8	-1.4	-4.6	6578.70105	38.2
3/31/25 10:00 PM	-16.3	-10.4	-5.5	-1.0	4.1	7.7	10.6	12.8	13.9	15.3	15.7	16.1	18.3	18.6	19.9	22.5	24.2	24.0	24.7	25.1	25.5	27.0	27.9	27.2	26.1	23.5	20.6	17.6	15.0	12.6	10.1	7.3	4.6	1.9	-1.4	-4.6	4601.599232	36.6
3/31/25 11:00 PM	-16.9	-11.0	-6.2	-1.8	3.3	7.1	10.0	12.3	13.6	14.1	15.1	15.8	17.1	17.9	18.9	23.6	24.5	21.1	21.6	23.8	25.5	27.1	26.0	24.2	21.5	18.8	16.4	13.6	11.5	10.2	8.6	6.5	4.3	1.9	-1.4	-4.6	3222.458863	35.1
4/1/25 12:00 AM	-14.1	-8.4	-3.3	1.0	6.0	9.7	12.8	15.3	16.9	17.0	17.4	18.0	18.3	18.6	18.7	18.8	21.3	20.1	20.7	23.1	24.6	25.7	25.3	23.5	20.9	18.0	15.1	12.2	10.0	9.4	8.1	6.3	4.2	2.0	-1.3	-4.6	2623.639771	34.2
4/1/25 1:00 AM	-13.1	-7.2	-2.2	2.2	7.2	10.9	14.2	16.8	18.3	18.5	18.9	19.8	28.8	24.5	30.0	30.6	25.1	23.9	23.5	25.5	26.9	28.8	31.1	30.0	29.1	26.3	23.2	20.1	16.6	13.5	10.9	7.9	4.8	2.1	-1.3	-4.6	9915.38957	40.0
4/1/25 2:00 AM	-13.6	-7.7	-2.6	1.9	6.7	10.4	13.9	16.4	18.0	18.9	19.3	20.2	21.0	21.1	21.3	21.9	25.8	23.4	23.1	25.3	27.0	29.0	30.7	30.5	29.6	26.9	23.4	19.8	16.0	12.5	9.7	7.2	4.6	2.0	-1.3	-4.6	7492.021092	38.7
4/1/25 3:00 AM	-16.8	-10.6	-5.5	-1.4	3.5	7.1	10.4	12.8	14.3	15.6	16.6	18.1	18.9	20.4	20.6	20.9	24.4	22.4	22.9	24.4	26.8	29.4	28.6	28.9	28.9	25.9	22.7	18.8	15.7	13.0	10.8	8.1	5.1	2.2	-1.3	-4.7	5919.472385	37.7
4/1/25 4:00 AM	-21.1	-15.4	-10.6	-6.0	-0.9	2.9	5.7	7.8	9.5	10.9	13.3	17.5	19.3	27.5	29.3	25.3	24.5	23.7	24.3	26.2	30.0	30.5	31.3	31.3	30.8	28.5	25.6	22.5	19.4	16.5	13.1	9.6	6.1	2.6	-1.2	-4.7	10598.50244	40.3
4/1/25 5:00 AM	-21.7	-15.3	-11.2	-6.8	-1.5	2.3	5.1	6.9	10.3	12.5	21.0	23.9	29.7	26.2	27.6	31.8	29.7	29.3	30.4	32.4	34.0	34.7	34.7	33.1	30.5	28.2	25.6	22.6	19.9	16.5	12.6	8.1	3.6	-1.0	-4.7	-4.7	21729.62102	43.4
4/1/25 6:00 AM	-18.5	-12.2	-7.5	-3.3	1.9	5.8	8.8	11.5	14.2	16.6	22.7	25.5	31.7	35.6	33.2	31.1	33.8	31.3	33.0	34.9	34.0	35.1	35.8	34.9	33.3	30.9	29.3	26.7	25.4	22.9	18.7	13.3	8.2	3.5	-0.9	-4.7	35912.23749	45.6
4/1/25 7:00 AM	-16.3	-10.0	-5.4	-1.2	4.0	7.9	11.1	13.7	16.7	18.6	24.4	29.4	34.7	34.1	35.4	35.0	35.2	34.2	34.7	35.6	37.6	39.2	40.2	41.6	39.7	39.0	35.5	32.6	32.9	28.2	23.8	18.3	10.6	5.8	0.0	-4.4	90654.34527	49.6
4/1/25 8:00 AM	-12.8	-6.5	-0.9	3.3	8.2	12.1	15.2	17.9	19.8	20.9	26.7	28.2	29.3	31.0	32.4	32.6	35.4	33.5	31.8	31.7	33.7	36.1	36.7	36.1	34.3	31.5	29.8	30.3	28.8	27.4	24.2	20.5	8.8	4.4	-0.4	-4.5	38741.39443	45.9
4/1/25 9:00 AM	-13.1	-6.4	-0.9	3.0	8.0	11.8	15.0	17.7	19.9	21.2	23.5	27.9	29.7	28.8	31.6	30.3	33.6	31.1	29.7	30.6	32.4	34.2	35.6	35.6	35.2	34.6	39.6	41.9	38.3	35.2	28.1	17.1	10.3	8.0	0.5	-4.2	64268.48676	48.1
4/1/25 10:00 AM	-14.4	-8.0	-2.2	2.0	6.8	10.7	14.0	16.6	19.0	20.6	23.3	28.7	30.4	28.3	28.5	29.7	33.1	30.8	30.1	31.7	33.3	35.1	36.8	37.0	37.4	37.9	43.6	45.5	43.9	39.0	29.5	25.5	13.7	12.3	3.2	-3.6	129289.4889	51.1
4/1/25 11:00 AM	-17.7	-11.1	-6.1	-1.8	3.0	6.9	10.1	12.9	15.4	17.2	19.8	22.1	27.3	31.4	28.0	29.7	33.6	32.3	32.1	31.9	33.0	34.6	35.2	35.8	37.0	38.7	45.4	47.6	45.2	41.1	31.1	26.0	16.3	13.9	4.2	-3.2	175571.6763	52.4
4/1/25 12:00 PM	-19.3	-12.5	-7.0	-2.8	2.2	5.9	8.9	11.8	14.5	16.5	19.3	22.6	24.4	25.8	27.6	29.0	30.4	30.3	30.8	32.6	33.4	35.3	36.2	35.2	33.9	32.6	36.0	37.0	31.4	28.8	23.5	19.0	13.7	5.2	-0.2	-4.3	36380.41589	45.6
4/1/25 1:00 PM	-19.8	-13.3	-7.9	-3.5	1.4	5.2	8.3	10.9	13.5	15.6	20.3	22.8	24.1	31.5	30.7	31.3	33.5	35.4	35.2	33.8	34.6	35.5	35.1	34.9	36.3	37.6	44.4	46.5	45.2	40.4	30.9	25.4	19.0	14.3	4.3	-2.9	156227.7264	51.9
4/1/25 2:00 PM	-19.4	-13.2	-7.6	-2.9	2.1	5.7	8.7	11.6	15.7	17.3	24.1	28.3	33.2	32.8	33.5	37.8	40.9	36.0	35.5	36.2	37.1	40.1	41.4	41.6	39.9	40.7	44.0	45.4	44.5	40.8	31.6	25.2	19.9	13.8	4.7	-2.1	204529.1487	53.1
4/1/25 3:00 PM	-18.7	-12.7	-7.4	-2.2	2.5	6.2	9.0	11.8	14.2	19.1	25.3	27.1	30.0	35.3	30.9	33.0	34.1	33.7	34.6	35.5	37.3	38.8	39.3	38.5	37.0	35.2	37.2	37.5	33.6	29.7	24.1	21.2	14.0	6.2	0.1	-4.2	71225.24851	48.5
4/1/25 4:00 PM	-17.7	-11.5	-5.8	-1.2	3.7	7.4	10.1	13.0	16.0	17.8	27.8	28.0	28.1	34.1	36.5	34.4	35.1	35.1	34.9	33.8	34.9	37.4	39.2	39.1	38.5	37.9	43.3	45.0	40.8	36.8	29.9	26.5	19.6	10.4	1.9	-3.7	132763.8789	51.2
4/1/25 5:00 PM																																						

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 4:00 PM																																						
3/31/25 5:00 PM	-9.6	-3.8	1.0	5.4	10.4	14.1	17.3	20.1	21.8	22.4	23.8	27.3	26.9	28.7	31.1	32.8	35.8	34.7	34.8	35.5	37.1	38.7	40.5														42832.90995	46.3
3/31/25 6:00 PM	-10.0	-4.2	0.7	5.1	10.0	13.5	16.8	19.5	21.2	21.8	23.5	25.4	32.9	27.8	41.1	34.8	33.9	32.5	32.4	34.3	35.8	37.1	39.3														45488.66286	46.6
3/31/25 7:00 PM	-12.8	-7.2	-2.4	2.3	7.1	10.8	14.2	16.6	18.5	19.0	21.5	23.1	26.0	24.2	27.0	27.5	29.3	29.4	29.5	31.5	32.3	34.4	34.9														13819.49883	41.4
3/31/25 8:00 PM	-12.5	-6.7	-1.7	3.1	7.8	11.7	15.0	17.7	19.3	20.0	22.6	21.7	24.4	25.2	25.8	29.5	29.2	28.6	29.0	30.4	31.2	32.9	34.7														12184.52626	40.9
3/31/25 9:00 PM	-17.2	-11.6	-6.5	-2.0	2.8	6.6	9.7	12.0	13.4	14.0	15.4	18.1	18.8	19.3	21.5	23.7	27.9	25.4	24.1	25.3	26.8	28.9	30.6														4677.252885	36.7
3/31/25 10:00 PM	-16.3	-10.4	-5.5	-1.0	4.1	7.7	10.6	12.8	13.9	15.3	15.7	16.1	18.3	18.6	19.9	22.5	24.2	24.0	24.7	25.1	25.5	27.0	27.9														3204.486779	35.1
3/31/25 11:00 PM	-16.9	-11.0	-6.2	-1.8	3.3	7.1	10.0	12.3	13.6	14.1	15.1	15.8	17.1	17.9	18.9	23.6	24.5	21.1	21.6	23.8	25.5	27.1	26.0														2638.195303	34.2
4/1/25 12:00 AM	-14.1	-8.4	-3.3	1.0	6.0	9.7	12.8	15.3	16.9	17.0	17.4	18.0	18.3	18.6	18.7	18.8	21.3	20.1	20.7	23.1	24.6	25.7	25.3														2127.861315	33.3
4/1/25 1:00 AM	-13.1	-7.2	-2.2	2.2	7.2	10.9	14.2	16.8	18.3	18.5	18.9	19.8	28.8	24.5	30.0	30.6	25.1	23.9	23.5	25.5	26.9	28.8	31.1														7263.944809	38.6
4/1/25 2:00 AM	-13.6	-7.7	-2.6	1.9	6.7	10.4	13.9	16.4	18.0	18.9	19.3	20.2	21.0	21.1	21.3	21.9	25.8	23.4	23.1	25.3	27.0	29.0	30.7														4575.880709	36.6
4/1/25 3:00 AM	-16.8	-10.6	-5.5	-1.4	3.5	7.1	10.4	12.8	14.3	15.6	16.6	18.1	18.9	20.4	20.6	20.9	24.4	22.4	22.9	24.4	26.8	29.4	28.6														3635.027529	35.6
4/1/25 4:00 AM	-21.1	-15.4	-10.6	-6.0	-0.9	2.9	5.7	7.8	9.5	10.9	13.3	17.5	19.3	27.5	29.3	25.3	24.5	23.7	24.3	26.2	30.0	30.5	31.3														6633.194929	38.2
4/1/25 5:00 AM	-21.7	-15.9	-11.2	-6.8	-1.5	2.3	5.1	8.5	10.3	12.5	21.0	23.9	24.0	29.7	26.2	27.6	31.8	29.7	29.3	30.4	32.4	34.0	34.7														14219.27143	41.5
4/1/25 6:00 AM	-18.5	-12.2	-7.5	-3.3	1.9	5.8	8.8	11.5	14.2	16.6	22.7	25.5	31.7	35.6	33.2	31.1	33.8	31.3	33.0	34.9	34.0	35.1	35.8														27520.17169	44.4
4/1/25 7:00 AM	-16.3	-10.0	-5.4	-1.2	4.0	7.9	11.1	13.7	16.7	18.6	24.4	29.4	34.7	34.1	35.4	35.0	35.2	34.2	34.7	35.6	37.6	39.2	40.2														50640.8724	47.0
4/1/25 8:00 AM	-12.8	-6.5	-0.9	3.3

Rouget Road Solar
LT-3 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
4/3/25 1:00 PM				
4/3/25 2:00 PM				
4/3/25 3:00 PM				
4/3/25 4:00 PM				
4/3/25 5:00 PM				
4/3/25 6:00 PM	52.4	50.4	2.0	No
4/3/25 7:00 PM	53.5	51.0	2.5	No
4/3/25 8:00 PM	53.3	51.1	2.2	No
4/3/25 9:00 PM	51.6	49.6	2.1	No
4/3/25 10:00 PM	51.1	49.5	1.6	No
4/3/25 11:00 PM	47.5	45.3	2.1	No
4/4/25 12:00 AM	44.2	41.2	3.1	Yes
4/4/25 1:00 AM	44.7	42.0	2.7	No
4/4/25 2:00 AM	48.7	46.9	1.8	No
4/4/25 3:00 AM	49.1	46.8	2.3	No
4/4/25 4:00 AM	50.5	47.4	3.1	Yes
4/4/25 5:00 AM	53.9	51.1	2.7	No
4/4/25 6:00 AM	56.0	53.1	2.9	No
4/4/25 7:00 AM	57.3	54.3	3.0	Yes
4/4/25 8:00 AM	55.2	52.1	3.1	Yes
4/4/25 9:00 AM	56.1	54.0	2.1	No
4/4/25 10:00 AM	55.9	54.0	1.9	No
4/4/25 11:00 AM	54.4	52.4	1.9	No
4/4/25 12:00 PM	53.7	52.0	1.7	No
4/4/25 1:00 PM	52.1	50.1	2.0	No
4/4/25 2:00 PM	54.3	52.2	2.1	No
4/4/25 3:00 PM	53.3	50.9	2.3	No
4/4/25 4:00 PM	55.1	51.9	3.2	Yes
4/4/25 5:00 PM	53.7	51.2	2.5	No
Overall	53.4	51.0	2.4	No

1/3 Leeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 1:00 PM																																						
4/3/25 2:00 PM																																						
4/3/25 3:00 PM																																						
4/3/25 4:00 PM																																						
4/3/25 5:00 PM																																						
4/3/25 6:00 PM	70.5	68.4	66.4	64.2	62.2	60.6	58.4	55.8	54.1	52.9	54.1	55.7	56.2	54.9	54.5	49.8	47.7	44.6	39.6	37.7	39.4	44.1	44.0	43.2	42.0	39.4	36.5	33.3	28.5	24.7	23.3	21.7	9.8	7.6	6.1	4.9	31379055.13	75.0
4/3/25 7:00 PM	69.5	67.4	65.1	63.1	61.1	59.1	56.6	54.3	52.3	51.7	55.0	55.8	54.9	56.1	51.7	50.2	45.3	41.2	37.8	37.0	41.8	45.9	45.9	45.0	43.3	40.2	38.6	38.9	31.0	25.7	24.5	21.6	11.3	8.5	6.7	5.0	24630377.56	73.9
4/3/25 8:00 PM	64.1	62.1	59.8	58.0	56.4	56.3	53.4	52.3	51.4	53.5	52.9	51.5	53.9	52.8	49.6	48.7	46.1	40.6	35.6	36.8	43.1	47.0	46.2	44.6	43.0	40.6	36.4	33.0	31.9	24.5	17.5	14.1	11.2	9.6	7.6	5.2	8552576.013	69.3
4/3/25 9:00 PM	68.4	67.2	65.4	63.2	61.1	58.8	56.1	53.4	52.0	54.3	52.6	51.9	51.5	52.8	48.6	47.7	42.9	39.6	36.8	37.0	40.8	45.4	44.6	43.0	41.2	38.8	34.6	29.2	23.3	17.8	14.2	15.8	23.6	7.3	5.8	4.9	21892814.31	73.4
4/3/25 10:00 PM	70.6	69.7	68.1	66.4	64.2	61.7	58.8	55.9	53.4	52.0	52.1	52.7	54.6	51.3	48.7	46.8	43.4	37.1	35.4	38.1	43.5	45.1	43.9	41.7	39.7	37.2	32.7	27.0	20.7	13.7	9.7	7.6	6.9	6.6	5.7	4.8	3818051515.56	75.8
4/3/25 11:00 PM	68.5	67.5	66.0	64.1	62.3	60.0	57.3	54.4	51.9	50.7	50.8	53.9	48.0	48.7	47.5	45.2	40.7	36.5	28.4	28.7	34.1	38.9	41.1	39.3	37.2	34.3	30.1	24.4	18.5	12.2	9.0	7.4	6.8	6.5	5.6	4.8	23658129.12	73.7
4/4/25 12:00 AM	67.2	65.7	64.2	62.7	60.9	58.9	56.2	53.7	51.3	50.5	48.3	46.9	46.2	44.4	42.1	41.1	36.8	32.6	26.6	31.1	30.0	34.5	36.7	36.8	35.5	32.4	27.8	21.9	15.7	10.3	8.7	7.3	6.9	6.6	5.6	4.8	16624118.81	72.2
4/4/25 1:00 AM	67.9	66.5	64.9	63.0	61.0	58.7	56.1	53.0	50.5	49.5	48.8	45.6	44.5	43.7	41.7	42.6	37.8	30.8	23.8	25.0	33.1	36.2	37.9	37.5	35.3	32.1	27.4	21.2	15.5	10.1	8.5	7.2	6.9	6.6	5.6	4.8	18724710.09	72.7
4/4/25 2:00 AM	61.2	59.8	58.0	56.2	55.5	53.8	51.9	50.1	49.4	50.6	50.5	53.6	49.7	50.8	52.8	45.2	43.0	36.9	32.2	35.6	37.3	40.3	41.0	40.3	37.8	34.5	29.7	24.9	19.5	13.5	10.1	8.3	7.1	6.5	5.5	4.7	5219916.176	67.2
4/4/25 3:00 AM	55.0	53.8	52.4	51.6	53.3	54.9	52.3	50.7	50.6	50.9	50.7	49.9	50.5	50.1	46.0	45.1	40.8	35.7	33.4	36.1	35.7	42.1	42.4	41.2	39.7	35.4	30.7	25.2	19.0	12.6	8.9	7.2	6.8	6.3	5.5	4.7	2505071.963	64.0
4/4/25 4:00 AM	50.6	50.3	50.1	50.9	52.7	53.9	52.3	51.0	51.2	52.7	56.2	53.6	51.3	50.6	49.5	48.5	44.7	38.7	31.9	31.5	36.1	41.2	42.5	42.7	42.0	39.3	34.4	29.0	22.9	15.4	9.9	7.4	6.9	6.4	5.5	4.7	2676336.186	64.3
4/4/25 5:00 AM	55.9	54.6	53.7	53.0	54.1	54.3	52.8	52.1	51.7	52.4	55.8	57.0	57.0	56.2	55.5	51.5	47.1	40.4	36.0	34.5	37.8	44.4	46.2	46.6	45.0	40.4	35.8	30.7	24.6	18.0	13.5	11.4	7.8	6.6	5.5	4.7	4834425.771	66.8
4/4/25 6:00 AM	52.4	51.3	51.5	52.4	53.8	54.6	54.2	53.7	53.0	53.9	62.0	62.4	57.3	57.8	56.3	53.0	48.4	43.1	38.2	38.2	41.3	46.0	48.6	49.0	46.8	42.0	39.4	36.1	31.1	23.8	19.1	14.8	10.3	7.7	5.8	4.7	7542942.413	68.8
4/4/25 7:00 AM	54.5	53.4	53.4	54.6	57.0	60.0	58.1	55.2	56.2	56.1	60.1	63.0	58.8	58.2	58.1	53.8	51.4	44.5	40.2	40.5	43.1	47.3	49.3	49.8	48.7	44.4	41.1	39.5	34.0	29.8	25.2	20.4	11.8	8.7	6.4	4.8	10186338.38	70.1
4/4/25 8:00 AM	66.2	63.9	61.9	60.2	59.6	59.1	56.9	55.9	55.2	55.3	55.9	57.1	56.5	55.8	53.5	52.4	48.7	43.4	38.8	39.0	42.1	46.2	47.3	47.0	46.2	43.5	40.6	39.5	32.2	26.8	21.4	17.9	11.7	7.8	6.4	4.8	15030023.3	71.8
4/4/25 9:00 AM	72.2	70.1	67.6	65.3	63.6	62.6	59.9	57.9	56.8	56.2	58.1	60.3	57.4	56.0	55.6	52.7	49.1	44.2	39.0	39.6	43.9	49.1	49.2	47.7	45.7	42.4	39.2	37.3	31.2	25.3	21.0	18.5	10.6	7.6	5.9	4.8	46322616.53	76.7
4/4/25 10:00 AM	70.7	68.6	66.0	63.6	62.0	60.7	58.7	57.7	57.0	58.3	62.1	59.0	57.7	55.6	55.2	53.1	50.9	47.8	47.1	42.2	44.4	48.0	48.3	46.8	44.8	42.0	40.9	36.1	32.0	27.5	22.9	28.4	13.7	9.1	6.3	4.8	34840291.28	75.4
4/4/25 11:00 AM	71.1	68.8	66.4	64.3	62.4	60.8	58.5	56.5	55.1	54.9	57.0	60.6	57.2	55.0	54.0	51.4	48.2	45.1	42.2	39.8	42.3	46.5	47.4	45.7	43.8	40.6	36.9	32.9	28.9	24.2	21.5	19.2	12.1	8.6	6.3	4.9	35336484.87	75.5
4/4/25 12:00 PM	69.0	66.8	64.4	62.2	60.7	59.5	57.1	55.0	54.9	54.5	55.8	59.2	61.5	55.1	52.5	51.7	48.5	45.4	42.3	41.3	43.2	45.3	45.7	44.5	42.6	39.5	35.4	30.8	26.3	23.0	18.2	15.3	11.4	8.1	6.2	4.9	24133941.86	73.8
4/4/25 1:00 PM	66.4	63.9	61.8	59.8	58.8	58.3	55.9	54.2	53.5	54.2	55.4	55.2	55.7	54.2	51.5	50.1	47.8	43.6	41.0	38.4	40.3	43.7	44.2	43.2	41.7	38.7	34.7	30.4	26.6	20.0	14.3	10.3	8.1	7.1	5.9	4.9	13576598.25	71.3
4/4/25 2:00 PM	68.3	66.1	63.7	61.8	60.4	59.2	57.0	55.4	54.6	54.3	57.0	57.6	56.8	56.1	54.1	51.9	48.4	44.6	41.1	39.8	42.2	46.2	47.0	45.8	44.1	41.0	36.8	32.2	26.9	21.0	16.3	13.6	10.1	8.0	6.0	4.9	20729192.68	73.2
4/4/25 3:00 PM	62.5	60.3	58.4	57.1	56.8	57.2	55.2	53.9	53.8	55.1	55.4	56.3	55.7	54.1	51.7	50.9	48.3	44.6	41.4	40.2	41.4	44.5	45.4	44.7	43.4	40.8	37.0	32.5	27.8	22.0	17.6	14.3	10.2	7.7	5.9	4.9	8152375.358	69.1
4/4/25 4:00 PM	61.9	60.0	58.3	56.7	56.9	56.8	54.7	53.7	53.2	56.0	57.0	56.8	57.2	55.4	53.6	51.6	48.7	45.1	42.1	41.0	42.5	45.4	46.5	45.9	44.7	42.4	39.9	39.7	39.2	37.3	40.4	41.2	29.7	26.0	24.1	9.3	8390918.094	69.2
4/4/25 5:00 PM	68.3	66.6	64.1	61.8	60.1	58.1	55.8	53.9	52.3	52.9	55.5	55.3	55.3	53.5	51.2	51.6	47.1	43.7	42.0	42.5	43.6	45.1	45.5	44.8	43.4	40.9	39.2	38.5	30.7	28.7	27.2	25.8	20.5	16.8	12.4	18.3	20005536.91	73.0

1/3 LAeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 1:00 PM																																						
4/3/25 2:00 PM																																						
4/3/25 3:00 PM																																						
4/3/25 4:00 PM																																						
4/3/25 5:00 PM																																						
4/3/25 6:00 PM	-14.9	-9.2	-4.0	0.6	5.8	10.2	13.6	16.3	19.6	22.6	27.9	33.3	37.1	38.7	41.3	39.0	39.0	38.0	34.8	34.5	37.5	43.3	44.0	43.8	43.0	40.6	37.8	34.5	29.5	25.3	23.2	20.6	7.3	3.3	-0.6	-4.4	174824.7186	52.4
4/3/25 7:00 PM	-15.9	-10.2	-5.3	-0.5	4.7	8.7	11.8	14.8	17.8	21.4	28.8	33.4	35.8	39.9	38.5	39.4	36.6	34.6	33.0	33.8	39.9	45.1	45.9	45.6	44.3	41.4	39.9	40.1	32.0	26.3	24.4	20.5	8.8	4.2	0.0	-4.3	225029.918	53.5
4/3/25 8:00 PM	-21.3	-15.5	-10.6	-5.6	0.0	5.9	8.6	12.8	16.9	23.2	26.7	29.1	34.8	36.6	36.4	37.9	37.4	34.0	30.8	33.6	41.2	46.2	46.2	45.2	44.0	41.8	37.7	34.2	32.9	25.1	17.4	13.0	8.7	5.3	0.9	-4.1	212268.0192	53.3
4/3/25 9:00 PM	-17.0	-10.4	-5.0	-0.4	4.7	8.4	11.3	13.9	17.5	24.0	26.4	29.5	32.4	36.6	35.4	36.9	34.2	33.0	32.0	33.8	38.9	44.6	44.6	43.6	42.2	40.0	35.9	30.4	24.3	18.4	14.1	14.7	21.1	3.0	-0.9	-4.4	145835.548	51.6
4/3/25 10:00 PM	-14.8	-7.9	-2.3	2.8	7.8	11.3	14.0	16.4	18.9	21.7	25.9	30.3	35.5	35.1	35.5	36.0	34.7	30.5	30.6	34.9	41.6	44.3	43.9	42.3	40.7	38.4	34.0	28.2	21.7	14.3	9.6	6.5	4.4	2.3	-1.0	-4.5	128998.618	51.1
4/3/25 11:00 PM	-16.9	-10.1	-4.4	0.5	5.9	9.6	12.5	14.9	17.4	20.4	24.6	31.5	28.9	32.5	34.3	34.4	32.0	29.9	23.6	25.5	32.2	38.1	41.1	39.9	38.2	35.5	31.4	25.6	19.5	12.8	8.9	6.3	4.3	2.2	-1.1	-4.5	55972.29	47.5
4/4/25 12:00 AM	-18.2	-11.9	-6.2	-0.9	4.5	8.5	11.4	14.2	16.8	20.2	22.1	24.5	27.1	28.2	28.9	30.3	28.1	26.0	21.8	27.9	28.1	33.7	36.7	37.4	36.5	33.6	29.1	23.1	16.7	10.9	8.6	6.2	4.4	2.3	-1.1	-4.5	26545.38312	44.2
4/4/25 1:00 AM	-17.5	-11.1	-5.5	-0.6	4.6	8.3	11.3	13.5	16.0	19.2	22.6	23.2	25.4	27.5	28.5	31.8	29.1	24.2	19.0	21.8	31.2	35.4	37.9	38.1	36.3	33.3	28.7	22.4	16.5	10.7	8.4	6.1	4.4	2.3	-1.1	-4.5	29665.85978	44.7
4/4/25 2:00 AM	-24.2	-17.8	-12.4	-7.4	-0.9	3.4	7.1	10.6	14.9	20.3	24.3	31.2	30.6	34.6	39.6	34.4	34.3	30.3	27.4	32.4	35.4	39.5	41.0	40.9	38.8	35.7	31.0	26.1	20.5	14.1	10.0	7.2	4.6	2.2	-1.2	-4.6	74052.83291	48.7
4/4/25 3:00 AM	-30.4	-23.8	-18.0	-12.0	-3.1	4.5	7.5	11.2	16.1	20.6	24.5	27.5	31.4	33.9	32.8	34.3	32.1	29.1	28.6	32.9	33.8	41.3	42.4	41.8	40.7	36.6	32.0	26.4	20.0	13.2	8.8	6.1	4.3	2.0	-1.2	-4.6	81475.08574	49.1
4/4/25 4:00 AM	-34.8	-27.3	-20.3	-12.7	-3.7	3.5	7.5	11.5	16.7	22.4	30.0	31.2	32.2	34.4	36.3	37.7	36.0	32.1	27.1	28.3	34.2	40.4	42.5	43.3	43.0	40.5	35.7	30.2	23.9	16.0	9.8	6.3	4.4	2.1	-1.2	-4.6	113170.5919	50.5
4/4/25 5:00 AM	-29.5	-23.0	-16.7	-10.6	-2.3	3.9	8.0	12.6	17.2	22.1	29.6	34.6	37.9	40.0	42.3	40.7	38.4	33.8	31.2	31.3	35.9	43.6	46.2	47.2	46.0	41.6	37.1	31.9	25.6	18.6	13.4	10.3	5.3	2.3	-1.2	-4.6	243603.4716	53.9
4/4/25 6:00 AM	-33.0	-26.3	-18.9	-11.2	-2.6	4.2	9.4	14.2	18.5	23.6	35.8	40.0	38.2	41.6	43.1	42.2	39.7	36.5	33.4	35.0	39.4	45.2	48.6	47.8	43.2	40.7	37.3	32.1	24.4	19.0	13.7	7.8	5.4	2.3	-0.9	-4.6	397899.7601	56.0
4/4/25 7:00 AM	-30.9	-24.2	-17.0	-9.0	0.6	9.6	13.3	15.7	21.7	25.8	33.9	40.6	39.7	42.0	44.9	43.0	42.7	37.9	35.4	37.3	41.2	46.5	49.3	50.4	49.7	45.6	42.4	40.7	35.0	30.4	25.1	19.3	9.3	4.4	-0.3	-4.5	539354.4027	57.3
4/4/25 8:00 AM	-19.2	-13.7	-8.5	-3.4	3.2	8.7	12.1	16.4	20.7	25.0	29.7	34.7	37.4	39.6	40.3	41.6	40.0	36.8	34.0	35.8	40.2	45.4	47.3	47.6	47.2	44.7	41.9	40.7	33.2	27.4	21.3	16.8	9.2	3.5	-0.3	-4.5	332888.2212	55.2
4/4/25 9:00 AM	-13.2	-7.5	-2.8	1.7	7.2	12.2	15.1	18.4	22.3	25.9	31.9	37.9	38.3	39.8	42.4	41.9	40.4	37.6	34.2	36.4	42.0	48.3	49.2	48.3	46.7	43.6	40.5	38.5	32.2	25.9	20.9	17.4	8.1	3.3	-0.8	-4.5	407461.1768	56.1
4/4/25 10:00 AM	-14.7	-9.0	-4.4	0.0	5.6	10.3	13.9	18.2	22.5	28.0	35.9	36.6	38.6	39.4	42.0	42.3	42.2	41.2	42.3	39.0	42.5	47.2	48.3	47.4	45.8	43.2	42.2	37.3	33.0	28.1	22.8	27.3	11.2	4.8	-0.4	-4.5	390172.9567	55.9
4/4/25 11:00 AM	-14.3	-8.8	-4.0	0.7	6.0	10.4	13.7	17.0	20.6	24.6	30.8	38.2	38.1	38.8	40.8	40.6	39.5	38.5	37.4	36.6	40.4	45.7	47.4	46.3	44.8	41.8	38.2	34.1	29.9	24.8	21.4	18.1	9.6	4.3	-0.4	-4.4	272876.9141	54.4
4/4/25 12:00 PM	-16.4	-10.8	-6.0	-1.4	4.3	9.1	12.3	15.5	20.4	24.2	29.6	36.8	42.4	38.9	39.3	40.9	39.8	38.8	37.5	38.1	41.3	44.5	45.7	45.1	43.6	40.7	36.7	32.0	27.3	23.6	18.1	14.2	8.9	3.8	-0.5	-4.4	234719.5453	53.7
4/4/25 1:00 PM	-19.0	-13.7	-8.6	-3.8	2.4	7.9	11.1	14.7	19.0	23.9	29.2	32.8	36.6	38.0	38.3	39.3	39.1	37.0	36.2	35.2	38.4	42.9	44.2	43.8	42.7	39.9	36.0	31.6	27.6	20.6	14.2	9.2	5.6	2.8	-0.8	-4.4	161242.914	52.1
4/4/25 2:00 PM	-17.1	-11.5	-6.7	-1.8	4.0	8.8	12.2	15.9	20.1	24.0	30.8	35.2	37.7	39.9	40.9	41.1	39.7	38.0	36.3	36.6	40.3	45.4	47.0	46.4	45.1	42.2	38.1	33.4	27.9	21.6	16.2	12.5	7.6	3.7	-0.7	-4.4	268171.3364	54.3
4/4/25 3:00 PM	-22.9	-17.3	-12.0	-6.5	0.4	6.8	10.4	14.4	19.3	24.8	29.2	33.9	36.6	37.9	38.5	40.1	39.6	38.0	36.6	37.0	39.5	43.7	45.4	45.3	44.4	42.0	38.3	33.7	28.8	22.6	17.5	13.2	7.7	3.4	-0.8	-4.4	211568.5681	53.3
4/4/25 4:00 PM	-23.5	-17.6	-12.1	-6.9	0.5	6.4	9.9	14.2	18.7	25.7	30.8	34.4	38.1	39.2	40.4	40.8	40.0	38.5	37.3	37.8	40.6	44.6	46.5	46.5	45.7	43.6	41.2	40.9	40.2	37.9	40.3	40.1	27.2	21.7	17.4	0.0	324150.577	55.1
4/4/25 5:00 PM	-17.1	-11.0	-6.3	-1.8	3.7	7.7	11.0	14.4	17.8	22.6	29.3	32.9	36.2	37.3	38.0	40.8	38.4	37.1	37.2	39.3	41.7	44.3	45.5	45.4	44.4	42.1	40.5	39.7	31.7	29.3	27.1	24.7	18.0	12.5	5.7	9.0	235009.7099	53.7

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 1:00 PM																																						
4/3/25 2:00 PM																																						
4/3/25 3:00 PM																																						
4/3/25 4:00 PM																																						
4/3/25 5:00 PM																																						
4/3/25 6:00 PM	-14.9	-9.2	-4.0	0.6	5.8	10.2	13.6	16.3	19.6	22.6	27.9	33.3	37.1	38.7	41.3	39.0	39.0	38.0	34.8	34.5	37.5	43.3	44.0														109049.9053	50.4
4/3/25 7:00 PM	-15.9	-10.2	-5.3	-0.5	4.7	8.7	11.8	14.8	17.8	21.4	28.8	33.4	35.8	39.9	38.5	39.4	36.6	34.6	33.0	33.8	39.9	45.1	45.9														125743.719	51.0
4/3/25 8:00 PM	-21.3	-15.5	-10.6	-5.6	0.0	5.9	8.6	12.8	16.9	23.2	26.7	29.1	34.8	36.6	36.4	37.9	37.4	34.0	30.8	33.6	41.2	46.2	46.2														127859.6602	51.1
4/3/25 9:00 PM	-17.0	-10.4	-5.0	-0.4	4.7	8.4	11.3	13.9	17.5	24.0	26.4	29.5	32.4	36.6	35.4	36.9	34.2	33.0	32.0	33.8	38.9	44.6	44.6														90694.93376	49.6
4/3/25 10:00 PM	-14.8	-7.9	-2.3	2.8	7.8	11.3	14.0	16.4	18.9	21.7	25.9	30.3	35.5	35.1	35.5	36.0	34.7	30.5	30.6	34.9	41.6	44.3	43.9														89943.18549	49.5
4/3/25 11:00 PM	-16.9	-10.1	-4.4	0.5	5.9	9.6	12.5	14.9	17.4	20.4	24.6	31.5	28.9	32.5	34.3	34.4	32.0	29.9	23.6	25.5	32.2	38.1	41.1														34142.48134	45.3
4/4/25 12:00 AM	-18.2	-11.9	-6.2	-0.9	4.5	8.5	11.4	14.2	16.8	20.2	22.1	24.5	27.1	28.2	28.9	30.3	28.1	26.0	21.8	27.9	28.1	33.7	36.7														13125.06712	41.2
4/4/25 1:00 AM	-17.5	-11.1	-5.5	-0.6	4.6	8.3	11.3	13.5	16.0	19.2	22.6	23.2	25.4	27.5	28.5	31.8	29.1	24.2	19.0	21.8	31.2	35.4	37.9														15897.39988	42.0
4/4/25 2:00 AM	-24.2	-17.8	-12.4	-7.4	-0.9	3.4	7.1	10.6	14.9	20.3	24.3	31.2	30.6	34.6	39.6	34.4	34.3	30.3	27.4	32.4	35.4	39.5	41.0														48625.69091	46.9
4/4/25 3:00 AM	-30.4	-23.8	-18.0	-12.0	-3.1	4.5	7.5	11.2	16.1	20.6	24.5	27.5	31.4	33.9	32.8	34.3	32.1	29.1	28.6	32.9	33.8	41.3	42.4														47767.95396	46.8
4/4/25 4:00 AM	-34.8	-27.3	-20.3	-12.7	-3.7	3.5	7.5	11.5	16.7	22.4	30.0	31.2	32.2	34.4	36.3	37.7	36.0	32.1	27.1	28.3	34.2	40.4	42.5														55345.22914	47.4
4/4/25 5:00 AM	-29.5	-23.0	-16.7	-10.6	-2.3	3.9	8.0	12.6	17.2	22.1	29.6	34.6	37.9	40.0	42.3	40.7	38.4	33.8	31.2	31.3	35.9	43.6	46.2														129475.779	51.1
4/4/25 6:00 AM	-33.0	-26.3	-18.9	-11.2	-2.6	4.2	9.

Rouget Road Solar
LT-4 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
4/3/25 2:00 PM	55.1	52.6	2.5	No
4/3/25 3:00 PM	55.8	53.5	2.3	No
4/3/25 4:00 PM	55.8	53.5	2.3	No
4/3/25 5:00 PM	55.7	52.7	2.9	No
4/3/25 6:00 PM	53.0	50.1	2.9	No
4/3/25 7:00 PM	54.4	51.4	2.9	No
4/3/25 8:00 PM	53.3	50.7	2.6	No
4/3/25 9:00 PM	55.7	54.7	1.0	No
4/3/25 10:00 PM	47.9	44.4	3.5	Yes
4/3/25 11:00 PM	45.4	42.0	3.3	Yes
4/4/25 12:00 AM	41.7	39.7	2.1	No
4/4/25 1:00 AM	39.6	37.3	2.3	No
4/4/25 2:00 AM	43.6	42.1	1.5	No
4/4/25 3:00 AM	44.5	42.9	1.6	No
4/4/25 4:00 AM	45.5	43.1	2.4	No
4/4/25 5:00 AM	50.9	48.5	2.4	No
4/4/25 6:00 AM	55.4	53.1	2.3	No
4/4/25 7:00 AM	57.1	54.7	2.4	No
4/4/25 8:00 AM	55.6	52.4	3.1	Yes
4/4/25 9:00 AM	53.4	50.6	2.8	No
4/4/25 10:00 AM	50.0	48.0	2.1	No
4/4/25 11:00 AM	50.1	48.6	1.5	No
4/4/25 12:00 PM	50.4	48.9	1.5	No
4/4/25 1:00 PM	49.8	48.2	1.6	No
4/4/25 2:00 PM	52.8	51.2	1.6	No
4/4/25 3:00 PM	53.1	50.8	2.3	No
4/4/25 4:00 PM	53.2	50.8	2.4	No
4/4/25 5:00 PM				
Overall	52.9	50.6	2.3	No

1/3 Leeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	71.4	69.8	68.2	66.6	64.7	62.0	59.8	57.2	55.7	56.6	55.1	55.2	53.9	55.0	54.8	51.3	49.6	46.8	44.3	41.5	42.6	46.3	47.6	46.7	44.9	42.1	38.6	38.2	34.4	30.4	32.9	28.4	24.5	20.1	15.0	10.4	43255427.71	76.4
4/3/25 3:00 PM	75.6	74.3	72.4	70.9	68.8	66.1	63.4	60.9	58.2	56.6	56.6	57.2	57.3	54.9	52.9	51.6	50.8	47.3	45.1	42.5	44.0	47.3	48.8	47.8	45.8	42.4	38.5	35.0	32.4	28.4	23.4	19.3	14.8	10.0	7.6	6.6	112118902.5	80.5
4/3/25 4:00 PM	74.1	72.4	70.7	69.2	67.2	64.4	61.8	58.9	56.5	55.5	56.7	56.0	55.1	57.1	54.3	52.5	50.1	46.2	44.4	41.6	43.7	47.3	48.9	47.9	45.7	42.2	38.3	35.0	32.0	27.4	22.7	18.5	13.4	9.4	7.5	6.7	76931079.05	78.9
4/3/25 5:00 PM	69.2	68.0	66.2	64.4	62.3	60.0	57.4	55.2	53.4	53.9	54.8	54.9	54.2	53.2	51.8	50.6	49.0	45.8	43.3	40.1	42.4	46.9	48.9	48.3	46.6	43.1	38.8	35.4	32.5	28.9	22.0	18.3	13.5	9.7	7.4	6.6	27499215.29	74.4
4/3/25 6:00 PM	62.2	60.9	58.9	57.3	55.3	54.1	51.8	50.3	49.6	50.4	51.0	53.1	53.4	51.7	50.0	48.1	47.1	43.7	40.1	37.3	39.6	44.0	45.9	45.4	44.0	40.8	36.7	33.2	30.5	26.3	20.4	16.8	12.3	8.8	7.1	6.5	6387794.949	68.1
4/3/25 7:00 PM	66.1	64.8	63.1	61.1	59.1	57.2	54.5	52.7	50.6	50.6	52.2	53.2	53.1	56.0	53.0	50.8	49.2	44.4	40.0	36.3	40.1	45.1	47.0	46.9	45.4	41.7	37.3	34.2	31.0	27.1	22.3	19.2	13.1	9.4	7.2	6.5	14043850.3	71.5
4/3/25 8:00 PM	56.7	55.5	53.8	52.8	52.1	51.9	50.4	48.9	48.5	49.8	54.3	53.7	51.2	56.1	54.6	51.8	46.4	42.1	38.1	35.8	38.9	43.9	45.8	45.8	44.0	39.8	35.2	32.4	30.0	25.6	20.4	16.3	12.2	8.6	7.3	7.7	3628395.611	65.6
4/3/25 9:00 PM	57.2	55.1	53.8	52.2	51.1	51.0	49.5	47.9	47.2	48.5	55.2	52.5	51.3	56.5	57.2	51.5	57.4	56.1	43.8	37.6	40.7	45.2	45.8	45.0	42.8	38.5	33.3	30.4	27.1	22.8	18.8	15.9	12.1	8.6	7.4	8.4	4651819.84	66.7
4/3/25 10:00 PM	62.2	60.2	58.7	56.8	55.3	54.2	52.3	50.5	49.1	49.7	48.8	47.6	46.9	45.9	42.1	40.8	39.0	35.8	34.7	32.2	35.9	38.3	40.8	41.2	39.9	35.6	30.0	25.6	21.5	16.6	13.3	11.0	9.9	7.6	7.2	8.4	5334334.464	67.3
4/3/25 11:00 PM	65.0	63.4	61.5	59.3	57.0	55.6	53.3	51.2	48.6	47.4	45.5	43.1	42.0	40.9	40.9	38.8	37.1	34.6	30.2	27.8	31.8	35.5	39.1	38.7	36.8	32.8	27.6	23.6	19.9	15.3	12.2	10.2	9.6	7.6	7.2	8.4	9142371.394	69.6
4/4/25 12:00 AM	57.5	55.5	54.2	52.3	51.7	51.8	50.6	48.9	47.3	47.5	45.5	45.2	43.1	40.9	39.6	36.1	34.7	31.4	29.4	34.5	31.5	33.4	34.0	33.8	31.5	27.4	21.9	17.6	15.8	12.7	10.8	9.5	9.4	7.5	7.1	8.4	2081465.4	63.2
4/4/25 1:00 AM	66.1	64.6	62.5	60.4	58.2	56.3	54.1	51.7	49.0	47.1	44.4	42.1	39.0	36.7	34.2	32.1	32.2	28.1	23.5	26.5	33.6	30.4	31.9	31.9	29.1	25.9	21.9	19.3	15.4	12.5	9.9	8.8	8.4	7.3	6.8	7.1	11541326.22	70.6
4/4/25 2:00 AM	59.6	57.5	55.6	54.0	52.8	52.1	51.4	49.8	48.9	48.8	47.2	49.0	47.5	49.5	38.6	35.3	35.8	33.1	31.4	38.1	35.5	34.1	34.8	33.8	32.4	28.8	25.4	21.8	18.9	15.5	14.0	10.2	9.2	7.4	7.0	8.1	31556889.129	65.0
4/4/25 3:00 AM	52.3	51.7	50.7	49.9	49.5	50.4	50.3	49.4	49.3	50.1	48.8	49.4	48.4	46.9	40.2	38.1	36.4	32.7	33.6	39.3	36.4	35.7	36.0	35.1	33.7	29.7	24.9	21.1	18.5	14.0	11.1	9.4	8.0	7.1	6.6	6.3	1444944.653	61.6
4/4/25 4:00 AM	56.3	54.2	52.7	51.7	51.4	51.9	50.1	48.8	48.2	48.1	47.1	46.1	45.1	40.7	38.8	37.2	36.2	34.5	35.0	36.1	37.0	36.1	39.0	38.1	35.6	31.4	26.6	23.4	20.2	15.6	12.2	10.2	8.4	7.3	6.7	6.3	1815808.666	62.6
4/4/25 5:00 AM	61.9	59.7	57.8	56.1	54.4	53.6	51.4	50.4	49.5	49.4	50.6	51.7	51.6	51.9	46.1	46.6	44.6	40.4	37.8	34.9	38.0	42.8	44.4	43.6	40.7	36.7	33.2	30.1	26.7	22.7	19.1	15.9	12.0	8.7	7.1	7.3	5228524.005	67.2
4/4/25 6:00 AM	55.9	54.3	53.2	52.4	51.9	52.5	51.2	50.6	50.6	52.9	55.1	57.0	59.0	55.7	55.2	55.0	49.5	45.2	41.4	38.4	41.6	46.3	48.4	47.5	45.4	41.8	38.1	35.0	32.6	29.0	23.7	20.0	15.8	11.0	7.7	8.3	4959583.314	67.0
4/4/25 7:00 AM	54.6	53.3	53.0	53.8	53.9	54.0	52.9	52.6	52.8	53.2	55.0	58.9	58.0	58.6	55.7	55.6	49.5	45.4	42.8	41.0	43.7	48.5	50.4	49.5	47.3	43.2	39.3	36.4	32.6	27.9	23.1	19.4	14.4	9.7	7.5	8.3	5950615.547	67.7
4/4/25 8:00 AM	66.0	63.7	61.3	59.2	57.4	56.1	54.0	53.5	52.1	52.7	54.5	55.2	55.5	52.9	52.3	51.3	50.0	47.5	44.1	42.2	42.6	45.8	47.7	47.8	46.4	43.3	40.5	38.6	37.1	30.9	26.1	22.3	17.7	11.5	8.3	8.4	12238482.96	70.9
4/4/25 9:00 AM	74.2	72.2	69.9	67.6	65.2	63.2	61.2	58.8	57.8	56.3	55.5	54.4	57.0	53.0	49.3	48.2	47.9	44.5	43.1	42.1	43.2	43.4	45.0	44.8	43.7	40.8	38.5	37.9	35.3	30.8	24.3	21.2	16.1	11.3	8.1	8.4	6851631 4.72	78.4
4/4/25 10:00 AM	74.5	72.6	70.4	68.3	65.9	63.9	61.7	59.2	56.6	54.3	53.5	53.8	50.4	50.4	48.3	46.8	45.5	42.9	41.9	40.2	40.9	40.4	41.0	40.5	39.0	36.7	34.7	33.6	30.3	25.5	22.2	19.1	14.3	10.4	8.7	7.3	74885175.13	78.7
4/4/25 11:00 AM	74.5	72.6	70.3	68.1	65.7	63.6	61.4	58.8	56.1	54.2	52.7	55.3	52.9	50.1	51.3	48.2	46.0	42.8	41.6	40.8	41.5	40.9	41.1	39.6	38.0	35.4	33.3	31.4	29.6	25.9	22.2	19.8	15.4	10.7	7.9	7.8	73289658.18	78.7
4/4/25 12:00 PM	73.8	71.6	69.7	67.4	65.1	63.0	60.7	58.3	55.9	53.5	53.1	53.1	50.8	50.8	48.1	46.8	45.7	43.0	42.5	41.8	44.1	41.3	41.2	39.5	37.9	35.6	35.0	34.1	30.5	27.4	22.4	21.5	14.9	10.0	7.6	6.6	61734594.31	77.9
4/4/25 1:00 PM	72.6	70.6	68.4	66.3	64.1	61.8	59.5	57.0	54.2	52.7	52.3	54.5	51.6	50.0	50.3	47.3	46.0	43.5	42.3	40.4	40.9	40.6	40.8	39.3	37.7	35.2	33.9	32.7	30.4	25.6	22.5	20.5	13.9	9.2	7.3	6.5	47677191.94	76.8
4/4/25 2:00 PM	72.5	70.6	68.4	66.3	63.9	61.8	59.6	57.1	54.8	53.8	53.2	53.7	52.1	59.1	53.0	51.4	50.8	47.4	44.7	41.7	40.9	41.3	43.5	41.6	40.6	38.7	37.1	36.0	32.8	29.1	30.0	26.1	19.1	11.8	8.6	7.5	48587441.87	76.9
4/4/25 3:00 PM	71.0	68.9	66.8	64.5	62.4	60.5	58.4	56.1	54.1	53.4	55.2	56.8	52.6	54.1	52.7	50.3	49.0	46.0	44.2	42.6	42.0	43.0	44.2	43.7	42.2	40.4	38.7	36.9	35.3	31.9	27.1	24.4	18.6	12.5	8.7	6.7	34257970.7	75.3
4/4/25 4:00 PM	72.5	70.5	68.6	66.3	64.0	62.0	59.9	57.6	55.3	54.3	56.9	54.7	54.9	54.0	51.7	51.3	49.3	45.7	44.4	42.4	42.0	43.1	44.1	43.4	42.5	40.6	38.7	36.6	35.0	32.4	28.7	26.4	34.0	31.7	9.9	6.9	48531335.7	76.9
4/4/25 5:00 PM																																						

1/3 Laeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	-14.0	-7.8	-2.2	3.0	8.3	11.6	15.0	17.7	21.2	26.3	28.9	32.8	34.8	38.8	41.6	40.5	40.9	40.2	39.5	38.3	40.7	45.5	47.6	47.3	45.9	43.3	39.9	39.4	35.4	31.0	32.8	27.3	22.0	15.8	8.3	1.1	321785.9176	55.1
4/3/25 3:00 PM	-9.8	-3.3	2.0	7.3	12.4	15.7	18.6	21.4	23.7	26.3	30.4	34.8	38.2	38.7	39.7	40.8	42.1	40.7	40.3	39.3	42.1	46.5	48.8	48.4	46.8	43.6	39.8	36.2	33.4	29.0	23.3	18.2	12.3	5.7	0.9	2.7	3810412956	55.8
4/3/25 4:00 PM	-11.3	-5.2	0.3	5.6	10.8	14.0	17.0	19.4	22.0	25.2	30.5	33.6	36.0	40.9	41.1	41.7	41.4	39.6	39.6	38.4	41.8	46.5	48.9	48.5	46.7	43.4	39.6	36.2	33.0	28.0	22.6	17.4	10.9	5.1	0.8	-2.6	380659.6492	55.8
4/3/25 5:00 PM	-16.2	-9.6	-4.2	0.8	5.9	9.6	12.6	15.7	18.9	23.6	28.6	32.5	35.1	37.0	38.6	39.8	40.3	39.2	38.5	36.9	40.5	46.1	48.9	48.9	47.6	44.3	40.1	36.6	33.5	29.5	21.9	17.2	11.0	5.4	0.7	-2.7	368655.4778	55.7
4/3/25 6:00 PM	-23.2	-16.7	-11.5	-6.3	-1.1	3.7	7.0	10.8	15.1	20.1	24.8	30.7	34.3	35.5	36.8	37.3	38.4	37.1	35.3	34.1	37.7	43.2	45.9	46.0	45.0	42.0	38.0	34.4	31.5	26.9	20.3	15.7	9.8	4.5	0.4	-2.8	200239.3616	53.0
4/3/25 7:00 PM	-19.3	-12.8	-7.3	-2.5	2.7	6.8	9.7	13.2	16.1	20.3	26.0	30.8	34.0	39.8	39.8	40.0	40.5	37.8	35.2	33.1	38.2	44.3	47.0	47.5	46.4	42.9	38.6	35.4	32.0	27.7	22.2	18.1	10.6	5.1	0.5	-2.8	272274.1022	54.4
4/3/25 8:00 PM	-28.7	-22.1	-16.6	-10.8	-4.3	1.5	5.6	9.4	14.0	19.5	28.1	31.3	32.1	39.9	41.4	41.0	37.7	35.5	33.3	32.6	37.0	43.1	45.8	46.4	45.0	41.0	36.5	33.6	31.0	26.2	20.3	15.2	9.7	4.3	0.6	-1.6	213689.82	53.3
4/3/25 9:00 PM	-28.2	-22.5	-16.6	-11.4	-5.3	0.6	4.7	8.4	12.7	18.2	29.0	30.1	32.2	40.3	44.0	40.7	48.7	49.5	39.0	34.4	38.8	44.4	45.8	45.6	43.8	39.7	34.6	31.6	28.1	23.4	18.7	14.8	9.6	4.3	0.7	-0.9	371752.7145	55.7
4/3/25 10:00 PM	-23.2	-17.4	-11.7	-6.8	-1.1	3.8	7.5	11.0	14.6	19.4	22.6	25.2	27.8	29.7	28.9	30.0	30.3	29.2	29.9	29.0	34.0	37.5	40.8	41.8	40.9	36.8	31.3	26.8	22.5	17.2	13.2	9.9	7.4	3.3	0.5	-0.9	62270.0853	47.9
4/3/25 11:00 PM	-20.4	-14.2	-8.9	-4.3	0.6	5.2	8.5	11.7	14.1	17.1	19.3	20.7	22.9	24.7	27.7	28.0	28.4	28.0	25.4	24.6	29.9	34.7	39.1	39.3	37.8	34.0	28.9	24.8	20.9	15.9	12.1	9.1	7.1	3.3	0.5	-0.9	34294.82395	45.4
4/3/25 12:00 AM	-27.9	-22.1	-16.2	-11.3	-4.7	1.4	5.8	9.4	12.8	17.2	19.3	22.8	24.0	24.7	26.4	25.3	26.0	24.8	24.6	31.3	29.6	32.6	34.0	34.4	32.5	28.6	23.2	18.8	16.8	13.3	10.7	8.4	6.9	3.2	0.4	-0.9	14950.17226	41.7
4/3/25 1:00 AM	-19.3	-13.0	-7.9	-3.2	1.8	5.9	9.3	12.2	14.5	16.8	18.2	19.7	19.9	20.5	21.0	21.3	23.5	21.5	18.7	23.3	31.7	29.6	31.9	32.5	30.1	27.1	23.2	20.5	16.4	13.1	9.8	7.7	5.9	3.0	0.1	-2.2	9074.34639	39.6
4/3/25 2:00 AM	-25.8	-20.1	-14.8	-9.6	-3.6	1.7	6.6	10.3	14.4	18.5	21.0	26.6	28.4	33.3	25.4	24.5	27.1	26.5	26.6	34.9	33.6	33.3	34.8	34.4	33.4	30.0	26.7	23.0	19.9	16.1	13.9	9.1	6.7	3.1	0.3	-1.2	22926.3706	43.6
4/3/25 3:00 AM	-33.1	-25.9	-19.7	-13.7	-6.9	0.0	5.5	9.9	14.8	19.8	22.6	27.0	29.3	30.7	27.0	27.3	27.7	26.1	28.8	36.1	34.5	34.9	36.0	35.7	34.7	30.9	26.2	22.3	19.5	14.6	11.0	8.3	5.5	2.8	-0.1	-3.0	28279.45441	44.5
4/3/25 4:00 AM	-29.1	-23.4	-17.7	-11.9	-5.0	1.5	5.3	9.3	13.7	17.8	20.9	23.7	26.0	24.5	25.6	26.4	27.5	27.9	30.2	32.9	35.1	35.3	39.0	38.7	36.6	32.6	27.9	24.6	21.2	16.2	12.1	9.1	5.9	3.0	0.0	-3.0	35570.07721	45.5
4/3/25 5:00 AM	-23.5	-17.9	-12.6	-7.5	-2.0	3.2	6.6	10.9	15.0	19.1	24.4	29.3	32.5	35.7	32.9	35.8	35.9	33.8	33.0	31.7	36.1	42.0	44.4	44.2	41.7	37.9	34.5	31.3	27.7	23.3	19.0	14.8	9.5	4.4	0.4	-2.0	122511.7243	50.9
4/3/25 6:00 AM	-29.5	-23.3	-17.2	-11.2	-4.5	2.1	6.4	11.1	16.1	22.6	28.9	34.6	39.9	39.5	42.0	44.2	40.8	38.6	36.6	35.2	39.7	45.5	48.4	48.1	46.4	43.0	39.4	36.2	33.6	29.6	23.6	18.9	13.3	6.7	1.0	-1.0	350673.9101	55.4
4/3/25 7:00 AM	-30.8	-24.3	-17.4	-9.8	-2.5	3.6	8.1	13.1	18.3	22.9	28.8	36.5	38.9	42.4	42.5	44.8	40.8	38.8	38.0	37.8	41.8	47.7	50.4	50.1	48.3	44.4	40.6	37.6	33.6	28.5	23.0	18.3	11.9	5.4	0.8	-1.0	513551.4635	57.1
4/3/25 8:00 AM	-19.4	-13.9	-9.1	-4.4	1.0	5.7	9.2	14.0	17.6	22.4	28.3	32.8	36.4	36.7	39.1	40.5	41.3	40.9	39.3	39.0	40.7	45.0	47.7	48.4	47.4	44.5	41.8	39.8	38.1	31.5	26.0	21.2	15.2	7.2	1.6	-0.9	360418.7419	55.6
4/3/25 9:00 AM	-11.2	-5.4	-0.5	4.0	8.8	12.8	16.4	19.3	23.3	26.0	29.3	32.0	37.9	36.8	36.1	37.4	39.2	37.9	38.3	38.9	41.3	42.6	45.0	45.4	44.7	42.0	39.8	39.1	36.3	31.4	24.2	20.1	13.6	7.0	1.4	-0.9	219495.8398	53.4
4/3/25 10:00 AM	-10.9	-5.0	0.0	4.7	9.5	13.5	16.9	19.7	22.1	24.0	27.3	31.4	31.3	34.2	35.1	36.0	36.8	36.3	37.1	37.0	39.0	39.6	41.0	41.1	40.0	37.9	36.0	34.8	31.3	26.1	22.1	18.0	11.8	6.1	2.0	-2.0	100651.4058	50.0
4/4/25 11:00 AM	-10.9	-5.0	-0.1	4.5	9.3	13.2	16.6	19.3	21.6	23.9	26.5	32.9	33.8	33.9	38.1	37.4	37.3	36.2	36.8	37.6	39.6	40.1	41.1	40.2	39.0	36.6	34.6	32.6	30.6	26.5	22.1	18.7	12.9	6.4	1.2	-1.5	101759.9169	50.1
4/4/25 12:00 PM	-11.6	-6.0	-0.7	3.8	8.7	12.6	15.9	18.8	21.4	23.2	26.9	30.7	31.7	34.6	34.9	36.0	37.0	36.4	37.7	38.6	42.2	40.5	41.2	40.1	38.9	36.8	36.3	35.3	31.5	28.0	22.3	20.4	12.4	5.7	0.9	-2.7	110056.7139	50.4
4/4/25 1:00 PM	-12.8	-7.0	-2.0	2.7	7.7	11.4	14.7	17.6	19.7	22.4	26.1	32.1	32.5	33.8	37.1	36.5	37.3	36.9	37.5	37.2	39.0	39.8	40.8	39.9	38.7	36.4	35.2	33.9	31.4	26.2	22.4	19.4	11.4	4.9	0.6	-2.8	96052.49612	49.8
4/4/25 2:00 PM	-12.9	-7.0	-2.0	2.7	7.5	11.4	14.8	17.6	20.3	23.5	27.0	31.3	33.0	42.9	39.8	40.6	42.1	40.8	39.9	38.5	39.0	40.5	43.5	42.2	41.6	39.9	38.4	37.2	33.8	29.7	29.9	25.0	16.6	7.5	1.9	-1.8	188994.7803	52.8
4/4/25 3:00 PM	-14.4	-8.7	-3.6	0.9	6.0	10.1	13.6	16.6	19.6	23.1	29.0	34.4	33.5	37.9	39.5	39.5	40.3	39.4	39.4	39.4	40.1	42.2	44.2	44.3	43.2	41.6	40.0	38.1	36.3	32.5	27.0	23.3	16.1	8.2	2.0	-2.6	205794.1147	53.1
4/4/25 4:00 PM	-12.9	-7.1	-1.8	2.7	7.6	11.6	15.1	18.1	20.8	24.0	30.7	32.3	35.8	37.8	38.5	40.5	40.6	39.1	39.6	39.2	40.1	42.3	44.1	44.0	43.5	41.8	40.0	37.8	36.0	33.0	28.6	25.3	31.5	27.4	3.2	-2.4	209234.5925	53.2
4/4/25 5:00 PM																																						

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	-14.0	-7.8	-2.2	3.0	8.3	11.6	15.0	17.7	21.2	26.3	28.9	32.8	34.8	38.8	41.6	40.5	40.9	40.2	39.5	38.3	40.7	45.5	47.6														182790.6315	52.6
4/3/25 3:00 PM	-9.8	-3.3	2.0	7.3	12.4	15.7	18.6	21.4	23.7	26.3	30.4	34.8	38.2	38.7	39.7	40.8	42.1	40.7	40.3	39.3	42.1	46.5	48.8														224053.0689	53.5
4/3/25 4:00 PM	-11.3	-5.2	0.3	5.6	10.8	14.0	17.0	19.4	22.0	25.2	30.5	33.6	36.0	40.9	41.1	41.7	41.4	39.6	39.6	38.4	41.8	46.5	48.9														225368.9473	53.5
4/3/25 5:00 PM	-16.2	-9.6	-4.2	0.8	5.9	9.6	12.6	15.7	18.9	23.6	28.6	32.5	35.1	37.0	38.6	39.8	40.3	39.2	38.5	36.9	40.5	46.1	48.9														187946.9913	52.7
4/3/25 6:00 PM	-23.2	-16.7	-11.5	-6.3	-1.1	3.7	7.0	10.8	15.1	20.1	24.8	30.7	34.3	35.5	36.8	37.3	38.4	37.1	35.3	34.1	37.7	43.2	45.9														101560.6415	50.1
4/3/25 7:00 PM	-19.3	-12.8	-7.3	-2.5	2.7	6.8	9.7	13.2	16.1	20.3	26.0	30.8	34.0	39.8	39.8	40.0	40.5	37.8	35.2	33.1	38.2	44.3	47.0														139541.2818	51.4
4/3/25 8:00 PM	-28.7	-22.1	-16.6	-10.8	-4.3	1.5	5.6	9.4	14.0	19.5	28.1	31.3	32.1	39.9	41.4	41.0	37.7	35.5	33.3	32.6	37.0	43.1	45.8														117059.1815	50.7
4/3/25 9:00 PM	-28.2	-22.5	-16.6	-11.4	-5.3	0.6	4.7	8.4	12.7	18.2	29.0	30.1	32.2	40.3	44.0	40.7	48.7	49.5	39.0	34.4	38.8	44.4	45.8														296827.6142	54.7

Rouget Road Solar
LT-5 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
4/3/25 2:00 PM	53.5	52.4	1.1	No
4/3/25 3:00 PM	56.0	55.2	0.8	No
4/3/25 4:00 PM	53.5	52.4	1.1	No
4/3/25 5:00 PM	51.8	50.5	1.3	No
4/3/25 6:00 PM	50.2	48.4	1.8	No
4/3/25 7:00 PM	48.2	45.2	2.9	No
4/3/25 8:00 PM	46.6	44.4	2.2	No
4/3/25 9:00 PM	43.8	41.7	2.0	No
4/3/25 10:00 PM	41.6	40.0	1.6	No
4/3/25 11:00 PM	36.7	35.4	1.3	No
4/4/25 12:00 AM	36.0	35.1	0.9	No
4/4/25 1:00 AM	33.4	32.5	0.9	No
4/4/25 2:00 AM	39.0	38.6	0.4	No
4/4/25 3:00 AM	40.1	39.6	0.5	No
4/4/25 4:00 AM	38.5	37.9	0.6	No
4/4/25 5:00 AM	39.2	38.5	0.7	No
4/4/25 6:00 AM	44.8	42.3	2.4	No
4/4/25 7:00 AM				
4/4/25 8:00 AM	46.1	43.9	2.2	No
4/4/25 9:00 AM	48.8	44.3	4.4	Yes
4/4/25 10:00 AM	45.8	44.6	1.2	No
4/4/25 11:00 AM	46.7	44.7	2.0	No
4/4/25 12:00 PM	46.8	45.4	1.3	No
4/4/25 1:00 PM	45.6	43.6	2.0	No
4/4/25 2:00 PM	44.9	42.8	2.1	No
4/4/25 3:00 PM	46.0	43.9	2.1	No
4/4/25 4:00 PM	47.3	44.7	2.5	No
Overall	47.6	46.1	1.5	No

1/3 Leeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	86.6	85.0	83.1	81.3	79.3	77.4	75.2	73.2	71.2	68.9	66.1	62.6	58.2	54.9	51.8	47.7	45.1	42.0	39.9	41.4	43.4	46.6	45.9	42.4	40.5	37.7	34.1	31.2	28.5	24.9	23.1	21.7	18.8	18.2	20.3	23.8		
4/3/25 3:00 PM	89.7	88.2	86.4	84.6	82.9	81.0	79.1	77.0	75.0	72.9	70.4	67.0	62.7	58.9	55.0	52.0	49.2	46.4	44.2	44.7	46.0	48.0	46.2	43.7	41.9	39.1	35.8	33.0	30.7	27.4	26.1	25.3	23.6	23.7	26.7	31.0	2847841375	94.5
4/3/25 4:00 PM	86.2	84.6	82.9	81.0	79.1	77.1	75.1	72.9	70.9	68.5	65.8	62.1	58.4	55.7	52.3	47.9	45.0	41.5	40.1	41.6	44.6	46.7	45.5	42.9	40.6	37.5	33.5	31.2	28.4	21.7	19.6	17.8	16.2	17.3	20.8	26.0	1230812071	90.9
4/3/25 5:00 PM	82.7	80.8	79.1	77.0	75.0	73.0	71.0	68.7	66.6	63.9	61.3	59.5	55.5	52.3	48.6	44.9	40.9	37.3	36.5	39.7	41.8	45.8	45.2	42.2	39.5	36.4	32.2	29.4	25.7	18.8	15.3	13.2	9.5	8.8	10.9	14.6	520670078.1	87.2
4/3/25 6:00 PM	73.4	71.3	68.9	66.8	64.3	62.2	60.0	57.8	55.1	52.6	53.2	55.0	54.6	52.6	46.8	43.5	41.7	36.9	35.3	36.1	38.3	44.0	43.6	41.5	38.2	35.6	33.4	32.3	28.8	22.2	18.0	15.3	7.7	5.8	5.4	4.6	55520363.85	77.4
4/3/25 7:00 PM	71.6	69.3	67.3	65.0	62.6	60.7	58.3	55.9	52.8	50.7	57.2	56.1	48.5	49.6	46.1	41.4	37.5	32.5	30.2	31.6	35.3	39.9	40.4	39.0	36.6	33.9	35.0	34.7	32.1	27.3	31.7	32.6	24.6	9.3	11.3	5.0	371458827.28	75.7
4/3/25 8:00 PM	62.3	60.5	58.5	56.5	54.7	53.6	51.7	49.8	48.7	50.0	50.8	48.0	48.6	48.1	42.8	40.1	35.6	33.8	31.9	33.5	35.6	40.3	39.4	38.4	36.0	32.7	30.0	26.9	26.3	17.9	14.6	11.8	7.2	5.8	5.3	4.5	5334332.159	67.3
4/3/25 9:00 PM	61.3	59.3	57.3	55.6	53.9	52.7	50.7	48.6	47.4	49.6	51.4	46.8	46.2	44.8	40.6	37.7	34.7	31.7	29.8	30.6	33.5	37.0	36.7	35.4	33.8	30.4	25.0	18.1	11.0	7.2	7.5	6.6	6.1	5.6	5.3	4.5	4156508.479	66.2
4/3/25 10:00 PM	63.4	61.1	59.2	57.5	55.7	54.2	52.1	49.9	48.4	48.1	50.1	50.9	46.8	44.6	40.3	37.7	38.5	31.6	30.9	30.1	31.6	32.7	33.2	32.3	31.0	27.2	21.5	15.1	9.1	6.9	7.6	6.6	6.1	5.6	5.2	4.5	6236886.836	67.9
4/3/25 11:00 PM	64.9	62.9	61.2	59.0	57.1	55.3	53.1	50.9	48.6	47.0	47.9	44.4	41.5	40.9	39.5	35.3	32.4	29.3	26.0	24.7	24.3	27.0	27.6	26.7	25.3	21.2	15.5	9.6	6.8	6.6	7.7	6.6	6.1	5.5	5.2	4.5	8624102.088	69.4
4/4/25 12:00 AM	64.3	62.5	60.4	58.3	56.5	55.1	53.0	50.7	48.6	48.0	47.9	43.7	41.2	38.9	35.1	32.6	32.1	29.5	26.3	30.2	26.8	27.2	26.1	24.7	23.2	18.6	13.2	7.7	5.9	6.5	7.7	6.6	6.1	5.5	5.2	4.4	7546893.885	68.8
4/4/25 1:00 AM	67.3	65.4	63.2	61.0	59.2	57.4	54.7	52.0	49.3	47.4	47.6	42.9	39.9	37.5	34.1	31.9	32.9	27.3	19.7	21.1	22.9	23.1	21.5	22.6	20.5	14.1	9.5	6.3	6.0	6.5	7.7	6.7	6.2	5.5	5.2	4.4	14221776.57	71.5
4/4/25 2:00 AM	59.6	57.7	55.7	54.0	53.6	52.8	51.2	49.2	47.4	48.6	49.0	47.0	46.0	45.2	38.0	35.3	32.9	31.2	29.5	36.4	31.5	29.0	25.7	23.9	22.0	19.2	13.6	8.6	6.0	6.4	7.7	6.6	6.2	5.5	5.1	4.4	3105745.885	64.9
4/4/25 3:00 AM	53.0	52.3	51.0	50.1	50.3	51.1	50.4	48.4	47.9	48.8	49.3	47.1	46.6	44.9	37.5	34.9	31.3	30.7	30.9	37.7	33.4	30.8	28.1	25.4	24.8	21.9	16.6	10.0	6.2	6.4	7.6	6.6	6.2	5.5	5.1	4.4	1385069.139	61.4
4/4/25 4:00 AM	56.9	55.3	53.6	52.7	52.1	51.8	49.8	48.6	47.5	48.3	49.7	46.5	44.5	40.3	37.6	34.9	31.8	29.9	31.9	32.9	33.3	29.4	26.9	25.0	23.5	20.6	16.2	11.7	9.7	8.3	8.7	7.6	6.5	5.6	5.2	4.4	2044841.359	63.1
4/4/25 5:00 AM	61.4	59.3	57.5	55.6	54.2	53.3	51.2	49.6	48.0	47.5	50.0	48.0	45.1	43.3	41.6	37.5	34.6	30.2	30.3	30.0	31.2	31.4	29.3	26.9	24.2	20.5	16.3	12.7	13.0	10.4	9.5	7.9	6.5	5.5	5.1	4.4	4234063.138	66.3
4/4/25 6:00 AM	59.4	57.3	55.5	54.1	53.4	52.9	51.4	50.1	48.9	48.8	54.9	55.6	48.9	46.8	45.8	42.2	38.2	33.7	32.7	32.7	34.1	34.7	32.6	31.2	30.1	29.7	35.4	33.0	29.4	23.3	16.5	14.6	7.7	5.9	5.3	4.5	3706424.139	65.7
4/4/25 7:00 AM																																						
4/4/25 8:00 AM	68.6	66.6	64.3	62.0	60.0	58.2	55.9	54.1	52.0	51.0	51.6	50.7	48.4	46.7	44.1	42.7	41.7	38.8	36.3	35.5	36.9	37.8	35.5	32.8	30.5	29.8	34.3	35.3	31.9	29.2	21.9	16.3	7.3	5.7	5.1	4.3	19317149.48	72.9
4/4/25 9:00 AM	76.9	75.4	74.2	72.1	69.9	67.9	65.8	63.7	61.2	58.2	55.9	53.6	50.0	46.8	44.7	41.6	42.3	38.6	35.7	35.6	37.0	36.8	36.2	34.4	32.0	39.0	41.8	38.3	32.1	27.2	21.9	18.7	9.7	6.1	5.3	4.4	150927787.6	81.8
4/4/25 10:00 AM	76.8	75.8	74.6	72.6	70.3	68.2	66.2	63.9	61.6	58.6	56.4	54.1	51.0	47.5	45.0	42.8	43.6	39.5	35.8	34.7	36.6	36.5	36.0	34.3	31.6	28.5	29.7	29.6	27.1	23.1	18.7	15.0	7.3	5.7	5.2	4.4	159776316.7	82.0
4/4/25 11:00 AM	77.2	75.7	74.7	72.8	70.5	68.4	66.3	64.3	61.8	59.1	56.6	54.4	51.3	48.3	46.1	43.1	44.0	39.7	35.2	34.3	34.4	36.6	36.4	34.6	32.1	31.3	36.3	33.8	27.3	22.5	20.6	16.6	8.3	7.1	8.6	10.5	165776301.1	82.2
4/4/25 12:00 PM	75.1	73.9	72.7	70.6	68.2	66.2	64.2	62.1	59.6	56.9	54.4	53.8	51.6	46.8	44.7	41.6	42.2	39.5	37.5	37.4	39.8	38.1	37.8	35.7	32.9	29.9	30.6	31.5	28.6	22.4	20.4	19.4	9.1	5.7	5.3	4.5	10418416.8	80.2
4/4/25 1:00 PM	72.7	71.2	69.7	67.4	65.2	63.4	61.2	59.1	56.4	54.1	53.4	52.3	49.9	48.3	45.2	41.3	41.1	38.0	34.0	32.9	33.7	36.7	37.1	35.8	33.1	30.3	31.9	31.1	27.8	22.5	19.6	18.3	10.0	5.9	5.3	4.5	55217731.53	77.4
4/4/25 2:00 PM	73.5	72.5	71.0	68.7	66.5	64.5	62.5	60.4	58.0	55.3	53.7	51.9	49.7	47.2	43.3	40.6	40.7	36.9	33.2	32.0	32.5	35.5	36.3	35.1	32.5	29.4	31.1	31.6	28.6	23.5	21.6	18.9	10.2	9.5	8.4	10.2	72185080.81	78.6
4/4/25 3:00 PM	71.2	70.1	68.2	65.8	63.7	61.9	59.9	57.8	55.4	53.4	52.8	51.8	50.2	48.2	47.4	45.9	41.2	36.0	33.0	32.2	32.3	35.9	37.2	36.5	34.2	30.4	30.2	31.9	29.8	24.4	20.9	20.0	8.5	6.1	5.5	4.6	40765423.16	76.1
4/4/25 4:00 PM	71.2	69.9	68.2	65.9	63.7	61.8	59.9	57.7	55.3	53.8	54.1	52.9	49.5	47.3	45.3	41.9	41.3	36.9	34.2	33.1	36.0	38.6	39.5	38.0	35.5	32.2	32.1	34.1	32.8	28.6	26.7	24.0	15.8	10.9	7.4	5.0	40327863.32	76.1
4/4/25 5:00 PM																																						

1/3 LAeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	1.2	7.4	12.7	17.7	22.9	27.0	30.4	33.7	36.7	38.6	39.9	40.2	39.1	38.7	38.6	36.9	36.4	35.4	35.1	38.2	41.5	45.8	45.9	43.0	41.5	38.9	35.4	32.4	29.5	25.5	23.0	20.6	16.3	13.9	13.6	14.5	221506.303	53.5
4/3/25 3:00 PM	4.3	10.6	16.0	21.0	26.5	30.6	34.3	37.5	40.5	42.6	44.2	44.6	43.6	42.7	41.8	41.2	40.5	39.8	39.4	41.5	44.1	47.2	46.2	44.3	42.9	40.3	37.1	34.2	31.7	28.0	26.0	24.2	21.1	19.4	20.0	21.7	395497.3849	56.0
4/3/25 4:00 PM	0.8	7.0	12.5	17.4	22.7	26.7	30.3	33.4	36.4	38.2	39.6	39.7	39.3	39.5	39.1	37.1	36.3	34.9	35.3	38.4	42.7	45.9	45.5	43.5	41.6	38.7	34.8	32.4	29.4	22.3	19.5	16.7	13.7	13.0	14.1	16.7	225792.6112	53.5
4/3/25 5:00 PM	-2.7	3.2	8.7	13.4	18.6	22.6	26.2	29.2	32.1	33.6	35.1	37.1	36.4	36.1	35.4	34.1	32.2	30.7	31.7	36.5	39.9	45.0	45.2	42.8	40.5	37.6	33.5	30.6	26.7	19.4	15.2	12.1	7.0	4.5	4.2	5.3	151649.0798	51.8
4/3/25 6:00 PM	-12.0	-6.3	-1.5	3.2	7.9	11.8	15.2	18.3	20.6	22.3	27.0	32.6	35.5	36.4	33.6	32.7	33.0	30.3	30.5	32.9	36.4	43.2	43.6	42.1	39.2	36.8	34.7	33.5	29.8	22.8	17.9	14.2	5.2	1.5	-1.3	-4.7	104850.7317	50.2
4/3/25 7:00 PM	-13.8	-8.3	-3.1	1.4	6.2	10.3	13.5	16.4	18.3	20.4	31.0	33.7	29.4	33.4	32.9	30.6	28.8	25.9	25.4	28.4	33.4	39.1	40.4	39.6	37.6	35.1	36.3	35.9	33.1	27.9	31.6	31.5	22.1	5.0	4.6	-4.3	65560.24477	48.2
4/3/25 8:00 PM	-23.1	-17.1	-11.9	-7.1	-1.7	3.2	6.9	10.3	14.2	19.7	24.6	25.6	29.5	31.9	29.6	29.3	26.9	27.2	27.1	30.3	33.7	39.5	39.4	39.0	37.0	33.9	31.3	28.1	27.3	18.5	14.5	10.7	4.7	1.5	-1.4	-4.8	45468.00038	46.6
4/3/25 9:00 PM	-24.1	-18.3	-13.1	-8.0	-2.5	2.3	5.9	9.1	12.9	19.3	25.2	24.4	27.1	28.6	27.4	26.9	26.0	25.1	25.0	27.4	31.6	36.2	36.7	36.0	34.8	31.6	26.3	19.3	12.0	7.8	7.4	5.5	3.6	1.3	-1.4	-4.8	23887.42503	43.8
4/3/25 10:00 PM	-22.0	-16.5	-11.2	-6.1	-0.7	3.8	7.3	10.4	13.9	17.8	23.9	28.5	27.1	28.4	27.1	26.9	29.8	25.0	26.1	26.9	29.7	31.9	33.2	32.9	32.0	28.4	22.8	16.3	10.1	7.5	7.5	5.5	3.6	1.3	-1.5	-4.8	14535.4663	41.6
4/3/25 11:00 PM	-20.5	-14.7	-9.2	-4.6	0.7	4.9	8.3	11.4	14.1	16.7	21.7	22.0	22.4	24.7	26.3	24.5	23.7	22.7	21.2	21.5	22.4	26.2	27.6	27.3	26.3	22.4	16.8	10.8	7.8	7.2	7.6	5.5	3.6	1.2	-1.5	-4.8	4666.302511	36.7
4/4/25 12:00 AM	-21.1	-15.1	-10.0	-5.3	0.1	4.7	8.2	11.2	14.1	17.7	21.7	21.3	22.1	22.7	21.9	21.8	23.4	22.9	21.5	27.0	24.9	26.4	26.1	25.3	24.2	19.8	14.5	8.9	6.9	7.1	7.6	5.5	3.6	1.2	-1.5	-4.9	4021.0645	36.0
4/4/25 1:00 AM	-18.1	-12.2	-7.2	-2.6	2.8	7.0	9.9	12.5	14.8	17.1	21.4	20.5	20.8	21.3	20.9	21.1	24.2	20.7	14.9	17.9	21.0	22.3	21.5	23.2	21.5	15.3	10.8	7.5	7.0	7.1	7.6	5.6	3.7	1.2	-1.5	-4.9	2211.229058	33.4
4/4/25 2:00 AM	-25.8	-19.9	-14.7	-9.6	-2.8	2.4	6.4	9.7	12.9	18.3	22.8	24.6	26.9	29.0	24.8	24.5	24.2	24.6	24.7	33.2	29.6	28.2	25.7	24.5	23.0	20.4	14.9	9.8	7.0	7.0	7.6	5.5	3.7	1.2	-1.6	-4.9	7980.625427	39.0
4/4/25 3:00 AM	-32.4	-25.3	-19.4	-13.5	-6.1	-0.1	5.6	8.9	13.4	18.6	23.1	24.7	27.5	26.1	24.3	24.1	22.6	24.6	26.1	34.5	31.5	30.0	28.1	26.0	25.8	23.1	17.9	11.2	7.2	7.0	7.5	5.5	3.7	1.2	-1.6	-4.9	10230.31532	40.1
4/4/25 4:00 AM	-28.5	-22.3	-16.8	-10.9	-4.3	1.4	5.0	9.1	13.0	18.0	23.5	24.1	25.4	24.1	24.4	24.1	23.1	23.3	27.1	29.7	31.4	28.6	26.9	25.6	24.5	21.8	17.5	12.9	10.7	8.9	8.6	6.5	4.0	1.3	-1.5	-4.9	7081.479312	38.5
4/4/25 5:00 AM	-24.0	-18.3	-12.9	-8.0	-2.2	2.9	6.4	10.1	13.5	17.2	23.8	25.6	26.0	27.1	28.4	26.7	25.9	23.6	25.5	26.8	29.3	30.6	29.3	27.5	25.2	21.7	17.6	13.9	14.0	11.0	9.4	6.8	4.0	1.2	-1.6	-4.9	8257.363822	39.2
4/4/25 6:00 AM	-26.0	-20.3	-14.9	-9.5	-3.0	2.5	6.6	10.6	14.4	18.5	28.7	33.2	29.8	30.6	32.6	31.4	29.5	27.1	27.9	29.5	32.2	33.9	32.6	31.8	31.1	30.9	36.7	34.2	30.4	23.9	16.4	13.5	5.2	1.6	-1.4	-4.8	29860.86026	44.8
4/4/25 7:00 AM																																						
4/4/25 8:00 AM	-16.8	-11.0	-6.1	-1.6	3.6	7.8	11.1	14.6	17.5	20.7	25.4	28.3	29.3	30.5	30.9	31.9	33.0	32.2	31.5	32.3	35.0	37.0	35.5	33.4	31.5	31.0	35.6	36.5	32.9	29.8	21.8	15.2	4.8	1.4	-1.6	-5.0	40547.12781	46.1
4/4/25 9:00 AM	-8.5	-2.2	3.8	8.5	13.5	17.5	21.0	24.2	26.7	27.9	29.7	31.2	30.9	30.6	31.5	30.8	33.6	32.0	30.9	32.4	35.1	36.0	36.2	35.0	33.0	40.2	43.1	39.5	33.1	27.8	21.8	17.6	7.2	1.8	-1.4	-4.9	75129.76498	48.8
4/4/25 10:00 AM	-8.6	-1.8	4.2	9.0	13.9	17.8	21.4	24.4	27.1	28.3	30.2	31.7	31.9	31.3	31.8	32.0	34.9	32.9	31.0	31.5	34.7	35.7	36.0	34.9	32.6	29.7	31.0	30.8	28.1	23.7	18.6	13.9	4.8	1.4	-1.5	-4.9	37909.35287	45.8
4/4/25 11:00 AM	-8.2	-1.9	4.3	9.2	14.1	18.0	21.5	24.8	27.3	28.8	30.4	32.0	32.2	32.1	32.9	32.3	35.3	33.1	30.4	31.1	32.5	35.8	36.4	35.2	33.1	32.5	37.6	35.0	28.3	23.1	20.5	15.5	5.8	2.8	1.9	1.2	46321.26594	46.7
4/4/25 12:00 PM	-10.3	-3.7	2.3	7.0	11.8	15.8	19.4	22.6	25.1	26.6	28.2	31.4	32.5	30.6	31.5	30.8	33.5	32.9	32.7	34.2	37.9	37.3	37.8	36.3	33.9	31.1	31.9	32.7	29.6	23.0	20.3	18.3	6.6	1.4	-1.4	-4.8	47762.28553	46.8
4/4/25 1:00 PM	-12.7	-6.4	-0.7	3.8	8.8	13.0	16.4	19.6	21.9	23.8	27.2	29.9	30.8	32.1	32.0	30.5	32.4	31.4	29.2	29.7	31.8	35.9	37.1	36.4	34.1	31.5	33.2	32.3	28.8	23.1	19.5	17.2	7.5	1.6	-1.4	-4.8	36255.87934	45.6
4/4/25 2:00 PM	-11.9	-5.1	0.6	5.1	10.1	14.1	17.7	20.9	23.5	25.0	27.5	29.5	30.6	31.0	30.1	29.8	32.0	30.3	28.4	28.8	30.6	34.7	36.3	35.7	33.5	30.6	32.4	32.8	29.6	24.1	21.5	17.8	7.7	5.2	1.7	0.9	31188.76621	44.9
4/4/25 3:00 PM	-14.2	-7.5	-2.2	2.2	7.3	11.5	15.1	18.3	20.9	23.1	26.6	29.4	31.1	32.0	34.2	35.1	32.5	29.4	28.2	29.0	30.4	35.1	37.2	37.1	35.2	31.6	31.5	33.1	30.8	25.0	20.8	18.9	6.0	1.8	-1.2	-4.7	39384.64736	46.0
4/4/25 4:00 PM	-14.2	-7.7	-2.2	2.3	7.3	11.4	15.1	18.2	20.8	23.5	27.9	30.5	30.4	31.1	32.1	31.1	32.6	30.3	29.4	29.9	34.1	37.8	39.5	38.6	36.5	33.4	33.4	35.3	33.8	29.2	26.6	22.9	13.3	6.6	0.7	-4.3	53308.75162	47.3
4/4/25 5:00 PM																																						
1/0/00 12:00 AM																																						

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
4/3/25 2:00 PM	1.2	7.4	12.7	17.7	22.9	27.0	30.4	33.7	36.7	38.6	39.9	40.2	39.1	38.7	38.6	36.9	36.4	35.4	35.1	38.2	41.5	45.8	45.9														172596.6329	52.4
4/3/25 3:00 PM	4.3	10.6	16.0	21.0	26.5	30.6	34.3	37.5	40.5	42.6	44.2	44.6	43.6	42.7	41.8	41.2	40.5	39.8	39.4	41.5	44.1	47.2	46.2														327770.5083	55.2
4/3/25 4:00 PM	0.8	7.0	12.5	17.4	22.7	26.7	30.3	33.4	36.4	38.2	39.6	39.7	39.3	39.5	39.1	37.1	36.3	34.9	35.3	38.4	42.7	45.9	45.5														175240.8089	52.4
4/3/25 5:00 PM	-2.7	3.2	8.7	13.4	18.6	22.6	26.2	29.2	32.1	33.6	35.1	37.1	36.4	36.1	35.4	34.1	32.2	30.7	31.7	36.5	39.9	45.0	45.2														1116659.1124	50.5
4/3/25 6:00 PM	-12.0	-6.3	-1.5	3.2	7.9	11.8	15.2	18.3	20.6	22.3	27.0	32.6	35.5	36.4	33.6	32.7	33.0	30.3	30.5	32.9	36.4	43.2	43.6														68982.25905	48.4
4/3/25 7:00 PM	-13.8	-8.3	-3.1	1.4	6.2	10.3	13.5	16.4	18.3	20.4	31.0	33.7	29.4	33.4	32.9	30.6	28.8	25.9	25.4	28.4	33.4	39.1	40.4														33485.67496	45.2
4/3/25 8:00 PM	-23.1	-17.1	-11.9	-7.1	-1.7	3.2	6.9	10.3	14.2	19.7	24.6	25.6	29.5	31.9	29.6	29.3	26.9	27.2	27.1	30.3	33.7	39.5	39.4														27367.50009	44.4
4/3/25 9:00 PM	-24.1	-18.3	-13.1	-8.0	-2.5	2.3	5.9	9.1	12.9	19.3	25.2	24.4	27.1	28.6	27.4	26.9	26.0	25.1	25.0	27.4	31.6	36.2	36.7														14900.39494	41.7
4/3/25 10:00 PM	-22.0	-16.5	-11.2	-6.1	-0.7	3.8	7.3	10.4	13.9	17.8	23.9	28.5	27.7	28.4	27.1	26.9	29.8	25.0	26.1	26.9	29.7	31.9	33.2														10038.73465	40.0
4/3/25 11:00 PM	-20.5	-14.7	-9.2	-4.6	0.7	4.9	8.3	11.4	14.1	16.7	21.7	22.0	22.4	24.7	26.3	24.5	23.7	22.7	21.2	21.5	22.4	26.2	27.6							

Rouget Road Solar
LT-6 ANS Analysis

Hour	L_Aeq	L_ANS	Δ = A - ANS	Biogenic Effect?
3/31/25 5:00 PM				
3/31/25 6:00 PM	38.8	37.4	1.4	No
3/31/25 7:00 PM	38.2	35.4	2.8	No
3/31/25 8:00 PM	37.9	37.3	0.6	No
3/31/25 9:00 PM	35.0	34.8	0.2	No
3/31/25 10:00 PM	32.8	32.3	0.4	No
3/31/25 11:00 PM	31.5	30.8	0.7	No
4/1/25 12:00 AM	32.2	31.6	0.5	No
4/1/25 1:00 AM	34.9	33.3	1.7	No
4/1/25 2:00 AM	29.7	29.2	0.5	No
4/1/25 3:00 AM	28.8	28.3	0.4	No
4/1/25 4:00 AM	28.4	27.9	0.4	No
4/1/25 5:00 AM	33.2	32.7	0.4	No
4/1/25 6:00 AM	38.9	38.5	0.3	No
4/1/25 7:00 AM	42.7	41.5	1.2	No
4/1/25 8:00 AM	37.3	36.2	1.1	No
4/1/25 9:00 AM	40.5	39.5	1.0	No
4/1/25 10:00 AM	42.5	35.1	7.4	Yes
4/1/25 11:00 AM	37.5	35.9	1.5	No
4/1/25 12:00 PM	38.2	37.5	0.7	No
4/1/25 1:00 PM	38.9	38.5	0.4	No
4/1/25 2:00 PM	40.1	38.5	1.5	No
4/1/25 3:00 PM	42.4	42.1	0.4	No
4/1/25 4:00 PM	41.7	40.8	0.9	No
4/1/25 5:00 PM				
Overall	38.3	37.1	1.2	No

1/3 Leq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 5:00 PM																																						
3/31/25 6:00 PM	74.9	72.7	70.0	67.7	65.4	63.3	61.2	58.7	55.1	50.9	47.4	44.9	41.6	39.5	37.4	35.8	34.8	33.5	31.2	29.8	31.1	28.3	28.3	27.1	25.3	22.6	22.3	21.0	21.7	20.7	15.4	11.0	8.7	6.6	5.4	4.5	73463733.59	78.7
3/31/25 7:00 PM	73.5	71.3	68.7	66.3	64.2	62.0	59.9	57.1	53.5	49.9	46.2	45.1	40.5	37.5	35.3	32.0	31.2	30.2	28.2	27.1	30.2	26.8	25.8	23.4	21.1	18.3	20.8	19.3	30.7	27.4	23.0	10.4	7.8	7.3	5.4	4.5	53792090.34	77.3
3/31/25 8:00 PM	73.5	71.4	68.6	66.6	64.5	62.2	60.1	57.2	53.6	50.0	46.3	43.0	41.3	40.4	39.0	40.0	36.2	35.2	31.5	29.8	28.6	25.6	24.4	22.5	20.5	15.1	12.0	10.7	17.8	22.9	17.8	7.5	7.3	5.7	5.2	4.4	54186694.75	77.3
3/31/25 9:00 PM	69.6	67.3	65.1	62.7	60.6	58.5	56.2	53.1	49.2	45.4	42.3	39.0	37.1	35.9	35.3	33.3	34.7	37.1	27.5	25.6	25.5	22.1	19.5	15.5	14.1	9.5	8.0	6.5	11.8	7.5	7.2	7.3	7.2	5.5	5.1	4.4	22292656.42	73.5
3/31/25 10:00 PM	71.7	69.4	66.7	64.2	61.9	59.9	57.7	54.7	50.9	46.8	43.3	40.0	37.2	34.6	31.8	28.4	27.4	27.4	24.7	23.8	29.6	21.2	19.4	16.2	16.1	11.5	8.7	6.9	12.8	7.6	7.3	7.3	7.2	5.6	5.1	4.4	34434442.18	75.4
3/31/25 11:00 PM	72.3	70.2	67.6	65.4	63.3	61.3	59.1	56.2	52.4	48.3	44.6	40.9	37.4	34.4	30.5	26.4	23.9	24.3	20.2	20.7	23.8	22.1	21.3	18.9	16.4	12.3	8.7	6.8	11.3	7.5	7.3	7.2	7.2	5.6	5.1	4.4	41455810.97	76.2
4/1/25 12:00 AM	73.6	71.5	68.8	66.5	64.3	62.0	60.1	57.4	53.9	49.7	45.8	42.1	38.5	35.4	31.7	28.1	25.9	26.1	22.5	21.9	24.9	21.1	20.1	17.4	15.6	11.6	9.3	7.5	11.1	7.5	7.4	7.3	7.3	5.6	5.2	4.5	55585093	77.4
4/1/25 1:00 AM	73.9	71.7	69.0	66.7	64.5	62.5	60.4	57.8	54.0	49.9	46.3	42.5	38.9	35.3	31.7	28.3	25.6	25.8	22.2	21.6	26.1	28.0	24.0	25.0	26.0	17.1	11.9	8.0	10.9	7.4	7.4	7.3	7.4	5.7	5.3	4.7	58564628.92	77.7
4/1/25 2:00 AM	70.2	68.1	65.7	63.6	61.6	59.5	57.2	54.2	50.6	47.0	43.7	40.8	38.0	34.3	30.0	26.2	24.8	24.3	21.4	20.1	20.1	17.4	15.4	13.0	12.5	8.7	7.4	6.6	8.0	7.0	7.4	7.1	7.3	5.6	5.2	4.7	26144246.69	74.2
4/1/25 3:00 AM	66.5	64.2	61.9	59.8	57.9	55.7	53.0	49.6	46.0	43.6	41.2	38.5	36.6	34.5	27.5	22.9	21.7	22.8	23.6	22.4	21.1	18.5	12.9	8.4	11.0	6.5	6.4	5.9	8.9	6.9	7.2	7.1	7.3	5.5	5.1	4.7	10967970	70.4
4/1/25 4:00 AM	62.0	60.0	57.4	55.6	53.6	51.6	48.6	45.4	42.4	40.4	38.7	37.0	34.2	30.9	27.4	23.2	21.4	23.3	24.7	22.5	21.4	20.0	13.5	7.6	9.6	5.3	5.6	5.6	8.8	7.1	7.4	7.2	7.4	5.8	5.2	4.7	4009441.853	66.0
4/1/25 5:00 AM	59.9	57.9	55.9	54.1	52.5	50.7	47.2	44.7	42.6	41.4	42.7	41.1	37.1	36.0	32.0	30.0	28.2	28.5	29.1	27.0	26.5	24.6	21.2	18.7	15.6	11.7	9.7	8.0	8.6	7.3	7.3	7.0	7.0	5.6	5.0	4.5	2704659.206	64.3
4/1/25 6:00 AM	64.5	62.5	60.5	58.7	56.9	54.9	52.0	49.3	46.8	45.3	46.8	46.2	49.7	41.8	42.1	39.3	34.4	34.6	33.3	31.5	29.6	27.8	24.2	20.7	17.0	13.1	12.3	12.5	18.3	21.4	16.4	7.9	7.0	5.6	5.0	4.4	7854525.991	69.0
4/1/25 7:00 AM	65.9	63.8	61.6	59.7	57.8	56.1	53.9	50.7	47.8	46.8	48.4	49.3	43.5	41.6	40.0	39.6	43.3	33.7	34.4	36.3	33.5	33.1	32.9	30.8	29.8	27.8	26.3	24.1	21.6	18.8	15.7	11.9	9.4	7.0	5.5	4.6	10380785.78	70.2
4/1/25 8:00 AM	69.5	67.7	65.3	63.0	60.9	58.9	56.3	53.3	50.0	46.9	45.8	46.1	41.0	37.8	40.8	34.8	35.0	31.9	29.0	27.9	29.1	26.8	25.7	23.7	20.9	18.5	20.0	19.8	22.6	20.8	16.9	7.9	7.5	5.9	5.2	4.6	23119147.27	73.6
4/1/25 9:00 AM	70.6	68.6	66.1	63.9	61.9	59.7	57.2	54.3	51.1	48.0	46.9	46.9	43.2	41.8	43.3	36.4	39.3	36.1	34.7	31.5	34.5	27.5	24.6	22.5	21.3	19.8	20.7	21.5	29.9	20.4	16.6	10.3	8.1	6.6	6.3	4.5	28874275.79	74.6
4/1/25 10:00 AM	69.5	67.5	64.9	62.8	60.8	58.7	56.1	53.2	50.2	47.4	45.4	44.1	39.3	36.8	34.8	32.3	33.2	30.8	27.5	26.5	32.2	22.5	23.2	38.2	35.0	31.2	21.0	24.2	20.7	23.1	21.6	13.9	9.6	6.3	5.3	4.5	22289514.07	73.5
4/1/25 11:00 AM	68.2	66.4	64.1	61.9	59.8	57.8	55.4	52.7	50.0	47.4	45.8	44.0	41.7	40.7	35.5	33.9	34.3	31.2	28.6	27.5	32.2	25.3	22.6	20.4	18.9	17.9	17.2	22.2	27.5	24.3	16.2	8.6	7.9	6.1	5.3	4.5	17395660.3	72.4
4/1/25 12:00 PM	68.4	66.5	64.3	62.0	59.9	57.8	55.4	52.6	49.5	46.7	44.7	44.5	41.0	40.1	40.6	36.5	36.4	34.1	33.1	30.5	32.4	25.2	21.9	20.0	19.0	13.7	14.4	16.4	20.4	25.1	21.2	8.3	7.6	6.0	5.3	4.5	18083077.4	72.6
4/1/25 1:00 PM	67.5	65.6	63.3	61.1	59.2	56.9	54.6	51.8	48.9	46.5	44.7	44.5	40.7	38.2	41.8	41.4	37.1	33.3	34.4	31.8	31.4	28.3	24.2	18.9	16.3	13.6	13.2	13.7	12.9	22.8	22.8	8.0	7.4	6.0	5.3	4.6	14591622.55	71.6
4/1/25 2:00 PM	71.2	69.7	67.8	65.5	63.3	61.4	59.3	56.8	54.4	51.1	49.1	50.0	44.1	42.6	42.1	39.9	36.6	35.2	30.7	29.5	30.7	27.6	25.3	23.4	23.7	24.2	21.0	19.5	24.3	29.8	25.8	9.6	8.0	7.1	5.6	4.6	37687486.23	75.8
4/1/25 3:00 PM	74.5	73.3	71.0	68.6	66.4	64.5	62.4	60.0	57.1	54.1	51.5	50.5	46.4	44.4	42.0	40.0	41.2	39.0	37.2	36.1	35.6	31.7	29.9	27.2	24.0	21.4	19.5	16.2	15.8	14.1	10.7	9.1	8.4	7.0	5.7	4.6	80962696.73	79.1
4/1/25 4:00 PM	74.7	73.4	71.4	69.1	66.8	64.7	62.7	60.4	57.6	54.8	52.3	51.0	50.1	46.6	44.9	39.2	37.0	35.4	30.9	28.8	32.7	31.0	31.3	29.5	26.7	24.0	21.5	16.5	16.1	24.7	17.2	8.9	8.2	6.7	5.7	4.6	85231158.08	79.3
4/1/25 5:00 PM																																						

1/3 LAeq

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 5:00 PM																																						
3/31/25 6:00 PM	-10.5	-4.9	-0.4	4.1	9.0	12.9	16.4	19.2	20.6	20.6	21.2	22.5	22.5	23.3	24.2	25.0	26.1	26.9	26.4	26.6	29.2	27.5	28.3	27.7	26.3	23.8	23.6	22.2	22.7	21.3	15.3	9.9	6.2	2.3	-1.3	-4.8	7541.065674	38.8
3/31/25 7:00 PM	-11.9	-6.3	-1.7	2.7	7.8	11.6	15.1	17.6	19.0	19.6	20.0	22.7	21.4	21.3	22.1	21.2	22.5	23.6	23.4	23.9	28.3	26.0	25.8	24.0	22.1	19.5	22.1	20.5	31.7	28.0	22.9	9.3	5.3	3.0	-1.3	-4.8	6564.551781	38.2
3/31/25 8:00 PM	-11.9	-6.2	-1.8	3.0	8.1	11.8	15.3	17.7	19.1	19.7	20.1	20.6	22.2	24.2	25.8	29.2	27.5	28.6	26.7	26.6	26.7	24.8	24.4	23.1	21.5	16.3	13.3	11.9	18.8	23.5	17.7	6.4	4.8	1.4	-1.5	-4.9	6201.891865	37.9
3/31/25 9:00 PM	-15.8	-10.3	-5.3	-0.9	4.2	8.1	11.4	13.6	14.7	15.1	16.1	16.6	18.0	19.7	22.1	22.5	26.0	30.5	22.7	22.4	23.6	21.3	19.5	16.1	15.1	10.7	9.3	7.7	12.8	8.1	7.1	6.2	4.7	1.2	-1.6	-4.9	3161.875345	35.0
3/31/25 10:00 PM	-13.7	-8.2	-3.7	0.6	5.5	9.5	12.9	15.2	16.4	16.5	17.1	17.6	18.1	18.4	18.6	17.6	18.7	20.8	19.9	20.6	27.7	20.4	19.4	16.8	17.1	12.7	10.0	8.1	13.8	8.2	7.2	6.2	4.7	1.3	-1.6	-4.9	1891.713386	32.8
3/31/25 11:00 PM	-13.1	-7.4	-2.8	1.8	6.9	10.9	14.3	16.7	17.9	18.0	18.4	18.5	18.3	18.2	17.3	15.6	15.2	17.7	15.4	17.5	21.9	21.3	21.3	19.5	17.4	13.5	10.0	8.0	12.3	8.1	7.2	6.1	4.7	1.3	-1.6	-4.9	1410.907456	31.5
4/1/25 12:00 AM	-11.8	-6.1	-1.6	2.9	7.9	11.6	15.3	17.9	19.4	19.4	19.6	19.7	19.4	19.2	18.5	17.3	17.2	19.5	17.7	18.7	23.0	20.3	20.1	18.0	16.6	12.8	10.6	8.7	12.1	8.1	7.3	6.2	4.8	1.3	-1.5	-4.8	1641.879742	32.2
4/1/25 1:00 AM	-11.5	-5.9	-1.4	3.1	8.1	12.1	15.6	18.3	19.5	19.6	20.1	20.1	19.8	19.1	18.5	17.5	16.9	19.2	17.4	18.4	24.2	27.2	24.0	25.6	27.0	18.3	13.2	9.2	11.9	8.0	7.3	6.2	4.9	1.4	-1.4	-4.6	3115.489734	34.9
4/1/25 2:00 AM	-15.2	-9.5	-4.7	0.0	5.2	9.1	12.4	14.7	16.1	16.7	17.5	18.4	18.9	18.1	16.8	15.4	16.1	17.7	16.6	16.9	18.2	16.6	15.4	13.6	13.5	9.9	8.7	7.8	9.0	7.6	7.3	6.0	4.8	1.3	-1.5	-4.6	937.5340654	29.7
4/1/25 3:00 AM	-18.9	-13.4	-8.5	-3.8	1.5	5.3	8.2	10.1	11.5	13.3	15.0	16.1	17.5	18.3	14.3	12.1	13.0	16.2	18.8	19.2	19.2	17.7	12.9	9.0	12.0	7.7	7.7	7.1	9.9	7.5	7.1	6.0	4.8	1.2	-1.6	-4.6	751.0704965	28.8
4/1/25 4:00 AM	-23.4	-17.6	-13.0	-8.0	-2.8	1.2	3.8	5.9	7.9	10.1	12.5	14.6	15.1	14.7	14.2	12.4	12.7	16.7	19.9	19.3	19.5	19.2	13.5	8.2	10.6	6.5	6.9	6.8	9.8	7.7	7.3	6.1	4.9	1.5	-1.5	-4.6	684.5351976	28.4
4/1/25 5:00 AM	-25.5	-19.7	-14.5	-9.5	-3.9	0.3	2.4	5.2	8.1	11.1	16.5	18.7	18.0	19.8	18.8	19.2	19.5	21.9	24.3	23.8	24.6	23.8	21.2	19.3	16.6	12.9	11.0	9.2	9.6	7.9	7.2	5.9	4.5	1.3	-1.7	-4.8	2073.623284	33.2
4/1/25 6:00 AM	-20.9	-15.1	-9.8	-4.9	0.5	4.5	7.2	9.8	12.3	15.0	20.6	23.8	30.6	25.6	28.9	28.5	25.7	28.0	28.5	28.3	27.7	27.0	24.2	21.3	18.0	14.3	13.6	13.7	19.3	22.0	16.3	6.8	4.5	1.3	-1.7	-4.9	7727.563809	38.9
4/1/25 7:00 AM	-19.5	-13.8	-8.8	-3.9	1.4	5.7	9.1	11.2	13.3	16.5	22.2	26.9	24.4	25.4	26.8	28.8	34.6	27.1	29.6	33.1	31.6	32.3	32.9	31.4	30.8	29.0	27.6	25.3	22.6	19.4	15.6	10.8	6.9	2.7	-1.2	-4.7	18686.62979	42.7
4/1/25 8:00 AM	-15.9	-9.9	-5.1	-0.6	4.5	8.5	11.5	13.8	15.5	16.6	19.6	23.7	21.9	21.6	27.6	24.0	26.3	25.3	24.2	24.7	27.2	26.0	25.7	24.3	21.9	19.7	21.3	21.0	23.6	21.4	16.8	6.8	5.0	1.6	-1.5	-4.7	5417.48551	37.3
4/1/25 9:00 AM	-14.8	-9.0	-4.3	0.3	5.5	9.3	12.4	14.8	16.6	17.7	20.7	24.5	24.1	25.6	30.1	25.6	30.6	29.5	29.9	28.3	32.6	26.7	24.6	23.1	22.3	21.0	22.0	22.7	30.9	21.0	16.5	9.2	5.6	2.3	-0.4	-4.8	11113.05939	40.5
4/1/25 10:00 AM	-15.9	-10.1	-5.5	-0.8	4.4	8.3	11.3	13.7	15.7	17.1	19.2	21.7	20.2	20.6	21.6	21.5	24.5	24.2	22.7	23.3	30.3	21.7	23.2	38.8	36.0	32.4	22.3	25.4	21.7	23.7	21.5	12.8	7.1	2.0	-1.4	-4.8	17678.08369	42.5
4/1/25 11:00 AM	-17.2	-11.2	-6.3	-1.7	3.4	7.4	10.6	13.2	15.5	17.1	19.6	21.6	22.6	24.5	22.3	23.1	25.6	24.6	23.8	24.3	30.3	24.5	22.6	21.0	19.9	19.1	18.5	23.4	28.5	24.9	16.1	7.5	5.4	1.8	-1.4	-4.8	5570.035566	37.5
4/1/25 12:00 PM	-17.0	-11.1	-6.1	-1.6	3.5	7.4	10.6	13.1	15.0	16.4	18.5	22.1	21.9	23.9	27.4	25.7	27.7	27.5	28.3	27.3	30.5	24.4	21.9	20.6	20.0	14.9	15.7	17.6	21.4	25.7	21.1	7.2	5.1	1.7	-1.4	-4.8	6583.38362	38.2
4/1/25 1:00 PM	-17.9	-12.0	-7.1	-2.5	2.8	6.5	9.8	12.3	14.4	16.2	18.5	22.1	21.6	22.0	28.6	30.6	28.4	26.7	29.6	28.6	29.5	27.5	24.2	19.5	17.3	14.8	14.5	14.9	13.9	23.4	22.7	6.9	4.9	1.7	-1.4	-4.7	7712.914284	38.9
4/1/25 2:00 PM	-14.2	-7.9	-2.6	1.9	6.9	11.0	14.5	17.3	19.9	20.8	22.9	27.6	25.0	26.4	28.9	29.1	27.9	28.6	25.9	26.3	28.8	26.8	25.3	24.0	24.7	25.4	22.3	20.7	25.3	30.4	25.7	8.5	5.5	2.8	-1.1	-4.7	10150.72569	40.1
4/1/25 3:00 PM	-10.9	-4.3	0.6	5.0	10.0	14.1	17.6	20.5	22.6	23.8	25.3	28.1	27.3	28.2	28.8	29.2	32.5	32.4	32.4	32.9	33.7	30.9	29.9	27.8	25.0	22.6	20.8	17.4	16.8	14.7	10.6	8.0	5.9	2.7	-1.0	-4.7	17513.16634	42.4
4/1/25 4:00 PM	-10.7	-4.2	1.0	5.5	10.4	14.3	17.9	20.9	23.1	24.5	26.1	28.6	31.0	30.4	31.7	28.4	28.3	28.8	26.1	25.6	30.8	30.2	31.1	30.1	27.7	25.2	22.8	17.7	17.1	25.3	17.1	7.8	5.7	2.4	-1.0	-4.7	14802.83724	41.7
4/1/25 5:00 PM																																						

1/3 LA, ANS

Date/Hour	6.3 Hz	8 Hz	10 Hz	12.5 Hz	16 Hz	20 Hz	25 Hz	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	12500 Hz	16000 Hz	20000 Hz	Total Energy	Overall Leq
3/31/25 5:00 PM																																						
3/31/25 6:00 PM	-10.5	-4.9	-0.4	4.1	9.0	12.9	16.4	19.2	20.6	20.6	21.2	22.5	22.5	23.3	24.2	25.0	26.1	26.9	26.4	26.6	29.2	27.5	28.3														5525.022411	37.4
3/31/25 7:00 PM	-11.9	-6.3	-1.7	2.7	7.8	11.6	15.1	17.6	19.0	19.6	20.0	22.7	21.4	21.3	22.1	21.2	22.5	23.6	23.4	23.9	28.3	26.0	25.8														3470.429672	35.4
3/31/25 8:00 PM	-11.9	-6.2	-1.8	3.0	8.1	11.8	15.3	17.7	19.1	19.7	20.1	20.6	22.2	24.2	25.8	29.2	27.5	28.6	26.7	26.6	26.7	24.8	24.4														5407.678293	37.3
3/31/25 9:00 PM	-15.8	-10.3	-5.3	-0.9	4.2	8.1	11.4	13.6	14.7	15.1	16.1	16.6	18.0	19.7	22.1	22.5	26.0	30.5	22.7	22.4	23.6	21.3	19.5														3023.269528	34.8
3/31/25 10:00 PM	-13.7	-8.2	-3.7	0.6	5.5	9.5	12.9	15.2	16.4	16.5	17.1	17.6	18.1	18.4	18.6	17.6	18.7	20.8	19.9	20.6	27.7	20.4	19.4														1712.243229	32.3
3/31/25 11:00 PM	-13.1	-7.4	-2.8	1.8	6.9	10.9	14.3	16.7	17.9	18.0	18.4	18.5	18.3	18.2	17.3	15.6	15.2	17.7	15.4	17.5	21.9	21.3	21.3														1190.235361	30.8
4/1/25 12:00 AM	-11.8	-6.1	-1.6	2.9	7.9	11.6	15.3	17.9	19.4	19.4	19.6	19.7	19.4	19.2	18.5	17.3	17.2	19.5	17.7	18.7	23.0	20.3	20.1														1457.706305	31.6
4/1/25 1:00 AM	-11.5	-5.9	-1.4	3.1	8.1	12.1	15.6	18.3	19.5	19.6	20.1	20.1	19.8	19.1	18.5	17.5	16.9	19.2	17.4	18.4	24.2	27.2	24.0														2118.011817	33.3
4/1/25 2:00 AM	-15.2	-9.5	-4.7	0.0	5.2	9.1	12.4	14.7	16.1	16.7	17.5	18.4	18.9	18.1	16.8	15.4	16.1	17.7	16.6	16.9	18.2	16.6	15.4														840.1176254	29.2
4/1/25 3:00 AM	-18.9	-13.4	-8.5	-3.8	1.5	5.3	8.2	10.1	11.5	13.3	15.0	16.1	17.5	18.3	14.3	12.1	13.0	16.2	18.8	19.2	19.2	17.7	12.9														680.6261436	28.3
4/1/25 4:00 AM	-23.4	-17.6	-13.0	-8.0	-2.8	1.2	3.8	5.9	7.9	10.1	12.5	14.6	15.1	14.7	14.2	12.4	12.7	16.7	19.9	19.3	19.5	19.2	13.5														621.8490853	27.9
4/1/25 5:00 AM	-25.5	-19.7	-14.5	-9.5	-3.9	0.3	2.4	5.2	8.1	11.1	16.5	18.7	18.0	19.8	18.8	19.2	19.5	21.9	24.3	23.8	24.6	23.8	21.2														1872.476944	32.7
4/1/25 6:00 AM	-20.9	-15.1	-9.9	-4.9	0.5	4.5	7.2	9.8	12.3	15.0	20.6	23.8	30.6	25.6	28.9	28.5	25.7	28.0	28.5	28.3	27.7	27.0	24.2														7159.284003	38.5
4/1/25 7:00 AM	-19.5	-13.8	-8.8	-3.9	1.4	5.7	9.1	11.2	13.3	16.5	22.2	26.9	24.4	25.4	26.8	28.8	34.6	27.1	29.6	33.1	31.6	32.3	32.9														14069.77992	41.5
4/1/25 8:00 AM	-15.9	-9.9	-5.1	-0.6	4.5	8.5	11.5	13.8	15.5	16.6	19.6	23.7	21.9	21.6	27.6	24.0	26.3	25.3	24.2	24.7	27.2	26.0	25.7														4211.258488	36.2
4/1/25 9:00 AM	-14.8	-9.0	-4.3	0.3	5.5	9.3	12.4	14.8	16.6	17.7	20.7	24.5	24.1	25.6	30.1	25.6	30.6	29.5	29.9	28.3	32.6	26.7	24.6														8843.92446	39.5
4/1/25 10:00 AM	-15.9	-10.1	-5.5	-0.8	4.4	8.3	11.3	13.7	15.7	17.1	19.2	21.7	20.2	20.6	21.6	21.5	24.5	24.2	22.7	23.3	30.3	21.7	23.2														3238.779211	35.1
4/1/25 11:00 AM	-17.2	-11.2	-6.3	-1.7	3.4	7.4	10.6	13.2	15.5	17.1	19.6	21.6	22.6	24.5	22.3	23.1	25.6	24.6	23.8	24.3	30.3	24.5	22.6														3906.239496	35.9

APPENDIX D

Predicted Sound Levels at Nonparticipating Structures

ROUGET ROAD SOLAR FARM PROJECT
Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-117-2700-00	F2	254034.5	4639845	222.52	45.3	45.1	51.3	51.1
PA0-117-2700-00	F1	254034.5	4639845	220.02	44.5	44.3	50.5	50.3
PA0-117-2700-00	F2	254054.5	4639816	222.47	44.4	44.2	50.4	50.2
PA0-117-2700-00	F1	254054.5	4639816	219.97	43.6	43.2	49.6	49.2
PA0-117-2800-00	F2	254080.2	4639669	222.42	41.9	41.3	47.9	47.3
PA0-117-2800-00	F2	254072.9	4639638	222.52	41.5	40.9	47.5	46.9
PA0-117-2800-00	F2	254043.4	4639648	222.55	41.5	40.9	47.5	46.9
PA0-117-2800-00	F1	254080.2	4639669	219.92	41.0	40.3	47.0	46.3
PA0-117-2800-00	F2	254033.8	4639576	222.59	40.8	40.1	46.8	46.1
PA0-117-2800-00	F2	254002.7	4639596	222.4	40.8	40.2	46.8	46.2
PA0-117-2800-00	F1	254072.9	4639638	220.02	40.7	40.0	46.7	46.0
PA0-117-2800-00	F2	254026.9	4639555	222.49	40.6	39.9	46.6	45.9
PA0-117-2800-00	F2	253965.2	4639593	222.14	40.6	40.0	46.6	46.0
PA0-117-2800-00	F1	254043.4	4639648	220.05	40.6	40.0	46.6	46.0
PA0-117-2800-00	F2	253965.1	4639579	222.08	40.5	39.9	46.5	45.9
PA0-117-2800-00	F2	253977.7	4639567	222.15	40.5	39.9	46.5	45.9
PA0-117-2800-00	F1	254033.8	4639576	220.09	40.0	39.3	46.0	45.3
PA0-117-2800-00	F1	254002.7	4639596	219.9	39.9	39.2	45.9	45.2
PA0-116-3050-00	F2	254162.1	4639355	222.15	39.8	38.6	45.8	44.6
PA0-117-2800-00	F1	254026.9	4639555	219.99	39.8	39.1	45.8	45.1
PA0-108-3900-00	F2	252947.8	4640443	227.99	39.7	38.2	45.7	44.2
PA0-117-2800-00	F1	253965.2	4639593	219.64	39.7	39.1	45.7	45.1
PA0-117-2800-00	F1	253965.1	4639579	219.58	39.6	39.0	45.6	45.0
PA0-117-2800-00	F1	253977.7	4639567	219.65	39.6	38.9	45.6	44.9
PA0-129-3425-00	F2	253081.3	4636124	220.75	39.5	39.0	45.5	45.0
PA0-108-3900-00	F2	252967.7	4640416	227.52	39.4	37.8	45.4	43.8
PA0-116-3050-00	F2	254120.4	4639335	222.51	39.3	38.3	45.3	44.3
PA0-108-3900-00	F1	252947.8	4640443	225.49	39.2	37.7	45.2	43.7
PA0-116-3050-00	F1	254162.1	4639355	219.65	39.2	38.0	45.2	44.0
PA0-129-3425-00	F1	253081.3	4636124	218.25	39.1	38.6	45.1	44.6
PA0-117-4360-00	F2	254063	4639285	222.37	38.9	38.0	44.9	44.0
PA0-108-3900-00	F1	252967.7	4640416	225.02	38.9	37.3	44.9	43.3
PA0-117-1900-00	F2	253063.2	4639696	223.76	38.7	37.6	44.7	43.6
PA0-420-0340-00	F2	252935.4	4640291	228.07	38.7	37.1	44.7	43.1
PA0-116-3050-00	F1	254120.4	4639335	220.01	38.6	37.6	44.6	43.6
PA0-117-4370-00	F2	254066.1	4639244	222.55	38.6	37.6	44.6	43.6
PA0-117-4370-00	F2	254053.9	4639232	222.53	38.6	37.6	44.6	43.6
PA0-420-0340-00	F2	252925	4640284	228.06	38.5	37.0	44.5	43.0
PA0-120-2350-00	F2	253919.8	4638664	221.89	38.5	36.9	44.5	42.9
PA0-420-0340-00	F2	252907	4640303	228.04	38.5	37.0	44.5	43.0
PA0-420-0330-00	F2	252925	4640254	228.05	38.5	36.9	44.5	42.9
PA0-129-3425-00	F2	253101.1	4636054	221.31	38.5	37.7	44.5	43.7
PA0-117-4450-00	F2	254003.3	4639151	222.47	38.4	37.3	44.4	43.3
PA0-420-0340-00	F2	252894.7	4640300	228.02	38.4	36.9	44.4	42.9
PA0-117-4380-00	F2	254058.7	4639206	222.66	38.4	37.4	44.4	43.4
PA0-117-4460-00	F2	254023.9	4639142	222.69	38.3	37.2	44.3	43.2
PA0-420-0330-00	F2	252914.5	4640244	227.98	38.3	36.8	44.3	42.8
PA0-117-4360-00	F1	254063	4639285	219.87	38.3	37.3	44.3	43.3
PA0-117-4460-00	F2	254039	4639153	222.76	38.3	37.2	44.3	43.2
PA0-420-0320-00	F2	252913.6	4640220	227.89	38.3	36.7	44.3	42.7
PA0-117-4400-00	F2	254046.9	4639150	222.68	38.3	37.2	44.3	43.2
PA0-117-4400-00	F2	254055.8	4639131	222.41	38.2	37.1	44.2	43.1
PA0-121-1350-00	F2	254803.4	4638635	220.97	38.2	37.1	44.2	43.1
PA0-117-1900-00	F1	253063.2	4639696	221.26	38.2	37.0	44.2	43.0
PA0-116-3600-00	F2	254263.2	4639072	221.77	38.2	37.0	44.2	43.0
PA0-129-3425-00	F2	253102.2	4636031	221.48	38.2	37.3	44.2	43.3
PA0-420-0310-00	F2	252908.5	4640195	227.74	38.1	36.6	44.1	42.6

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-116-3100-00	F2	254145.2	4639099	221.73	38.1	37.0	44.1	43.0
PA0-116-3105-00	F2	254201.7	4639089	221.69	38.1	37.0	44.1	43.0
PA0-120-2350-00	F1	253919.8	4638664	219.39	38.1	36.5	44.1	42.5
PA0-116-3100-00	F2	254117	4639114	221.8	38.1	37.0	44.1	43.0
PA0-129-3425-00	F1	253101.1	4636054	218.81	38.1	37.3	44.1	43.3
PA0-116-3100-00	F2	254111.4	4639140	222.1	38.1	37.0	44.1	43.0
PA0-420-0340-00	F1	252935.4	4640291	225.57	38.1	36.5	44.1	42.5
PA0-116-3100-00	F2	254131	4639136	221.9	38.0	37.0	44.0	43.0
PA0-116-3100-00	F2	254131.5	4639158	222.05	38.0	37.0	44.0	43.0
PA0-116-3625-00	F2	254387.2	4639028	221.98	38.0	36.8	44.0	42.8
PA0-420-0320-00	F2	252882.1	4640236	227.84	38.0	36.5	44.0	42.5
PA0-420-0300-00	F2	252898.4	4640166	227.45	38.0	36.5	44.0	42.5
PA0-420-0310-00	F2	252890.3	4640206	227.76	38.0	36.5	44.0	42.5
PA0-420-0340-00	F1	252925	4640284	225.56	37.9	36.4	43.9	42.4
PA0-117-4370-00	F1	254066.1	4639244	220.05	37.9	37.0	43.9	43.0
PA0-420-0350-00	F2	252729.9	4640299	227.86	37.9	36.5	43.9	42.5
PA0-117-4370-00	F1	254053.9	4639232	220.03	37.9	36.9	43.9	42.9
PA0-420-0340-00	F1	252907	4640303	225.54	37.9	36.4	43.9	42.4
PA0-420-0290-00	F2	252892.8	4640137	227.13	37.9	36.4	43.9	42.4
PA0-420-0330-00	F1	252925	4640254	225.55	37.9	36.3	43.9	42.3
PA0-129-3425-00	F1	253102.2	4636031	218.98	37.8	37.0	43.8	43.0
PA0-121-1350-00	F2	254790.3	4638611	220.96	37.8	36.5	43.8	42.5
PA0-420-0340-00	F1	252894.7	4640300	225.52	37.8	36.3	43.8	42.3
PA0-117-4450-00	F1	254003.3	4639151	219.97	37.8	36.7	43.8	42.7
PA0-420-0350-00	F2	252740.9	4640290	227.82	37.8	36.4	43.8	42.4
PA0-116-3675-00	F2	254444.8	4639005	221.8	37.8	36.5	43.8	42.5
PA0-129-3425-00	F2	253111.1	4636031	221.47	37.8	36.9	43.8	42.9
PA0-121-1350-00	F1	254803.4	4638635	218.47	37.8	36.7	43.8	42.7
PA0-420-0590-00	F2	252676.2	4640300	227.65	37.7	36.3	43.7	42.3
PA0-420-0590-00	F2	252614.7	4640315	227.8	37.7	36.3	43.7	42.3
PA0-420-0330-00	F1	252914.5	4640244	225.48	37.7	36.2	43.7	42.2
PA0-420-0280-00	F2	252883	4640103	226.78	37.7	36.3	43.7	42.3
PA0-117-4460-00	F1	254023.9	4639142	220.19	37.7	36.6	43.7	42.6
PA0-117-4380-00	F1	254058.7	4639206	220.16	37.7	36.7	43.7	42.7
PA0-420-0300-00	F2	252874.3	4640177	227.6	37.7	36.2	43.7	42.2
PA0-420-0290-00	F2	252879.6	4640146	227.37	37.7	36.3	43.7	42.3
PA0-420-0320-00	F1	252913.6	4640220	225.39	37.6	36.1	43.6	42.1
PA0-117-1900-00	F2	253054.6	4639662	223.81	37.6	36.5	43.6	42.5
PA0-117-4460-00	F1	254039	4639153	220.26	37.6	36.6	43.6	42.6
PA0-129-3425-00	F2	253119.2	4636057	221.18	37.6	36.8	43.6	42.8
PA0-117-4400-00	F1	254055.8	4639131	219.91	37.6	36.5	43.6	42.5
PA0-117-4400-00	F1	254046.9	4639150	220.18	37.6	36.5	43.6	42.5
PA0-420-0270-00	F2	252874.8	4640079	226.56	37.6	36.2	43.6	42.2
PA0-116-3600-00	F1	254263.2	4639072	219.27	37.6	36.5	43.6	42.5
PA0-420-0590-00	F2	252670.1	4640290	227.63	37.5	36.1	43.5	42.1
PA0-420-0310-00	F1	252908.5	4640195	225.24	37.5	36.0	43.5	42.0
PA0-420-0280-00	F2	252869.3	4640116	227.08	37.5	36.1	43.5	42.1
PA0-116-3105-00	F1	254201.7	4639089	219.19	37.5	36.4	43.5	42.4
PA0-116-3100-00	F1	254145.2	4639099	219.23	37.5	36.4	43.5	42.4
PA0-121-1360-00	F2	254832.4	4638631	220.84	37.5	36.4	43.5	42.4
PA0-420-0260-00	F2	252865.4	4640048	226.53	37.5	36.2	43.5	42.2
PA0-116-3100-00	F1	254117	4639114	219.3	37.5	36.3	43.5	42.3
PA0-116-3625-00	F1	254387.2	4639028	219.48	37.5	36.3	43.5	42.3
PA0-129-3425-00	F1	253111.1	4636031	218.97	37.5	36.6	43.5	42.6
PA0-420-0270-00	F2	252864.1	4640071	226.55	37.4	36.1	43.4	42.1
PA0-420-0250-00	F2	252856.5	4640014	226.5	37.4	36.1	43.4	42.1
PA0-117-1975-00	F2	253252.2	4639612	223.24	37.4	36.3	43.4	42.3

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-121-1350-00	F1	254790.3	4638611	218.46	37.4	36.1	43.4	42.1
PA0-108-3275-00	F2	253132.8	4641078	227.28	37.4	35.8	43.4	41.8
PA0-116-3100-00	F1	254111.4	4639140	219.6	37.4	36.3	43.4	42.3
PA0-420-0360-00	F2	252723.9	4640267	227.71	37.4	36.0	43.4	42.0
PA0-108-3275-00	F2	253118.6	4641080	227.43	37.4	35.8	43.4	41.8
PA0-420-0260-00	F2	252857.5	4640038	226.54	37.4	36.1	43.4	42.1
PA0-420-0350-00	F1	252729.9	4640299	225.36	37.3	36.0	43.3	42.0
PA0-116-3100-00	F1	254131	4639136	219.4	37.3	36.3	43.3	42.3
PA0-420-0300-00	F1	252898.4	4640166	224.95	37.3	35.8	43.3	41.8
PA0-420-0320-00	F1	252882.1	4640236	225.34	37.3	35.9	43.3	41.9
PA0-420-0280-00	F2	252853.1	4640122	227.3	37.3	35.9	43.3	41.9
PA0-109-3050-00	F2	254307.7	4640586	216.49	37.3	37.0	43.3	43.0
PA0-116-3100-00	F1	254131.5	4639158	219.55	37.3	36.3	43.3	42.3
PA0-420-0310-00	F1	252890.3	4640206	225.26	37.3	35.8	43.3	41.8
PA0-129-3425-00	F1	253119.2	4636057	218.68	37.3	36.5	43.3	42.5
PA0-420-0360-00	F2	252734.4	4640254	227.61	37.3	35.9	43.3	41.9
PA0-420-0230-00	F2	252838.6	4639947	226.56	37.3	36.0	43.3	42.0
PA0-420-0290-00	F1	252892.8	4640137	224.63	37.2	35.8	43.2	41.8
PA0-420-0350-00	F1	252740.9	4640290	225.32	37.2	35.8	43.2	41.8
PA0-420-0590-00	F1	252614.7	4640315	225.3	37.2	35.9	43.2	41.9
PA0-116-3675-00	F1	254444.8	4639005	219.3	37.2	35.9	43.2	41.9
PA0-420-0590-00	F1	252676.2	4640300	225.15	37.2	35.8	43.2	41.8
PA0-420-0220-00	F2	252832.1	4639929	226.6	37.1	35.9	43.1	41.9
PA0-420-0370-00	F2	252762.4	4640229	227.4	37.1	35.7	43.1	41.7
PA0-117-1900-00	F1	253054.6	4639662	221.31	37.1	36.0	43.1	42.0
PA0-121-1360-00	F1	254832.4	4638631	218.34	37.1	36.0	43.1	42.0
PA0-420-0280-00	F1	252883	4640103	224.28	37.1	35.6	43.1	41.6
PA0-420-0220-00	F2	252827.8	4639941	226.66	37.0	35.8	43.0	41.8
PA0-420-0580-00	F2	252669.4	4640259	227.64	37.0	35.7	43.0	41.7
PA0-420-0290-00	F1	252879.6	4640146	224.87	37.0	35.6	43.0	41.6
PA0-420-0300-00	F1	252874.3	4640177	225.1	37.0	35.6	43.0	41.6
PA0-420-0220-00	F2	252825.9	4639917	226.64	37.0	35.8	43.0	41.8
PA0-420-0210-00	F2	252825.4	4639899	226.61	37.0	35.8	43.0	41.8
PA0-420-0370-00	F2	252729.3	4640232	227.46	37.0	35.6	43.0	41.6
PA0-420-0590-00	F1	252670.1	4640290	225.13	37.0	35.6	43.0	41.6
PA0-420-0270-00	F1	252874.8	4640079	224.06	36.9	35.6	42.9	41.6
PA0-120-4325-00	F2	254035.1	4637866	220.66	36.9	35.1	42.9	41.1
PA0-420-0210-00	F2	252820.3	4639910	226.68	36.9	35.7	42.9	41.7
PA0-420-0580-00	F2	252659.5	4640251	227.65	36.9	35.5	42.9	41.5
PA0-121-1360-00	F2	254847.5	4638614	220.74	36.9	35.6	42.9	41.6
PA0-108-3275-00	F1	253132.8	4641078	224.78	36.9	35.2	42.9	41.2
PA0-420-0280-00	F1	252869.3	4640116	224.58	36.9	35.5	42.9	41.5
PA0-420-0260-00	F1	252865.4	4640048	224.03	36.9	35.5	42.9	41.5
PA0-117-1975-00	F2	253210.5	4639587	223.36	36.8	35.8	42.8	41.8
PA0-108-3275-00	F1	253118.6	4641080	224.93	36.8	35.2	42.8	41.2
PA0-420-0370-00	F2	252715.9	4640226	227.42	36.8	35.5	42.8	41.5
PA0-420-0250-00	F1	252856.5	4640014	224	36.8	35.5	42.8	41.5
PA0-420-0270-00	F1	252864.1	4640071	224.05	36.8	35.4	42.8	41.4
PA0-420-0360-00	F1	252723.9	4640267	225.21	36.8	35.4	42.8	41.4
PA0-420-0200-00	F2	252816.6	4639869	226.6	36.7	35.6	42.7	41.6
PA0-420-0260-00	F1	252857.5	4640038	224.04	36.7	35.5	42.7	41.5
PA0-107-4575-00	F2	251776.5	4640732	238.27	36.7	34.9	42.7	40.9
PA0-420-0230-00	F1	252838.6	4639947	224.06	36.7	35.5	42.7	41.5
PA0-420-0280-00	F1	252853.1	4640122	224.8	36.6	35.3	42.6	41.3
PA0-117-1975-00	F1	253252.2	4639612	220.74	36.6	35.5	42.6	41.5
PA0-420-0360-00	F1	252734.4	4640254	225.11	36.6	35.3	42.6	41.3
PA0-116-2700-00	F2	254923.9	4639540	220.03	36.6	35.7	42.6	41.7

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-133-1950-00	F2	254724.2	4634709	216.63	36.6	34.3	42.6	40.3
PA0-420-0580-00	F2	252554.2	4640273	228.17	36.6	35.2	42.6	41.2
PA0-420-0570-00	F2	252618.6	4640246	227.68	36.6	35.2	42.6	41.2
PA0-420-0220-00	F1	252832.1	4639929	224.1	36.6	35.4	42.6	41.4
PA0-420-0380-00	F2	252753.9	4640169	226.99	36.6	35.2	42.6	41.2
PA0-107-4575-00	F2	251769.8	4640732	238.51	36.5	34.8	42.5	40.8
PA0-420-0570-00	F2	252617.2	4640242	227.69	36.5	35.2	42.5	41.2
PA0-420-0190-00	F2	252810.3	4639843	226.82	36.5	35.3	42.5	41.3
PA0-120-4325-00	F1	254035.1	4637866	218.16	36.5	34.7	42.5	40.7
PA0-120-4375-00	F2	254004.1	4637745	220.61	36.5	34.7	42.5	40.7
PA0-420-0380-00	F2	252713.9	4640189	227.17	36.5	35.1	42.5	41.1
PA0-121-1360-00	F1	254847.5	4638614	218.24	36.5	35.2	42.5	41.2
PA0-420-0220-00	F1	252827.8	4639941	224.16	36.4	35.3	42.4	41.3
PA0-420-0220-00	F1	252825.9	4639917	224.14	36.4	35.3	42.4	41.3
PA0-420-0210-00	F1	252825.4	4639899	224.11	36.4	35.3	42.4	41.3
PA0-420-0370-00	F1	252762.4	4640229	224.9	36.4	35.1	42.4	41.1
PA0-420-0570-00	F2	252655.2	4640218	227.68	36.4	35.1	42.4	41.1
PA0-129-3850-00	F2	253149.1	4635814	220.85	36.4	34.9	42.4	40.9
PA0-420-0580-00	F1	252669.4	4640259	225.14	36.4	35.1	42.4	41.1
PA0-107-4575-00	F1	251776.5	4640732	235.77	36.4	34.7	42.4	40.7
PA0-107-4575-00	F2	251780.5	4640696	238.14	36.4	34.5	42.4	40.5
PA0-107-4575-00	F2	251773.6	4640708	238.38	36.3	34.5	42.3	40.5
PA0-121-2120-00	F2	254877.2	4638617	220.63	36.3	35.0	42.3	41.0
PA0-107-4575-00	F2	251761.5	4640732	238.79	36.3	34.6	42.3	40.6
PA0-420-0190-00	F2	252799.3	4639853	226.94	36.3	35.1	42.3	41.1
PA0-420-0210-00	F1	252820.3	4639910	224.18	36.3	35.1	42.3	41.1
PA0-117-1900-00	F2	253021.8	4639609	223.93	36.3	35.2	42.3	41.2
PA0-420-0370-00	F1	252729.3	4640232	224.96	36.3	35.0	42.3	41.0
PA0-133-1950-00	F1	254724.2	4634709	214.13	36.3	34.0	42.3	40.0
PA0-420-0580-00	F1	252659.5	4640251	225.15	36.2	34.9	42.2	40.9
PA0-107-4575-00	F1	251769.8	4640732	236.01	36.2	34.5	42.2	40.5
PA0-129-3850-00	F1	253149.1	4635814	218.35	36.2	34.8	42.2	40.8
PA0-133-1950-00	F2	254752.3	4634697	216.63	36.2	33.9	42.2	39.9
PA0-121-2120-00	F2	254887	4638621	220.6	36.2	34.9	42.2	40.9
PA0-420-0180-00	F2	252802.8	4639814	226.98	36.2	35.0	42.2	41.0
PA0-420-0200-00	F1	252816.6	4639869	224.1	36.2	35.0	42.2	41.0
PA0-420-0370-00	F1	252715.9	4640226	224.92	36.1	34.8	42.1	40.8
PA0-121-2120-00	F2	254893.1	4638629	220.6	36.1	34.9	42.1	40.9
PA0-133-1300-00	F2	254809	4635356	217.3	36.1	34.4	42.1	40.4
PA0-133-1950-00	F2	254764.8	4634694	216.62	36.1	33.8	42.1	39.8
PA0-420-0560-00	F2	252656.1	4640185	227.56	36.1	34.7	42.1	40.7
PA0-109-3050-00	F1	254307.7	4640586	213.99	36.1	35.7	42.1	41.7
PA0-120-4375-00	F1	254004.1	4637745	218.11	36.0	34.4	42.0	40.4
PA0-117-1975-00	F1	253210.5	4639587	220.86	36.0	34.9	42.0	40.9
PA0-420-0200-00	F2	252782.2	4639866	227.15	36.0	34.8	42.0	40.8
PA0-116-2700-00	F2	254951.8	4639540	220.98	36.0	35.1	42.0	41.1
PA0-107-4575-00	F1	251780.5	4640696	235.64	36.0	34.2	42.0	40.2
PA0-133-1300-00	F2	254819.1	4635366	217.28	36.0	34.3	42.0	40.3
PA0-116-2700-00	F1	254923.9	4639540	217.53	36.0	35.1	42.0	41.1
PA0-107-4575-00	F1	251773.6	4640708	235.88	36.0	34.2	42.0	40.2
PA0-420-0580-00	F1	252554.2	4640273	225.67	36.0	34.6	42.0	40.6
PA0-107-4575-00	F1	251761.5	4640732	236.29	36.0	34.3	42.0	40.3
PA0-420-0190-00	F2	252780.5	4639859	227.21	36.0	34.8	42.0	40.8
PA0-420-0180-00	F2	252790	4639815	227.18	35.9	34.8	41.9	40.8
PA0-420-0570-00	F1	252618.6	4640246	225.18	35.9	34.6	41.9	40.6
PA0-420-0560-00	F2	252646.8	4640177	227.6	35.9	34.6	41.9	40.6
PA0-121-2120-00	F1	254877.2	4638617	218.13	35.9	34.6	41.9	40.6

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-420-0190-00	F1	252810.3	4639843	224.32	35.9	34.7	41.9	40.7
PA0-133-1300-00	F2	254809.1	4635372	217.35	35.8	34.1	41.8	40.1
PA0-420-0570-00	F1	252617.2	4640242	225.19	35.8	34.5	41.8	40.5
PA0-133-1950-00	F1	254752.3	4634697	214.13	35.8	33.6	41.8	39.6
PA0-420-0380-00	F1	252753.9	4640169	224.49	35.8	34.5	41.8	40.5
PA0-133-1950-00	F2	254709.7	4634674	216.67	35.8	33.5	41.8	39.5
PA0-121-2120-00	F1	254887	4638621	218.1	35.8	34.5	41.8	40.5
PA0-420-0550-00	F2	252636.2	4640165	227.63	35.7	34.4	41.7	40.4
PA0-107-4575-00	F2	251745.9	4640715	239.17	35.7	34.0	41.7	40.0
PA0-133-1950-00	F1	254764.8	4634694	214.12	35.7	33.5	41.7	39.5
PA0-420-0380-00	F1	252713.9	4640189	224.67	35.7	34.4	41.7	40.4
PA0-121-2120-00	F1	254893.1	4638629	218.1	35.7	34.5	41.7	40.5
PA0-420-0570-00	F1	252655.2	4640218	225.18	35.7	34.4	41.7	40.4
PA0-133-1300-00	F1	254809	4635356	214.8	35.7	34.1	41.7	40.1
PA0-420-0550-00	F2	252623.6	4640169	227.73	35.7	34.4	41.7	40.4
PA0-420-0190-00	F1	252799.3	4639853	224.44	35.7	34.5	41.7	40.5
PA0-133-1300-00	F1	254819.1	4635366	214.78	35.6	33.9	41.6	39.9
PA0-117-1900-00	F1	253021.8	4639609	221.43	35.6	34.5	41.6	40.5
PA0-420-0410-00	F2	252698.2	4640079	226.9	35.6	34.3	41.6	40.3
PA0-129-3850-00	F2	253172	4635845	221.25	35.6	34.1	41.6	40.1
PA0-420-0180-00	F1	252802.8	4639814	224.48	35.5	34.4	41.5	40.4
PA0-133-1300-00	F2	254790.3	4635389	217.42	35.5	33.9	41.5	39.9
PA0-420-0120-00	F2	252790	4639761	227.09	35.5	34.4	41.5	40.4
PA0-420-0441-00	F2	252732.7	4639961	227.06	35.5	34.3	41.5	40.3
PA0-133-2500-00	F2	254805	4634673	216.62	35.5	33.3	41.5	39.3
PA0-420-0410-00	F2	252689.8	4640071	226.98	35.5	34.2	41.5	40.2
PA0-133-1300-00	F1	254809.1	4635372	214.85	35.4	33.8	41.4	39.8
PA0-121-2140-00	F2	254927.3	4638618	220.44	35.4	34.1	41.4	40.1
PA0-420-0420-00	F2	252700.8	4640043	226.99	35.4	34.2	41.4	40.2
PA0-133-1950-00	F1	254709.7	4634674	214.17	35.4	33.1	41.4	39.1
PA0-116-2700-00	F2	254973.9	4639491	221.7	35.4	34.5	41.4	40.5
PA0-128-4855-00	F2	255262.5	4635525	215.67	35.4	34.3	41.4	40.3
PA0-133-1950-00	F2	254777.7	4634665	216.65	35.4	33.1	41.4	39.1
PA0-420-0420-00	F2	252691.5	4640049	227.03	35.4	34.1	41.4	40.1
PA0-128-4855-00	F2	255280.9	4635507	215.49	35.4	34.2	41.4	40.2
PA0-420-0200-00	F1	252782.2	4639866	224.65	35.3	34.2	41.3	40.2
PA0-420-0420-00	F2	252692	4640042	227.05	35.3	34.1	41.3	40.1
PA0-107-4575-00	F1	251745.9	4640715	236.67	35.3	33.6	41.3	39.6
PA0-420-0120-00	F2	252783.9	4639752	227.03	35.3	34.2	41.3	40.2
PA0-116-4100-00	F2	254975	4639472	221.58	35.3	34.4	41.3	40.4
PA0-107-4575-00	F2	251737.6	4640693	239.33	35.3	33.5	41.3	39.5
PA0-420-0560-00	F1	252656.1	4640185	225.06	35.3	34.0	41.3	40.0
PA0-116-2700-00	F1	254951.8	4639540	218.48	35.3	34.4	41.3	40.4
PA0-129-3850-00	F1	253172	4635845	218.75	35.3	33.9	41.3	39.9
PA0-420-0540-00	F2	252639.8	4640107	227.41	35.3	34.0	41.3	40.0
PA0-420-0190-00	F1	252780.5	4639859	224.71	35.3	34.1	41.3	40.1
PA0-128-4855-00	F2	255252.4	4635520	215.82	35.3	34.1	41.3	40.1
PA0-420-0180-00	F1	252790	4639815	224.68	35.2	34.1	41.2	40.1
PA0-420-0420-00	F2	252684.3	4640033	227.13	35.2	34.0	41.2	40.0
PA0-107-3250-00	F2	251685.1	4640909	241.44	35.2	33.4	41.2	39.4
PA0-128-4855-00	F2	255251.1	4635510	215.86	35.2	34.0	41.2	40.0
PA0-116-4100-00	F2	254982.4	4639473	221.67	35.2	34.3	41.2	40.3
PA0-128-4855-00	F1	255262.5	4635525	213.17	35.2	34.2	41.2	40.2
PA0-420-0560-00	F1	252646.8	4640177	225.1	35.2	33.9	41.2	39.9
PA0-420-0431-00	F2	252692.3	4639997	227.18	35.1	33.9	41.1	39.9
PA0-420-0441-00	F2	252701.1	4639969	227.2	35.1	33.9	41.1	39.9
PA0-128-4855-00	F1	255280.9	4635507	212.99	35.1	34.1	41.1	40.1

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-129-3850-00	F2	253198.1	4635809	221.54	35.1	33.6	41.1	39.6
PA0-133-1300-00	F1	254790.3	4635389	214.92	35.1	33.5	41.1	39.5
PA0-133-2500-00	F1	254805	4634673	214.12	35.1	32.9	41.1	38.9
PA0-420-0110-00	F2	252780.6	4639733	226.91	35.1	33.9	41.1	39.9
PA0-133-2600-00	F2	255015.3	4634672	216.28	35.1	32.9	41.1	38.9
PA0-108-1950-00	F2	253408.6	4641163	218.74	35.1	33.5	41.1	39.5
PA0-420-0431-00	F2	252680.4	4640009	227.23	35.1	33.8	41.1	39.8
PA0-117-3300-00	F2	253260.2	4639416	223.11	35.0	34.1	41.0	40.1
PA0-420-0530-00	F2	252638.3	4640071	227.34	35.0	33.7	41.0	39.7
PA0-128-4855-00	F1	255252.4	4635520	213.32	35.0	33.9	41.0	39.9
PA0-420-0110-00	F2	252766.4	4639748	226.96	35.0	33.9	41.0	39.9
PA0-420-0432-00	F2	252682.9	4639985	227.28	35.0	33.8	41.0	39.8
PA0-133-2600-00	F2	254989.6	4634665	216.35	35.0	32.8	41.0	38.8
PA0-108-1950-00	F2	253328	4641188	222.02	35.0	33.5	41.0	39.5
PA0-133-2600-00	F2	255039.4	4634672	216.24	35.0	32.8	41.0	38.8
PA0-133-1950-00	F1	254777.7	4634665	214.15	35.0	32.8	41.0	38.8
PA0-420-0550-00	F1	252636.2	4640165	225.13	35.0	33.7	41.0	39.7
PA0-128-4855-00	F1	255251.1	4635510	213.36	34.9	33.8	40.9	39.8
PA0-121-2140-00	F1	254927.3	4638618	217.94	34.9	33.6	40.9	39.6
PA0-420-0550-00	F1	252623.6	4640169	225.23	34.9	33.6	40.9	39.6
PA0-420-0441-00	F2	252679	4639969	227.36	34.9	33.7	40.9	39.7
PA0-420-0530-00	F2	252626	4640064	227.45	34.9	33.6	40.9	39.6
PA0-117-1850-00	F2	252920.2	4639572	224.38	34.9	33.8	40.9	39.8
PA0-420-0110-00	F2	252768.8	4639728	226.86	34.9	33.7	40.9	39.7
PA0-107-4575-00	F1	251737.6	4640693	236.83	34.9	33.1	40.9	39.1
PA0-129-3850-00	F1	253198.1	4635809	219.04	34.8	33.4	40.8	39.4
PA0-107-3250-00	F1	251685.1	4640909	238.94	34.8	33.1	40.8	39.1
PA0-420-0120-00	F1	252790	4639761	224.59	34.8	33.6	40.8	39.6
PA0-121-2140-00	F2	254966.2	4638625	220.34	34.8	33.4	40.8	39.4
PA0-420-0441-00	F2	252674	4639959	227.42	34.8	33.6	40.8	39.6
PA0-117-1900-00	F2	253056.7	4639491	223.58	34.8	33.8	40.8	39.8
PA0-116-4100-00	F2	254997.2	4639434	221.61	34.8	33.9	40.8	39.9
PA0-420-0100-00	F2	252778.2	4639702	226.86	34.7	33.6	40.7	39.6
PA0-420-0410-00	F1	252698.2	4640079	224.4	34.7	33.5	40.7	39.5
PA0-420-0520-00	F2	252629	4640038	227.51	34.7	33.5	40.7	39.5
PA0-117-4575-00	F2	253428.6	4639226	222.49	34.7	33.8	40.7	39.8
PA0-420-0100-00	F2	252774.5	4639705	226.84	34.7	33.6	40.7	39.6
PA0-133-2600-00	F1	255015.3	4634672	213.78	34.7	32.6	40.7	38.6
PA0-420-0100-00	F2	252770.5	4639709	226.83	34.7	33.6	40.7	39.6
PA0-107-3420-00	F2	251682.8	4640768	240.89	34.7	33.0	40.7	39.0
PA0-420-0441-00	F1	252732.7	4639961	224.56	34.7	33.5	40.7	39.5
PA0-420-0450-00	F2	252675.3	4639931	227.5	34.7	33.5	40.7	39.5
PA0-116-2700-00	F1	254973.9	4639491	219.2	34.6	33.8	40.6	39.8
PA0-420-0460-00	F2	252699.2	4639852	227.5	34.6	33.5	40.6	39.5
PA0-420-0100-00	F2	252771.1	4639699	226.86	34.6	33.5	40.6	39.5
PA0-420-0410-00	F1	252689.8	4640071	224.48	34.6	33.4	40.6	39.4
PA0-109-3300-00	F2	254566.3	4640640	222.21	34.6	34.2	40.6	40.2
PA0-108-1950-00	F2	253427.8	4641186	218.45	34.6	33.1	40.6	39.1
PA0-133-2600-00	F1	254989.6	4634665	213.85	34.6	32.5	40.6	38.5
PA0-133-2600-00	F1	255039.4	4634672	213.74	34.6	32.5	40.6	38.5
PA0-107-4600-00	F2	251745.5	4640613	239.03	34.6	32.8	40.6	38.8
PA0-420-0420-00	F1	252700.8	4640043	224.49	34.6	33.3	40.6	39.3
PA0-420-0120-00	F1	252783.9	4639752	224.53	34.6	33.4	40.6	39.4
PA0-109-3300-00	F2	254575	4640638	222.13	34.6	34.1	40.6	40.1
PA0-107-2550-00	F2	251782.8	4641149	239.39	34.6	32.4	40.6	38.4
PA0-117-4575-00	F2	253396.9	4639236	222.6	34.6	33.7	40.6	39.7
PA0-420-0450-00	F2	252667.9	4639922	227.58	34.6	33.4	40.6	39.4

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-420-0510-00	F2	252627.2	4640004	227.62	34.5	33.3	40.5	39.3
PA0-116-4100-00	F1	254975	4639472	219.08	34.5	33.7	40.5	39.7
PA0-116-4100-00	F2	255015.2	4639440	220.71	34.5	33.6	40.5	39.6
PA0-420-0420-00	F1	252691.5	4640049	224.53	34.5	33.3	40.5	39.3
PA0-129-3050-00	F2	252617.4	4636259	221.71	34.5	33.0	40.5	39.0
PA0-109-3300-00	F2	254550.1	4640668	222.22	34.5	34.1	40.5	40.1
PA0-420-0420-00	F1	252692	4640042	224.55	34.5	33.3	40.5	39.3
PA0-107-4600-00	F2	251756.4	4640584	237.99	34.5	32.6	40.5	38.6
PA0-117-1850-00	F2	252908.9	4639549	224.43	34.5	33.4	40.5	39.4
PA0-108-1950-00	F2	253421.3	4641198	219.04	34.5	33.0	40.5	39.0
PA0-420-0100-00	F2	252760.2	4639698	226.84	34.5	33.3	40.5	39.3
PA0-129-3700-00	F2	252550.3	4635589	220.94	34.4	32.4	40.4	38.4
PA0-420-0540-00	F1	252639.8	4640107	224.91	34.4	33.2	40.4	39.2
PA0-108-1800-00	F2	253072.1	4641257	228.53	34.4	32.9	40.4	38.9
PA0-420-0470-00	F2	252676.5	4639865	227.56	34.4	33.2	40.4	39.2
PA0-116-4100-00	F1	254982.4	4639473	219.17	34.4	33.5	40.4	39.5
PA0-420-0510-00	F2	252615.8	4639997	227.72	34.4	33.2	40.4	39.2
PA0-129-3050-00	F2	252596.9	4636247	221.79	34.4	32.8	40.4	38.8
PA0-107-3350-00	F2	251689.6	4641039	241.14	34.4	32.4	40.4	38.4
PA0-420-0420-00	F1	252684.3	4640033	224.63	34.4	33.1	40.4	39.1
PA0-107-4600-00	F2	251738.3	4640605	239.2	34.4	32.5	40.4	38.5
PA0-116-4550-00	F2	255006.9	4638713	220.46	34.3	33.2	40.3	39.2
PA0-128-4900-00	F2	255471.2	4635466	216.38	34.3	32.9	40.3	38.9
PA0-420-0090-00	F2	252764.7	4639676	226.91	34.3	33.2	40.3	39.2
PA0-420-0110-00	F1	252780.6	4639733	224.41	34.3	33.2	40.3	39.2
PA0-107-4600-00	F2	251736.5	4640603	239.22	34.3	32.5	40.3	38.5
PA0-129-3050-00	F2	252583.6	4636241	221.85	34.3	32.7	40.3	38.7
PA0-420-0470-00	F2	252665.6	4639869	227.57	34.3	33.1	40.3	39.1
PA0-420-0431-00	F1	252692.3	4639997	224.68	34.3	33.1	40.3	39.1
PA0-420-0441-00	F1	252701.1	4639969	224.7	34.3	33.1	40.3	39.1
PA0-107-3250-00	F2	251653.3	4640928	242.19	34.3	32.5	40.3	38.5
PA0-420-0130-00	F2	252695.7	4639792	227.11	34.3	33.1	40.3	39.1
PA0-420-0500-00	F2	252620.2	4639962	227.8	34.2	33.0	40.2	39.0
PA0-129-3050-00	F2	252603.8	4636262	221.75	34.2	32.7	40.2	38.7
PA0-108-1950-00	F1	253408.6	4641163	216.24	34.2	32.7	40.2	38.7
PA0-107-4600-00	F2	251753.7	4640569	237.74	34.2	32.4	40.2	38.4
PA0-107-3280-00	F2	251660.4	4640974	242.25	34.2	32.4	40.2	38.4
PA0-107-3420-00	F1	251682.8	4640768	238.39	34.2	32.6	40.2	38.6
PA0-420-0110-00	F1	252766.4	4639748	224.46	34.2	33.1	40.2	39.1
PA0-420-0431-00	F1	252680.4	4640009	224.73	34.2	33.0	40.2	39.0
PA0-109-3300-00	F2	254594.2	4640662	221.82	34.2	33.8	40.2	39.8
PA0-121-2140-00	F1	254966.2	4638625	217.84	34.2	32.9	40.2	38.9
PA0-107-3440-00	F2	251680	4640708	240.87	34.2	32.5	40.2	38.5
PA0-108-1800-00	F2	253090	4641271	227.99	34.2	32.7	40.2	38.7
PA0-107-4600-00	F2	251732.2	4640598	239.29	34.2	32.4	40.2	38.4
PA0-129-3700-00	F2	252557.2	4635571	220.94	34.2	32.2	40.2	38.2
PA0-108-1950-00	F1	253328	4641188	219.52	34.2	32.6	40.2	38.6
PA0-420-0530-00	F1	252638.3	4640071	224.84	34.1	32.9	40.1	38.9
PA0-107-4600-00	F2	251728.7	4640602	239.51	34.1	32.3	40.1	38.3
PA0-420-0432-00	F1	252682.9	4639985	224.78	34.1	32.9	40.1	38.9
PA0-420-0090-00	F2	252758.3	4639664	226.93	34.1	33.0	40.1	39.0
PA0-129-3050-00	F1	252617.4	4636259	219.21	34.1	32.8	40.1	38.8
PA0-420-0130-00	F2	252687	4639784	227.05	34.1	33.0	40.1	39.0
PA0-129-3700-00	F2	252609.8	4635597	220.5	34.1	32.1	40.1	38.1
PA0-129-3050-00	F2	252587.5	4636258	221.82	34.1	32.5	40.1	38.5
PA0-107-4600-00	F1	251745.5	4640613	236.53	34.1	32.3	40.1	38.3
PA0-107-2550-00	F1	251782.8	4641149	236.89	34.1	32.0	40.1	38.0

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-420-0110-00	F1	252768.8	4639728	224.36	34.1	32.9	40.1	38.9
PA0-128-4900-00	F1	255471.2	4635466	213.88	34.0	32.7	40.0	38.7
PA0-129-3900-00	F2	253154.2	4635514	219.62	34.0	32.4	40.0	38.4
PA0-108-1900-00	F2	253155.6	4641274	226.94	34.0	32.6	40.0	38.6
PA0-420-0490-00	F2	252614.8	4639927	227.9	34.0	32.8	40.0	38.8
PA0-129-3700-00	F2	252580.9	4635575	220.73	34.0	32.0	40.0	38.0
PA0-420-0441-00	F1	252679	4639969	224.86	34.0	32.8	40.0	38.8
PA0-107-3350-00	F2	251672.2	4641034	241.55	34.0	32.1	40.0	38.1
PA0-420-0530-00	F1	252626	4640064	224.95	34.0	32.8	40.0	38.8
PA0-420-0140-00	F2	252675	4639791	227.08	34.0	32.9	40.0	38.9
PA0-117-1850-00	F1	252920.2	4639572	221.88	34.0	32.9	40.0	38.9
PA0-420-0140-00	F2	252667.7	4639803	227.18	34.0	32.8	40.0	38.8
PA0-107-3350-00	F2	251659.7	4641005	242.16	34.0	32.1	40.0	38.1
PA0-129-3700-00	F1	252550.3	4635589	218.44	34.0	32.1	40.0	38.1
PA0-129-3050-00	F1	252596.9	4636247	219.29	34.0	32.5	40.0	38.5
PA0-130-4100-00	F2	251666.5	4635947	224.7	34.0	32.1	40.0	38.1
PA0-129-3700-00	F2	252590.1	4635575	220.66	33.9	32.0	39.9	38.0
PA0-129-3900-00	F2	253164.3	4635519	219.61	33.9	32.3	39.9	38.3
PA0-117-3300-00	F1	253260.2	4639416	220.61	33.9	33.0	39.9	39.0
PA0-420-0100-00	F1	252778.2	4639702	224.36	33.9	32.8	39.9	38.8
PA0-116-4100-00	F1	254997.2	4639434	219.11	33.9	33.0	39.9	39.0
PA0-121-2250-00	F2	255019.1	4638629	220.17	33.9	32.6	39.9	38.6
PA0-107-4600-00	F1	251756.4	4640584	235.49	33.9	32.1	39.9	38.1
PA0-420-0100-00	F1	252774.5	4639705	224.34	33.9	32.8	39.9	38.8
PA0-420-0441-00	F1	252674	4639959	224.92	33.9	32.7	39.9	38.7
PA0-107-3350-00	F1	251689.6	4641039	238.64	33.9	32.0	39.9	38.0
PA0-420-0100-00	F1	252770.5	4639709	224.33	33.9	32.8	39.9	38.8
PA0-129-3700-00	F2	252551.2	4635541	221.08	33.9	31.9	39.9	37.9
PA0-129-3050-00	F1	252583.6	4636241	219.35	33.9	32.3	39.9	38.3
PA0-420-0520-00	F1	252629	4640038	225.01	33.8	32.6	39.8	38.6
PA0-129-3050-00	F1	252603.8	4636262	219.25	33.8	32.4	39.8	38.4
PA0-107-4600-00	F1	251738.3	4640605	236.7	33.8	32.0	39.8	38.0
PA0-132-1300-00	F2	252913.6	4635445	219.68	33.8	32.0	39.8	38.0
PA0-117-1900-00	F1	253056.7	4639491	221.08	33.8	32.8	39.8	38.8
PA0-420-0450-00	F1	252675.3	4639931	225	33.8	32.6	39.8	38.6
PA0-107-3250-00	F1	251653.3	4640928	239.69	33.8	32.1	39.8	38.1
PA0-420-0100-00	F1	252771.1	4639699	224.36	33.8	32.7	39.8	38.7
PA0-107-3280-00	F2	251644.9	4640985	242.62	33.8	32.0	39.8	38.0
PA0-420-0460-00	F1	252699.2	4639852	225	33.8	32.6	39.8	38.6
PA0-129-3700-00	F2	252580.5	4635552	220.81	33.8	31.8	39.8	37.8
PA0-107-4600-00	F1	251736.5	4640603	236.72	33.7	32.0	39.7	38.0
PA0-107-3280-00	F1	251660.4	4640974	239.75	33.7	32.0	39.7	38.0
PA0-420-0480-00	F2	252607.1	4639886	228.09	33.7	32.5	39.7	38.5
PA0-107-3350-00	F2	251658.8	4641031	241.87	33.7	31.9	39.7	37.9
PA0-121-2250-00	F2	255027.8	4638584	220	33.7	32.3	39.7	38.3
PA0-108-1950-00	F1	253427.8	4641186	215.95	33.7	32.2	39.7	38.2
PA0-129-3900-00	F1	253154.2	4635514	217.12	33.7	32.1	39.7	38.1
PA0-116-4550-00	F1	255006.9	4638713	217.96	33.7	32.6	39.7	38.6
PA0-107-2850-00	F2	252383.7	4641345	231.29	33.7	31.8	39.7	37.8
PA0-129-3050-00	F2	252567.8	4636267	221.88	33.7	32.0	39.7	38.0
PA0-420-0150-00	F2	252645.4	4639797	227.46	33.7	32.5	39.7	38.5
PA0-108-1900-00	F2	253153.4	4641300	226.94	33.7	32.2	39.7	38.2
PA0-129-3700-00	F2	252600.4	4635554	220.64	33.7	31.7	39.7	37.7
PA0-107-4600-00	F1	251753.7	4640569	235.24	33.7	31.9	39.7	37.9
PA0-129-3700-00	F1	252557.2	4635571	218.44	33.7	31.8	39.7	37.8
PA0-420-0450-00	F1	252667.9	4639922	225.08	33.7	32.5	39.7	38.5
PA0-107-3440-00	F1	251680	4640708	238.37	33.6	32.0	39.6	38.0

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-116-4100-00	F1	255015.2	4639440	218.21	33.6	32.7	39.6	38.7
PA0-420-0150-00	F2	252638.1	4639804	227.59	33.6	32.5	39.6	38.5
PA0-129-3050-00	F1	252587.5	4636258	219.32	33.6	32.1	39.6	38.1
PA0-420-0510-00	F1	252627.2	4640004	225.12	33.6	32.4	39.6	38.4
PA0-130-4100-00	F1	251666.5	4635947	222.2	33.6	31.9	39.6	37.9
PA0-129-3900-00	F1	253164.3	4635519	217.11	33.6	32.0	39.6	38.0
PA0-117-4575-00	F1	253428.6	4639226	219.99	33.6	32.7	39.6	38.7
PA0-117-1550-00	F2	252791.6	4639573	226.5	33.6	32.5	39.6	38.5
PA0-420-0100-00	F1	252760.2	4639698	224.34	33.6	32.5	39.6	38.5
PA0-107-4600-00	F1	251732.2	4640598	236.79	33.6	31.8	39.6	37.8
PA0-129-3900-00	F2	253189.8	4635528	219.59	33.6	31.9	39.6	37.9
PA0-108-1800-00	F1	253072.1	4641257	226.03	33.6	32.1	39.6	38.1
PA0-116-4550-00	F2	255051.1	4638716	220.32	33.6	32.4	39.6	38.4
PA0-107-4600-00	F1	251728.7	4640602	237.01	33.6	31.8	39.6	37.8
PA0-108-1950-00	F1	253421.3	4641198	216.54	33.6	32.1	39.6	38.1
PA0-129-3700-00	F1	252609.8	4635597	218	33.6	31.7	39.6	37.7
PA0-117-1850-00	F1	252908.9	4639549	221.93	33.5	32.5	39.5	38.5
PA0-107-2850-00	F2	252345.4	4641354	230.69	33.5	31.6	39.5	37.6
PA0-129-3700-00	F2	252577.8	4635530	220.9	33.5	31.6	39.5	37.6
PA0-420-0490-00	F2	252564.7	4639920	228.18	33.5	32.3	39.5	38.3
PA0-420-0470-00	F1	252676.5	4639865	225.06	33.5	32.4	39.5	38.4
PA0-129-3700-00	F1	252580.9	4635575	218.23	33.5	31.6	39.5	37.6
PA0-107-3350-00	F1	251672.2	4641034	239.05	33.5	31.7	39.5	37.7
PA0-108-1900-00	F2	253143.9	4641315	226.91	33.5	32.1	39.5	38.1
PA0-107-3280-00	F2	251625.6	4640959	242.88	33.5	31.7	39.5	37.7
PA0-420-0510-00	F1	252615.8	4639997	225.22	33.5	32.3	39.5	38.3
PA0-107-3350-00	F1	251659.7	4641005	239.66	33.5	31.7	39.5	37.7
PA0-107-2900-00	F2	252497.3	4641360	231.03	33.4	31.6	39.4	37.6
PA0-420-0090-00	F1	252764.7	4639676	224.41	33.4	32.3	39.4	38.3
PA0-129-3700-00	F1	252590.1	4635575	218.16	33.4	31.6	39.4	37.6
PA0-420-0170-00	F2	252591.4	4639857	228.35	33.4	32.3	39.4	38.3
PA0-132-1300-00	F1	252913.6	4635445	217.18	33.4	31.7	39.4	37.7
PA0-117-4575-00	F1	253396.9	4639236	220.1	33.4	32.5	39.4	38.5
PA0-420-0080-00	F2	252751.6	4639593	227.13	33.4	32.3	39.4	38.3
PA0-129-3900-00	F2	253196.8	4635526	219.61	33.4	31.7	39.4	37.7
PA0-129-3700-00	F2	252611.1	4635532	220.62	33.4	31.5	39.4	37.5
PA0-420-0470-00	F1	252665.6	4639869	225.07	33.4	32.2	39.4	38.2
PA0-420-0130-00	F1	252695.7	4639792	224.61	33.4	32.2	39.4	38.2
PA0-132-1300-00	F2	252950.1	4635425	219.67	33.4	31.6	39.4	37.6
PA0-129-3700-00	F1	252551.2	4635541	218.58	33.4	31.5	39.4	37.5
PA0-107-2900-00	F2	252524.9	4641367	230.82	33.3	31.6	39.3	37.6
PA0-116-2210-00	F2	254978.1	4640218	220.89	33.3	32.5	39.3	38.5
PA0-107-3280-00	F2	251619.3	4640959	243.01	33.3	31.6	39.3	37.6
PA0-108-1800-00	F1	253090	4641271	225.49	33.3	31.9	39.3	37.9
PA0-420-0500-00	F1	252620.2	4639962	225.3	33.3	32.1	39.3	38.1
PA0-117-4600-00	F2	253431.5	4638867	221.83	33.3	32.1	39.3	38.1
PA0-420-0160-00	F2	252600.6	4639816	228.04	33.3	32.1	39.3	38.1
PA0-116-2180-00	F2	254953.5	4640282	222.03	33.3	32.6	39.3	38.6
PA0-420-0060-00	F2	252704.2	4639640	226.9	33.3	32.2	39.3	38.2
PA0-109-3300-00	F1	254566.3	4640640	219.71	33.3	32.8	39.3	38.8
PA0-121-2040-00	F2	255062.8	4638629	220.02	33.2	31.9	39.2	37.9
PA0-107-3280-00	F1	251644.9	4640985	240.12	33.2	31.5	39.2	37.5
PA0-420-0080-00	F2	252740.8	4639588	227.12	33.2	32.2	39.2	38.2
PA0-116-2180-00	F2	254952.2	4640298	222.08	33.2	32.5	39.2	38.5
PA0-129-3700-00	F1	252580.5	4635552	218.31	33.2	31.4	39.2	37.4
PA0-107-3900-00	F2	251681.1	4640596	240.68	33.2	31.5	39.2	37.5
PA0-121-2250-00	F1	255019.1	4638629	217.67	33.2	31.9	39.2	37.9

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-129-3900-00	F1	253189.8	4635528	217.09	33.2	31.7	39.2	37.7
PA0-107-3900-00	F2	251667.1	4640623	240.78	33.2	31.5	39.2	37.5
PA0-420-0090-00	F1	252758.3	4639664	224.43	33.2	32.1	39.2	38.1
PA0-129-3050-00	F1	252567.8	4636267	219.38	33.2	31.6	39.2	37.6
PA0-109-3300-00	F1	254575	4640638	219.63	33.2	32.7	39.2	38.7
PA0-420-0160-00	F2	252590.6	4639815	228.07	33.2	32.0	39.2	38.0
PA0-420-0130-00	F1	252687	4639784	224.55	33.2	32.1	39.2	38.1
PA0-107-3350-00	F1	251658.8	4641031	239.37	33.2	31.4	39.2	37.4
PA0-108-1900-00	F1	253155.6	4641274	224.44	33.2	31.7	39.2	37.7
PA0-107-2550-00	F2	251772.4	4641216	239.2	33.2	31.2	39.2	37.2
PA0-133-1050-00	F2	254172.6	4635423	217.99	33.1	31.5	39.1	37.5
PA0-116-2200-00	F2	254986.5	4640244	221.97	33.1	32.4	39.1	38.4
PA0-129-3700-00	F1	252600.4	4635554	218.14	33.1	31.3	39.1	37.3
PA0-116-2200-00	F2	254981.8	4640256	221.98	33.1	32.4	39.1	38.4
PA0-109-3300-00	F1	254550.1	4640668	219.72	33.1	32.7	39.1	38.7
PA0-420-0060-00	F2	252699	4639625	226.94	33.1	32.0	39.1	38.0
PA0-107-2800-00	F2	252284.5	4641379	230.44	33.1	31.2	39.1	37.2
PA0-420-0140-00	F1	252675	4639791	224.58	33.1	31.9	39.1	37.9
PA0-420-0490-00	F1	252614.8	4639927	225.4	33.1	31.9	39.1	37.9
PA0-420-0140-00	F1	252667.7	4639803	224.68	33.0	31.9	39.0	37.9
PA0-420-0070-00	F2	252713.8	4639597	227.05	33.0	32.0	39.0	38.0
PA0-121-2250-00	F1	255027.8	4638584	217.5	33.0	31.6	39.0	37.6
NONE	F2	253501.1	4641285	218.96	33.0	31.7	39.0	37.7
PA0-129-3900-00	F1	253196.8	4635526	217.11	33.0	31.4	39.0	37.4
PA0-129-3700-00	F1	252577.8	4635530	218.4	33.0	31.1	39.0	37.1
PA0-121-2040-00	F2	255082.6	4638628	219.95	33.0	31.6	39.0	37.6
PA0-108-1575-00	F2	252772	4641383	228.69	33.0	31.4	39.0	37.4
PA0-116-2210-00	F2	255012.5	4640223	221.96	33.0	32.2	39.0	38.2
PA0-132-1300-00	F1	252950.1	4635425	217.17	33.0	31.3	39.0	37.3
PA0-107-2850-00	F1	252383.7	4641345	228.79	33.0	31.1	39.0	37.1
PA0-107-3900-00	F2	251664.5	4640597	240.38	32.9	31.2	38.9	37.2
PA0-107-3280-00	F1	251625.6	4640959	240.38	32.9	31.2	38.9	37.2
PA0-117-4600-00	F2	253404.7	4638780	221.73	32.9	31.7	38.9	37.7
PA0-116-4550-00	F1	255051.1	4638716	217.82	32.8	31.7	38.8	37.7
PA0-420-0060-00	F2	252683.1	4639609	226.99	32.8	31.8	38.8	37.8
PA0-129-3700-00	F1	252611.1	4635532	218.12	32.8	31.0	38.8	37.0
PA0-109-3300-00	F1	254594.2	4640662	219.32	32.8	32.4	38.8	38.4
PA0-107-2800-00	F2	252288.2	4641398	230.83	32.8	30.9	38.8	36.9
PA0-107-3900-00	F2	251661.8	4640585	240.24	32.8	31.1	38.8	37.1
PA0-128-1025-00	F2	254209.5	4636992	219.64	32.8	29.4	38.8	35.4
PA0-107-2850-00	F1	252345.4	4641354	228.19	32.8	30.9	38.8	36.9
PA0-108-2780-00	F2	253878.4	4641173	222.55	32.8	31.9	38.8	37.9
PA0-130-4100-00	F2	251649.9	4635988	225.18	32.8	30.9	38.8	36.9
PA0-108-1900-00	F1	253153.4	4641300	224.44	32.8	31.3	38.8	37.3
PA0-117-4600-00	F2	253390.1	4638765	221.76	32.8	31.5	38.8	37.5
PA0-420-0480-00	F1	252607.1	4639886	225.59	32.8	31.6	38.8	37.6
PA0-107-3280-00	F1	251619.3	4640959	240.51	32.8	31.1	38.8	37.1
PA0-420-0150-00	F1	252645.4	4639797	224.96	32.7	31.6	38.7	37.6
PA0-108-2780-00	F2	253845.4	4641192	222.43	32.7	31.8	38.7	37.8
PA0-107-2750-00	F2	252166	4641390	232.25	32.7	30.8	38.7	36.8
PA0-107-2550-00	F2	251783.9	4641253	239.11	32.7	30.7	38.7	36.7
PA0-107-2800-00	F2	252288.3	4641405	230.98	32.7	30.8	38.7	36.8
PA0-107-2800-00	F2	252280.6	4641406	231.03	32.7	30.8	38.7	36.8
PA0-129-4620-00	F2	253296.7	4635672	219.99	32.7	31.1	38.7	37.1
PA0-420-0150-00	F1	252638.1	4639804	225.09	32.7	31.5	38.7	37.5
PA0-117-3800-00	F2	252760.1	4639501	226.71	32.7	31.6	38.7	37.6
PA0-107-2900-00	F1	252497.3	4641360	228.53	32.7	30.9	38.7	36.9

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-117-1550-00	F1	252791.6	4639573	224	32.6	31.6	38.6	37.6
PA0-129-4620-00	F2	253300.8	4635682	219.98	32.6	31.1	38.6	37.1
PA0-133-1050-00	F1	254172.6	4635423	215.49	32.6	31.0	38.6	37.0
PA0-420-0050-00	F2	252651.8	4639620	227.08	32.6	31.5	38.6	37.5
PA0-107-3900-00	F2	251649.8	4640584	240.47	32.6	30.9	38.6	36.9
PA0-108-1525-00	F2	252555.1	4641420	230.81	32.6	30.9	38.6	36.9
PA0-107-3900-00	F1	251667.1	4640623	238.28	32.6	30.9	38.6	36.9
PA0-107-3900-00	F1	251681.1	4640596	238.18	32.6	30.9	38.6	36.9
PA0-108-1900-00	F1	253143.9	4641315	224.41	32.6	31.1	38.6	37.1
PA0-107-3900-00	F2	251638.2	4640603	241.09	32.6	30.9	38.6	36.9
PA0-107-2550-00	F1	251772.4	4641216	236.7	32.5	30.6	38.5	36.6
PA0-107-2900-00	F1	252524.9	4641367	228.32	32.5	30.8	38.5	36.8
PA0-107-2550-00	F2	251762.7	4641248	238.67	32.5	30.6	38.5	36.6
PA0-420-0490-00	F1	252564.7	4639920	225.68	32.5	31.3	38.5	37.3
PA0-116-2150-00	F2	255022.5	4640304	222.18	32.5	31.8	38.5	37.8
PA0-117-3800-00	F2	252725	4639518	227.3	32.5	31.5	38.5	37.5
PA0-116-2160-00	F2	255129.1	4640014	222.2	32.5	31.6	38.5	37.6
PA0-121-2040-00	F1	255062.8	4638629	217.52	32.5	31.2	38.5	37.2
PA0-130-1805-00	F2	251576.8	4635930	226.75	32.4	30.6	38.4	36.6
PA0-107-2800-00	F2	252307.5	4641424	231.26	32.4	30.6	38.4	36.6
PA0-420-0170-00	F1	252591.4	4639857	225.85	32.4	31.3	38.4	37.3
PA0-107-2800-00	F2	252266.1	4641422	231.45	32.4	30.6	38.4	36.6
PA0-420-0041-00	F2	252623	4639630	227.17	32.4	31.3	38.4	37.3
PA0-130-4350-00	F2	252282.1	4636253	222.79	32.4	29.4	38.4	35.4
PA0-116-2160-00	F2	255155.5	4639946	221.82	32.4	31.5	38.4	37.5
PA0-420-0080-00	F1	252751.6	4639593	224.63	32.4	31.3	38.4	37.3
PA0-116-2100-00	F2	255044.3	4640284	222.25	32.4	31.7	38.4	37.7
PA0-108-1850-00	F2	253100.8	4641408	226.75	32.4	31.0	38.4	37.0
PA0-133-1050-00	F2	254115.3	4635422	218.14	32.3	30.7	38.3	36.7
PA0-130-4100-00	F1	251649.9	4635988	222.68	32.3	30.6	38.3	36.6
PA0-117-3800-00	F2	252717.3	4639505	227.32	32.3	31.3	38.3	37.3
PA0-420-0031-00	F2	252604.9	4639645	227.21	32.3	31.2	38.3	37.2
PA0-107-2800-00	F1	252284.5	4641379	227.94	32.3	30.5	38.3	36.5
PA0-116-2090-00	F2	255064	4640259	222.31	32.3	31.6	38.3	37.6
PA0-420-0160-00	F1	252600.6	4639816	225.54	32.3	31.2	38.3	37.2
PA0-420-0060-00	F1	252704.2	4639640	224.4	32.3	31.2	38.3	37.2
PA0-107-3900-00	F1	251664.5	4640597	237.88	32.3	30.6	38.3	36.6
PA0-117-4600-00	F1	253431.5	4638867	219.33	32.2	31.1	38.2	37.1
PA0-128-1025-00	F1	254209.5	4636992	217.14	32.2	28.7	38.2	34.7
PA0-116-2090-00	F2	255074.8	4640251	222.35	32.2	31.5	38.2	37.5
PA0-420-0031-00	F2	252594.7	4639642	227.26	32.2	31.1	38.2	37.1
PA0-420-0080-00	F1	252740.8	4639588	224.62	32.2	31.2	38.2	37.2
PA0-129-4620-00	F1	253296.7	4635672	217.49	32.2	30.7	38.2	36.7
PA0-108-1850-00	F2	253096.5	4641425	226.77	32.2	30.8	38.2	36.8
PA0-420-0160-00	F1	252590.6	4639815	225.57	32.2	31.0	38.2	37.0
PA0-116-2080-00	F2	255087.9	4640232	222.38	32.2	31.4	38.2	37.4
PA0-121-2040-00	F1	255082.6	4638628	217.45	32.2	30.9	38.2	36.9
PA0-116-2100-00	F2	255067.9	4640287	222.35	32.2	31.4	38.2	37.4
PA0-128-1025-00	F2	254176.1	4637000	219.72	32.1	29.0	38.1	35.0
PA0-130-3900-00	F2	251500.7	4635780	226.46	32.1	30.2	38.1	36.2
PA0-116-2150-00	F2	255059.6	4640310	222.34	32.1	31.4	38.1	37.4
PA0-117-3800-00	F2	252701	4639496	227.32	32.1	31.1	38.1	37.1
PA0-129-4620-00	F1	253300.8	4635682	217.48	32.1	30.7	38.1	36.7
PA0-117-3800-00	F2	252715.9	4639478	227.4	32.1	31.1	38.1	37.1
PA0-107-3900-00	F1	251661.8	4640585	237.74	32.1	30.4	38.1	36.4
PA0-133-3300-00	F2	255181	4634607	216.49	32.1	30.0	38.1	36.0
PA0-420-0060-00	F1	252699	4639625	224.44	32.1	31.0	38.1	37.0

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-420-0010-00	F2	252557.2	4639672	227.35	32.1	31.0	38.1	37.0
PA0-108-1575-00	F1	252772	4641383	226.19	32.1	30.5	38.1	36.5
PA0-128-1025-00	F2	254185.5	4637024	219.74	32.1	29.1	38.1	35.1
PA0-116-2050-00	F2	255112	4640203	222.26	32.1	31.3	38.1	37.3
PA0-116-2210-00	F1	254978.1	4640218	218.39	32.0	31.2	38.0	37.2
PA0-117-3800-00	F2	252703.2	4639479	227.37	32.0	31.0	38.0	37.0
PA0-107-2550-00	F1	251783.9	4641253	236.61	32.0	30.1	38.0	36.1
PA0-420-0020-00	F2	252565.9	4639652	227.35	32.0	30.9	38.0	36.9
PA0-116-2050-00	F2	255119.2	4640193	222.31	32.0	31.2	38.0	37.2
PA0-130-1805-00	F1	251576.8	4635930	224.25	32.0	30.3	38.0	36.3
PA0-420-0070-00	F1	252713.8	4639597	224.55	32.0	30.9	38.0	36.9
PA0-107-2800-00	F1	252288.2	4641398	228.33	32.0	30.2	38.0	36.2
PA0-116-2180-00	F1	254953.5	4640282	219.53	32.0	31.2	38.0	37.2
PA0-116-2090-00	F2	255092.3	4640276	222.44	32.0	31.2	38.0	37.2
PA0-121-3550-00	F2	254073.4	4637288	219.57	31.9	29.8	37.9	35.8
NONE	F1	253501.1	4641285	216.46	31.9	30.6	37.9	36.6
PA0-107-2750-00	F1	252166	4641390	229.75	31.9	30.1	37.9	36.1
PA0-108-2800-00	F2	253703.1	4641326	217.88	31.9	30.9	37.9	36.9
PA0-130-4350-00	F2	252234.5	4636272	222.9	31.9	29.0	37.9	35.0
PA0-116-2180-00	F1	254952.2	4640298	219.58	31.9	31.1	37.9	37.1
PA0-107-3900-00	F1	251649.8	4640584	237.97	31.9	30.2	37.9	36.2
PA0-420-0010-00	F2	252545.3	4639659	227.43	31.9	30.8	37.9	36.8
PA0-107-2800-00	F1	252288.3	4641405	228.48	31.9	30.1	37.9	36.1
PA0-121-3550-00	F2	254114.9	4637317	219.34	31.9	29.8	37.9	35.8
PA0-107-2800-00	F1	252280.6	4641406	228.53	31.9	30.0	37.9	36.0
PA0-108-2800-00	F2	253779.8	4641306	218.64	31.9	30.9	37.9	36.9
PA0-133-3300-00	F2	255161.2	4634583	216.52	31.9	29.8	37.9	35.8
PA0-107-3900-00	F1	251638.2	4640603	238.59	31.9	30.2	37.9	36.2
PA0-107-2550-00	F1	251762.7	4641248	236.17	31.8	29.9	37.8	35.9
PA0-117-4600-00	F1	253404.7	4638780	219.23	31.8	30.6	37.8	36.6
PA0-117-1600-00	F2	252525.7	4639677	227.51	31.8	30.7	37.8	36.7
PA0-116-2200-00	F1	254986.5	4640244	219.47	31.8	31.0	37.8	37.0
PA0-118-2930-00	F2	252492.6	4639721	227.63	31.8	30.7	37.8	36.7
PA0-116-2200-00	F1	254981.8	4640256	219.48	31.8	31.0	37.8	37.0
PA0-121-3640-00	F2	254227.1	4637112	219.62	31.8	29.3	37.8	35.3
PA0-108-2800-00	F2	253773.5	4641315	218.11	31.8	30.8	37.8	36.8
PA0-130-4350-00	F1	252282.1	4636253	220.29	31.8	28.8	37.8	34.8
PA0-420-0060-00	F1	252683.1	4639609	224.49	31.8	30.7	37.8	36.7
PA0-133-1050-00	F1	254115.3	4635422	215.64	31.7	30.2	37.7	36.2
PA0-116-4050-00	F2	255182.2	4638771	220.03	31.7	30.5	37.7	36.5
PA0-116-4050-00	F2	255182.1	4638765	219.95	31.7	30.5	37.7	36.5
PA0-116-4050-00	F2	255181.9	4638756	219.87	31.7	30.5	37.7	36.5
PA0-121-3550-00	F2	254121.1	4637296	219.41	31.7	29.6	37.7	35.6
PA0-117-1600-00	F2	252513.2	4639674	227.57	31.7	30.6	37.7	36.6
PA0-130-3900-00	F1	251500.7	4635780	223.96	31.7	29.9	37.7	35.9
PA0-108-1525-00	F1	252555.1	4641420	228.31	31.7	30.0	37.7	36.0
PA0-121-3550-00	F2	254104.5	4637278	219.73	31.7	29.6	37.7	35.6
PA0-117-4600-00	F1	253390.1	4638765	219.26	31.7	30.5	37.7	36.5
NONE	F2	253608.8	4641381	220.48	31.6	30.5	37.6	36.5
PA0-116-2210-00	F1	255012.5	4640223	219.46	31.6	30.8	37.6	36.8
PA0-107-2800-00	F1	252307.5	4641424	228.76	31.6	29.8	37.6	35.8
PA0-107-2800-00	F1	252266.1	4641422	228.95	31.6	29.8	37.6	35.8
PA0-130-3900-00	F2	251492.8	4635838	227.58	31.6	29.7	37.6	35.7
PA0-116-2125-00	F2	255191.1	4640112	222.38	31.6	30.8	37.6	36.8
PA0-116-4050-00	F2	255196.2	4638783	220.41	31.6	30.4	37.6	36.4
PA0-117-3800-00	F1	252760.1	4639501	224.21	31.6	30.5	37.6	36.5
PA0-133-3300-00	F1	255181	4634607	213.99	31.6	29.5	37.6	35.5

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-420-0050-00	F1	252651.8	4639620	224.58	31.5	30.5	37.5	36.5
PA0-128-1025-00	F1	254176.1	4637000	217.22	31.5	28.3	37.5	34.3
PA0-116-4050-00	F2	255198.8	4638734	220.17	31.5	30.3	37.5	36.3
PA0-108-2780-00	F1	253878.4	4641173	220.05	31.5	30.6	37.5	36.6
PA0-108-2780-00	F1	253845.4	4641192	219.93	31.4	30.5	37.4	36.5
PA0-128-1025-00	F1	254185.5	4637024	217.24	31.4	28.4	37.4	34.4
PA0-117-3800-00	F1	252725	4639518	224.8	31.4	30.4	37.4	36.4
PA0-132-1100-00	F2	252482.4	4635334	221.79	31.4	29.5	37.4	35.5
PA0-108-1850-00	F1	253100.8	4641408	224.25	31.4	30.0	37.4	36.0
PA0-420-0041-00	F1	252623	4639630	224.67	31.3	30.2	37.3	36.2
PA0-133-3300-00	F1	255161.2	4634583	214.02	31.3	29.3	37.3	35.3
PA0-130-3900-00	F2	251468.5	4635793	227.23	31.3	29.4	37.3	35.4
PA0-121-3600-00	F2	254125.1	4637178	219.59	31.3	29.0	37.3	35.0
PA0-121-3600-00	F2	254109.3	4637175	219.71	31.2	28.9	37.2	34.9
PA0-130-4350-00	F1	252234.5	4636272	220.4	31.2	28.4	37.2	34.4
PA0-420-0031-00	F1	252604.9	4639645	224.71	31.2	30.2	37.2	36.2
PA0-121-3600-00	F2	254132.1	4637161	219.52	31.2	28.9	37.2	34.9
PA0-116-2160-00	F1	255129.1	4640014	219.7	31.2	30.3	37.2	36.3
PA0-121-3250-00	F2	254498.6	4637513	220.8	31.2	29.2	37.2	35.2
PA0-117-3800-00	F1	252717.3	4639505	224.82	31.2	30.2	37.2	36.2
PA0-130-3900-00	F2	251472.5	4635823	227.78	31.2	29.3	37.2	35.3
PA0-116-4050-00	F2	255228.5	4638751	220.56	31.2	30.0	37.2	36.0
PA0-108-1850-00	F1	253096.5	4641425	224.27	31.2	29.8	37.2	35.8
PA0-121-3625-00	F2	254114	4637113	219.59	31.2	28.7	37.2	34.7
PA0-121-3550-00	F1	254073.4	4637288	217.07	31.2	29.0	37.2	35.0
PA0-116-2160-00	F1	255155.5	4639946	219.32	31.1	30.2	37.1	36.2
PA0-116-2150-00	F1	255022.5	4640304	219.68	31.1	30.4	37.1	36.4
PA0-132-1050-00	F2	252462.7	4635309	221.79	31.1	29.2	37.1	35.2
PA0-420-0031-00	F1	252594.7	4639642	224.76	31.1	30.0	37.1	36.0
PA0-118-2325-00	F2	251791.2	4640259	237.93	31.1	29.5	37.1	35.5
PA0-116-4050-00	F2	255236.8	4638791	221.12	31.1	29.9	37.1	35.9
PA0-130-3900-00	F1	251492.8	4635838	225.08	31.1	29.3	37.1	35.3
PA0-121-3640-00	F1	254227.1	4637112	217.12	31.1	28.6	37.1	34.6
PA0-121-3550-00	F1	254114.9	4637317	216.84	31.1	29.0	37.1	35.0
PA0-118-2325-00	F2	251784.8	4640260	237.99	31.1	29.5	37.1	35.5
PA0-118-2325-00	F2	251747.4	4640292	238.34	31.0	29.4	37.0	35.4
PA0-108-2850-00	F2	253809.2	4641390	217.35	31.0	30.1	37.0	36.1
PA0-116-2100-00	F1	255044.3	4640284	219.75	31.0	30.2	37.0	36.2
PA0-117-3800-00	F1	252701	4639496	224.82	31.0	30.0	37.0	36.0
PA0-117-3800-00	F1	252715.9	4639478	224.9	31.0	29.9	37.0	35.9
PA0-420-0010-00	F1	252557.2	4639672	224.85	31.0	29.9	37.0	35.9
PA0-116-2090-00	F1	255064	4640259	219.81	30.9	30.1	36.9	36.1
PA0-121-3725-00	F2	254504.8	4637368	223.59	30.9	29.0	36.9	35.0
PA0-108-2850-00	F2	253796.4	4641407	216.35	30.9	30.0	36.9	36.0
PA0-132-1050-00	F2	252505.7	4635308	221.52	30.9	29.0	36.9	35.0
PA0-420-0020-00	F1	252565.9	4639652	224.85	30.9	29.8	36.9	35.8
PA0-121-3550-00	F1	254121.1	4637296	216.91	30.9	28.8	36.9	34.8
PA0-121-3550-00	F1	254104.5	4637278	217.23	30.9	28.8	36.9	34.8
PA0-117-3800-00	F1	252703.2	4639479	224.87	30.9	29.9	36.9	35.9
PA0-116-2090-00	F1	255074.8	4640251	219.85	30.9	30.1	36.9	36.1
PA0-118-2325-00	F2	251768.2	4640251	238.25	30.8	29.3	36.8	35.3
PA0-116-2080-00	F1	255087.9	4640232	219.88	30.8	30.0	36.8	36.0
PA0-130-1805-00	F2	251523.4	4635974	227.33	30.8	28.9	36.8	34.9
PA0-116-2100-00	F1	255067.9	4640287	219.85	30.8	30.0	36.8	36.0
PA0-116-4050-00	F1	255182.1	4638765	217.45	30.8	29.6	36.8	35.6
PA0-116-4050-00	F1	255181.9	4638756	217.37	30.8	29.6	36.8	35.6
PA0-116-4050-00	F1	255182.2	4638771	217.53	30.8	29.6	36.8	35.6

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-130-3900-00	F1	251468.5	4635793	224.73	30.8	29.0	36.8	35.0
PA0-420-0010-00	F1	252545.3	4639659	224.93	30.8	29.7	36.8	35.7
PA0-116-2150-00	F1	255059.6	4640310	219.84	30.8	30.0	36.8	36.0
PA0-107-3900-00	F2	251662.2	4640355	241.27	30.7	29.1	36.7	35.1
PA0-132-1100-00	F1	252482.4	4635334	219.29	30.7	28.9	36.7	34.9
PA0-117-1600-00	F1	252525.7	4639677	225.01	30.7	29.6	36.7	35.6
PA0-116-2050-00	F1	255112	4640203	219.76	30.7	29.9	36.7	35.9
PA0-118-2325-00	F2	251748.5	4640255	238.5	30.7	29.1	36.7	35.1
PA0-130-3900-00	F1	251472.5	4635823	225.28	30.7	28.9	36.7	34.9
PA0-118-2930-00	F1	252492.6	4639721	225.13	30.7	29.5	36.7	35.5
PA0-108-2800-00	F1	253703.1	4641326	215.38	30.7	29.6	36.7	35.6
PA0-116-2050-00	F1	255119.2	4640193	219.81	30.7	29.8	36.7	35.8
PA0-116-4050-00	F1	255196.2	4638783	217.91	30.6	29.4	36.6	35.4
PA0-116-2090-00	F1	255092.3	4640276	219.94	30.6	29.8	36.6	35.8
PA0-108-2800-00	F1	253779.8	4641306	216.14	30.6	29.6	36.6	35.6
PA0-117-1600-00	F1	252513.2	4639674	225.07	30.6	29.5	36.6	35.5
PA0-107-3300-00	F2	251517.2	4641105	244.16	30.5	28.8	36.5	34.8
PA0-116-4050-00	F1	255198.8	4638734	217.67	30.5	29.3	36.5	35.3
PA0-107-3850-00	F2	251531.2	4640543	243.66	30.5	28.9	36.5	34.9
PA0-118-2325-00	F2	251767.6	4640218	238.67	30.5	29.0	36.5	35.0
PA0-108-2800-00	F1	253773.5	4641315	215.61	30.5	29.5	36.5	35.5
PA0-129-2050-00	F2	253680.7	4637070	219.92	30.4	28.1	36.4	34.1
PA0-132-1050-00	F1	252462.7	4635309	219.29	30.4	28.7	36.4	34.7
NONE	F1	253608.8	4641381	217.98	30.4	29.3	36.4	35.3
PA0-121-3600-00	F1	254125.1	4637178	217.09	30.4	28.2	36.4	34.2
PA0-121-3600-00	F1	254109.3	4637175	217.21	30.4	28.1	36.4	34.1
PA0-107-3900-00	F2	251637	4640348	242.63	30.4	28.8	36.4	34.8
PA0-132-2350-00	F2	253942.3	4635386	218.05	30.4	28.8	36.4	34.8
PA0-121-3600-00	F1	254132.1	4637161	217.02	30.4	28.1	36.4	34.1
PA0-400-0020-00	F2	251667.3	4640302	241.87	30.3	28.8	36.3	34.8
PA0-121-3625-00	F1	254114	4637113	217.09	30.3	27.9	36.3	33.9
PA0-121-2310-00	F2	255299	4638606	221.29	30.3	29.1	36.3	35.1
PA0-107-3900-00	F2	251617.6	4640364	242.97	30.3	28.7	36.3	34.7
PA0-121-3250-00	F1	254498.6	4637513	218.3	30.3	28.3	36.3	34.3
PA0-129-2725-00	F2	253345.8	4636305	219.15	30.3	29.0	36.3	35.0
PA0-400-0020-00	F2	251637.4	4640332	242.83	30.3	28.7	36.3	34.7
PA0-129-2050-00	F2	253645.8	4637062	219.91	30.2	27.9	36.2	33.9
PA0-116-2125-00	F1	255191.1	4640112	219.88	30.2	29.4	36.2	35.4
PA0-121-2310-00	F2	255309.9	4638605	221.33	30.2	29.0	36.2	35.0
PA0-130-1805-00	F1	251523.4	4635974	224.83	30.2	28.5	36.2	34.5
PA0-132-1050-00	F1	252505.7	4635308	219.02	30.2	28.4	36.2	34.4
PA0-129-2050-00	F2	253629.4	4637063	219.91	30.2	27.9	36.2	33.9
PA0-118-2325-00	F2	251732.9	4640214	239.35	30.2	28.7	36.2	34.7
PA0-118-2325-00	F1	251791.2	4640259	235.43	30.2	28.7	36.2	34.7
PA0-129-2050-00	F2	253686.7	4637046	219.88	30.2	27.8	36.2	33.8
PA0-116-4050-00	F1	255228.5	4638751	218.06	30.2	29.0	36.2	35.0
PA0-118-2325-00	F1	251784.8	4640260	235.49	30.1	28.6	36.1	34.6
PA0-118-2325-00	F1	251747.4	4640292	235.84	30.1	28.6	36.1	34.6
PA0-107-3300-00	F2	251482.7	4641091	244.22	30.1	28.4	36.1	34.4
PA0-130-3200-00	F2	251542.2	4636051	226.65	30.1	28.2	36.1	34.2
PA0-116-4050-00	F1	255236.8	4638791	218.62	30.1	28.9	36.1	34.9
PA0-129-2050-00	F2	253673.5	4637039	219.86	30.1	27.7	36.1	33.7
PA0-121-3725-00	F1	254504.8	4637368	221.09	30.0	28.1	36.0	34.1
PA0-129-2050-00	F2	253668	4637039	219.86	30.0	27.7	36.0	33.7
PA0-129-2050-00	F2	253657.5	4637042	219.87	30.0	27.7	36.0	33.7
PA0-120-4550-00	F2	253334.7	4637212	222.12	30.0	28.1	36.0	34.1
PA0-129-4640-00	F2	253440.5	4635626	219.9	30.0	28.5	36.0	34.5

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-129-4640-00	F2	253448.9	4635656	220.08	30.0	28.5	36.0	34.5
PA0-400-0030-00	F2	251661.9	4640259	242.41	29.9	28.4	35.9	34.4
PA0-129-2050-00	F2	253704.5	4637021	219.82	29.9	27.6	35.9	33.6
PA0-130-3200-00	F2	251514.3	4636033	226.56	29.9	28.0	35.9	34.0
PA0-118-2325-00	F1	251768.2	4640251	235.75	29.9	28.4	35.9	34.4
PA0-129-2050-00	F2	253664.8	4637026	219.84	29.9	27.6	35.9	33.6
PA0-129-2050-00	F2	253657.2	4637027	219.84	29.9	27.6	35.9	33.6
PA0-118-1300-00	F2	251598.2	4640325	244.69	29.8	28.3	35.8	34.3
PA0-107-3900-00	F1	251662.2	4640355	238.77	29.8	28.3	35.8	34.3
PA0-129-2050-00	F2	253647.9	4637024	219.83	29.8	27.6	35.8	33.6
PA0-129-2050-00	F2	253664.6	4637019	219.82	29.8	27.5	35.8	33.5
PA0-400-0030-00	F2	251631.4	4640271	243.72	29.7	28.2	35.7	34.2
PA0-118-2325-00	F1	251748.5	4640255	236	29.7	28.2	35.7	34.2
PA0-107-3300-00	F1	251517.2	4641105	241.66	29.7	28.1	35.7	34.1
PA0-108-2850-00	F1	253809.2	4641390	214.85	29.7	28.7	35.7	34.7
PA0-107-3850-00	F1	251531.2	4640543	241.16	29.7	28.1	35.7	34.1
PA0-107-1800-00	F2	251543.3	4641262	241.12	29.6	27.9	35.6	33.9
PA0-132-2350-00	F1	253942.3	4635386	215.55	29.6	28.1	35.6	34.1
PA0-129-2050-00	F1	253680.7	4637070	217.42	29.6	27.2	35.6	33.2
PA0-108-2850-00	F1	253796.4	4641407	213.85	29.6	28.6	35.6	34.6
PA0-129-2725-00	F1	253345.8	4636305	216.65	29.6	28.4	35.6	34.4
PA0-400-0040-00	F2	251665.2	4640205	242.45	29.5	28.0	35.5	34.0
PA0-118-2325-00	F1	251767.6	4640218	236.17	29.5	28.0	35.5	34.0
PA0-107-3400-00	F2	251406.7	4640709	244.14	29.5	27.9	35.5	33.9
PA0-118-1300-00	F2	251583.1	4640298	244.34	29.5	27.9	35.5	33.9
PA0-107-3900-00	F1	251637	4640348	240.13	29.5	27.9	35.5	33.9
PA0-130-3200-00	F1	251542.2	4636051	224.15	29.4	27.7	35.4	33.7
PA0-107-3900-00	F1	251617.6	4640364	240.47	29.4	27.8	35.4	33.8
PA0-118-1300-00	F2	251591.7	4640273	244.22	29.4	27.8	35.4	33.8
PA0-400-0020-00	F1	251667.3	4640302	239.37	29.4	27.8	35.4	33.8
PA0-134-1300-00	F2	255744.4	4635394	216.93	29.4	27.5	35.4	33.5
PA0-129-2050-00	F1	253645.8	4637062	217.41	29.3	27.0	35.3	33.0
PA0-120-4550-00	F2	253311.3	4637154	221.52	29.3	27.4	35.3	33.4
PA0-400-0020-00	F1	251637.4	4640332	240.33	29.3	27.8	35.3	33.8
PA0-129-2050-00	F1	253629.4	4637063	217.41	29.3	27.0	35.3	33.0
PA0-129-2050-00	F1	253686.7	4637046	217.38	29.3	26.9	35.3	32.9
PA0-121-2310-00	F1	255299	4638606	218.79	29.3	28.0	35.3	34.0
PA0-107-3300-00	F1	251482.7	4641091	241.72	29.3	27.6	35.3	33.6
PA0-129-4640-00	F1	253440.5	4635626	217.4	29.2	27.8	35.2	33.8
PA0-130-3200-00	F1	251514.3	4636033	224.06	29.2	27.5	35.2	33.5
PA0-129-4640-00	F1	253448.9	4635656	217.58	29.2	27.8	35.2	33.8
PA0-118-1300-00	F2	251539.9	4640326	245.17	29.2	27.7	35.2	33.7
PA0-134-1300-00	F2	255752.9	4635394	216.94	29.2	27.4	35.2	33.4
PA0-118-2325-00	F1	251732.9	4640214	236.85	29.2	27.7	35.2	33.7
PA0-134-1300-00	F2	255750.4	4635378	216.91	29.2	27.4	35.2	33.4
PA0-129-2050-00	F1	253673.5	4637039	217.36	29.1	26.8	35.1	32.8
PA0-121-2310-00	F1	255309.9	4638605	218.83	29.1	27.9	35.1	33.9
PA0-129-2050-00	F1	253668	4637039	217.36	29.1	26.8	35.1	32.8
PA0-120-4550-00	F1	253334.7	4637212	219.62	29.1	27.2	35.1	33.2
PA0-129-2050-00	F1	253657.5	4637042	217.37	29.1	26.8	35.1	32.8
PA0-129-4660-00	F2	253502.8	4635554	219.39	29.1	27.5	35.1	33.5
PA0-129-4660-00	F2	253509.4	4635562	219.32	29.1	27.5	35.1	33.5
PA0-134-1300-00	F2	255751.7	4635371	216.9	29.1	27.3	35.1	33.3
PA0-129-2050-00	F1	253704.5	4637021	217.32	29.0	26.7	35.0	32.7
PA0-131-2100-00	F2	251656.5	4635257	223.67	29.0	27.0	35.0	33.0
PA0-134-1300-00	F2	255769.5	4635396	216.97	29.0	27.2	35.0	33.2
PA0-129-2050-00	F1	253664.8	4637026	217.34	29.0	26.7	35.0	32.7

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-129-2050-00	F1	253657.2	4637027	217.34	28.9	26.7	34.9	32.7
PA0-400-0030-00	F1	251661.9	4640259	239.91	28.9	27.4	34.9	33.4
PA0-129-2740-00	F2	253465	4636328	219.04	28.9	27.5	34.9	33.5
PA0-129-2050-00	F1	253647.9	4637024	217.33	28.9	26.6	34.9	32.6
PA0-129-2050-00	F1	253664.6	4637019	217.32	28.9	26.6	34.9	32.6
PA0-129-2740-00	F2	253474.7	4636321	219.01	28.9	27.4	34.9	33.4
PA0-118-1300-00	F1	251598.2	4640325	242.19	28.8	27.3	34.8	33.3
PA0-131-2100-00	F2	251632.2	4635259	223.9	28.8	26.9	34.8	32.9
PA0-129-2740-00	F2	253477.2	4636337	219.05	28.8	27.3	34.8	33.3
PA0-129-2740-00	F2	253489.9	4636319	218.99	28.8	27.3	34.8	33.3
PA0-120-3950-00	F2	253235.1	4637145	221.37	28.7	26.9	34.7	32.9
PA0-107-1800-00	F1	251543.3	4641262	238.62	28.7	27.1	34.7	33.1
PA0-134-1000-00	F2	255785.2	4635394	216.99	28.7	26.9	34.7	32.9
PA0-120-3950-00	F2	253206	4637177	221.68	28.7	26.9	34.7	32.9
PA0-400-0030-00	F1	251631.4	4640271	241.22	28.7	27.2	34.7	33.2
PA0-134-1000-00	F2	255781	4635380	216.96	28.7	26.9	34.7	32.9
PA0-134-1300-00	F1	255744.4	4635394	214.43	28.7	26.9	34.7	32.9
PA0-131-1325-00	F2	251398.2	4635495	227.33	28.7	26.7	34.7	32.7
PA0-129-2350-00	F2	253801.1	4636797	219.36	28.6	26.3	34.6	32.3
PA0-107-3400-00	F1	251406.7	4640709	241.64	28.6	27.0	34.6	33.0
PA0-128-1550-00	F2	254320.3	4636366	217.52	28.6	26.2	34.6	32.2
PA0-134-1300-00	F1	255752.9	4635394	214.44	28.5	26.8	34.5	32.8
PA0-131-1325-00	F2	251394.5	4635488	227.29	28.5	26.6	34.5	32.6
PA0-129-2350-00	F2	253742.4	4636817	219.49	28.5	26.3	34.5	32.3
PA0-400-0040-00	F1	251665.2	4640205	239.95	28.5	27.0	34.5	33.0
PA0-129-4580-00	F2	253635.5	4635778	218.93	28.5	26.9	34.5	32.9
PA0-128-1550-00	F2	254301.4	4636362	217.56	28.5	26.1	34.5	32.1
PA0-118-1300-00	F1	251583.1	4640298	241.84	28.5	26.9	34.5	32.9
PA0-134-1300-00	F1	255750.4	4635378	214.41	28.5	26.7	34.5	32.7
PA0-120-3900-00	F2	253174.9	4637162	222.16	28.4	26.6	34.4	32.6
PA0-134-1300-00	F1	255751.7	4635371	214.4	28.4	26.7	34.4	32.7
PA0-120-4550-00	F1	253311.3	4637154	219.02	28.3	26.5	34.3	32.5
PA0-118-1300-00	F1	251591.7	4640273	241.72	28.3	26.8	34.3	32.8
PA0-131-1325-00	F2	251398.7	4635457	226.88	28.3	26.4	34.3	32.4
PA0-120-3900-00	F2	253185.9	4637126	222.2	28.3	26.5	34.3	32.5
PA0-134-1300-00	F1	255769.5	4635396	214.47	28.3	26.5	34.3	32.5
PA0-129-4580-00	F2	253674.4	4635764	218.77	28.3	26.7	34.3	32.7
PA0-131-2100-00	F1	251656.5	4635257	221.17	28.3	26.4	34.3	32.4
PA0-128-1550-00	F2	254311.5	4636329	217.46	28.2	26.0	34.2	32.0
PA0-129-4660-00	F1	253502.8	4635554	216.89	28.2	26.8	34.2	32.8
PA0-129-4660-00	F1	253509.4	4635562	216.82	28.2	26.7	34.2	32.7
PA0-118-1300-00	F1	251539.9	4640326	242.67	28.2	26.7	34.2	32.7
PA0-129-1375-00	F2	253185.7	4637070	222.61	28.1	26.3	34.1	32.3
PA0-131-2100-00	F1	251632.2	4635259	221.4	28.1	26.2	34.1	32.2
PA0-128-1550-00	F2	254329.9	4636297	217.36	28.1	25.9	34.1	31.9
PA0-128-1990-00	F2	254758	4636306	218.75	28.1	26.1	34.1	32.1
PA0-129-1375-00	F2	253167.6	4637073	222.94	28.0	26.3	34.0	32.3
PA0-134-1000-00	F1	255785.2	4635394	214.49	28.0	26.3	34.0	32.3
PA0-129-2740-00	F1	253465	4636328	216.54	28.0	26.7	34.0	32.7
PA0-128-1990-00	F2	254787.5	4636305	218.63	28.0	26.1	34.0	32.1
PA0-128-3300-00	F2	254487.1	4636242	218.15	28.0	26.0	34.0	32.0
PA0-134-1000-00	F1	255781	4635380	214.46	28.0	26.3	34.0	32.3
PA0-131-1325-00	F1	251398.2	4635495	224.83	28.0	26.1	34.0	32.1
PA0-128-1990-00	F2	254779.7	4636288	218.63	27.9	26.0	33.9	32.0
PA0-129-2740-00	F1	253474.7	4636321	216.51	27.9	26.6	33.9	32.6
PA0-128-4050-00	F2	255121.9	4636172	217.25	27.9	26.4	33.9	32.4
PA0-128-4050-00	F2	255076.4	4636167	217.4	27.9	26.4	33.9	32.4

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-134-1000-00	F2	255844	4635399	217.08	27.9	26.1	33.9	32.1
PA0-128-3300-00	F2	254500.9	4636212	218.09	27.9	25.9	33.9	31.9
PA0-128-1990-00	F2	254817.4	4636287	218.44	27.9	26.0	33.9	32.0
PA0-129-2740-00	F1	253477.2	4636337	216.55	27.8	26.5	33.8	32.5
PA0-134-1000-00	F2	255843	4635383	217.05	27.8	26.1	33.8	32.1
PA0-131-1325-00	F1	251394.5	4635488	224.79	27.8	26.0	33.8	32.0
PA0-129-2740-00	F1	253489.9	4636319	216.49	27.8	26.5	33.8	32.5
PA0-128-4050-00	F2	255085	4636195	217.65	27.7	26.2	33.7	32.2
PA0-120-3950-00	F1	253235.1	4637145	218.87	27.7	25.9	33.7	31.9
PA0-120-3950-00	F1	253206	4637177	219.18	27.7	25.9	33.7	31.9
PA0-128-3150-00	F2	254273.8	4636232	217.56	27.7	25.6	33.7	31.6
PA0-128-4050-00	F2	255105.8	4636209	217.78	27.7	26.1	33.7	32.1
PA0-128-4050-00	F2	255078.2	4636211	217.78	27.7	26.1	33.7	32.1
PA0-131-1325-00	F1	251398.7	4635457	224.38	27.6	25.7	33.6	31.7
PA0-128-3150-00	F2	254259.5	4636213	217.62	27.6	25.6	33.6	31.6
PA0-128-1550-00	F1	254320.3	4636366	215.02	27.6	25.3	33.6	31.3
PA0-128-3150-00	F2	254235.1	4636208	217.68	27.6	25.6	33.6	31.6
PA0-129-2350-00	F1	253801.1	4636797	216.86	27.5	25.3	33.5	31.3
PA0-129-4580-00	F1	253635.5	4635778	216.43	27.5	26.0	33.5	32.0
PA0-128-1550-00	F1	254301.4	4636362	215.06	27.5	25.2	33.5	31.2
PA0-129-2350-00	F1	253742.4	4636817	216.99	27.4	25.3	33.4	31.3
PA0-120-3900-00	F1	253174.9	4637162	219.66	27.4	25.6	33.4	31.6
PA0-129-4580-00	F1	253674.4	4635764	216.27	27.3	25.8	33.3	31.8
PA0-120-3900-00	F1	253185.9	4637126	219.7	27.3	25.5	33.3	31.5
PA0-128-1550-00	F1	254311.5	4636329	214.96	27.2	25.0	33.2	31.0
PA0-134-1000-00	F1	255844	4635399	214.58	27.1	25.4	33.1	31.4
PA0-128-1990-00	F1	254758	4636306	216.25	27.1	25.2	33.1	31.2
PA0-128-1550-00	F1	254329.9	4636297	214.86	27.0	24.9	33.0	30.9
PA0-134-1000-00	F1	255843	4635383	214.55	27.0	25.3	33.0	31.3
PA0-128-1990-00	F1	254787.5	4636305	216.13	27.0	25.1	33.0	31.1
PA0-129-1375-00	F1	253185.7	4637070	220.11	27.0	25.3	33.0	31.3
PA0-128-4050-00	F1	255121.9	4636172	214.75	27.0	25.6	33.0	31.6
PA0-128-4050-00	F1	255076.4	4636167	214.9	27.0	25.5	33.0	31.5
PA0-128-3300-00	F1	254487.1	4636242	215.65	26.9	25.0	32.9	31.0
PA0-128-1990-00	F1	254779.7	4636288	216.13	26.9	25.1	32.9	31.1
PA0-129-1375-00	F1	253167.6	4637073	220.44	26.9	25.2	32.9	31.2
PA0-128-1990-00	F1	254817.4	4636287	215.94	26.9	25.0	32.9	31.0
PA0-128-3300-00	F1	254500.9	4636212	215.59	26.8	24.9	32.8	30.9
PA0-128-4050-00	F1	255085	4636195	215.15	26.8	25.3	32.8	31.3
PA0-128-4050-00	F1	255105.8	4636209	215.28	26.7	25.2	32.7	31.2
PA0-128-4050-00	F1	255078.2	4636211	215.28	26.7	25.2	32.7	31.2
PA0-128-3150-00	F1	254273.8	4636232	215.06	26.6	24.6	32.6	30.6
PA0-128-3150-00	F1	254259.5	4636213	215.12	26.5	24.6	32.5	30.6
PA0-128-3150-00	F1	254235.1	4636208	215.18	26.5	24.5	32.5	30.5
PA0-122-1675-00	F2	255901.3	4637931	219.07	24.3	23.1	30.3	29.1
PA0-122-1710-00	F2	255974.7	4637941	217.7	23.9	22.7	29.9	28.7
PA0-122-3380-00	F2	255892.6	4637654	219.26	23.8	22.4	29.8	28.4
PA0-122-1720-00	F2	256002.3	4637910	218.02	23.7	22.5	29.7	28.5
PA0-122-3380-00	F2	255933.6	4637690	219.22	23.6	22.3	29.6	28.3
PA0-122-3380-00	F2	255935.2	4637665	219.2	23.6	22.2	29.6	28.2
PA0-122-3380-00	F2	255950.6	4637690	219.19	23.5	22.2	29.5	28.2
PA0-122-3160-00	F2	255922.7	4637613	219.11	23.5	22.2	29.5	28.2
PA0-122-3160-00	F2	255923.3	4637601	219.07	23.5	22.1	29.5	28.1
PA0-122-3160-00	F2	255924.6	4637581	219.03	23.5	22.1	29.5	28.1
PA0-122-3160-00	F2	255941.5	4637624	219.09	23.5	22.1	29.5	28.1
PA0-122-3380-00	F2	255982.5	4637691	219.09	23.4	22.1	29.4	28.1
PA0-122-3160-00	F2	255941.9	4637570	218.96	23.3	22.0	29.3	28.0

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-122-3300-00	F2	256062.1	4637854	218.61	23.3	22.0	29.3	28.0
PA0-122-3130-00	F2	255979.9	4637620	218.99	23.2	21.9	29.2	27.9
PA0-122-3160-00	F2	255954	4637538	218.84	23.2	21.9	29.2	27.9
PA0-122-3160-00	F2	255948.4	4637523	218.82	23.2	21.8	29.2	27.8
PA0-122-3300-00	F2	256078.2	4637856	218.59	23.2	21.9	29.2	27.9
PA0-122-3350-00	F2	256055	4637784	217.2	23.2	21.9	29.2	27.9
PA0-122-3160-00	F2	255968.3	4637523	218.76	23.1	21.7	29.1	27.7
PA0-122-3360-00	F2	256055	4637739	216.51	23.1	21.8	29.1	27.8
PA0-122-3350-00	F2	256067.9	4637774	216.6	23.1	21.8	29.1	27.8
PA0-122-3350-00	F2	256083.9	4637790	217.15	23.0	21.8	29.0	27.8
PA0-122-3300-00	F2	256105.8	4637833	218.62	23.0	21.7	29.0	27.7
PA0-122-3360-00	F2	256070.9	4637728	215.59	23.0	21.7	29.0	27.7
PA0-122-3360-00	F2	256080.5	4637747	215.68	23.0	21.7	29.0	27.7
PA0-122-3370-00	F2	256072.1	4637680	214.78	22.9	21.6	28.9	27.6
PA0-122-1675-00	F1	255901.3	4637931	216.57	22.9	21.6	28.9	27.6
PA0-122-3370-00	F2	256081.3	4637701	214.68	22.9	21.6	28.9	27.6
PA0-122-3390-00	F2	256035.1	4637562	217.95	22.9	21.5	28.9	27.5
PA0-122-3650-00	F2	255912.6	4637074	217.36	22.8	21.2	28.8	27.2
PA0-122-3390-00	F2	256052.3	4637553	217.26	22.8	21.4	28.8	27.4
PA0-122-3650-00	F2	255927.7	4637075	217.46	22.7	21.2	28.7	27.2
PA0-122-1710-00	F1	255974.7	4637941	215.2	22.4	21.2	28.4	27.2
PA0-122-3850-00	F2	256012.1	4637209	217.71	22.4	21.0	28.4	27.0
PA0-122-3850-00	F2	256018.5	4637215	217.77	22.4	21.0	28.4	27.0
PA0-122-3850-00	F2	256023.8	4637226	217.8	22.4	20.9	28.4	26.9
PA0-122-3850-00	F2	256004.3	4637098	217.96	22.4	20.9	28.4	26.9
PA0-122-3380-00	F1	255892.6	4637654	216.76	22.3	21.0	28.3	27.0
PA0-122-1720-00	F1	256002.3	4637910	215.52	22.2	21.0	28.2	27.0
PA0-122-3380-00	F1	255933.6	4637690	216.72	22.1	20.8	28.1	26.8
PA0-122-3380-00	F1	255935.2	4637665	216.7	22.1	20.8	28.1	26.8
PA0-122-3380-00	F1	255950.6	4637690	216.69	22.0	20.8	28.0	26.8
PA0-122-3160-00	F1	255922.7	4637613	216.61	22.0	20.7	28.0	26.7
PA0-122-3160-00	F1	255923.3	4637601	216.57	22.0	20.7	28.0	26.7
PA0-122-3160-00	F1	255924.6	4637581	216.53	22.0	20.6	28.0	26.6
PA0-122-3160-00	F1	255941.5	4637624	216.59	22.0	20.6	28.0	26.6
PA0-122-3380-00	F1	255982.5	4637691	216.59	21.9	20.6	27.9	26.6
PA0-122-3160-00	F1	255941.9	4637570	216.46	21.8	20.5	27.8	26.5
PA0-122-3300-00	F1	256062.1	4637854	216.11	21.7	20.5	27.7	26.5
PA0-122-3130-00	F1	255979.9	4637620	216.49	21.7	20.4	27.7	26.4
PA0-122-3160-00	F1	255948.4	4637523	216.32	21.7	20.4	27.7	26.4
PA0-122-3160-00	F1	255954	4637538	216.34	21.7	20.4	27.7	26.4
PA0-122-3300-00	F1	256078.2	4637856	216.09	21.6	20.4	27.6	26.4
PA0-122-3350-00	F1	256055	4637784	214.7	21.6	20.4	27.6	26.4
PA0-122-3160-00	F1	255968.3	4637523	216.26	21.6	20.3	27.6	26.3
PA0-122-3360-00	F1	256055	4637739	214.01	21.6	20.3	27.6	26.3
PA0-122-3350-00	F1	256067.9	4637774	214.1	21.5	20.3	27.5	26.3
PA0-122-3350-00	F1	256083.9	4637790	214.65	21.5	20.3	27.5	26.3
PA0-122-3300-00	F1	256105.8	4637833	216.12	21.4	20.2	27.4	26.2
PA0-122-3360-00	F1	256070.9	4637728	213.09	21.4	20.2	27.4	26.2
PA0-122-3360-00	F1	256080.5	4637747	213.18	21.4	20.2	27.4	26.2
PA0-122-3370-00	F1	256072.1	4637680	212.28	21.3	20.1	27.3	26.1
PA0-122-3370-00	F1	256081.3	4637701	212.18	21.3	20.1	27.3	26.1
PA0-122-3390-00	F1	256035.1	4637562	215.45	21.3	20.0	27.3	26.0
PA0-122-3650-00	F1	255912.6	4637074	214.86	21.3	19.8	27.3	25.8
PA0-122-3390-00	F1	256052.3	4637553	214.76	21.2	19.9	27.2	25.9
PA0-122-3650-00	F1	255927.7	4637075	214.96	21.2	19.7	27.2	25.7
PA0-122-3850-00	F1	256012.1	4637209	215.21	20.9	19.5	26.9	25.5
PA0-122-3850-00	F1	256018.5	4637215	215.27	20.9	19.5	26.9	25.5

ROUGET ROAD SOLAR FARM PROJECT

Predicted Operational Sound Levels at Nonparticipating Structures

Receiver ID [a]	Floor [b]	UTM Coordinates (Zone 17)		Ground Elevation	Modeled Free Field [c]		Modeled Façade-Adjusted [d]	
		Easting	Northing		Leq,d [e]	Leq,n [f]	Leq,d [e]	Leq,n [f]
		(m)	(m)	(m)	(dBA)	(dBA)	(dBA)	(dBA)
PA0-122-3850-00	F1	256023.8	4637226	215.3	20.9	19.5	26.9	25.5
PA0-122-3850-00	F1	256004.3	4637098	215.46	20.8	19.4	26.8	25.4

Table Footnotes

a: Receiver ID. Duplicate IDs indicate either multiple modeled floor levels at the same structure or multiple structures located on the same nonparticipating property.

b: Floor level. F1 = first floor (modeled at a height of 1.5 meters); F2 = second floor (modeled at a height of 4.0 meters).

c: Modeled free-field sound levels. Values reflect ISO 9613-2 predictions including a +5 dBA tonal penalty applied to all equipment sources in accordance with MPSC guidelines.

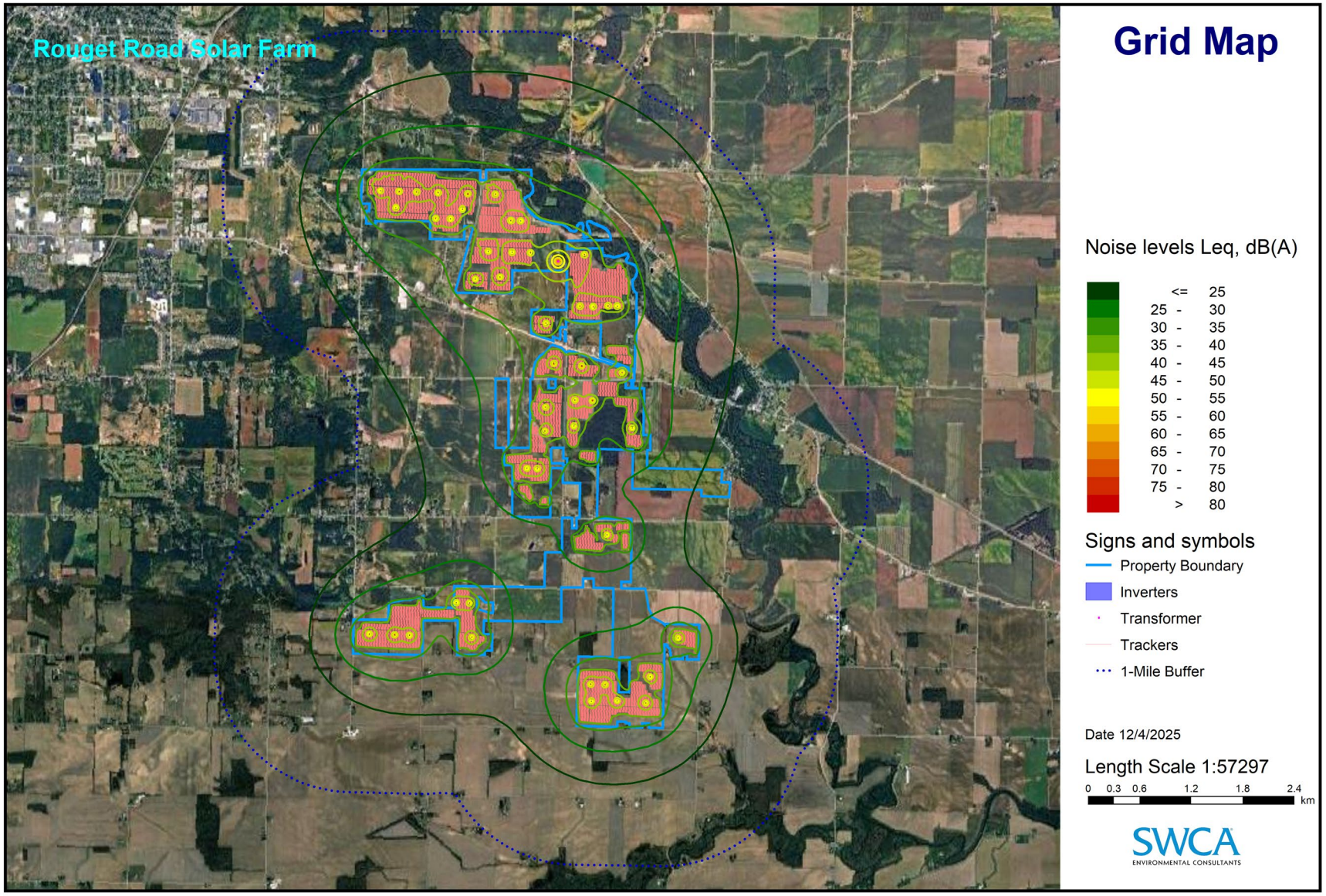
d: Modeled façade-adjusted sound levels. Values include both a +5 dBA tonal penalty and a +6 dBA correction for sound pressure doubling at building façades, as required for assessing compliance at the nearest outer wall.

e: Leq,d (daytime equivalent sound level). Includes operational noise from inverters, trackers, and transformers, reflecting full-load daytime conditions.

f: Leq,n (nighttime equivalent sound level). Includes only inverters and transformers; tracker operation is not modeled at night.

APPENDIX E

Project Operation Isopleths



SoundPLANnoise Rouget Road Solar Farm12/4/2025

Figure E-1. Grid Map – Rouget Road Solar Farm

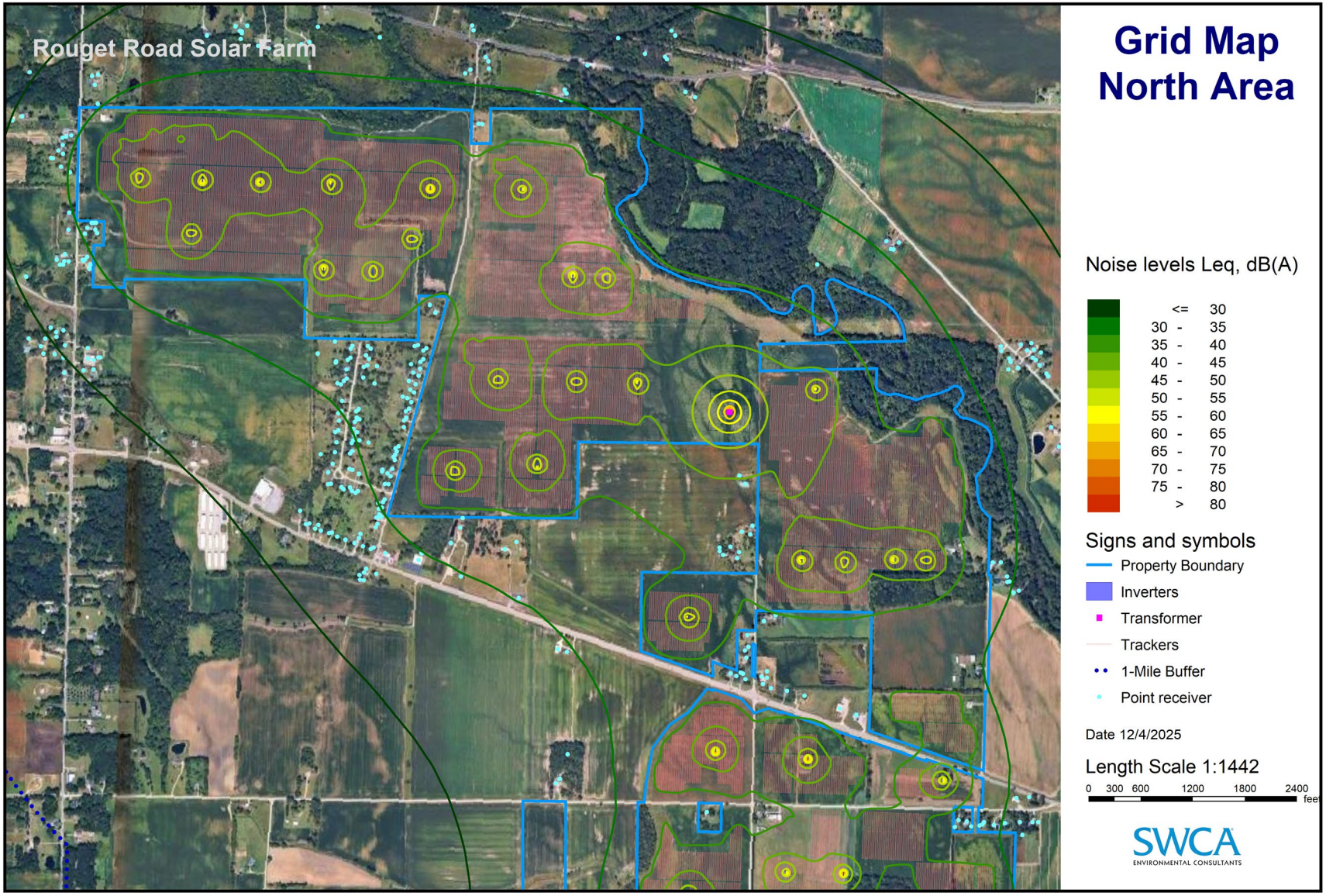
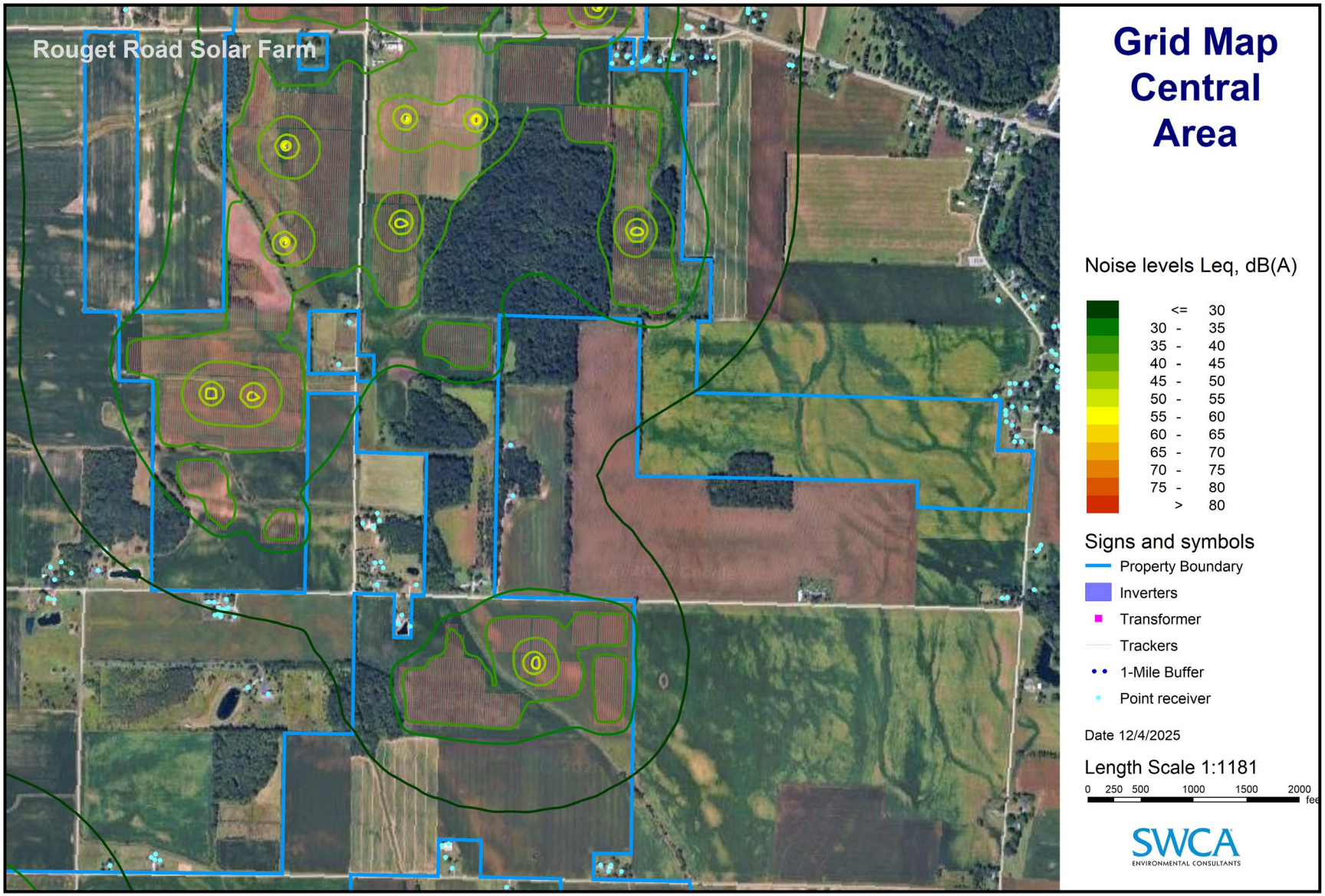
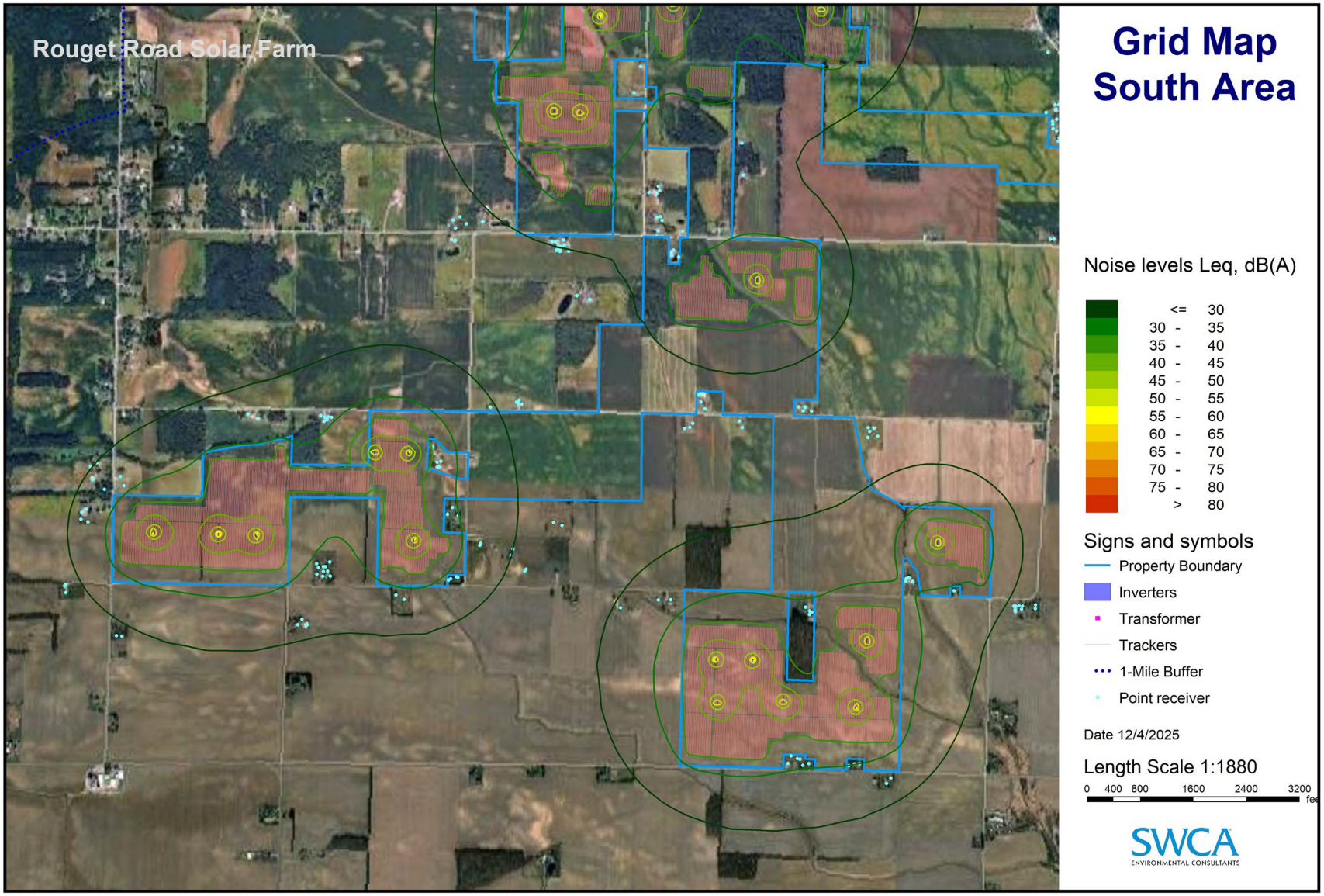


Figure E-2. Grid Map – North Area



SoundPLANnoise Rouget Road Solar Farm 12/4/2025

Figure E-3. Grid Map – Central Area



SoundPLANnoise Rouget Road Solar Farm 12/4/2025

Figure E-4. Grid Map – South Area

APPENDIX F

Post-Construction Sound Monitoring Protocol

Rouget Road Solar Farm Post-Construction Sound Monitoring Protocol

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC

PREPARED BY

SWCA Environmental Consultants

ROUGET ROAD SOLAR FARM POST-CONSTRUCTION SOUND MONITORING PROTOCOL

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1 INTRODUCTION AND PURPOSE

This appendix outlines the Post-Construction Sound Monitoring Protocol for the Rouget Road Solar Farm (the Project), developed by Rouget Road Solar Farm, LLC (Applicant). The purpose of this protocol is to verify that operational noise emissions from the as-built facility comply with applicable statutory requirements, specifically the noise limits established under Michigan Public Act 233 of 2023 (MCL 460.1226).

In accordance with the Sound Report Guidelines provided in Attachment D of the Michigan Public Service Commission's (MPSC) *Act 233 Application Filing Requirements and Procedures*, post-construction sound monitoring must be conducted to evaluate whether the completed facility meets the applicable noise limits.

To satisfy this requirement, sound monitoring should be conducted within the first year of commercial operation, otherwise directed by the Commission. The procedures should generally follow relevant provisions of ANSI S12.9 Part 3 (Quantities and Procedures for Description and Measurement of Environmental Sound – Short-term Measurements with an Observer Present). Although IEC TC 61400-11-2 is referenced for wind projects, the ANSI standards are more applicable for solar energy facilities and will serve as the primary basis for monitoring methods in this protocol.

This protocol outlines the methodology for site selection, equipment setup, sound level measurement, meteorological screening, and compliance assessment. It ensures a consistent and transparent approach to verifying that operational sound levels remain within the regulatory threshold of 55 dBA L_{eq} (1-hour) at the nearest outer wall of any nonparticipating dwelling.

2 MONITORING GUIDELINES

Post-construction sound monitoring for the Rouget Road Solar Farm will be conducted in accordance with the Monitoring Guidelines outlined in Section D2.2 of Attachment D of the MPSC's *Act 233 Application Filing Requirements and Procedures*. The objective of this monitoring is to determine whether sound levels from the operational facility comply with the statutory limit of 55 dBA L_{eq} (1-hour), as defined in MCL 460.1226. Importantly, this threshold applies specifically to sound attributable to facility operations, exclusive of ambient environmental noise.

To capture the full range of acoustic conditions—including periods when the facility may be producing maximum sound emissions—unattended, long-term monitoring will be performed. Monitoring will occur continuously over a period of at least seven to ten days, or until a sufficient number of valid hourly measurement periods have been obtained, as defined by this protocol. Data will be evaluated for compliance with the statutory noise limit and screened to exclude periods influenced by atypical meteorological events or unrelated noise sources, consistent with ANSI S12.9 Part 3 methodologies.

This section outlines the specific procedures and standards for site selection, equipment specifications, measurement conditions, data screening, and compliance evaluation to ensure that monitoring results are accurate, defensible, and aligned with MPSC requirements.

2.1 Equipment

All sound level meters used in post-construction monitoring shall meet ANSI/IEC Class 1 performance standards, including IEC 61672-1 and ANSI S1.4, and shall be capable of logging 1/3-octave band equivalent continuous sound pressure levels (L_{eq}). Microphones shall be protected by a 7-inch diameter hydrophobic windscreen (or equivalent) to minimize wind-induced noise.

Each sound level meter shall be paired with an audio recording system to support sound source identification and soundscape characterization.

Each sound level meter shall be field calibrated using an acoustical calibrator compliant with IEC 60942 Class 1, both immediately before and after each monitoring deployment. Calibration drift greater than ±0.5 dB shall be noted and addressed in accordance with ANSI S12.18 procedures. All sound level meters and calibrators shall have been laboratory-calibrated within the last two years (meters) and one year (calibrators) by a facility traceable to the National Institute of Standards and Technology (NIST).

Anemometers shall be installed adjacent to each sound monitoring station at microphone height to record wind speed during data collection. Supplementary meteorological data may be obtained from nearby National Weather Service (NWS) stations and/or the Project's operational logging systems.

2.2 Monitoring Locations

In accordance with the MPSC *Act 233 Application Filing Requirements and Procedures*, post-construction sound monitoring will be conducted at two nonparticipating dwellings predicted to experience the highest modeled sound levels from facility operation. These locations are selected based on the results of the pre-construction sound modeling analysis and are intended to represent worst-case exposure scenarios for nonparticipating receptors.

Monitoring locations will be situated in accordance with the technical siting criteria outlined in Attachment D, Section D2.2, and shall:

- Be located in areas with modeled free-field sound levels closest to the 55 dBA L_{eq} (1-hour) regulatory threshold;
- Provide a clear line of sight to nearby facility components;
- Avoid reflective surfaces or obstructions that could bias results;
- Be sited in free-field conditions at least 25 feet from any building façade or other reflective structure. If a free-field location is used, a 6 dB correction will be applied to approximate sound levels at the nearest wall of the dwelling;
- Use microphones mounted at a height of 1.2 to 1.5 meters above ground.

If landowner access is not granted at either location, an alternate site may be selected on the same property or at a nearby location with a comparable modeled sound level. If no such alternative is available, a sound propagation correction may be applied based on project-specific modeling.

In the event of formal noise complaints, additional monitoring may be considered. Complaint-driven monitoring locations will be selected based on:

- The type and persistence of the complaint (e.g., tonal noise, low-frequency issues, vibration, etc.);
- Whether the issue is ongoing or isolated;
- Whether modeled levels exceed 44 dBA (free-field) or 50 dBA (dwelling wall);
- Landowner cooperation with the study.

This two-location approach ensures regulatory compliance while providing meaningful verification of facility sound emissions under real-world operating conditions.

Project operation logs (SCADA) and sound levels shall be collected to categorize operational states of the facility. If necessary, confidential facility operational data can be submitted to Staff under a confidential protective order.

2.3 Data Processing and Analysis

To ensure data quality and regulatory defensibility, post-construction sound data will be screened and processed according to the standards outlined in ANSI S12.9 Part 3 and the MPSC's Attachment D monitoring guidance. Only acoustically valid data will be used for compliance assessment.

2.3.1 Data Exclusion Criteria

The following conditions shall result in exclusion of measurement data from the analysis:

- High wind gusts: Ground-level wind speeds exceeding 5 m/s (11.2 mph);
- Precipitation events: Including rainfall, snow, or thunderstorms, as verified by regional meteorological data or observable acoustic signatures;
- Anomalous transient noise: Short-term contaminating sounds not representative of typical ambient or facility operations (e.g., nearby human activity, vehicular idling near the microphone, or equipment handling);
- Out-of-spec environmental conditions: Periods during which temperature or humidity fall outside the operational tolerances of the sound level meter or microphone.

If more than 50% of a given one-hour aggregation period is determined to be invalid based on these criteria, the entire one-hour interval will be excluded from further analysis.

2.3.2 Biogenic Sound Considerations

Sound data influenced by biogenic sources (e.g., insects, birds, or frogs) will be reviewed carefully and noted in the qualitative summary of each monitoring site. To minimize the influence of biogenic interference, post-construction monitoring will be scheduled for seasons when such sound is less prevalent—typically late fall through early spring. Given that solar equipment may emit sound above the 1 kHz octave band, attention will be paid to the impact of biogenic noise in this frequency range.

2.3.3 Tonal Analysis and Penalty Application

Presence of prominent discrete tones will be determined using a 1/3-octave band analysis, with one-minute resolution. A tone is considered prominent if the sound level in a 1/3-octave band exceeds the arithmetic average of the two adjacent bands by the following thresholds:

- $\geq$ 15 dB for center frequencies between 25 Hz and 125 Hz (low frequency);
- $\geq$ 8 dB for 160 Hz to 400 Hz (mid-frequency);
- $\geq$ 5 dB for 500 Hz to 10,000 Hz (high frequency).

If a tone is determined to be audible and meets the thresholds above, a 5 dB tonal penalty shall be applied to the affected one-minute period, in accordance with the MPSC guidance.

2.4 Facility Sound Level Analysis

Because operational shutdowns are not practical for solar energy facilities, this protocol adopts the alternative approach outlined in Section D2.3 of the MPSC's Act 233 Application Filing Requirements and Procedures to isolate sound attributable to the facility.

Under this approach, the analysis will focus on identifying at least three one-hour measurement periods that reflect typical or near-maximum facility operation under meteorological conditions that support worst-case sound propagation. These periods must be free of contamination from wind, precipitation, or transient noise sources, as defined in Section 2.3 of this protocol.

To demonstrate compliance, each of the selected periods must exhibit a measured free-field sound level below 44 dBA L_{eq} (1-hour). This threshold incorporates a 6 dB façade correction to approximate sound levels at the nearest dwelling wall, as well as a 5 dB tonal penalty—ensuring that the results reflect a conservative worst-case scenario. No additional corrections for background or tonal content are required if these criteria are met.

Facility operation during these periods will be confirmed using SCADA data or other verifiable operational logs. Meteorological data, collected concurrently at each monitoring location, will also be used to support the selection of qualifying periods. Documentation of each selected period will include a narrative summary of weather conditions, operational status, and justification for inclusion as representative of worst-case acoustic conditions.

This approach provides a reliable, regulator-approved method for determining facility-only sound levels and demonstrating compliance with the 55 dBA L_{eq} (1-hour) limit specified in MCL 460.1226.

2.5 Documentation

Upon completion of post-construction sound monitoring, a comprehensive report will be prepared and submitted to the MPSC in accordance with the requirements outlined in Section D2.4 of the *Act 233 Application Filing Requirements and Procedures*.

The final report will include the following elements:

- Facility Description: A summary of the facility's layout, equipment, and operational characteristics relevant to acoustics, including a map of major sound-generating components.
- Monitoring Locations: A map and description of each monitoring site, including its proximity to the nearest facility components and dwelling(s). Justification for site selection will be provided, along with photographic documentation.
- Instrumentation: A description of all equipment used (e.g., sound level meters, calibrators, anemometers), including model numbers, calibration certificates (field and lab), and conformance with ANSI/IEC Class 1 requirements.
- Data Collection Summary: An overview of the monitoring period(s), including dates, durations, meteorological conditions, and SCADA data that confirm facility operational status during monitoring.
- Data Processing Procedures: A description of all data screening and exclusion methods (e.g., wind, precipitation, anomalous noise), tonal analysis methods, and any corrections applied (e.g., façade correction, tonal penalty).

- Results and Compliance Analysis: Presentation of one-hour L_{eq} data, including 1/3-octave band levels, statistical metrics (L_{10}, L_{50}, L_{90}), and documentation of at least three one-hour periods under worst-case conditions where measured free-field levels remained below 44 dBA. Supporting figures and tables will clearly demonstrate whether sound levels comply with the 55 dBA L_{eq} (1-hour) statutory limit.
- Narrative Summary: A plain-language summary of findings, noting whether any prominent discrete tones were identified and how they were addressed. Any biogenic or site-specific factors influencing results will also be discussed.
- Appendices: Supporting documentation such as raw data excerpts, full 1/3-octave band logs, wind speed logs, photographs of instrumentation setup, SCADA logs (or summary charts), calibration records, and GIS maps.

All information submitted will be sufficient to allow the Commission to independently verify the monitoring methods and results. If confidential information is included (e.g., operational logs), it will be submitted under a protective order as necessary.

2.6 Data Availability and Confidentiality

In accordance with Section D2.5 of the MPSC's Act 233 Application Filing Requirements and Procedures, all post-construction sound monitoring data and results will be retained in digital format and made available to Commission Staff upon request. This includes:

- Hourly L_{eq} values and 1/3-octave band data;
- Raw sound level meter logs;
- Meteorological data recorded during the monitoring period;
- Operational data used to verify facility status during monitoring.

If any portion of the data set, such as SCADA logs or other facility-specific operational records, is deemed confidential or commercially sensitive, it will be submitted under a confidential protective order in accordance with Commission procedures.

The project team will ensure that all data are organized, clearly labeled, and readily accessible to facilitate any compliance review or technical audit requested by MPSC Staff.

APPENDIX G

Noise Mitigation Plan

Rouget Road Solar Farm Noise Mitigation Plan

SEPTEMBER 2026

PREPARED FOR

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PREPARED BY

SWCA Environmental Consultants

ROUGET ROAD SOLAR FARM NOISE MITIGATION PLAN

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September 2026

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1 INTRODUCTION AND PURPOSE

This Noise Mitigation Plan outlines potential measures to be employed if post-construction sound monitoring indicates that operational noise from the Rouget Road Solar Farm (Project) exceeds the 55 dBA L_{eq} (1-hour) limit at any nonparticipating occupied structure. This threshold is established under Michigan Public Act 233 of 2023 (MCL 460.1226(2)(b)) and reinforced by the Michigan Public Service Commission's (MPSC) siting requirements. Although pre-construction modeling predicts compliance at all receptors, the following generalized mitigation strategies are provided in accordance with Act 233 Application Filing Requirements to ensure that if any exceedance is verified through the Appendix F monitoring protocol, appropriate noise control actions can be taken. These strategies are presented as potential options that the Rouget Road Solar Farm, LLC (Applicant) may consider to reduce facility sound levels and achieve compliance, without implying any specific commitment unless required for regulatory conformance.

2 POTENTIAL MITIGATION STRATEGIES

If post-construction measurements identify an exceedance of the 55 dBA L_{eq} (1-hour) limit at a nonparticipating residence, the Project would investigate the dominant noise sources and implement one or more of the following noise mitigation measures. The selection of mitigation will be based on the nature, location, and magnitude of the exceedance, aiming to attenuate sound to acceptable levels at the affected receptor.

General strategies include engineering controls at the source or along the sound propagation path, as well as operational adjustments to reduce noise emissions. Key mitigation measures that may be considered are outlined below.

2.1 Acoustic Barriers or Enclosures

Installing noise control structures around major sound-generating equipment can effectively block line-of-sight and absorb sound energy before it reaches nearby residences. For example, sound walls or acoustic fencing may be erected adjacent to inverters or the main power transformer to provide a physical noise shield. These barriers would be constructed of sound-attenuating materials (e.g., modular acoustic panels or dense composite walls) with sufficient height and length to break the direct sound path to the impacted structure. In more extreme cases, a partial or full equipment enclosure could be implemented – for instance, housing a noisy transformer or inverter in a ventilated structure or adding an acoustic shroud around it.

Enclosures and barriers will be engineered to ensure proper equipment cooling while still providing substantial noise reduction. These engineered controls focus on damping or containing noise at the source and along its propagation path, thereby lowering the sound levels observed at the receptor.

2.2 Equipment Noise Suppression Upgrades

If specific components are found to be contributing to exceedances, targeted upgrades or modifications to those components may be undertaken to reduce their sound output. This can include retrofitting quieter fans or cooling systems on inverters or transformers, installing mufflers or silencers on any ventilation openings, and adding vibration isolation or damping treatments to noisy equipment. For instance, high-performance low-noise cooling fans can replace standard units to significantly lower broadband fan noise, and rubber mounts or pads can dampen any vibration-induced noise in enclosures or mounting hardware.

If an exceedance is partly due to prominent tonal noise, the Project may work with equipment manufacturers to implement tonal noise reduction solutions (such as installing harmonic filters or adjusting inverter switching parameters) to mitigate the specific frequencies causing regulatory penalties. In an extreme scenario where standard mitigation proves insufficient, the Applicant could evaluate equipment replacement or upgrade options to achieve compliance. All such equipment-focused noise control measures are aimed at directly reducing sound emissions from the source components.

2.3 Operational Adjustments

The Project can also mitigate noise through modifications to operational practices or equipment settings, especially during periods or conditions when exceedances occur. Load management or curtailment strategies may be applied to temporarily reduce sound output. These operational changes would be carefully managed to ensure they effectively lower the facility's acoustic output while maintaining safe and reliable power generation. By dynamically adjusting how and when equipment runs, the Project can often achieve a few decibels of noise reduction at critical times, which may be sufficient to bring sound levels back within the 55 dBA limit.

2.4 Preventative Maintenance and Repairs

Proper maintenance of facility equipment is an integral part of noise mitigation, as well-maintained machinery operates closer to its design noise levels (or lower) and avoids anomalous sound events. The Applicant will ensure that all inverters, transformers, trackers, and associated mechanical components are routinely inspected and serviced to prevent excessive noise. If post-construction monitoring or resident feedback pinpoints a specific unit with unusually high noise output, that unit will be examined and repaired as needed to eliminate the issue. By keeping equipment in optimal condition, the Project not only preserves performance but also ensures that unexpected noise contributions are mitigated at the source. Effective maintenance can often resolve noise exceedances that stem from equipment malfunction or degradation, thereby restoring compliance without the need for more extensive structural measures.

2.5 Administrative or Regulatory Remedies

In instances where physical and operational measures cannot fully resolve a verified noise exceedance, the Project may explore administrative solutions in coordination with stakeholders and regulators. One possible approach is to secure a noise easement or agreement with the affected property owner, effectively reclassifying the impacted dwelling as a participating structure. By obtaining the occupant's consent and providing appropriate consideration, such an agreement would mean the 55 dBA statutory limit no longer applies to that residence (since the law's noise standard pertains to nonparticipating structures). This strategy would only be considered on a case-by-case basis and in full compliance with regulatory procedures. While this measure does not reduce the physical sound emissions, it is a potential route to resolve non-compliance from a siting and regulatory standpoint, especially if other mitigation options are impractical. Importantly, pursuing an administrative remedy would be a last resort, taken only if necessary and with the agreement of the affected homeowner, to ensure the project remains in legal compliance with MCL 460.1226.

Each of the above strategies can be implemented independently or in combination, depending on what is required to achieve the desired noise reduction. Upon identifying an exceedance, the Applicant would first perform a detailed diagnostic review to determine which sources are contributing most to the issue and then select the appropriate mitigation techniques. Engineering controls (barriers, enclosures, hardware

modifications) may be combined with operational changes (curtailment or mode adjustments) to maximize overall noise reduction.

3 IMPLEMENTATION AND VERIFICATION

If post-construction sound monitoring triggers the need for mitigation, the Project will implement the chosen noise control measures as expeditiously as practicable and will verify their effectiveness through follow-up sound measurements. In accordance with MPSC guidelines, a supplemental noise compliance test will be conducted after mitigation. This post-mitigation survey will confirm whether the mitigated operational sound levels now meet the 55 dBA L_{eq} (1-hour) requirement. All results will be documented and reported to the Commission as required, demonstrating that the noise exceedance has been resolved. Through this adaptive management approach, the Rouget Road Solar Farm will ensure ongoing compliance with the applicable noise standards over its operational life, thereby protecting community noise interests consistent with Act 233 and the Project's permit conditions.

Rouget Road Solar Farm

Exhibit A-1.8: Shadow Flicker Report for Wind Facilities

Lenawee County, Michigan

The proposed Project is not a wind facility and thus the standards in Exhibit A-1.8 do not apply.

Rouget Road Solar Farm

Exhibit A-1.9: Emergency Response Plan MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

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EXHIBIT A-1.9 – EMERGENCY RESPONSE PLAN

A-1.9.(a) – The Emergency Response Plan (ERP) shall include:

1. **Evidence of consultation or a good-faith effort to consult with local first responders and county emergency managers to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, site access, etc.**
   The Applicant has started consultations with local first responders and emergency response teams and shared the ERP for ongoing consultations to ensure the ERP is in alignment with the acceptable operating procedures. A meeting was conducted on July 23, 2025 to discuss the Project and ERP. A copy of the meeting minutes is provided in **Appendix II Exhibit A-1.9, Attachment 1**. See also **Appendix I, Exhibit 2**, Direct Testimony of Carol Mcknight ("C. Mcknight"), at pp. 19-20.
2. **An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan (FRP)).**
   Section 2 provides a list of potential contingencies that could occur at the Project Area. Applicant will continue to consult with responders and county emergency managers regarding these identified contingencies, as well as any others that may arise, prior to construction and as further set forth under the express commitments and procedures outlined in the ERP. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
3. **Emergency response measures by contingency.**
   Appendix II Exhibit A-1.9, Section 2 provides required response measures by contingency. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
4. **Evacuation control measures by contingency.**
   Appendix II Exhibit A-1.9, Section 3 describes evacuation protocols by contingency. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
5. **Community notification procedures by contingency.**
   Appendix II Exhibit A-1.9, Section 4 describes response procedures. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
6. **An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.**
   A draft evacuation plan has been developed. The evacuation plan will be further refined through coordination with local emergency response personnel to identify the safest and most efficient ingress and egress during emergencies. The primary evacuation route is illustrated on **Figure 3 of Appendix II Exhibit A-1.9**. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
7. **A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every 3 years.**
   The ERP will be reviewed annually internally and at least once every three years with local fire, EMS, and County Emergency Management (see Section 1.3 of the ERP in **Appendix II Exhibit A-1.9**). See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.

8. **An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.** The Applicant believes the plans can be fulfilled by local emergency response teams. Ongoing consultations are occurring to confirm. The Applicant is also committed to ensuring there are no equipment or training deficiencies in emergency response capacity. An analysis will be conducted prior to start of construction. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.
9. **Other information the applicant finds relevant.**
   Rouget Road Solar Farm has provided a updated ERP in **Appendix II Exhibit A-1.9**. The Applicant will be coordinating with emergency services to review and revise, if needed, the ERP. See also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19-20.

A-1.9.(b) – Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the ERP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

If the Project's design, type, or manufacturer of facilities and equipment changes after the initial filing, Rouget Road Solar Farm is committed to analyzing the ERP for any necessary updates and consulting with local fire departments, first responders, and county emergency managers regarding any amended emergency response protocols.

Rouget Road Solar Farm

Exhibit A-1.9: Emergency Response Plan

Lenawee County, Michigan

SEPTEMBER 2026

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EMERGENCY RESPONSE PLAN FOR THE ROUGET ROAD SOLAR PROJECT, LENAWEE COUNTY, MICHIGAN

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September 2026

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1 INTRODUCTION

This Emergency Response Plan ("ERP") provides guidance to construction and field personnel on measures identified by Rouget Road Solar Farm, LLC ("Rouget Road Solar") to mitigate risks of hazards associated with the proposed Rouget Road Solar Project ("Project") in Lenawee County, Michigan. This ERP complies with requirements established under the Michigan Public Service Commission ("MPSC") Public Act 233 (Public Act 233) and integrates standards from the Occupational Safety and Health Administration ("OSHA"), and relevant local fire safety and emergency codes.

1.1 Local Consultation

This plan has been developed in coordination with emergency response providers, which consists of Lenawee County Emergency Management, the Palmyra and Madison Fire Departments, and the Lenawee County Sheriff's Office, in accordance with OSHA standards and other applicable federal, state, and local occupational safety and health laws, regulations, and standards. It will be the responsibility of Rouget Road Solar and its Project contractors to comply with the measures identified in this plan. Rouget Road Solar met with the Lenawee County EMS and Palmyra Fire Department on July 23, 2025 to discuss the Rouget Road Solar Farm Project and ERP. Rouget Road Solar commits to reviewing and updating this ERP with local fire departments, first responders, and the County Emergency Manager at least once every three (3) years and after material design/equipment changes, with documented re-consultation. Additional details on coordination with County Emergency Services can be found in Attachment 1.

Updates to the Project's ERP may occur based on continued coordination between Rouget Road Solar and local agencies.

1.2 Project Description, Location, and Access

The Rouget Road Solar Farm Project is a proposed 175-megawatt ("MW") alternating current ("AC") solar photovoltaic power generating facility. The project would be in Lenawee County, Michigan southeast of the city of Adrian. The Project Boundary/Leased Parcels is approximately 2,133 acres of predominantly agricultural land (Figure 1). Once built, the fenced-in portion of the Project would be approximately 1,042 acres. The project would provide renewable energy to the electrical transmission grid. Major components of the project include photovoltaic solar arrays (the main project footprint), an on-site substation, switchyard, an operation and maintenance ("O&M") area, transmission line, roads, and fences.

The Project area and adjacent properties primarily consist of agricultural or residential land. State Highway 223 runs east to west through the center of the Project area (Figure 2). CR Myers Highway runs north to south through the center of the Project (see Figure 2).

Police, fire, ambulance, and emergency vehicles will access the Project primarily via State Highway 223 (see Figure 2). The Project is expected to provide electric power to the existing electric transmission grid through a new interconnection to the existing transmission lines running east to west in the northern portion of the Project area.

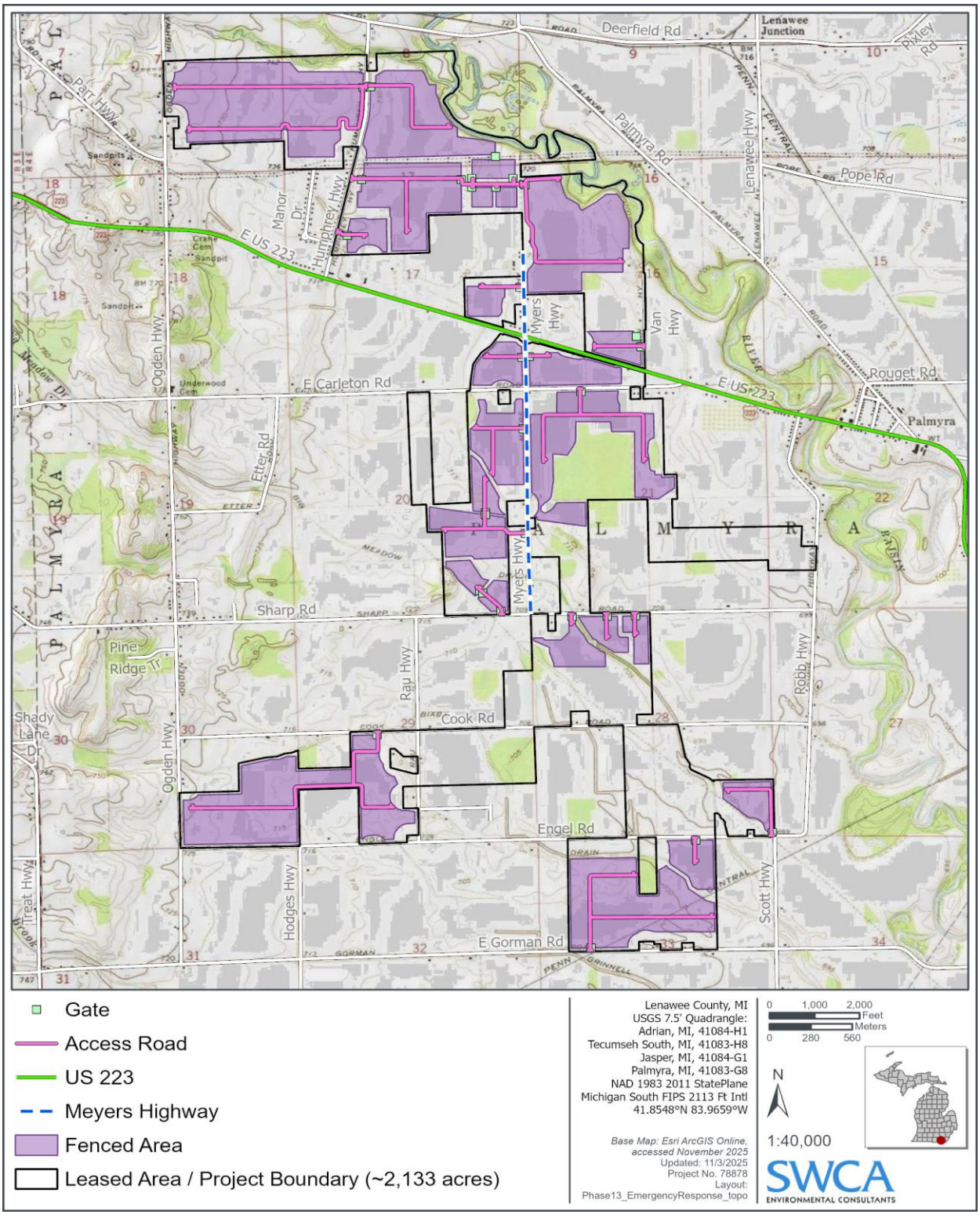


Figure 1. Topography of the Rouget Road Solar Farm Project.

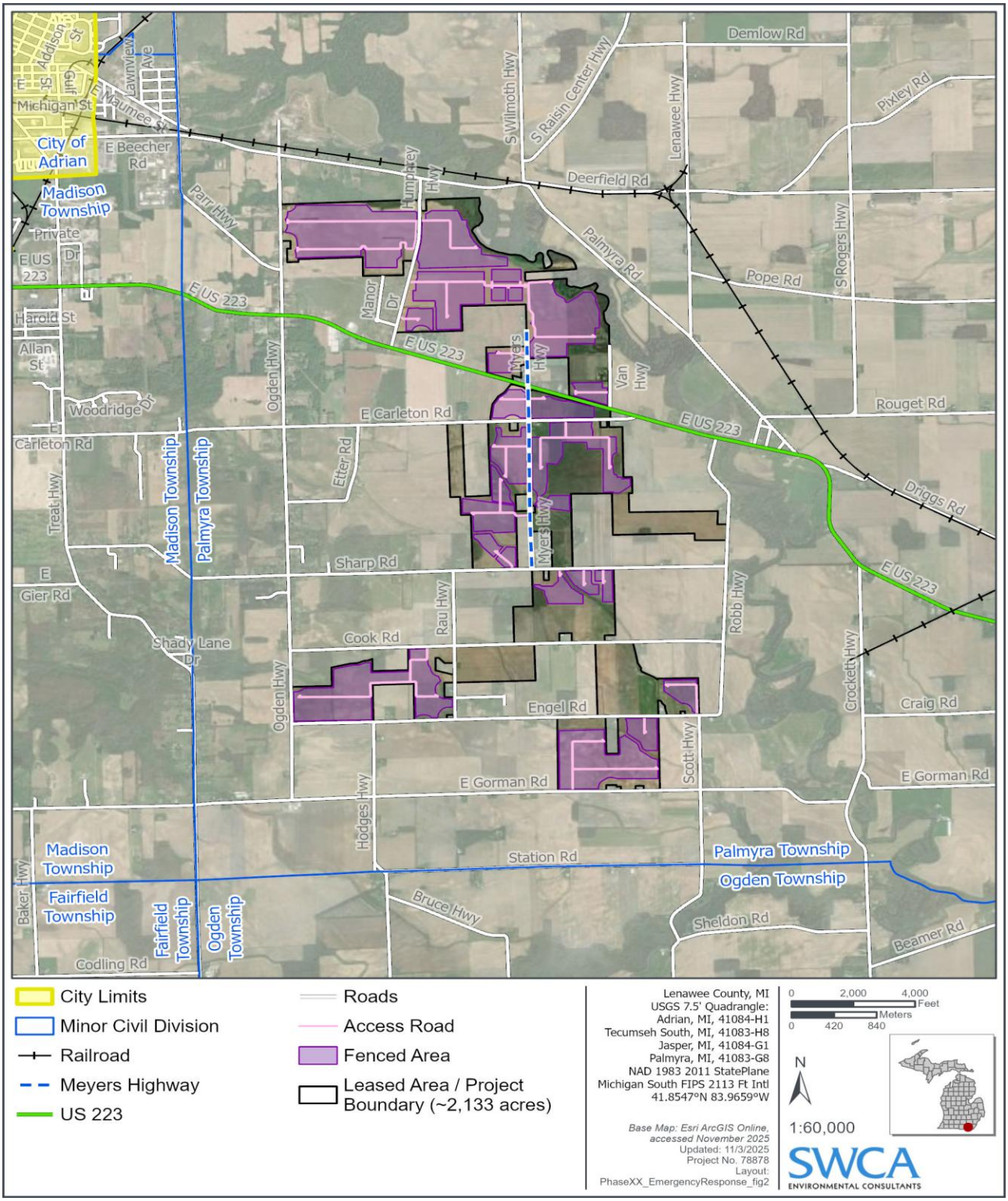


Figure 2. Rouget Road Solar Farm Project site location.

1.3 Plan Review and Development

This ERP will be reviewed and amended if there is a change in facility design, construction, operation, or maintenance that affects emergency action planning. This ERP will be reviewed at least annually internally and at least once every three (3) years with local fire, EMS, and County Emergency Management; revised plans will be circulated to those agencies.

1.4 Training

Employees or contractors visiting the Project area will have access to and receive training on this ERP whenever it is modified or at least on an annual basis. Employees will also be trained when this ERP is initially implemented. Contractors and visitors who enter operating areas of the Project area will be trained on evacuation procedures before they enter for the first time and at least annually thereafter. Evacuation drills will be conducted by the Facility Manager at least twice a year. A list of contractors with current training on this ERP will be maintained at the construction trailer during construction and at the O&M building, once built, for reference purposes. Employees and contractors will be provided with and use the required personal protection equipment ("PPE") based on the expected hazards of their work.

See Exhibit A-1.10 Fire Response Plan for site-specific training commitments (pre-operation and upon request) with local responders.

1.4.1 Local Capacity Analysis

Rouget Road Solar is not currently aware of either deficiencies in existing local emergency response capacity or deficiencies in specific equipment or training for local emergency response capacity. Rouget Road Solar and the local emergency response team will meet prior to the Rouget Road Solar Project going operational to review Palmyra Fire Department equipment, Lenawee EMS capabilities, and other services to identify potential gaps in capacity, training, equipment, and level of staff. If gaps are identified, Rouget Road Solar will work with local emergency officials to find solutions and schedule any additional drills or training identified. Also, during this meeting, Rouget Road Solar will provide points of contact, gate keys/codes, and finalized maps/layouts of the facility as part of this emergency response plan.

2 CONTINGENCY EMERGENCY RESPONSE PLANS

The following contingencies represent conditions that pose a potential safety, health, or security risk to personnel, visitors, or the surrounding community. These events require clear response protocols, trained staff, and strong coordination with local emergency services. The procedures below outline the actions to be taken to protect life, stabilize the incident, and secure the Rouget Road Solar Farm facility.

2.1 Electrical Hazards

Access to locations containing energized electrical equipment will be restricted at all times. Warning signage compliant with the National Electric Code ("NEC") will be posted to prevent unauthorized entry. In the event of an electrical hazard, only qualified electrical personnel will respond. These personnel will utilize appropriate PPE, including arc-rated clothing, insulated gloves, and voltage-rated tools.

If energized equipment becomes damaged or presents an imminent hazard, responders will isolate and de-energize the affected equipment following the facility's lockout/tagout ("LOTO") protocols. The area will be secured until the hazard is mitigated. Personnel within the immediate hazard area will evacuate to a

designated safe zone, with distancing requirements determined by the Site Manager based on equipment type and voltage class.

2.2 Severe Weather Events

During construction and operations, the EPC Contractor and O&M team will continuously monitor National Weather Service ("NWS") alerts and local forecasting tools. When severe weather may affect the site, real-time notifications will be issued to personnel.

During periods of high fire danger, potential sources of fire ignition (e.g., vehicle exhaust systems, cigarettes, matches, propane torches, sparks from hot work operations, etc.) must be used with extra caution. During periods of thunderstorms, personnel will remain alert to heavy rainfall in the area. Notifications of flooding or flash floods will trigger suspension of field work, and personnel will be directed to predesignated shelters. High winds or tornado warnings will trigger suspension of elevated work and securing of loose materials. Lightning or thunderstorm activity will activate shelter-in-place protocols, with personnel directed to predesignated indoor shelters, including the O&M building. Snow, ice, or hail events will prompt cessation of field activities and inspection of access roads and equipment. Work will not resume until conditions are deemed safe by the Site Manager.

Following any severe weather event, facility equipment will be evaluated for damage by the SSO, and repairs will be performed under standard operational procedures.

2.2.1 Wildfires

Wildfires are uncontrolled fires that burn in wildland vegetation, often in rural areas. Wildfires can ignite from natural occurrences and human-generated sources. They may begin unnoticed, spread quickly, and are often signaled by dense smoke that may be visible for miles. A combination of weather conditions, fuel availability, topography, temperatures, and rainfall often determine the severity and growth of wildfires. Drought conditions contribute to the likelihood of wildfire outbreaks, particularly in the summer months. In the event of a wildfire, the following procedures will apply: Remain alert to signs of wildfire in your immediate area and maintain awareness of changes in the direction of wind or smoke.

- Determine the relative location and size of the fire and take immediate action, as appropriate.
- Alert the Facility Manager.
- Follow the emergency response protocol.
- Evacuate and/or go to the designated assembly area.
- Protect yourself from smoke. Cover your nose and mouth with a face mask, cloth, buff, or scarf. If in a vehicle, roll-up windows and close air vents. Drive slowly with headlights on. Watch for other vehicles and pedestrians. Do not drive through areas of heavy smoke.
- Stay tuned to local news, emergency alert systems, weather forecasts, and updates for the latest statements, watches, and warnings.
- Do not try to outrun the fire; wildfires can move at speeds of up to 20 miles per hour.
- Do not re-enter the site until given approval by the Facility Manager.

2.2.2 Flooding and Flash Flood

Flash flooding is the result of heavy localized rainfall, such as that from slow moving, intense thunderstorms. A flash flood often results from small creeks and streams overflowing during heavy rainfall. These floods often become raging torrents of water that rip through riverbeds or canyons, sweeping everything with them. Flash flooding can occur within 30 minutes to 6 hours of a heavy rain event. In hilly terrain, flash floods can strike with little to no advance warning. Distant rain may be channeled into gullies and ravines, causing flash flooding in minutes. In the event of a flash flood, the following procedures shall apply:

- During periods of thunderstorms, remain alert to heavy rains in your immediate area or upstream from your location. It does not have to be raining at your location for flash flooding to occur.
- Do not drive through flooded areas, even if it looks shallow enough to cross.
- Do not cross flowing streams on foot where water is above your ankles.
- Be especially cautious at night. It is harder to recognize water danger in the dark.
- Do not attempt to outrace a flood on foot. If you see or hear it coming, move to higher ground immediately.
- Be familiar with the land features where you work. The site may be in a low area, near a drainage ditch, or small stream.
- Stay tuned to weather forecasts and updates for the latest statements, watches, and warnings concerning heavy rain and flash flooding.
- Wait 15 to 30 minutes, or until high water recedes.

2.2.3 Tornado

Upon the issuance of a tornado warning, site personnel will evacuate the site and report to the pre-designated shelter area. In the event site personnel are outside and unable to evacuate to the shelter, the following procedures will be followed:

- Lie flat in a nearby ditch or depression and cover the head with the hands. Be aware of the potential for flooding.
- It is safest to leave a vehicle for safe shelter.
- Beware of flying debris.

2.2.4 Lightning Storm

In the event a lightning storm is within 10 to 30 miles and is approaching the Project area, the following procedures will apply:

- Notify the SSO and on-site employees.
- If lightning approaches within 5 miles, stop work and get in and stay in company or personal vehicles that have rubber tires.

Remain in vehicles for at least 30 minutes depending on passing storm severity and wait for an *OK* from the SSO in charge for monitoring the storm.

Lightning can be a source of fire in the Project area and the surrounding area. Areas of lightning strike should be monitored for signs of ignition.

2.2.5 Snowstorm

Before winter approaches, the SSO will ensure adequate supplies, including the following:

- Sand to improve traction.
- Snow shovels and other snow removal equipment.
- As needed, service agreement(s) with snow removal vendors.

When winter weather threats exist, the SSO will monitor local news channels for critical information from the National Weather Service to stay alert to changing weather conditions. Winter storm watches, warnings, and advisories are issued by local National Weather Service Forecast Offices.

Extreme and fluctuating weather conditions, including high humidity, freezing temperatures, and ice storms, can cause ice to form on power lines. Ice weight can put a lot of stress on power lines and damage equipment. Snow, rain, or freezing rain can also create conditions to start pole fires. In the event of damaged poles or ice on power lines, the SSO will notify the site owner. If site personnel notice excessive ice buildup on a section of lines or downed lines, they will notify the SSO and take the following precautions:

- Stay clear of low or sagging lines and remember that traveling under these lines can be dangerous.
- Treat a downed line as though it is energized and keep other personnel away.
- Do not get out of your vehicle if the vehicle accidentally comes into contact with a downed line. If it is safe to do so, back slowly away from the line or wait for help to arrive.

Depending on the severity of the winter storm, the site may be closed.

2.3 Physical Security Breaches

If unauthorized access, vandalism, or any suspected security breach occurs, security alarms will activate, and local law enforcement will be contacted immediately. Site entry points will be secured until the threat is resolved.

Following the incident, the Site Manager will coordinate with law enforcement to inspect for property damage, missing equipment, and safety impacts. Personnel located near the affected area may be relocated to designated safe zones if the breach presents a credible risk to health or safety.

2.4 Cybersecurity Breaches

For any suspected cybersecurity compromise affecting operational systems or data infrastructure, personnel will immediately notify the designated IT security contact. Access to impacted systems will be restricted, and internal monitoring protocols will be applied to prevent escalation.

If operational control systems are affected, the Project will transition to manual oversight procedures until system integrity is restored. Staff will be instructed not to access or use compromised systems, and all communications will follow internal cybersecurity incident procedures. The Project's IT and cybersecurity teams will lead the investigation and remediation.

2.5 Mechanical Failures

When mechanical equipment malfunctions or presents a safety risk, work in the affected area will be stopped immediately. The area will be isolated until maintenance personnel assess and repair equipment. Routine inspections and preventative maintenance programs reduce the likelihood of mechanical failures.

If a mechanical failure creates a risk of injury (e.g., moving parts, stored energy, structural instability), personnel will evacuate the hazard zone. The evacuation radius will be determined by the Site Manager based on equipment characteristics and failure severity.

2.6 Chemical Spills

Chemical spill response will follow established spill-prevention and spill-control procedures. Inverters and transformers may contain insulating oils, and spill kits will be staged at strategic locations throughout the site.

In the event of a spill, personnel will isolate the area, deploy absorbent materials or contaminant booms, and notify trained spill-response staff. Depending on spill volume and material type, the Site Manager may initiate evacuation from the immediate vicinity. Larger spills or those posing a potential off-site impact will trigger notification to environmental emergency services and the Michigan EGLE Pollution Emergency Alerting System ("PEAS").

2.7 Personnel Injuries and Serious Health Conditions

If a medical emergency occurs, onsite personnel will immediately call 911. Personnel trained in first aid or CPR may provide care if conditions allow. Emergency responders will be escorted directly to the incident location.

All workers and visitors will be briefed on emergency medical procedures, including locations of first aid kits. AEDs (if installed), and emergency contacts. Serious injuries will be documented and reported to OSHA or other required entities. Minor injuries will be directed to appropriate off-site medical treatment facilities.

To prepare for these contingencies, all operating personnel, and as many other on-site personnel as possible, will be trained in Cardiopulmonary Resuscitation ("CPR")**,** bloodborne pathogen awareness**,** and the use of an Automated External Defibrillator ("AED"). AEDs will be located in clearly marked and accessible areas known to all staff. Each site will also maintain at least one fully stocked first-aid kit in the control house and one in each site vehicle; these kits will be inspected at least monthly. The nearest approved non-emergency medical facility and occupational nurse contact information will be posted on site, although emergency responders will determine the final destination for emergency care.

If present, AEDs will be inspected every 90 days (or per manufacturer recommendations) and tested at least once every six months. Records of inspections, testing, and employee training will be maintained, and employees will receive annual notification and refresher training on the location and use of the AED.

Basic First Response Actions
Personnel discovering an injured or unresponsive individual should:

- Check for responsiveness and breathing;

- If the individual is unresponsive, immediately call 9-1-1 and direct another person to retrieve the AED;
- Assess airway and breathing; clear visible obstructions if present;
- If not breathing and no pulse is detected, begin CPR and continue until the AED is available;
- Once the AED arrives, follow all device prompts while continuing CPR (if applicable) until medical personnel arrive.

If the victim is conscious but severely injured or in visible shock, call 9-1-1 immediately. Do not attempt to move the individual unless remaining in place would create additional danger. Keep the victim still, control any profuse bleeding with direct pressure, immobilize injured limbs, and provide reassurance until emergency responders arrive.

Special Considerations

- **Electric Shock**: If electricity is involved, turn off the power source if possible and safely remove the victim from contact using non-conductive material. Begin CPR/AED only after the victim is no longer in contact with the electrical source.
- **Burns**: Cool the affected area, remove restrictive jewelry if safe, and never apply ointment or remove adhering clothing. Seek professional medical assistance promptly.
- **Heat Stroke / Heat Exhaustion**: Move the victim to a cool environment, begin active cooling (water/fanning), and elevate feet if the individual shows signs of heat exhaustion or shock. Rapid cooling is critical in cases of heat stroke and can be lifesaving.

2.8 Capacity or Transmission Emergencies

In the event of a grid disturbance, transmission fault, or utility-initiated emergency, Rouget Road Solar personnel will coordinate immediately with the interconnecting utility. Operational curtailment or shutdown may be required to stabilize the system.

If an emergency originates onsite – such as a transformer fault or relay malfunction – qualified personnel will isolate and secure the affected equipment. All actions will adhere to the Project's electrical safety procedures and utility coordination protocols.

2.9 Traffic Incidents

If a traffic incident occurs involving construction or operations vehicles, the affected area will be secured, and emergency services contacted if injuries or hazards are present. Workers will be instructed to avoid the area until cleared.

All vehicle operators will adhere to designated haul routes, onsite speed limits, and safe driving practices. Spotters or flaggers will support heavy equipment movement, low-visibility conditions, or delivery activities. Traffic incidents will be reported to the Site Manager and law enforcement as needed.

3 EVACUATION PROCEDURES

Evacuation procedures are implemented when hazards present a risk to personnel safety or require movement to designated muster areas. During significant emergency situations at or near the Project area, the Facility Manager, in consultation with law and/or fire authorities, may issue an evacuation notice. When an evacuation has been called, on-site employees will gather at the designated assembly area. The Facility Manager will account for personnel. Once employees are accounted for, they will safely travel from the Project area to safe zone, which are generally areas oof-site away from the threat. Supervisors and the SSO will perform a sweep of the facility to locate persons and reconvene at the designated assembly area. Once personnel are accounted for, they will exit the site.

All evacuation routes and muster point maps will be posted throughout the facility and reviewed during the safety orientations. The primary evacuation routes will be west on State Highway 233 (see Figure 3).

3.1 Electrical Hazards

Electrical hazards generally do not require full-site evacuation. However, personnel within the immediate hazard zone will evacuate to a designated safe area. Evacuation distances will reflect voltage class, equipment type, and Site Manager judgement.

3.2 Severe Weather Events

During severe weather, personnel will move to designated indoor shelter locations. If an evacuation is required, predetermined egress routes will be used unless conditions render them unsafe, in which case alternate muster points may be established. Personnel accountability will be confirmed at muster points through sign-in logs.

3.3 Physical Security Breaches

Security breaches typically require localized relocation rather than full-site evacuation. Personnel in proximity to the incident may be moved to secure locations at the discretion of the Site Manager.

3.4 Cybersecurity Breaches

Cybersecurity incidents do not require physical evacuation.

3.5 Mechanical Failures

Mechanical failures may warrant localized evacuation if the malfunction presents a risk of injury. Evacuation distances will be established based on equipment characteristics and operational risks.

3.6 Chemical Spills

Chemical spills generally require evacuation only from the immediate area. Evacuation boundaries will be established by the Site Manager based on spill volume, material type, and risk of ignition or exposure.

3.7 Personnel & Visitor Medical Emergencies

Evacuation procedures focus on providing EMS responders with clear access to the incident location while relocating uninvolved personnel away from the area.

3.8 Capacity or Transmission Emergencies

These events do not typically require evacuation unless electrical hazards or equipment failures create a localized safety risk.

3.9 Traffic Incidents

Traffic incidents do not require full-site evacuation. Personnel will avoid the affected area until cleared.

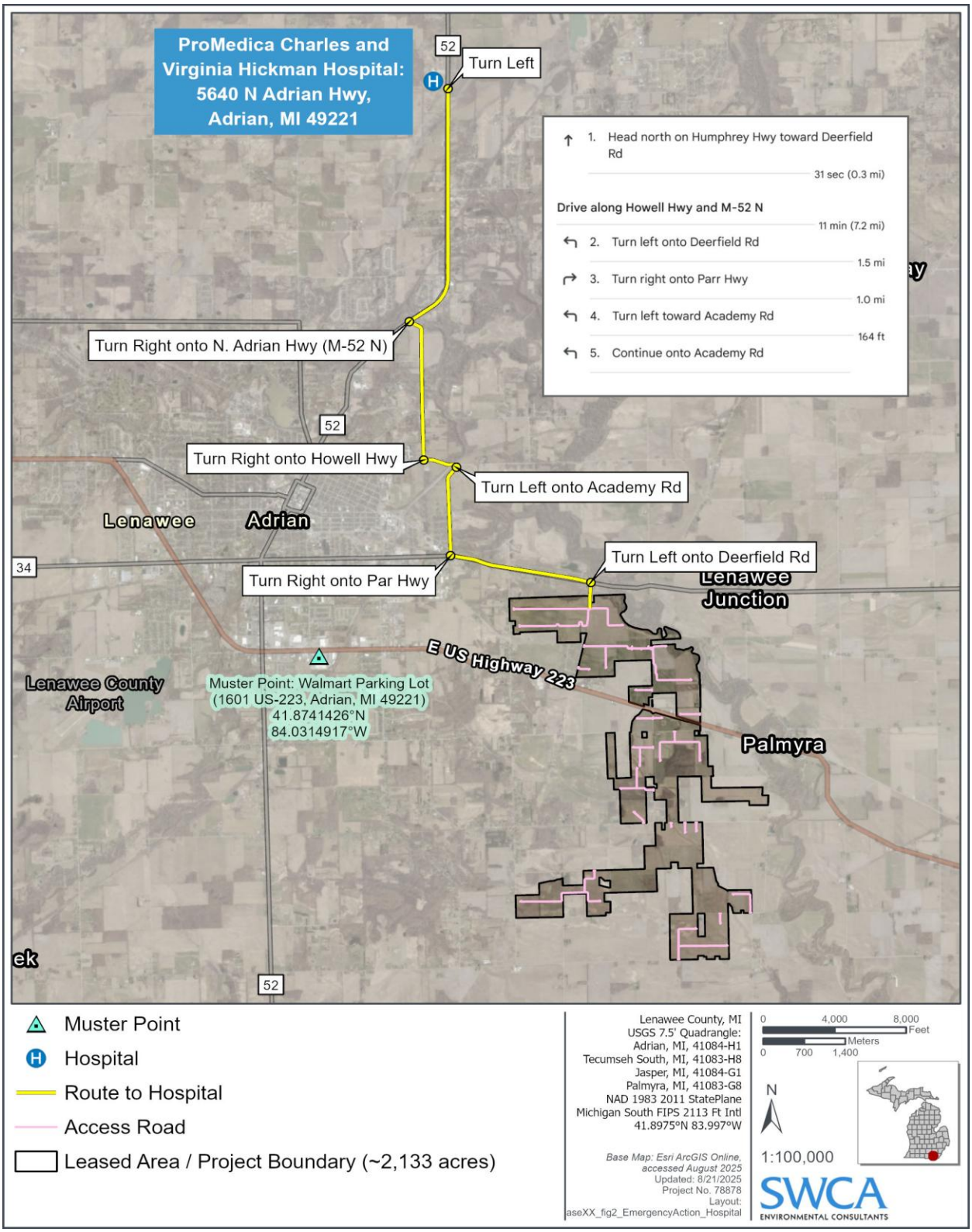


Figure 3. Fire and ambulance response access and route from Project site to Hospital, Emergency Evacuation and Muster Area.

4 CONTINGENCY COMMUNICATION AND COMMUNITY NOTIFICATION

In accordance with AFIP §7.9(a)(5) and the MPSC, the Facility Manager shall ensure that timely and accurate notifications are made to community members and emergency response partners in the event of any contingency that could pose a risk to public health, safety, or the environment.

The Facility Manager, in coordination with Lenawee County Emergency Management, the Palmyra Township Fire Department, and other responding agencies, will utilize the County's emergency alerting systems (e.g., CodeRED, Nixle), local radio and television, and the Project website to provide emergency information to the public.

The following table outlines the community notification procedures by contingency, identifying notification triggers, required actions, dissemination methods, and responsible personnel.

Table 1: Community Notification Procedures by Contingency

Contingency Event	Notification Trigger	Primary Notification Actions	Dissemination Channels	Responsible Personnel
Electrical Hazard (e.g., downed line, energized fence, transformer fire)	Discovery of downed or damaged high-voltage equipment	Call 911 and project electrical contractor; isolate area and notify adjacent landowners if hazard extends offsite.	County emergency alert system (if warranted), Project website update	Facility Manager; Electrical Safety Officer
Severe Weather (e.g., tornado, high winds, flood)	National Weather Service (NWS) warnings or local emergency alerts that would pose a threat to the facility that could be harmful to the community	Notify all onsite personnel and suspend onsite operations; coordinate with Lenawee County Emergency Management for public alert issuance.	County CodeRED/Nixle alert systems, local radio, Project website update	Facility Manager; County Emergency Management Director
Physical Security Breaches (e.g., trespass, vandalism, bomb threat)	Confirmation or credible report of threat	Contact law enforcement and activate site lockdown procedures; notify adjacent landowners if safety risk is possible.	County alert system (if warranted), local media release coordinated with law enforcement	Facility Manager; Lenawee County Sheriff's Office
Cyber Security Breaches	Discovery of cyber breach that results in operational disruption or potential safety impacts	Local emergency management and law enforcement will be notified.	County alert system (if warranted), local media release coordinated with law enforcement, Project website update.	Facility Manager; County Emergency Management Director, Lenawee County Sheriff's Office
Mechanical Failures	Discovery of failures that could impact community, such as noise or debris	Local emergency management	County alert system (if warranted), local radio, Project website update.	Facility Manager; County Emergency Management Director
Chemical Spill or Hazardous Release	Release of fuel, oil, or hazardous material exceeding reportable quantities	Notify 911 and Michigan EGLE Pollution Emergency Alerting System (PEAS); initiate containment; notify public if offsite migration possible.	County CodeRED/Nixle alert, local radio, Project website update	Facility Manager; Environmental Health Officer; County Emergency Management
Medical Emergency or Fatality	Serious injury, or fatality onsite	Call 911, provide immediate aid, and secure scene; notify corporate Health and Safety and County emergency personnel.	Direct coordination with EMS and fire personnel (no public alert unless community exposure risk)	Facility Manager; Onsite Safety Lead

Contingency Event	Notification Trigger	Primary Notification Actions	Dissemination Channels	Responsible Personnel
Electrical Hazard (e.g., downed line, energized fence, transformer fire)	Discovery of downed or damaged high-voltage equipment	Call 911 and project electrical contractor; isolate area and notify adjacent landowners if hazard extends offsite.	County emergency alert system (if warranted), Project website update	Facility Manager; Electrical Safety Officer
Capacity or Transmission Emergencies	Event that could result in service disruption or pose public safety risk	Local emergency management	County alert system (if warranted), local radio, Project website update.	Facility Manager; County Emergency Management Director
Traffic Incidents	Incidents that impact public roadways or access	Law enforcement and local emergency management will be notified.	County alert system (if warranted), local radio	Facility Manager; County Emergency Management Director, Lenawee County Sheriff's Office

4.1 Incident Reporting

Prompt and accurate reporting and investigation of work-related incidents, which include injuries, illnesses, and near misses, or accidents that could have caused serious injuries, are necessary components of effective accident prevention programs. This information can be used in evaluating and preventing hazards, fulfilling mandatory recordkeeping requirements, and filing for workers' compensation benefits. Incidents resulting in personal injury and/or illness require that the appropriate Office of Worker's Compensation Programs and Department of Labor procedures are followed, and forms are completed.

The Facility Manager is the primary point of contact for planned and unplanned outages. The Facility Manager will notify required parties, including the operation centers of utilities and asset management/owners, and field personnel via email for organized record keeping. Field personnel will be copied for informational purposes and seamless communication. Communication will be directed toward the Facility Manager unless the Facility Manager defers to a specific field supervisor/technician. The same protocol will be followed for reporting updates, including the root cause of an outage.

Emergencies, especially ones that involve property damage, will be reported as soon as possible to the Facility Manager. This includes both O&M personnel and temporary construction personnel during the construction and decommissioning phases. The Facility Manager will notify personnel of the situation and request dispatch, which may include requesting photographs that document the damage. Each facility or work area will maintain their own recordkeeping forms for injures/illnesses.

4.2 Emergency Notification Procedures

An emergency at or near the Project area will trigger the emergency notification procedures identified in this section. The first call should be to 911 so that appropriate authorities can be notified and appropriate apparatus and personnel dispatched. Travel times to the Project area require notification of 911 as early as possible after a fire or other emergency has been observed. Emergency reporting is critical for tracking where, when, how, and why fire ignitions or other emergencies occur and will help the fire agencies develop protocols for reducing their occurrence.

A list of personnel who will be the primary points of contact to be notified during a fire emergency will be provided by the general contractor during construction and decommissioning, and by the O&M services contractor during operation. Personnel contact information will include on-site Project team members and additional on-site personnel.

4.3 Evacuation Communication Protocol

If field personnel must travel out of the immediate area to seek refuge and/or may lose the ability to access the site's Supervisory Control and Data Acquisition system (loss of power, cell service, or internet), the Facility Manager will hand off the primary point of contact and site operator role to the Remote Operation Center.

4.4 Post-Incident Public Communication

Following any incident that triggers public notification, the Facility Manager and Rouget Road Solar Farm corporate communications team will prepare a post-incident summary for distribution to local emergency management, Township officials, and the public. This will include a description of the event, response actions taken, and measures implemented to prevent recurrence.

5 EMERGENCY RESPONSE PROCEDURES

This ERP applies only to emergency actions to be taken in the Project area. After an evacuation, personnel will be governed by emergency plans of their respective agencies and/or local government authorities.

In reporting fires and other emergencies, the first call should be to 911 so that the appropriate apparatus can be dispatched. To facilitate the arrival of fire services during construction, an emergency response meeting point will be established. The SSO or designee will meet the emergency response team to lead them into the Project area.

5.1 Roles and Responsibilities

Employees should know how to prevent and respond to fires and are responsible for adhering to company policy regarding fire emergencies. The following sections detail general responsibilities by position.

5.2 Project Owner/Management

The Project owners/management are responsible for implementing necessary measures to reduce fire risk and comply with federal, state, and local fire safety/protection policies. Additionally, Project owners/management are responsible for making necessary training and equipment available to provide a safe working environment for employees and contractors.

5.3 Facility Manager

The Facility Manager will be responsible for the following:

- Directing occupants to the prescribed evacuation routes and notifying the Remote Operation Center of actions and updates.
- Ensuring that personnel know the evacuation procedures.
- Directing an orderly flow of personnel during drills and actual emergencies and reporting to the Remote Operation Center when their site has been evacuated completely.
- Ensuring that information notices are issued to field personnel, the owner representative, and asset managers.

5.4 Remote Operation Center

The Remote Operation Center will be responsible for the following:

- Initiating action deemed necessary by the Facility Manager in an emergency.
- Ensuring that information notices are issued to field personnel, the owner representative, and asset managers.

5.5 Site Safety Officer

The SSO will manage the ERP for the Project and will maintain records pertaining to the ERP. The SSO is also responsible for the following:

- Understanding the ERP and its mandates for training, fire prevention, fire suppression, and evacuation.
- Understanding the risk associated with the Project and with activities that will occur within the Project area.
- Developing and administering the risk prevention and safety training program.
- Ensuring that fire control equipment and systems are properly maintained and in good working condition.
- Monitoring combustibles on-site and managing where they are stored.
- Conducting safety surveys and making recommendations to the site manager.
- Stopping Project work activities that pose a hazard or are not in compliance with this ERP.
- Reporting fires ignited in the Project area—whether structural, vegetation, electrical, or other—to the fire department.

5.6 Supervisors

Supervisors are responsible for the following:

- Ensuring that employees receive appropriate fire safety training.
- Notifying the SSO when changes in operation increase the risk of fire.
- Enforcing fire prevention and protection policies.
- Accounting for employees/contractors in the case of an evacuation.
- Performing Project area sweeps to round up staff in the case of an evacuation.
- Facilitating fire agency access to the Project area.
- Cooperating with the fire agencies during and after fires.
- Identifying unsafe work practices that may lead to fire ignitions and correcting those practices in coordination with the SSO, as appropriate.

5.7 Employees/Contractors

Employees and contractors are responsible for the following:

- Completing required training before working in Project area without supervision.
- Conducting operations safely to limit the risk of fire.
- Reporting potential fire hazards to their supervisors.
- Following fire emergency procedures.
- Understanding the emergency evacuation protocols.

5.8 Emergency/Incident Command

As the facility does not store or have hazardous materials, store fuels, or contain or store chemicals in a quantity that would potentially create an incident that requires ICS it is not anticipated the facility would need to lead an ICS response. However, if an incident were to arise which would require the need for ICS, the facility would fall under Lenawee County ICS and provide a Site Liaison and Site Safety Officer to work and coordinate with Lenawee County as needed.

5.9 Contact Information

The personnel listed in Table 2 are the primary site contacts to be notified during an emergency. The specific personnel will be determined prior to that start of construction and the ERP will be updated accordingly.

Table 2. Primary On-Site Emergency Notification Contacts

Name	Position	Telephone Number
To be determined (“TBD”)	SSO	TBD
TBD	Construction Supervisor	TBD

Name	Position	Telephone Number
TBD	EPC Foreman	TBD
TBD	Facility Manager	TBD
TBD	Construction Supervisor	TBD

Table 3 is a list of emergency-related contacts near the Project area[1].

Table 3. Emergency-Related Contacts near the Project Area

Emergency Service	Contact	Telephone Number
Fire	Palmyra Fire Department	(517) 605-4158
Fire	Madison Charter Township Fire Department	(517) 265-6560
Ambulance	Lenawee Community Ambulance	(517) 423-1822
Lenawee County Sheriff	Sheriff Troy Bevier	(517) 263-0524
Michigan State Police	Brighton Post	(734) 475-7207
Hospital	Maria Health Care Center	(517) 266-3600
Michigan Occupational Safety and Health Administration	Lansing, Michigan, office	(517) 284-7750

[1] These Contacts will be updated and provided prior to construction starting

Attachment 1

July 23, 2025 Meeting Minutes

Meeting Minutes

Date: July 23, 2025

Time: 11am – 12:30pm

Attendees:

- Palmyra Township Fire Department: Chief Paul Rohlan, Assistant Chief Brian Wilcox, and Firefighter Jeff Jackson.
- Lenawee County Emergency Management Team:
- Chris Foerg – Emergency Regional Planner.
- Craig Tanis – Emergency Management Coordinator.
- RWE Staff: Kevin Cole, Tim Love, and Alannah Woodring.

Topics Discussed: This was a joint meeting with the Lenawee County Emergency Management and Palmyra Fire Department. The Madison County Fire Department was invited but could not attend. Kevin Cole provided an overview of the project site plan and MPSC permitting requirements as well as the draft Emergency Response Plan and Fire Response Plan. An electronic copy of the plans was sent to the agencies on July 24, 2025 for review.

Following are the minutes based on the meeting transcript:

1. Purpose of Meeting

- Provide a safety and technical overview of the proposed Palmyra solar project.
- Establish communication channels between RWE, the Palmyra Fire Department, the Lenawee County Emergency Management Team, and local landowners.
- Review safety protocols, emergency response planning, and project impacts from construction through decommissioning.

2. Project Overview

- Location: Southeastern Michigan, (Palmyra area).
- Current status: ~10% design phase; equipment not yet finalized.
- Site details:
    - ~2,000 acres leased.
    - ~1,234 acres expected inside the fenced project footprint (subject to updates for wetlands/habitat).
- Solar panels: 540–610 watts each, mounted on motorized trackers (25 ft. max height, ~30 in. clearance).
- Electrical system: DC → combiner boxes → inverters → transformers. Stepped up to ~34,500 volts AC before substation interconnection. DC side always energized in presence of light.
- Setbacks & fencing:
    - 50 ft. from roadways.
    - 150 ft. from non-participating property lines.
- Each solar block fully fenced for safety and security.

3. Safety & Emergency Response Procedures

3.1 General Safety

- Situational awareness and controlled communication emphasized.
- Incident Action Plans to be developed for fire, medical, and electrical incidents.

3.2 Fire & Electrical Hazards

- Defensive firefighting approach:
- Electrical fires: allow to self-extinguish.
- Brush/grass fires: water permitted >25 ft. from electrical equipment.
- Acceptable extinguishers: Class C, CO_2, or clean agent.

- Primary risks: vegetation ignition or electrical faults in panels/combiner boxes/inverters.
- No battery storage facility included in this project.

3.3 Access & Coordination

- 24/7 system monitoring via RWE dispatch (Austin, TX). Contact info to be provided to local dispatch.
- Road network: 16-ft wide gravel drives with durable base for heavy vehicles.
- Gates: labeled for mapping and quick emergency access.
- O&M Building: To be co-located near the substation. Equipped with extinguishers, AEDs, staffed by ~4 local permanent employees.
- Emergency support: RWE staff will meet responders at gates. ATVs/UTVs available for patient transport within the field.

4. Vegetation & Fire Prevention

- RWE responsible for mowing/brush clearing inside and outside fences.
- Vegetation kept minimum 8 inches below lowest panel height.
- Roads and fences serve as fire breaks.
- A wildfire risk management plan is under development, factoring in local weather/vegetation growth patterns.

5. Decommissioning & Recycling

- Construction: steel piles driven (not concreted) except at substation. All removable.
- Panels:
- May be resold, donated, or recycled.
- RWE partnered with SolarCycle for panel recycling solutions.
- Life expectancy: ~30 years, with option for 10-year extension.

6. Questions & Concerns Raised

- Drainage systems: Damaged tile drains will be flagged, repaired, and covered under warranty.
- Hazmat risk: Solar panels mainly glass/silica; hazards similar to household fires.
- Accessibility: Firefighters will be met at gates; not expected to locate victims alone.
- Fire suppression: Confirmed defensive-only approach for electrical fires.
- Security: Full fencing prevents trespassing.
- Community impact: RWE committed to supporting fairs, schools, fire departments, and 4H programs.

7. Follow-Up Actions

RWE to provide:

- Dispatch contact details, site maps, and labeled gate IDs.
- Annual Tier II hazardous materials reports and updated emergency contact lists.
- Joint training and site orientation to be scheduled prior to commissioning.
- Facility tours: possible during “Golden Row” construction phase and before operations begin.
- Emergency response plan will be collaboratively developed with the Palmyra Fire Department and Lenawee County Emergency Management Team and refreshed annually.

8. Closing

- Meeting built stronger relationships between RWE, Palmyra Fire Department, the Lenawee County Emergency Management Team, and local landowners.
- Emphasis on safety-first operations, defensive firefighting posture, and transparent communication.
- Contact information exchanged; ongoing updates and training commitments reaffirmed.

Next Steps and Associated Timeline: As the ERP format has been updated to meet MPSC requirements, an electronic copy of the plans will be sent to the agencies in December 2025 for review and comment.

Edits will be incorporated into the ERP. Any updates to the plan will be sent to MPSC. An on-site meeting with the agencies to discuss the project, ERP, and FRP will be held just prior to the start of construction.

From:	Cole, J Kevin
To:	prohlan@gmail.com
Cc:	Carol Mcknight
Subject:	Rouget Road Solar - Emergency Response Plan and Fire Response Plan for Review
Date:	Thursday, July 24, 2025 10:15:47 AM
Attachments:	20250718_FINAL_RRS_Emergency Response Plan.pdf 20250717_FINAL_RRS_Fire_Response_Plan.pdf

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Hi Paul,

If you would take a look at the attached files and give me any comments or suggestions, I would appreciate it.

Best,
Kevin

J. Kevin Cole
Development Manager

RWE Clean Energy
Mobile : 517-745-7546
353 N Clark St, 30th Floor, Chicago, IL 60654
Jkevin.cole@rwe.com

Date: August 6, 2025

Time: 12:57 pm via text message

Attendees:

- Palmyra Township Fire Department: Chief Paul Rohlan,
- RWE Staff: Kevin Cole

Topics Discussed: Paul stated that he had no comments/edits for the ERP or FRP at this time. Paul will reach out if a question or need arises.

Next Steps and Associated Timeline: As the ERP format has been updated to meet MPSC requirements, an electronic copy of the plans will be sent to the agencies in December 2025 for review and comment. Edits will be incorporated into the ERP. Any updates to the plan will be sent to MPSC. An on-site meeting with the agencies to discuss the project, ERP, and FRP will be held just prior to the start of construction.

Rouget Road Solar Farm

Exhibit A-1.10 Fire Response Plan MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC

353 N Clark St.,30th Floor

Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants

200 W 22nd St., Suite 220

Lombard, IL 60148

EXHIBIT A-1.10 – FIRE RESPONSE PLAN (FRP)

A-1.10.(a) – The FRP shall include the following:

1. **Evidence of consultation or a good-faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department representatives is not possible, provide evidence of consultation or a good-faith effort to consult with the State Fire Marshal or other local emergency manager.**

   The Applicant has consulted with local fire department representatives and shared the FRP for ongoing consultations to ensure the FRP complies with the acceptable operating procedures (see Section 1.1 of the FRP in **Appendix II Exhibit A-1.10**). A meeting was conducted on July 23, 2025 to discuss the Project and FRP. A copy of the meeting minutes is provided in **Appendix II Exhibit A-1.10**. See also **Appendix I**, **Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19.

2. **A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.**

   Section 2 of the FRP in **Appendix II Exhibit A-1.10** describes proactive measures to prevent fires such as routine mowing of vegetation, outfitting the Site with fire preventative equipment, and enforcing hot work (i.e. welding, cutting, grinding) protocols. Section 2 of the FRP notes that portable ABC-rated fire extinguishers will be strategically located throughout the Project Area including facilities buildings. Section 2 of the FRP details the requirements for hot work within the Project Area. Hot work requires the area be cleared of flammable material and post-work monitoring to ensure fires are avoided.

   For more information, see also **Appendix I**, **Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19.

3. **A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.**

   Section 3 of the FRP in **Appendix II Exhibit A-1.10** outlines the contingency procedures for treating and reporting fires.

4. **For energy storage projects, a commitment to offer to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and at least once per year while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.**

   The proposed Project is not an energy storage facility and thus the standards for approval in Exhibit A-1.10(a)(4) do not apply.

5. **For wind and solar projects, a commitment to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and upon request while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.**

The proposed Project commits to training Project personnel and local emergency responders (see Section 4 of the FRP in **Appendix II Exhibit A-1.10**).

6. **A commitment to review and update the FRP with fire departments, first responders, and county emergency managers at least once every 3 years.**
   The Project commits to reviewing and updating the FRP every three years and immediately following any fire incident, significant equipment modification, or emergency drill (see Section 5 of the FRP in **Appendix II Exhibit A-1.10**).

7. **An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.**

   The Applicant believes the plans can be fulfilled by local fire departments. Ongoing consultations are occurring to confirm. The Applicant is also committed to ensuring there are no equipment or training deficiencies in emergency response capacity. An analysis with the Palmyra Fire Department will be conducted prior to start of construction (see Section 6 of the FRP in **Appendix II Exhibit A-1.10**).

8. **Other information the applicants find relevant.**

   Rouget Road Solar Road has provided a draft FRP in **Appendix II Exhibit A-1.10**. Sections 7 and 8 of the FRP provide for post incident actions and documentation protocols, respectively.

A-1.10.(b) – Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the FRP. Additional consultation with local fire departments, first responders, and county emergency managers is required for amended plans.

If there are changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing, the Applicant will analyze the FRP to determine if updates are necessary. Additional consultation with the local fire departments, first responders, and county emergency managers is required for amended plans. See also **Appendix I**, **Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 19.

Rouget Road Solar Farm
Exhibit A-1.10 Fire Response Plan
Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 N Clark St.,30th Floor
Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants
200 W 22nd St., Suite 220
Lombard, IL 60148

FIRE RESPONSE PLAN
FOR THE ROUGET ROAD SOLAR PROJECT, LENAWEE COUNTY, MICHIGAN

Prepared for

Rouget Road Solar Farm, LLC
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Attn: J. Kevin Cole

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SWCA Project No. 78878

September 2026

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Attachment 1. July 23, 2025 Meeting Minutes

1 INTRODUCTION

SWCA Environmental Consultants ("SWCA"), on behalf of Rouget Road Solar Farm, LLC ("Applicant"), a wholly owned subsidiary of RWE Clean Energy Development LLC, has prepared the following Fire Response Plan ("Plan"), which provides guidelines for fire prevention, preparedness, and response procedures during all phases of the Rouget Road Solar Project ("Project"), a 175-megawatt, utility-scale solar project located in Lenawee County, Michigan. This plan complements the Emergency Response Plan and complies with Exhibit A-1.10 of the Michigan Public Act 233, Occupational Safety and Health Administration regulations at 29 Code of Federal Regulations 1926.24, and National Fire Protection Association ("NFPA") standards. It applies to construction, operation, and decommissioning of the Project.

1.1 Local Consultation

This Plan has been developed in coordination with emergency response providers, including the Palmyra Fire Department, Madison Township Fire Department, Lenawee County Emergency Management, and Lenawee County Sheriff's Office, in accordance with Occupational Safety and Health Administration standards and other applicable federal, state, and local occupational safety and health laws, regulations, and standards. It will be the responsibility of the Applicant and its Project contractors to comply with the measures identified in this Plan. RWE met with the Lenawee County EMS and Palmyra Fire Department on July 23, 2025 to discuss the Rouget Road Solar Farm Project and this Plan. Further details on the meeting and coordination with the emergency services is in Attachment 1.

1.2 Project Description

The Project is a proposed 175-megawatt alternating current ("AC") ground-mounted solar photovoltaic facility located on approximately 2,133 acres in Palmyra Township, Lenawee County, Michigan. Approximately 1,042 acres will be fenced for active solar use.

2 EQUIPMENT, SUPPRESSION SYSTEMS AND PREVENTION PROCEDURES

Portable ABC-rated fire extinguishers will be strategically located throughout the site including the Operations and Maintenance building, main entrance, inverter stations, and transformer areas. Each unit will have signage and unrestricted access. Inspections will be performed monthly in compliance with NFPA 10. Additional fire safety equipment may be installed based on manufacturer recommendations and initial site assessment following construction and fire prevention review by the Applicant. These additional measures will be added to the Plan prior to operations beginning.

2.2 Fire Prevention Strategies

Fire prevention begins with proactive planning and sound site management practices. The Project will implement a comprehensive set of measures to minimize the potential for fire ignition and spread.

All internal combustion engines, both stationary and mobile, will be equipped with functional spark arresters and maintained in good working order. Light trucks and cars with factory-installed mufflers may only be operated on roads cleared of vegetation, and all mufflers and catalytic converter shields will be kept in proper condition. Equipment parking areas and stationary engine sites will be cleared of flammable materials to reduce fire risk.

Vegetation within and around the Project area will be actively managed. This includes routine mowing and trimming beneath and around the solar panels to reduce fuel loads. Dead or combustible vegetation and debris will be regularly removed to maintain a clear buffer around Project infrastructure. In addition, the site will maintain clear access routes for emergency responders and ensure defensible space is preserved around key assets.

The site will be outfitted with appropriate fire prevention equipment. Fire extinguishers will be strategically placed at all construction trailers, within the Operations and Maintenance building, and near high-risk electrical components. These will be inspected on a monthly basis to ensure functionality. Signage with emergency contact information and site maps will be prominently displayed. Access to the site will be secured with perimeter fencing, which includes a Knox Box system to facilitate emergency responder entry. Designated smoking areas will be clearly marked, and smoking outside of these areas will be strictly prohibited.

For operations involving heat, such as welding or grinding, the Project will enforce strict hot work protocols. Hot work will require a permit and will not be allowed during Red Flag Warnings or other high-fire-risk weather events. During permitted hot work, the area will be cleared of flammable material and a trained fire watch will be present and remain on-site for at least 1 hour after the work is completed to monitor for flare-ups or smoldering materials.

2.2.1 Fire Risk Assessment

The Applicant will conduct a fire risk assessment prior to the commencement of construction and updated periodically during the life of the Project. The assessment will evaluate potential ignition sources, availability of fuel (e.g., vegetation, construction materials), local weather patterns (e.g., drought conditions), and emergency response capabilities in the region. This risk profile will be used to guide the placement of suppression equipment, establish vegetation management buffers, and set the frequency and depth of personnel training.

2.2.2 Hot Work and Ignition Source Controls

Hot work (e.g., welding, cutting, grinding) will be strictly controlled through a permit system administered by the Facility Manager. A hot work permit must be obtained prior to initiating any such work. The area will be cleared of flammable material and a trained fire watch will be present and remain on-site for at least 1 hour after the work is completed to monitor for flare-ups or smoldering materials. Work will be prohibited during Red Flag Warnings or other high-fire-risk conditions.

2.2.3 Combustible Material Management

To reduce ignition risks, Class A combustibles (wood, paper, cloth, plastics) will be disposed of daily, stored in proper containers, and kept clear of work areas. Class B combustibles (flammable liquids, gases, and aerosols) will be stored, handled, and dispensed only in approved locations, with bonding and grounding used during transfer. These materials will be kept away from ignition sources, exits, and high-traffic pathways. Class C combustibles (energized electrical equipment) will be de-energized before firefighting whenever possible, with only non-conductive extinguishing agents (e.g., CO_2 or ABC dry chemical) used.

3 FIRE RESPONSE CONTINGENCY PROCEDURES

In the event of a fire, a clearly defined and practiced response protocol is essential to ensure the safety of personnel and protection of property.

Immediate Actions

Upon discovery of a fire, the first action is to contact 9-1-1 to initiate emergency response. The Site Safety Officer ("SSO") and Facility Manager must also be notified without delay. If the fire poses an immediate threat to personnel or critical equipment, evacuation procedures will be activated. All staff will proceed to designated assembly areas via posted evacuation routes. Supervisors are responsible for accounting for all personnel and ensuring that no one remains in hazardous zones. The SSO or designated staff will meet emergency responders at the site entrance to provide site access, incident details, and escort them to the fire location.

3.1 Fire Type and Management

Fire events will be managed according to the size and type of incident.

- **Small fires,** such as a trash can fire in its early stage, may be controlled with a fire extinguisher if it is safe to do so and the individual has been properly trained. Upon discovery of a small fire, the individual must immediately notify the onsite supervisor, call 9-1-1, and alert other appropriate personnel. Non-essential personnel will be removed from the hazard area. If suppression is safe, the fire may be extinguished, and the site evacuated to the muster point or designated meeting area. Work in the area will cease until the incident commander issues an "All Clear."
- **Large fires** require immediate evacuation and professional firefighting intervention. The individual discovering must contact the onsite supervisor, call 9-1-1, and ensure all personnel leave the danger area. The Onsite Primary Contact will confirm that emergency services have been dispatched, coordinate the evacuation, and ensure that fire extinguishers are used for escape purposes only. No employee will re-enter the affected area until the Fire Department has assumed command and declared the area safe.
- **Grass and wildland fires** present a unique hazard to solar facilities. The site will be maintained with a low-fuel ground cover beneath and adjacent to the solar racking to minimize ignition potential from ember showers. Vegetation fires under or near the modules or inverters should not be fought with water or chemical agents due to the risk of electric shock or arc flash. If possible, power should be shut down at the inverter using the emergency shut-off. These fires will typically burn out quickly due to the patchy, low-intensity nature of the fuel. If flames spread away from electrical equipment, suppression efforts may be attempted from a safe distance.
- **Hot Work (Welding, Cutting, and Open Flame)** Due to the high fire risk associated with welding, cutting, grinding, or other hot work, these activities will only be performed by authorized personnel following established safety protocols. Welders must wear appropriate PPE, and oxygen-fuel gas systems must be equipped with approved backflow valves and pressure-relief devices. When required, a trained fire watch will be established, and an on-site water source (e.g., water truck or tank) will be maintained. Work areas will be cleared of combustible materials prior to starting, and operations will be suspended during extreme fire weather conditions.

4 TRAINING AND COORDINATION

Fire safety and response are only effective when supported by a culture of training, preparation, and coordination. All site personnel will be trained in the elements of the Fire Prevention Plan relevant to their duties, with a focus on preventing small incidents from escalating into serious threats. Construction and maintenance personnel will be trained and equipped to extinguish small fires when it is safe to do so.

Before beginning work, every employee must complete fire safety training as part of site safety orientation. This training will ensure personnel understand:

- Employee roles and responsibilities;
- Recognition of potential fire hazards;
- Alarm system and evacuation routes;
- Location and operation of manually operated equipment (e.g., fire extinguishers);
- Emergency response and shutdown procedures; and
- Good fire-prevention housekeeping practices and equipment maintenance.

Personnel will also review site-specific hazards, including flammable materials, fuel storage, toxic chemicals, and water-reactive substances. All employees will be required to confirm they understand the function and elements of the Fire Prevention Plan, reporting procedures, evacuation plans, and shutdown processes. Refresher training will be conducted annually and whenever significant changes are made to the facility or the Plan.

Coordination with Emergency Services:

The Applicant will conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and upon request while the facility is in operation. The Project team will work closely with the Madison and Palmyra Township Fire Departments to schedule joint training sessions and familiarize responders with the site layout, hazards, access points, procedures, current best practices, and emergency shutoffs. A preconstruction walkthrough will be conducted, and site plans will be shared with local fire departments to facilitate effective response. Any recommendations for additional equipment or operational changes will be reviewed and incorporated where feasible.

Evacuation Drills:

Drills will be conducted twice per year to ensure staff are familiar with procedures. Evacuation routes and assembly points will be posted throughout the site and reviewed during safety training sessions.

Use of Portable Fire Extinguishers:

- A minimum of one portable fire extinguisher will be located within 65 meters of any work area during construction or heavy maintenance.
- Extinguishers will be inspected monthly, kept unobstructed, and placed in conspicuous locations.

Site Maintenance & Housekeeping:

- Combustible materials will not be stored in mechanical rooms or near electrical panels.
- All electrical panel openings will be covered.

- Power bars will be plugged directly into outlets and used only temporarily.
- Extension cords and flexible cords will not be substituted for permanent wiring.

This coordinated approach, combining comprehensive employee training, strong housekeeping practices, and close collaboration with local fire departments, ensures that both site personnel and emergency responders are aligned in expectations and fully prepared to act in the event of a fire.

5 PLAN REVIEW AND UPDATE SCHEDULE

This Plan will be reviewed and updated every three years and immediately following any fire incident, significant equipment modification, or emergency drill. Updates will be communicated to all staff and shared with the Madison Township Fire Department and Palmyra Township Fire Departments as well as the Lenawee County Emergency Services. Documentation of review cycles and personnel acknowledgment of updates will be maintained on-site.

6 ASSESSMENT OF FIRE RESPONSE CAPACITY AND READINESS

Based on consultation with Lenawee County EMS and the Palmyra Township Fire Departments, current equipment and staffing levels are expected to be adequate for initial response. Rouget Road is not currently aware of any specific equipment or training deficiencies in local emergency response capacity. Further assessment will occur post-construction to identify and address any additional needs. If any deficiencies in response capacity are identified during further assessment, Rouget Road will take steps to identify and recommend measures to mitigate deficiencies.

7 POST-INCIDENT ACTIONS

Following any fire incident, a structured post-incident review will be initiated. This includes conducting a root cause analysis to identify the origin and contributing factors of the incident. Findings will be documented in an incident report and corrective measures will be implemented to prevent recurrence.

Damaged infrastructure will be promptly assessed and repaired or replaced as necessary. This Plan will be reviewed in light of the event and updates will be made to address any procedural gaps or necessary improvements.

Coordination with emergency responders will continue through the post-incident phase to ensure a comprehensive evaluation of response effectiveness. Lessons learned will be shared with the full Project team to improve preparedness and safety protocols going forward.

8 INCIDENT DOCUMENTATION AND REPORTING

All fire events, regardless of size or impact, will be documented using a standardized Incident Report Form. The Incident Report Form will be developed prior to the start of construction. Information collected will include the date and time of incident, exact location, personnel involved, nature and suspected cause of fire, response actions taken, and follow-up measures implemented. These records will be stored for a minimum of 5 years and reviewed regularly to identify trends or improvements.

9 CONTACT INFORMATION

Table 1. Contact Information

Organization	Contact	Role	Phone	Contact Method
Rouget Road Solar Farm, LLC	TBD prior to construction	Facility Manager	TBD	TBD
Palmyra Fire Department	Paul Rohlan	Fire Chief	(517) 605-4158	prohlan@gmail.com
Madison Fire Department	Nic Wilson	Fire Chief	(517) 265-6560	TBD
Lenawee County Sheriff	Troy Bevier	Sheriff	(517) 263-0524	sheriffrecords@lenawee.mi.us
Lenawee County Emergency Management	Craig Tanis	Coordinator	(517) 264-4756	https://www.lenawee.mi.us/383/Emergency-Services

Attachment 1

July 23, 2025 Meeting Minutes

Meeting Minutes

Date: July 23, 2025

Time: 11am – 12:30pm

Attendees:

- Palmyra Township Fire Department: Chief Paul Rohlan, Assistant Chief Brian Wilcox, and Firefighter Jeff Jackson.
- Lenawee County Emergency Management Team:
- Chris Foerg – Emergency Regional Planner.
- Craig Tanis – Emergency Management Coordinator.
- RWE Staff: Kevin Cole, Tim Love, and Alannah Woodring.

Topics Discussed: This was a joint meeting with the Lenawee County Emergency Management and Palmyra Fire Department. The Madison County Fire Department was invited but could not attend. Kevin Cole provided an overview of the project site plan and MPSC permitting requirements as well as the draft Emergency Response Plan and Fire Response Plan. An electronic copy of the plans was sent to the agencies on July 24, 2025 for review.

Following are the minutes based on the meeting transcript:

1. Purpose of Meeting

- Provide a safety and technical overview of the proposed Palmyra solar project.
- Establish communication channels between RWE, the Palmyra Fire Department, the Lenawee County Emergency Management Team, and local landowners.
- Review safety protocols, emergency response planning, and project impacts from construction through decommissioning.

2. Project Overview

- Location: Southeastern Michigan, (Palmyra area).
- Current status: ~10% design phase; equipment not yet finalized.
- Site details:
    - ~2,000 acres leased.
    - ~1,234 acres expected inside the fenced project footprint (subject to updates for wetlands/habitat).
- Solar panels: 540–610 watts each, mounted on motorized trackers (25 ft. max height, ~30 in. clearance).
- Electrical system: DC → combiner boxes → inverters → transformers. Stepped up to ~34,500 volts AC before substation interconnection. DC side always energized in presence of light.
- Setbacks & fencing:
    - 50 ft. from roadways.
    - 150 ft. from non-participating property lines.
- Each solar block fully fenced for safety and security.

3. Safety & Emergency Response Procedures

3.1 General Safety

- Situational awareness and controlled communication emphasized.
- Incident Action Plans to be developed for fire, medical, and electrical incidents.

3.2 Fire & Electrical Hazards

- Defensive firefighting approach:
- Electrical fires: allow to self-extinguish.
- Brush/grass fires: water permitted >25 ft. from electrical equipment.

- Acceptable extinguishers: Class C, CO_2, or clean agent.
- Primary risks: vegetation ignition or electrical faults in panels/combiner boxes/inverters.
- No battery storage facility included in this project.

3.3 Access & Coordination

- 24/7 system monitoring via RWE dispatch (Austin, TX). Contact info to be provided to local dispatch.
- Road network: 16-ft wide gravel drives with durable base for heavy vehicles.
- Gates: labeled for mapping and quick emergency access.
- O&M Building: To be co-located near the substation. Equipped with extinguishers, AEDs, staffed by ~4 local permanent employees.
- Emergency support: RWE staff will meet responders at gates. ATVs/UTVs available for patient transport within the field.

4. Vegetation & Fire Prevention

- RWE responsible for mowing/brush clearing inside and outside fences.
- Vegetation kept minimum 8 inches below lowest panel height.
- Roads and fences serve as fire breaks.
- A wildfire risk management plan is under development, factoring in local weather/vegetation growth patterns.

5. Decommissioning & Recycling

- Construction: steel piles driven (not concreted) except at substation. All removable.
- Panels:
- May be resold, donated, or recycled.
- RWE partnered with SolarCycle for panel recycling solutions.
- Life expectancy: ~30 years, with option for 10-year extension.

6. Questions & Concerns Raised

- Drainage systems: Damaged tile drains will be flagged, repaired, and covered under warranty.
- Hazmat risk: Solar panels mainly glass/silica; hazards similar to household fires.
- Accessibility: Firefighters will be met at gates; not expected to locate victims alone.
- Fire suppression: Confirmed defensive-only approach for electrical fires.
- Security: Full fencing prevents trespassing.
- Community impact: RWE committed to supporting fairs, schools, fire departments, and 4H programs.

7. Follow-Up Actions

RWE to provide:

- Dispatch contact details, site maps, and labeled gate IDs.
- Annual Tier II hazardous materials reports and updated emergency contact lists.
- Joint training and site orientation to be scheduled prior to commissioning.
- Facility tours: possible during “Golden Row” construction phase and before operations begin.
- Emergency response plan will be collaboratively developed with the Palmyra Fire Department and Lenawee County Emergency Management Team and refreshed annually.

8. Closing

- Meeting built stronger relationships between RWE, Palmyra Fire Department, the Lenawee County Emergency Management Team, and local landowners.
- Emphasis on safety-first operations, defensive firefighting posture, and transparent communication.
- Contact information exchanged; ongoing updates and training commitments reaffirmed.

Next Steps and Associated Timeline: As the ERP format has been updated to meet MPSC requirements, an electronic copy of the plans will be sent to the agencies in December 2025 for review and comment. Edits will be incorporated into the ERP. Any updates to the plan will be sent to MPSC. An on-site meeting with the agencies to discuss the project, ERP, and FRP will be held just prior to the start of construction.

From:	Cole, J Kevin
To:	prohlan@gmail.com
Cc:	Carol Mcknight
Subject:	Rouget Road Solar - Emergency Response Plan and Fire Response Plan for Review
Date:	Thursday, July 24, 2025 10:15:47 AM
Attachments:	20250718_FINAL_RRS_Emergency Response Plan.pdf 20250717_FINAL_RRS_Fire_Response_Plan.pdf

---

Hi Paul,

If you would take a look at the attached files and give me any comments or suggestions, I would appreciate it.

Best,
Kevin

J. Kevin Cole
Development Manager

RWE Clean Energy
Mobile : 517-745-7546
353 N Clark St, 30th Floor, Chicago, IL 60654
Jkevin.cole@rwe.com

Date: August 6, 2025

Time: 12:57 pm via text message via text message

Attendees:

- Palmyra Township Fire Department: Chief Paul Rohlan,
- RWE Staff: Kevin Cole

Topics Discussed: Paul stated that he had no comments/edits for the ERP or FRP at this time. Paul will reach out if a question or need arises.

Next Steps and Associated Timeline: As the ERP format has been updated to meet MPSC requirements, an electronic copy of the plans will be sent to the agencies in December 2025 for review and comment. Edits will be incorporated into the FRP. Any updates to the plan will be sent to MPSC. An on-site meeting with the agencies to discuss the project, ERP, and FRP will be held just prior to the start of construction.

Rouget Road Solar Farm

Exhibit A-1.11: Commissioning Plan

Lenawee County, Michigan

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.11 does not apply.

Rouget Road Solar Farm

Exhibit A-1.12: Emergency Operation Plan

Lenawee County, Michigan

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.12 does not apply.

Rouget Road Solar Farm

Exhibit A-1.13: Hazard Mitigation Analysis

Lenawee County, Michigan

The proposed Project is not an energy storage facility and thus the standards in Exhibit A-1.13 does not apply.

Rouget Road Solar Farm

Exhibit A-1.14: Unanticipated Discoveries Plan MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
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EXHIBIT A-1.14 – UNANTICIPATED DISCOVERIES PLAN

A-1.14.(a) – Submit an Unanticipated Discoveries Plan (UDP) that addresses the anticipated impacts and plans to mitigate impacts to the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species. The UDP must include:

1. **A set of procedures to be followed if cultural resources are discovered. Examples of cultural materials include, but are not limited to, the following:**
   - i. **An accumulation of shell, burned rocks, or other food-related materials**
   - ii. **Bones or small pieces of bone**
   - iii. **An area of charcoal or very dark stained soil with artifacts**
   - iv. **Stone tools or waste flakes (i.e., an arrowhead, or stone chips)**
   - v. **Clusters of tin cans or bottles**
   - vi. **Logging or agricultural equipment that appears to be older than 50 years**
   - vii. **Buried railroad tracks, decking, or other industrial materials**
2. **A set of procedures to be followed if human remains are discovered.**
3. **A contact list that includes the following:**
   - i. **Contact for the State Historic Preservation Office**
   - ii. **Contacts for Tribal Historic Preservation Offices of Michigan**
   - iii. **Local, project-specific, emergency contacts (i.e., County Sheriff, County Medical Examiner)**

Applicant has identified *anticipated* impacts to the environment and natural resources, as well as its plans to mitigate such impacts, within Exhibit A-6.2, and incorporates that discussion by reference rather than repeating it in full here.

As to *unanticipated* impacts, Rouget Road Solar Farm has prepared a UDP that includes sets of procedures to be followed in the event that additional *unanticipated* impacts to (i) environment or natural resources or (ii) to cultural or historical resources are discovered during the course of construction, operation, or decommissioning (**Appendix II Exhibit A-1.14**). The latter set of procedures addresses procedures for discoveries of both cultural resources and human remains. The UDP procedure contains the contact information for personnel to be contacted in the event of an unanticipated discovery.

For more information, see also **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp. 15, 21-22.

Rouget Road Solar Farm

Exhibit A-1.14A Plan for the Unanticipated Discovery of Cultural Resources and Human Remains

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
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PREPARED BY

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PLAN FOR THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES AND HUMAN REMAINS FOR THE PROPOSED ROUGET ROAD SOLAR PROJECT, LENAWEE COUNTY, MICHIGAN

Prepared for

Rouget Road Solar Farm, LLC
353 North Clark Street, 30th Floor
Chicago, Illinois, 60654
Attn: J. Kevin Cole

Prepared by

Rachel Lawrence, M.A., RPA, and Anna Gilmer, M.A., RPA

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SWCA Project No. 78878

September 2026

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Appendix C. Archaeological Features – Photographs

Appendix D. Procedures for Addressing Cultural Resources Discoveries

Appendix E. Procedures for the Unanticipated Discovery of Human Remains or Funerary Objects

INTRODUCTION

SWCA Environmental Consultants ("SWCA"), on behalf of Rouget Road Solar Farm, LLC, a wholly owned subsidiary of RWE Clean Energy LLC ("Applicant"), has established the following procedures for the recovery of previously unreported cultural resources and human remains found during the construction of the proposed Rouget Road Solar Project, located in Lenawee County, Michigan. The project is privately funded and located on private land; therefore, no federal laws are anticipated to be applicable to the project. This Unanticipated Discoveries Plan ("UDP") has been prepared in compliance with Exhibit A-1.14 of the MPSC Application Filing Instructions and Procedures pursuant to Public Act 233 of 2023 (MCL 460.1221 et seq.) and applicable state laws, including Michigan Administrative Code R. 325-8051 and NREPA Part 761. A separate UDP for natural resources has been prepared and is included as Exhibit A-1.14B. The Plan for the Unanticipated Discovery of Cultural Resources or Human Remains include procedures intended to ensure compliance with state regulations and laws that include the following:

- Michigan Administrative Code R. 325-8051 mandates that a person who inadvertently discovers a burial or parts of a human skeleton shall immediately notify police authority. If law enforcement determines the remains are of historic or Native American origin, the State Archaeologist of Michigan, the Michigan History Division, and the Department of State shall be notified immediately.
- The Natural Resources and Environmental Protection Act (Public Act 451 of 1994, Part 761) requires that a permit be obtained prior to undertaking any archaeological investigation on state lands. This act also prohibits removal of artifacts from the premises where they have been discovered without consent of the landowner.
- The Michigan Public Service Commission Certificate for Solar Energy, Wind Energy, and Energy Storage Facilities (Pursuant to Public Act 233 of 2023) requires the submittal of an UDP that addresses the anticipated impacts and plans to mitigate impacts to cultural resources.

This plan has been developed to provide construction staff with a procedure to ensure that any unanticipated discoveries of cultural resources and/or human remains are properly handled according to state laws applicable to privately funded solar projects located on private land and the Applicant's policies. This plan also establishes a reporting procedure in the event that unanticipated human remains or funerary objects are encountered during construction.

DEFINITIONS OF CULTURAL RESOURCES

Cultural materials include human-made precontact and postcontact artifacts and features.

- An **artifact** is any human-created object that is 50 years of age or older.
- **Features** represent areas of a specific past activity.
- **Precontact** archaeological resources are those that predate Native American contact with Europeans.
- **Postcontact** archaeological resources are those that postdate Native American contact with Europeans.

See Appendix A and B for representative photographs of artifacts and see Appendix C for representative photographs of archaeological features.

Examples of cultural materials and artifacts include, but are not limited to:

- Accumulation of shell, burned rock, or food-related materials
- Bones or bone fragments that are non-human in origin

- Pottery
- Bone or metal beads or pendants
- Marbles
- An area of charcoal or very dark stained soil with artifacts (i.e., a feature)
- Stone tools or lithic debris (i.e., an arrowhead, groundstone tool, axe, or stone flakes)
- Clusters of tin cans or bottles
- Fragments of glass bottles or ceramic dishes (earthenware, porcelain, stoneware)
- Nails
- Bricks
- Logging or agricultural equipment that appears to be 50 years of age or older
- Buried railroad tracks, decking, or other industrial materials
- Headstones or grave markers
- Stacked stones (potentially a foundation or wall)

IDENTIFICATION

The following sections describe how to identify cultural resources and human remains, and the protocols the Applicant will implement in accordance with federal and state regulations and laws.

Cultural Resources

Cultural resources include physical evidence of past human activity or a place where past human activity occurred and may include sites, objects, landscapes, or structures that may date to the precontact or historic periods. Historic properties include precontact archaeological sites and districts; historic buildings and districts; and structures or objects included in or eligible for inclusion in the National Register of Historic Places. Specifically, findings may include historic- and precontact-period items such as building remnants, structures, projectile points, ceramic sherds, hearths, or other remnants of past human activity. If a presumed cultural resource is found during construction, personnel shall be instructed to stop work immediately around the find and report any cultural materials to the appropriate Construction Manager or Environmental Inspector per the notification procedures below. Work will halt in the area surrounding the find until a historic property determination has been made by a qualified archaeological consultant. Archaeological sites and historic burial sites are protected by and must be treated in accordance with the Michigan Attorney General Opinion No. 6585 of 1989, Cemeteries and Dead Bodies.

Human Remains

The Applicant seeks to treat all human interments with respect and in accordance with state and federal laws as they apply to human remains. Personnel will be instructed that upon encountering any evidence of human remains, they should cease construction-related activities, cordon off the area to protect the find from further construction-related impacts, and notify the appropriate Construction Manager or Environmental Inspector per the notification procedures outlined below. Human remains are protected and must be treated in accordance with the Michigan Attorney General Opinion No. 6585 of 1989, Cemeteries and Dead Bodies.

Human remains include, but are not limited to, physical remains (bones, teeth, hair, ashes, preserved soft tissue). Remains may be articulated or disarticulated. Any human remains, regardless of age or ethnic origin, will be treated with dignity and respect at all times.

In addition, burial features and artifacts such as funerary objects, sacred objects, objects of cultural patrimony, pottery, and weapons are protected under this section.

AVOIDANCE MEASURES

In the event of an unanticipated discovery, whether a historic property, archaeological site, or human remains, construction personnel will stop work immediately around the find, protect and secure the cultural materials in place by delineating a 100-foot buffer for artifacts and a 300-foot buffer for human remains around the find with flagging or fencing, and restrict movement of vehicles in the area immediately surrounding the discovery. The 100-foot buffer (cultural resources) and 300-foot buffer (human remains) are consistent with SHPO-recommended protective measures to ensure integrity of resources while agency consultation occurs. Any cultural resources identified should not be removed from the construction site and should be left in place as it was identified.

NOTIFICATION PROCEDURES

Unanticipated discoveries of cultural resources or human remains will be reported to the Applicant by any consulting parties, and appropriate measures will be taken in accordance with federal and state regulations and laws.

Cultural Resources

For any unreported and unanticipated precontact or postcontact-aged cultural resources that are identified during construction, construction staff will adhere to the following procedures:

1. Work must cease within 100 feet of the discovery. The location should be secured and monitored to prevent looting. Minimize vehicular and equipment traffic in the area.
2. Construction personnel should immediately notify the Construction Manager and discuss their observations.
3. The Construction Manager shall notify the Rouget Road Solar Farm Project Manager and the Environmental Inspector.

Once the Rouget Road Solar Farm Project Manager has been notified, they will speak with the archaeological consultant to assess the potential significance of the find and the potential construction impacts. It may be necessary at this time for the archaeological consultant to perform a site visit to assist in determining the significance of the find. If necessary, the archaeological consultant will examine the location within 24 hours if possible.

After completing the initial assessment, if the archaeologist determines that the discovery is not a cultural resource, construction will resume and the non-cultural find will be documented. If the archaeologist determines that the find is a cultural resource and is potentially significant and that other significant materials may be damaged by allowing construction to continue, the Rouget Road Solar Farm Project Manager will notify the Michigan State Historic Preservation Office (“SHPO”) by telephone, overnight mail, or email. The cultural resource will be provided a site number by the SHPO. The archaeological consultant will then evaluate the find as required/approved by the SHPO. If the resource is believed to be eligible for the National Register of Historic Places, the archaeologist will prepare a proposal for data recovery and will request SHPO and Tribal approval to implement the scope of work. If the resource is determined ineligible for the National Register of Historic Places, the archaeologist will document the

discovery in a report, including photographs of the discovery. The report will also include the completed site form and an explanation of why the resource has been determined ineligible. The archaeologist will formally request permission from SHPO and participating Tribal Liaisons for construction to resume.

Each occurrence will require a separate and individual evaluation.

A final report of findings will be provided to the Applicant and SHPO upon completion.

Appendix D provides a flow chart showing the notification and review process in the event that an unanticipated cultural resource is identified during construction.

Human Remains

If any human remains, Native American funerary objects, sacred objects, items of cultural patrimony, or burial features are encountered, work will cease immediately within a 300-foot buffer. The buffer will include fencing or other protective barrier, and the remains and/or discovery will be covered for protection. The location will be secured and monitored to prevent looting and vandalism. Photography is strictly prohibited except in the cases of forensic examination or criminal investigation.

The Rouget Road Solar Farm Project Manager will notify the county coroner, the Michigan Department of Natural Resources Division of Law Enforcement, and the Michigan SHPO of the find by telephone. The Applicant's Project Manager shall notify SHPO within 24 hours and all potentially affiliated federally recognized Tribes within 48 hours of discovery, consistent with AFIP Exhibit A-1.14 requirements. Contact information is provided below for agencies and law enforcement entities (Tables 1–4).

Tribal notifications should be done initially by phone and followed up in writing or electronic mail. The notification will include information regarding the human remains, funerary objects, sacred objects, or items of cultural patrimony discovered inadvertently or in areas of prior disturbance, the condition of the objects, and the circumstances of the discovery.

The archaeological consultant will conduct a site visit to assess whether the skeletal remains are human, the degree of disturbance, and their potential age and cultural affiliation without any further disturbance. If it is determined the remains are historic in origin, the archaeological consultant and/or the Rouget Road Solar Farm Project Manager will contact the SHPO for direction regarding further archaeological investigation. The archaeological consultant and SHPO will make a reasonable and good faith effort to determine the closest living ancestor. If the SHPO determines that the burial is of Native American affiliation, additional notifications of federally recognized Tribes may be required. If the skeletal remains are human and associated with an archaeological context, the archaeologist, SHPO, and Tribal Liaisons will coordinate to determine appropriate preservation, excavation, and disposition of remains.

Pursuant to the Michigan Compiled Laws (§ 333.2853) and the Michigan 1982 Annual Administrative Code Supplement ("AACS") (R 325.8052), an application for disinterment must be filed with the local health officer prior to excavation and disinterment of human remains.

Appendix E provides a flow chart showing the notification and review process in the event that human remains are identified during construction.

Contacts for the Unanticipated Discovery of Cultural Resources and/or Human Remains

Below is the contact information for the necessary personnel to be contacted in the event of discovery and/or disturbance of unanticipated cultural resources and/or human remains (see Tables 1–3).

Table 1. Project Contacts

Role or Title and Organization	Name	Phone	Email
Project Manager (Rouget Road Solar Farm)	J. Kevin Cole	517-312-8949	rougetroadsolar@rwe.com
Environmental Inspector To Be Determined ("TBD")	TBD	TBD	TBD
Construction Manager TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD

Table 2. Michigan State Historic Preservation Office Contacts

Title	Name	Phone	Email	Address
Senior Archaeologist	Sarah Surface-Evans, PhD., RPA	(517) 282-7959	Surfaceevanss1@michigan.gov	300 N. Washington Square, Lansing, MI 48913

Table 3. Local Emergency Contacts (in the event that human remains are identified)

Organization	Title	Name	Phone	Email	Address
Lenawee County Medical Examiner & Coroner's Office	Chief Medical Examiner	John Maino II	517-264-4760	Medical.examiner@lenawee.mi.us	320 Springbrook Avenue, Adrian, MI 49221
Lenawee County Sheriff	Sheriff	Troy Bevier	517-264-5368	Troy.bevier@lenawee.mi.us	405 N. Winter Street Adrian, MI 49221

Table 4. Tribal Notifications

Organization	Title	Name	Phone	Email	Address
Forest Co. Potawatomi Community, Wisconsin	Chairman	James Crawford	715-478-7200	James.crawford@fcp-nsn.gov	5416 Everybodys Road, Crandon, WI 54520
Forest Co. Potawatomi Community, Wisconsin	THPO	Luke Heider	715-478-7354	Luke.heider@fcp-nsn.gov	5320 Wensaut Lane, PO Box 340, Crandon, WI 54520
Hannahville Indian Community	Chairperson	Kenneth Meshigaud	906-723-2602	tyderyien@hannahville.org	N14911 Hannahville B1 Road, Wilson, MI – 49896

Organization	Title	Name	Phone	Email	Address
Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan	Chairman	James Williams	(906) 358-4577	jim.williams@lvd-nsn.gov	East 23968 Pow Wow Trail, Watersmeet, MI – 49969
Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan	THPO Director	Alina Shively	906-358-0137	alina.shively@lvd-nsn.gov	P.O. Box 249, Watersmeet, MI – 49969
Little Traverse Bay Band of Odawa Indians	Chairperson	Regina Gasco	(231) 242-1418	tribalchair@ltbbodawa-nsn.gov	7500 Odawa Circle, Harbor Springs, MI - 49740
Little Traverse Bay Band of Odawa Indians	THPO	Melissa Wiatrolik	231-242-1408	mwiatrolik@ltbbodawa-nsn.gov	7500 Odawa Circle, Harbor Springs, MI - 49740
Menominee Indian Tribe of Wisconsin	THPO	David Grignon	(715) 799-5258	dgrignon@mitw.org	P.O. Box 910, Keshena, WI – 54135
Menominee Indian Tribe of Wisconsin	Chairwoman	Gena Kakkak	(715) 799-5100	chairman@mitw.org	W2908 Tribal Office Loop, Keshena, WI – 54135
Miami Tribe of Oklahoma	Chief	Douglas Lankford	(918) 541-1300	thpo@miamination.com	3410 P St., Miami, OK - 74354
Miami Tribe of Oklahoma	THPO	Logan York	918-541-7885	thpo@miamination.com	P.O. Box 1326, Miami, OK – 74355
Pokagon Band of Potawatomi Indians, Michigan and Indiana	THPO	Matthew Bussler	(269) 462-4316	matthew.bussler@pokagonband-nsn.gov	P.O. Box 180, Dowagiac, MI - 49047
Pokagon Band of Potawatomi Indians, Michigan and Indiana	Chair	Matthew Wesaw	(269) 462-4315	matthew.wesaw@pokagonband-nsn.gov	58620 Sink Road, Dowagiac, MI - 49047
Sault Ste. Marie Tribe of Chippewa Indians, Michigan	Cultural Repatriation Specialist	Marie Richards	(906) 635-6050	mrichards@saulttribe.net	531 Ashmun Street, Sault Ste. Marie, MI – 49783
Sault Ste. Marie Tribe of Chippewa Indians, Michigan	Chairperson	Austin Lowes	(906) 635-6050	alowes@saulttribe.net	523 Ashmun Street, Sault Ste. Marie, MI – 49783
Seneca-Cayuga Nation	Chief	Charles Diebold	(918) 787-5452	cdiebold@sctribe.com	23701 South 655 Road, Grove, OK – 74344
Seneca-Cayuga Nation	THPO	William Tarrant	(918)-791-6061	wtarrant@sctribe.com	P.O. Box 453220, Grove, OK - 74345

APPENDIX A

Precontact Cultural Resources - Photographs



Examples of projectile points



Example of Native American pottery



Example of Native American copper beads



Native American slate gorget



Native American stone grooved axe

APPENDIX B

Postcontact Cultural Resources – Photographs



Examples of postcontact ceramics, both earthenware and stoneware





Examples of historic glass vessels



Examples of historic nails

APPENDIX C

Archaeological Features – Photographs



Examples of archaeological features. Features can include staining or concentrations of artifacts.



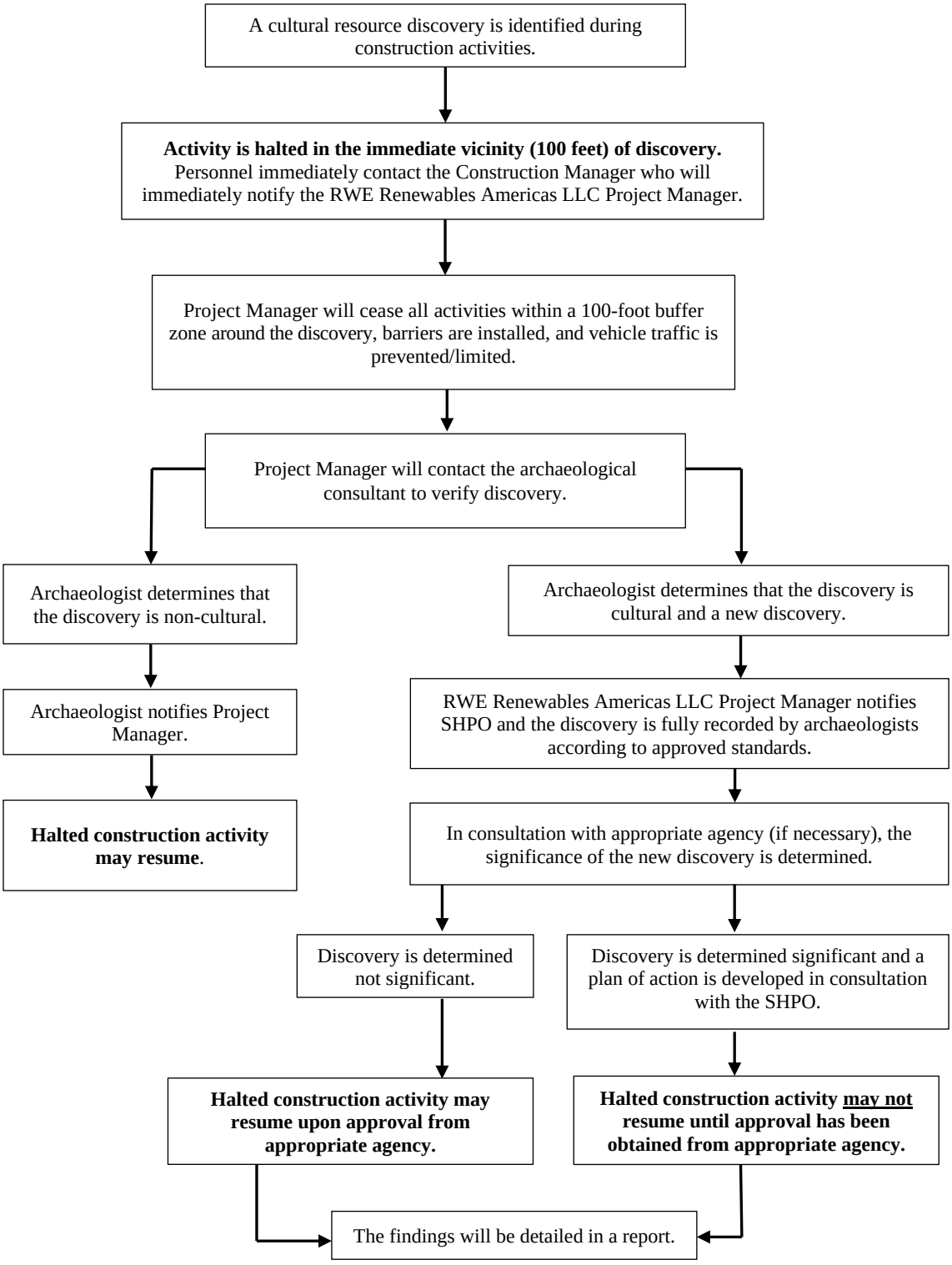


Example of shell midden and archaeological feature

APPENDIX D

Procedures for Addressing Cultural Resources Discoveries

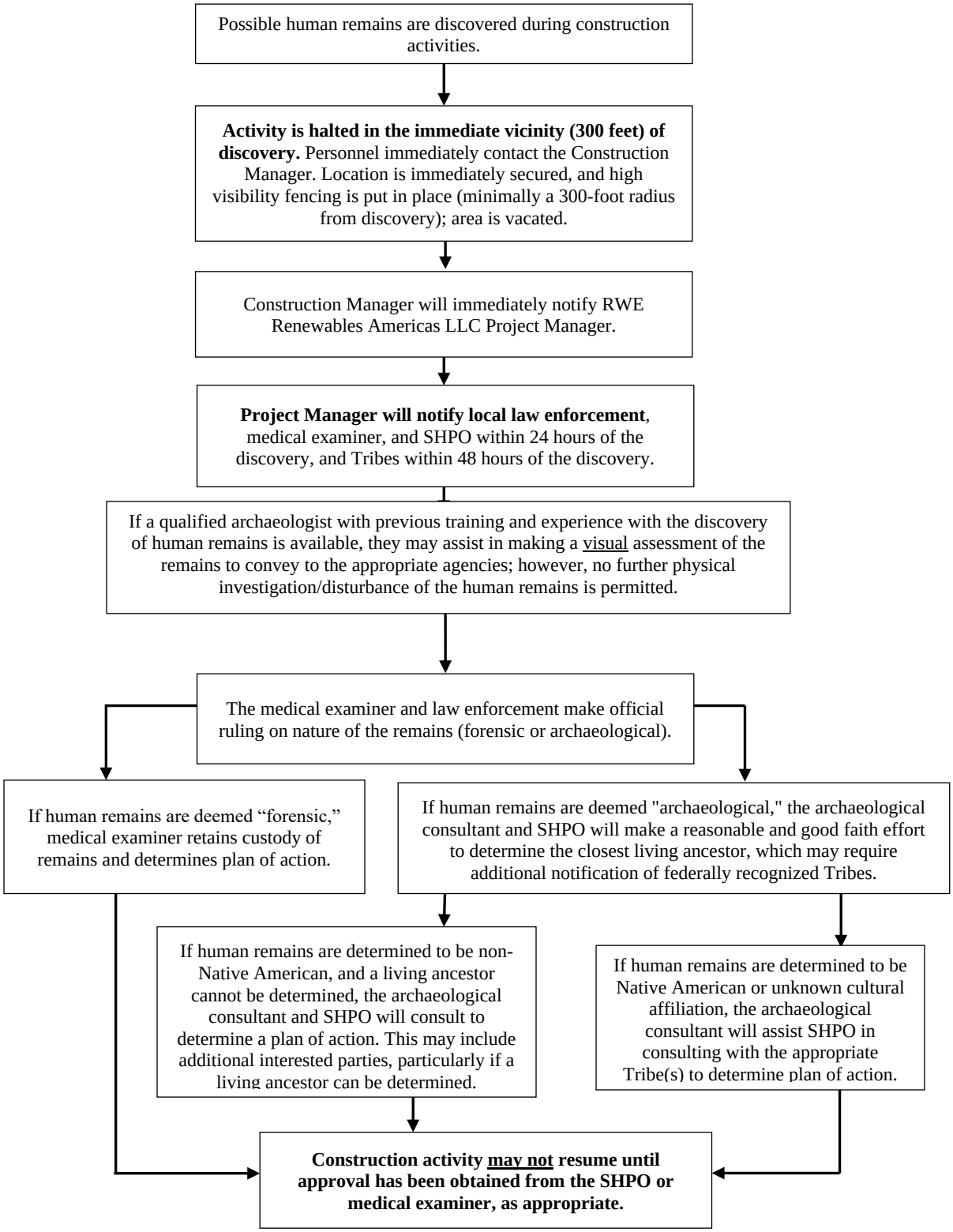
Procedures for Addressing Cultural Resources Discoveries



APPENDIX E

Procedures for the Unanticipated Discovery of Human Remains

Procedures for the Unanticipated Discovery of Human Remains



Rouget Road Solar Farm

Exhibit A-1.14B Unanticipated Discovery Plan for Natural Resources

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 North Clark Street, 30th Floor
Chicago, Illinois 78701

PREPARED BY

SWCA Environmental Consultants
200 W 22nd Street, Suite 220
Lombard, Illinois 60148

PLAN FOR THE UNANTICIPATED DISCOVERY OF NATURAL RESOURCES FOR THE ROUGET ROAD SOLAR PROJECT, LENAWEE COUNTY, MICHIGAN

Prepared for

Rouget Road Solar Farm, LLC
353 North Clark Street, 30th Floor
Chicago, Illinois 78701

Attn: J. Kevin Cole

Prepared by

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SWCA Project No. 78878

September 2026

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INTRODUCTION

SWCA Environmental Consultants ("SWCA"), on behalf of Rouget Road Solar Farm, LLC, a wholly owned subsidiary of RWE Clean Energy LLC ("Applicant"), has prepared the following Unanticipated Discoveries Plan ("UDP") for the proposed Rouget Road Solar Project ("Project"), a 175-megawatt, utility-scale solar project located in Lenawee County, Michigan. The Project is privately funded and located entirely on private land. This UDP has been prepared to fulfill the requirements of Exhibit A-1.14 of the Michigan Public Service Commission ("MPSC") Application Filing Instructions, pursuant to MCL 460.1226(7)(f). The intent of this UDP is mitigate impacts to the natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species. A separate UDP for cultural resources and human remains has been prepared and is included as Exhibit A-1.14A. The UDP for natural resources highlights the pre-construction measures implemented to avoid and minimize impacts to these resources, as well as outlines the procedures to be followed if previously unidentified or unanticipated natural resources are discovered during construction activities and to ensure compliance with applicable federal and state environmental regulations, as well as the Applicant's internal environmental policies. Relevant regulatory frameworks includes internal environmental policies. Relevant regulatory frameworks include:

- **Clean Water Act ("CWA"), Section 404:** Administered by the U.S. Army Corps of Engineers ("USACE"); regulates the discharge of dredged or fill material into waters of the United States, including wetlands.
- **CWA, Section 401:** Administered by the Michigan Department of Environment, Great Lakes, and Energy ("MI EGLE" or "EGLE"); authorizes the State to certify that discharges into waters comply with water quality standards.
- **Endangered Species Act of 1973 ("ESA"):** Administered by the U.S. Fish and Wildlife Service; regulates activities that may impact threatened or endangered species or their critical habitat.
- **Natural Resources and Environmental Protection Act ("NREPA") (1994 Public Act [PA] 451), Part 303, Wetlands Protection:** Administered by MI EGLE; regulates activities such as draining, filling, or construction within regulated wetlands.
- **NREPA Part 301, Inland Lakes and Streams:** Administered by MI EGLE; governs construction, dredging, filling, and alterations within inland lakes, streams, and associated bottomlands.
- **Michigan Public Service Commission ("MPSC"):** In accordance with **2023 PA 233**, applicants for solar energy facilities must submit a UDP that addresses potential impacts to natural resources (listed above) and outlines mitigation measures.
- **NREPA Part 365, Endangered Species Protection:** Administered by Michigan Department of Natural Resources ("MDNR"); regulates activities that may take or harm any endangered or threatened fish, plants, or wildlife.

This UDP serves to guide construction personnel in the appropriate response to the discovery of unanticipated natural resources or habitats, including federally or state-listed species. It establishes a clear protocol for reporting, coordination with regulatory agencies, and implementation of protective measures to remain in compliance with applicable legal and environmental requirements.

Natural Resources Definitions

For the purposes of this UDP, the term *natural resources* refer to ecological features and habitats that may be regulated, sensitive, or otherwise warrant protection under federal or state law. Natural resources include but are not limited to the following:

- **Wetlands:** Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life, and is commonly referred to as a bog, swamp, or marsh (PA 451, Part 303).
- **Surface Waters:** Streams, rivers, lakes, ponds, and other non-wetland surface waters. These resources are regulated under various state and federal statutes and may provide habitat for aquatic and terrestrial species.
- **Floodplains:** Low-lying areas adjacent to rivers, streams, lakes, or drains that are subject to periodic inundation during flood events (MI EGLE 2025).
- **Vernal Pools:** Seasonal, isolated wetlands typically found in forested areas. They are inundated during certain times of the year (e.g., spring and fall) and provide critical breeding habitat for amphibians and invertebrates (Michigan Natural Features Inventory 2010)
- **Sensitive Habitats:** Areas that support unique or fragile ecological communities, often associated with rare plant or animal species, or with limited distribution within the region. These may include forested wetlands, remnant prairie patches, or native grasslands.
- **Wildlife Corridors:** Routes by which animals move in order to forage, find habitat, and more. These corridors are often constructed to connect wildlife populations with other populations that are separated by roads or clearings. Corridors can come in the form of natural corridors, such as rivers or other bodies of water, as well as man-made corridors such as tunnels under roads or bridges over top of roads. While there are no PAD-US listed wildlife corridors on site, there may be natural ones that exist through wetlands and forests. Because of this, they are included in this natural resources UDP.
- **Rare, Threatened, and Endangered ("RTE") species:** The U.S. Fish and Wildlife Service ("USFWS") are responsible for federal species protected under the Endangered Species Act of 1973. The Michigan Department of Natural Resources ("MDNR") oversees the state species afforded protection under the Natural Resources and Environmental Protection Act ("NREPA") Part 365. According to the USFWS Information for Planning and Consultation web application (USFWS 2023) and the Michigan Natural Features Inventory (2024), RTE species potentially occurring within the Project area are listed in Appendix A. The list of RTE species will be updated and revised if deemed necessary after further coordination with state and federal agencies.

Impacts on natural resources are avoided and minimized through intensive pre-construction surveys and permitting efforts. There is little likelihood of encountering unknown wetlands, surface waters, floodplains, vernal pools, sensitive habitats, wildlife corridors, and RTE habitat since the entire workspace was surveyed and all resources were identified. The potential RTE species habitat delineated within the Project area are provided in Appendix B. Additionally, a map of the probability for RTE species habitat to occur in the Project area is included in Appendix C. Probability ranges from "None" or no probability to "High" or higher probability of habitat to support RTE species. The areas denoted as high probability are those habitats that have a higher probability of possessing habitat to support RTE species. These include wetlands, streams, vegetated riparian zones adjacent to streams, and forest areas. Most of the areas denoted as having a higher probability of habitat to support RTE species have been avoided by the design. No RTE species were identified during the field survey. Consultation with the MDNR is on-going regarding the potential for the Project to impact RTE species. Due to the completed pre-construction survey and

permitting efforts, the only natural resource with any potential for unanticipated discovery during construction would be presence RTE species.

TRAINING AND IDENTIFICATION

Prior to the start of construction, all relevant personnel, including the Construction Manager, subcontractors, and field crews, will receive comprehensive training on the identification of the RTE species listed in Appendix A and provided with the appropriate response procedures in the event of an unanticipated discovery. Additionally, once the Project construction is complete and Rouget Road Solar Farm is operational, the crew operating the facility will be provided the identification materials to continue the protection and awareness of the natural resources in the area during the operation and maintenance of Rouget Road Solar Farm as well as through decommissioning.

Training Program Components

- **Preconstruction Presentation:** A formal presentation will be delivered during the preconstruction meeting to provide an overview of the locations of identified sensitive natural resources, including wetlands, surface waters, sensitive habitats, and wildlife corridors, with particular RTE species that may be encountered within the Project area.
- **Identification Field Cards:** Laminated field cards or pocket guides will be distributed to field personnel, illustrating key identifying features of known and potential RTE species (Appendix D). These materials will serve as quick-reference tools to support accurate identification in the field and help minimize false work stoppages.
- **Site-Specific Awareness:** Construction staff will be briefed on the location of any previously identified natural resources within or adjacent to the work area. All located natural resources will also be clearly marked in the field using flags, fencing, or signage as appropriate, to prevent accidental disturbance and reduce the potential for unnecessary impacts. Construction staff should review the map of the probability of habitat for RTE species to occur in the Project area (see Appendix C) prior to and during construction so that construction and field crews can be kept apprised of the likelihood for RTE species or their habitat to occur within their work areas and use extra care when working in these areas.

Training Documentation

The Applicant will maintain documentation that verifies all construction personnel have received the required environmental training prior to mobilization. Refresher briefings may be provided if new areas are opened for work or if the Project timeline extends significantly. Training records will be maintained by the Applicant and included in the annual environmental compliance file, available for Commission or agency review upon request.

UNANTICIPATED DISCOVERY

In the event of an unanticipated discovery of a RTE species during construction, the following avoidance measures shall be implemented to ensure protection and compliance with applicable federal and state regulations.

1. **Internal Notification:** The discovering crew member must notify the Foreman or Construction Manager immediately. The Construction Manager will assess the area and contact the Environmental Lead or Environmental Compliance Coordinator for secondary verification.
2. **Secondary Verification:** The Environmental Lead will conduct a secondary verification of the discovery to confirm the presence of a protected species.
3. **Project Team Notification:** The Environmental Inspector will notify the Project Manager immediately after verification of presence of a protected species.
4. **Site Protection and Delineation:** Once confirmed, the specie shall be protected in place. A **minimum 25-foot buffer** shall be established around the discovery using highly visible flagging, fencing, or signage to be determined by the behavior of the species. The area will be designated as a **no-work zone**, and all personnel and equipment shall avoid entry. Under no circumstances should natural resources be altered or removed. RTE species are protected under the ESA and NREPA Part 365, and **only permitted and certified personnel** may handle or interact with such species.
5. **Formal Notification:** If necessary, the Environmental Lead will initiate consultation with relevant state or federal agencies, such as MI EGLE, USFWS, or MDNR, depending on the nature of the resource.
6. **Evaluation and Documentation:** A qualified natural resources consultant may be dispatched to perform an on-site evaluation. If the discovery is not a protected resource, the finding will be documented, and construction may resume. If the resource is confirmed as significant or protected, the Environmental Lead shall document the discovery using the **Unanticipated Discovery Report Form** and notify the appropriate Rouget Road Solar Farm Environmental Compliance contact. The site will remain restricted until the Applicant, in coordination with appropriate agencies, determines a path forward.
7. **Adaptive Management Approach:** Following the discovery, the Project Manager and the Environmental Compliance team will coordinate with federal or state agencies to initiate any required permitting for unavoidable impacts to the resource; amend construction plans as needed; and evaluate the need for avoidance, minimization, or adaptive management measures. These measures may include the following:
    - Design modifications or rerouting of Project features to avoid sensitive resources
    - Scheduling modifications to avoid sensitive time periods (e.g., breeding or migration windows)
    - Long-term monitoring or mitigation
8. **Final Reporting:** A formal summary report documenting the discovery, evaluation, actions taken, and resolution will be submitted to the Applicant and the appropriate agency (e.g., MI EGLE, USFWS, MDNR). All documentation will be retained as part of the Project's environmental compliance records.

The Applicant will ensure that all relevant personnel are informed of ongoing protection measures and any changes in construction methods required for continued compliance.

Notification Contacts

Below is the contact information for the necessary personnel to be contacted in the event of discovery and/or disturbance of protected natural resources (Tables 1–3).

Table 1. Project Contacts

Role or Title (Organization)	Name	Phone	Email
Project Manager (Rouget Road Solar Farm)	J. Kevin Cole	(517) 312-8949	rougetroadsolar@rwe.com
Environmental Lead To Be Determined ("TBD")	TBD	TBD	TBD
Construction Manager (TBD)	TBD	TBD	TBD

Table 2. State-Level Agency Contacts

Role or Title (Organization)	Name	Phone	Email	Address
Environmental Investigator (MI EGLE)	David Shaw	(231) 788-5514	shawd1@michigan.gov	525 West Allegan Building P.O. Box 30473 Lansing, MI 48909-7973
Chief, Wildlife Division (MDNR)	Sara Thompson	(517) 284-9453	Dnr-wildlife@michigan.gov	Department of Natural Resources Wildlife Division P.O. Box 30444 Lansing, Michigan 48909

Table 3. USFWS Michigan Ecological Services Field Office Contact

Title	Name	Phone	Email	Address
Field Office Supervisor	Scott Hicks	(517) 351-6274	Scott_hicks@fws.gov	2651 Coolidge Road, Suite 101 East Lansing, Michigan 48823

LITERATURE CITED

Michigan Department of Environment, Great Lakes, and Energy (EGLE). 2025. Floodplain Management. Available at: https://www.michigan.gov/egle/about/organization/water-resources/floodplain-management/floodplains. Accessed June 2025.

Michigan Natural Features Inventory (MNFI). 2010. Vernal Pool. Lansing: Michigan Natural Features Inventory. Available at: https://mnfi.anr.msu.edu/abstracts/ecology/Vernal_Pool.pdf. Accessed June 2025.

———. 2024. Project Review Results; Project Number 5237. December 2024. Included in Appendix A.

U.S. Fish and Wildlife Service (USFWS). 2023. IPaC resource list. March 27. Included in Appendix A.

APPENDIX A

U.S. Fish and Wildlife Service Information for Planning and Consultation and Michigan Natural Features Inventory Results

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Lenawee County, Michigan



Local office

Michigan Ecological Services Field Office

(517) 351-2555
(517) 351-1443

2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

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

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered

Birds

NAME	STATUS
Whooping Crane Grus americana No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) Sistrurus catenatus Wherever found This species only needs to be considered if the following condition applies: • For all Projects: Project is within EMR Range No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2202	Threatened

Clams

NAME	STATUS
Rayed Bean Villosa fabalis Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5862	Endangered

Insects

NOT FOR CONSULTATION

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

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Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31

Probability of Presence Summary

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

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"Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

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

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

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

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

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

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

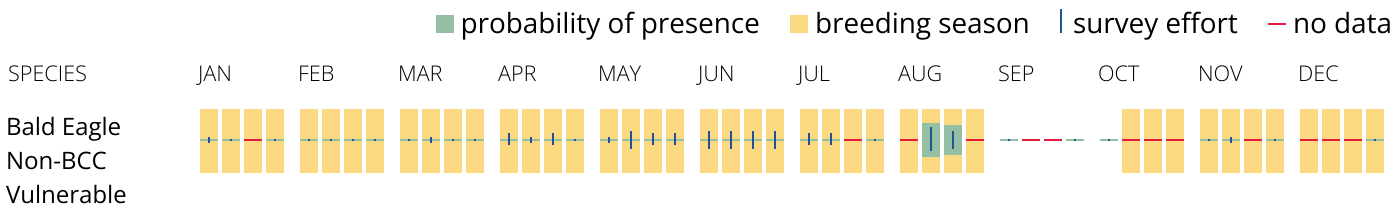
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

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How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

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

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Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

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NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

Bobolink Dolichonyx oryzivorus — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cerulean Warbler Setophaga cerulea — Breeds Apr 21 to Jul 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2974

Chimney Swift Chaetura pelagica — Breeds Mar 15 to Aug 25

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Grasshopper Sparrow Ammodramus savannarum perpallidus — Breeds Jun 1 to Aug 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8329

Pectoral Sandpiper Calidris melanotos — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird Euphagus carolinus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

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

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

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

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

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

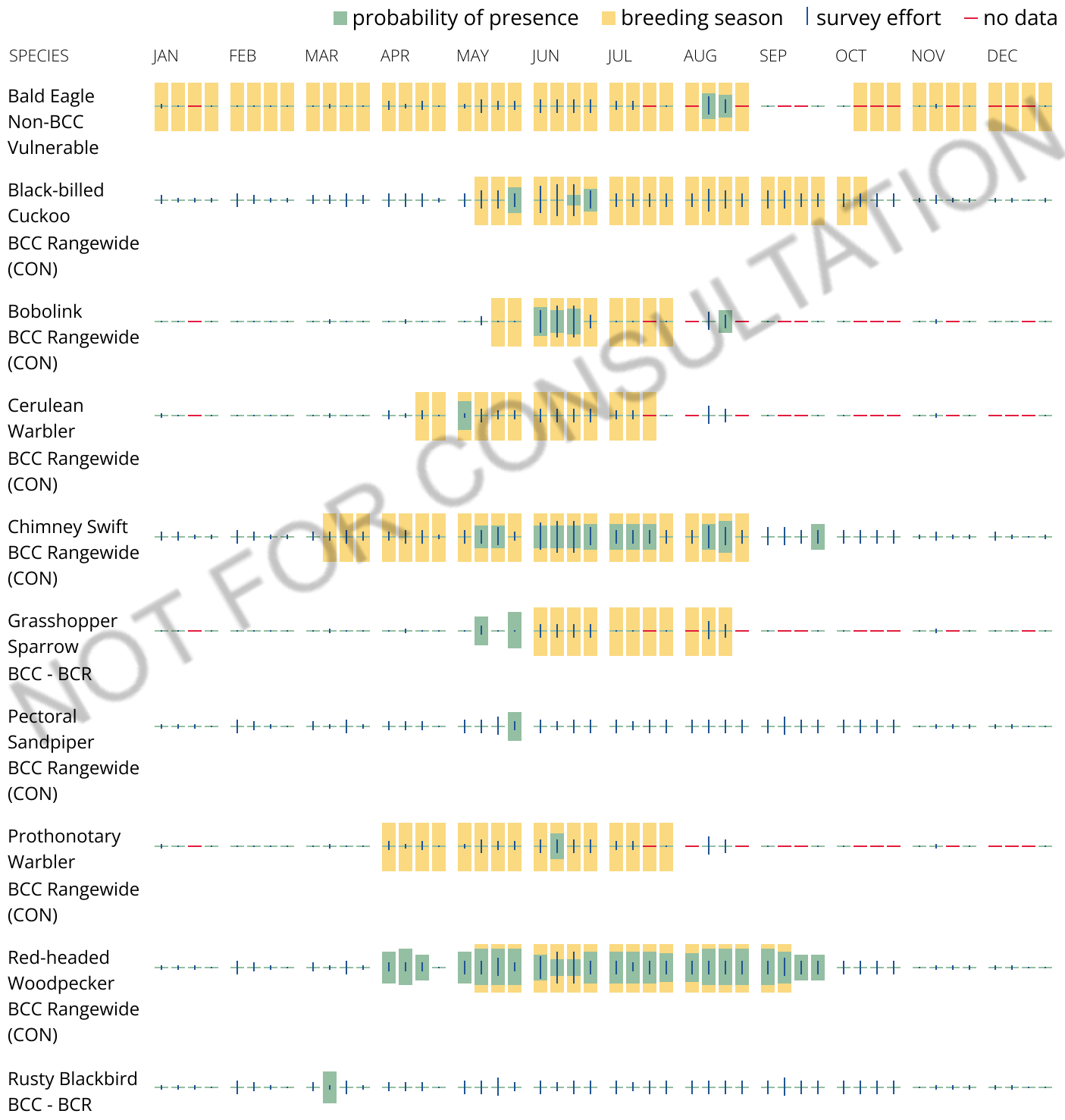
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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To see a bar's survey effort range, simply hover your mouse cursor over the bar.

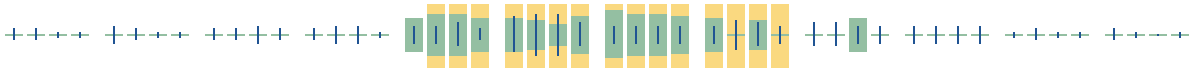
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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



NOT FOR CONSULTATION

Wood Thrush
BCC Rangewide
(CON)



Migratory Bird FAQs

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

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

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

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

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

Details about birds that are potentially affected by offshore projects

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

Proper interpretation and use of your migratory bird report

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

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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

Survey Timeframe

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

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

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

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM1Af

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FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PSS1C
- PFO1Cx
- PFO1/SS1C

FRESHWATER POND

- PUBGx

RIVERINE

- R2UBH
- R5UBFx
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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MICHIGAN STATE UNIVERSITY | Extension

Pallavi Sirajuddin
SWCA Environmental Consultants
200 West 22nd Street
Suite 220
Lombard, IL 60148

December 5, 2024

Re: Rare Species Review #5237 – Lenawee County Solar Project

Hello:

The location for the proposed project was checked against known localities for rare species and unique natural features, which are recorded in the Michigan Natural Features Inventory (MNFI) natural heritage database. This continuously updated database is a comprehensive source of existing data on Michigan's endangered, threatened, or otherwise significant plant and animal species, natural plant communities, and other natural features. Records in the database indicate that a qualified observer has documented the presence of special natural features. The absence of records in the database for a particular site may mean that the site has not been surveyed. The only way to obtain a definitive statement on the status of natural features is to have a competent biologist perform a complete field survey.

Under Act 451 of 1994, the Natural Resources and Environmental Protection Act, Part 365, Endangered Species Protection, "a person shall not take, possess, transport, …fish, plants, and wildlife indigenous to the state and determined to be endangered or threatened," unless first receiving an Endangered Species Permit from the Michigan Department of Natural Resources (MDNR), Wildlife Division. Responsibility to protect endangered and threatened species is not limited to the lists below. Other species may be present that have not been recorded in the database.

Several at-risk species and/or natural communities have been documented within 1.5 miles of the project location and it is possible that adverse impacts will occur. This response reflects a desktop review of the database and MNFI cannot fully evaluate this project without visiting the area. MNFI offers several levels of Rare Species Reviews, including field surveys which I would be happy to discuss with you.

Sincerely,

Michael Sanders

Michael Sanders
Environmental Review Specialist/Zoologist
Michigan Natural Features Inventory

MSU EXTENSION

Michigan Natural Features Inventory

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Comments for Rare Species Review #5237

It is important to note that it is the applicant's responsibility to comply with both state and federal threatened and endangered species legislation. Therefore, if a state listed species occurs at a project site, and you think you need an endangered species permit, please contact Amy Bleisch at DNR-Wildlife Division, DNR-StateTEPermit@michigan.gov and review details on the MDNR's Threatened/Endangered Species resource page. If a federally listed species is involved and, you think a permit is needed, please contact Jessica Pruden, U.S. Fish and Wildlife Service, East Lansing office, 517-351-8316, or Jessica_Pruden@fws.gov.

NOTE: Special concern species and natural communities are not protected under endangered species legislation, but efforts should be taken to minimize any or all impacts. Please consult MNFI's Rare Species pages for additional information on Michigan's rare plants and animals.

Stream Group Designations

NOTE: Michigan rivers and streams have been grouped according to existing information of mussel distribution and individual species conservation status. The Mussel Protocol Stream Groups are designed to document the **potential** presence or absence of state or federally listed mussel species. The layer was created by modeling the habitat suitability for each mussel species and may not correspond directly with a documented location for a listed mussel. A segment may be predicted as suitable for a number of mussel species, so the stream group number was assigned to the most restrictive of the potential mussel species present.

This stretch of the Raisin River is designated a Group 2 mussel stream which means that State threatened and endangered mussel species may occur here and that certain surveys and possibly relocation procedures apply. I encourage you to read the ***Michigan Freshwater Mussel Survey Protocols and Relocation Procedures*** publication i**f in-stream work and/or land clearing activities occur that result in streambed disturbance and erosion and sedimentation into the river**. A copy of the publication is being provided to you in this mailing.

The Mussel Map Viewer is an interactive tool to allow users to explore listed native mussels across the Michigan landscape. Watershed level species lists are available alongside the Mussel Protocol Stream Groups.

Table 1: Occurrences of Threatened & Endangered Species within 1.5 miles of Project Site

Element Category	Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	EO Rank	First Observed Date	Last Observed Date
Animal	*Alasmidonta viridis*	Slippershell		T	G4G5	S2S3	H	1927	1942-07-09
Animal	*Bombus affinis*	Rusty-patched bumble bee	LE	E	G2	SH	H	1926-07-11	1998-08-01
Animal	*Clemmys guttata*	Spotted turtle		T	G5	S2	E	1990	1990-02
Animal	*Cyclonaias tuberculata*	Purple wartyback		T	G5	S2	H	1925-07-19	1925-07-19
Animal	*Myotis septentrionalis*	Northern long-eared bat	LE	T	G2G3	S1	E	2006-05-20	2011
Animal	*Myotis sodalis*	Indiana bat	LE	E	G2	S1	E	2004-07-29	2007-08-16

Animal	*Nycticeius humeralis*	Evening bat		T	G5	S2	E	2004-08-07	2007-08-16
Animal	*Paetulunio fabalis*	Rayed bean	LE	E	G2	S1S2	E	1941-08-07	2018-09-14
Animal	*Terrapene carolina carolina*	Eastern box turtle		T	G5T5	S2S3	H		1978-05-19
Animal	*Terrapene carolina carolina*	Eastern box turtle		T	G5T5	S2S3	E	1986	1986-10
Animal	*Terrapene carolina carolina*	Eastern box turtle		T	G5T5	S2S3	E	1978	1985-07-19
Animal	*Toxolasma parvum*	Lilliput		E	G5	S1	H	1936-pre	1936-pre
Plant	*Camassia scilloides*	Wild hyacinth		T	G5	S2	AB	1987	1987-05-17
Plant	*Camassia scilloides*	Wild hyacinth		T	G5	S2	E	1985-05-13	2013-05-04
Plant	*Camassia scilloides*	Wild hyacinth		T	G5	S2	B?	1989	1989-06-29
Plant	*Carex crus-corvi*	Raven's-foot sedge		E	G5	S1	C	2011-06-28	2013-07-07
Plant	*Cypripedium candidum*	White lady slipper		T	G4	S2	E	1988-06-05	1988-06-05
Plant	*Lactuca floridana*	Woodland lettuce		T	G5	S2	E	1988	1988-08-31
Plant	*Mertensia virginica*	Virginia bluebells		T	G5	S1S2	E	1987-04-28	1987-04-28
Plant	*Ruellia strepens*	Smooth ruellia		E	G4G5	S1	AB	2010-09-13	2010-09-13
Plant	*Trillium sessile*	Toadshade		T	G5	S2S3	AB	1985	2013-05-04
Plant	*Trillium sessile*	Toadshade		T	G5	S2S3	B	1987	1987-05-17

Table 2: Occurrences of Special Concern Species and Natural Communities within 1.5 miles of Project Site

Element Category	Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	EO Rank	First Observed Date	Last Observed Date
Animal	*Acronicta falcula*	Corylus dagger moth		SC	G2G4	S2S3	H	1963-05-25	1963-05-25
Animal	*Alasmidonta marginata*	Elktoe		SC	G4	S3?	C	2000-10-13	2000-10-13
Animal	*Alasmidonta marginata*	Elktoe		SC	G4	S3?	E	2000-2001	2000-2001
Animal	*Alasmidonta marginata*	Elktoe		SC	G4	S3?	E	2000-2001	2000-2001
Animal	*Alasmidonta marginata*	Elktoe		SC	G4	S3?	H		
Animal	*Cambarunio iris*	Rainbow		SC	G4G5	S3	E	2000-2001	2000-2001
Animal	*Faxonius immunis*	Calico crayfish		SC	G5	S4	H	1966-04-19	1966-04-19
Animal	*Haliaeetus leucocephalus*	Bald eagle		SC	G5	S4	E	2011	2015

Animal	*Lasmigona compressa*	Creek heelsplitter		SC	G5	S3	H	1925-07-19	1929
Animal	*Lasmigona costata*	Flutedshell		SC	G5	SNR	H	1925-07-19	1929
Animal	*Mesodon clausus*	Yellow globelet		SC	G5	SNR	H	1939-05-08	1939-05-08
Animal	*Pleurobema sintoxia*	Round pigtoe		SC	G4?	S3	H	1925-07-19	1925-07-19
Animal	*Stylurus amnicola*	Riverine snaketail		SC	G4	S2S3	H	1927-05-12	1927-05-12
Animal	*Truncilla truncata*	Deertoe		SC	G5	S2S3	H		
Plant	*Carex trichocarpa*	Hairy-fruited sedge		SC	G4	S2	H	1874	1874-07-06
Plant	*Eleocharis engelmannii*	Engelmann's spike rush		SC	G5	S2S3	CD	2001-07-07	2001-07-07
Plant	*Lycopus virginicus*	Virginia water-horehound		SC	G5	S2	E	1987-09-21	2001-09-04
Plant	*Lycopus virginicus*	Virginia water-horehound		SC	G5	S2	C	2007-08-10	2007-08-10
Plant	*Prunus umbellata*	Alleghany or Sloe plum		SC	G5	S3	C	1986	1986-05-09

Species Comments for Table 1

Virginia bluebells (*Mertensia virginica*)

Habitat

Known to occur in the area. Virginia bluebells occurs in first and second bottoms of riparian forests in southern Lower Michigan.

Management Recommendations

Conserve hydrology of river system and corresponding cyclical floodplain regime. Maintain healthy intact, mature floodplain forests and minimize forest fragmentation. When possible, leave large tracts of unharvested forests and allow natural processes to operate unhindered.

For more information, see the *Mertensia virginica* species page on the MNFI website.

Indiana bat (*Myotis sodalis*)

Habitat

Known to occur in the area. Indiana bats roost and form maternity colonies under loose bark or in hollows and cavities of mature trees in the floodplain forest. In Michigan, savanna habitats adjacent to riparian corridors may have been historically important for roost sites, as the bats are thought to prefer sun-exposed trees for maximum warmth at the northern limit of their range. In winter, Indiana bats primarily

hibernate in caves in Kentucky, Indiana, and Missouri, although a new hibernacula site has been found in northern Michigan at a hydroelectric facility.

Management Recommendations

Floods, cave ceiling collapses, mortality during severe winters, and human disturbances (e.g. vandalism, caving, and indiscriminate collecting) have severely disrupted local populations at their hibernacula. The Indiana bat requires large blocks of mature floodplain forest, including standing snags and other suitable living roost sites. A primary limiting factor in their summer range has been the deforestation of riparian habitats, which usually occurs from the cutting of large, dead trees for firewood. Stream channelization, bank modification, and agricultural development along stream banks also have contributed to habitat destruction. Riparian habitat can be maintained by protecting mature, wooded areas, leaving large, dead trees standing, and maintaining wide vegetation buffer strips. Cutting of snags, canopy removal, and general land clearing activities along streams and rivers for development, agriculture, utility corridors, river or drain dredging and other purposes should be avoided. The species would likely benefit from restoration of floodplain forests and adjacent savannas through tree planting efforts.

For more information, see the *Myotis sodalis* species page on the MNFI website.

Northern long-eared bat (*Myotis septentrionalis*)

Habitat

Known to occur in the area. Northern long-eared bats live in areas dominated by deciduous or mixed hardwood-coniferous forest. Forests with low understory cover appear to be preferred by this species. In Michigan, northern long-eared bats are associated with karst topography where they utilize small caves and crevices in limestone cliffs as hibernacula. After emerging from hibernation, northern long-eared bats will readily roost in trees, tree hollows, or bark crevices. During the summer, northern long-eared bats are not tied to a specific natural community type and will inhabit any forest with large trees that offer bark that is loose or has deep enough crevices to roost in. Northern long-eared bats do not appear to show preference for dead trees (as some bat species do) and readily roost in living trees. This species rarely roosts in human-made structures.

Management Recommendations

A primary limiting factor in their summer range has been the deforestation of mature forested habitats and the elimination of roost trees, which can be attributed to the cutting of large, dead trees for firewood. Forested habitat can be maintained by protecting mature, wooded areas, leaving large, dead trees standing, and maintaining wide vegetation buffer strips. Cutting of snags, canopy removal, and general land clearing activities for development, agriculture, and utility corridors should be avoided. All stone quarry activity around limestone cliffs pose a threat to this species and should be avoided.

White-nose syndrome has had a staggering impact on northern long-eared bat populations. As a result, this species was listed as threatened under the Endangered Species Act in April, 2015.

For more information, see the *Myotis septentrionalis* species page on the MNFI website.

Spotted turtle (*Clemmys guttata*)

Habitat

Known to occur in the area. Spotted Turtles require clean, shallow bodies of standing or slow-flowing water with muddy or mucky bottoms and aquatic or emergent vegetation. Although Spotted Turtles are

considered fairly aquatic, they are frequently found on land in open habitats, especially during mating and nesting seasons. In early spring, Spotted Turtles spend a great deal of time basking on logs, muskrat houses and grass or sedge hummocks. At night and during hot weather, they burrow under vegetation or into the soil or muddy bottoms of the wetland or crawl into mammal burrows. They overwinter in shallow water in the mud or in mammal burrows or lodges.

Management Recommendations

Spotted Turtles are characterized by late sexual maturity and low reproductive potential, suggesting that high annual survivorship of adults and juveniles is critical for maintaining a stable population. Extant populations and suitable wetland and nesting habitats should be protected and maintained. Increased protection of small, non-contiguous wetlands is important for maintaining sufficient habitat. Implementing minimum development setback distances, leaving buffer zones during agricultural and land management operations, maintaining good water quality and hydrologic integrity, minimizing the construction of roads in or near suitable wetlands, and minimizing the use of road salt near wetlands would be beneficial to this species. Maintaining suitable open upland nesting areas (e.g., through woody vegetation management) also would benefit this species. Altering the timing of land use activities (e.g., working in upland habitats during the winter between November and March when Spotted Turtles are hibernating in the water or wetland) could help minimize the potential for adverse impacts to this species. Predator control and on-site protection of nest sites may be warranted to increase reproductive success. Minimizing road mortality and removal/collection of turtles from the wild also would benefit Spotted Turtle populations. Providing connectivity among populations to allow for genetic exchange also is vital for preserving the long-term viability of this species.

For more information, see the *Clemmys guttata* species page on the MNFI website.

Species Comments for Table 2

No concerns. The occurrences are Historic and/or far removed from project site.

Codes to accompany tables

State Protection Status Code Definitions
E = Endangered
T = Threatened
SC = Special concern

Federal Protection Status Code Definitions
LE = listed endangered
LT = listed threatened
LELT = partly listed endangered and partly listed threatened
PDL = proposed delist
E(S/A) = endangered based on similarities/appearance
PS = partial status (federally listed in only part of its range)
C = species being considered for federal status

Global Heritage Status Rank Definitions (G RANK)
The priority assigned by NatureServe's national office for data collection and protection based upon the element's status throughout its entire world-wide range. Criteria not based only on number of occurrences; other critical factors also apply. Note that ranks are frequently combined.
G1 = critically imperiled globally because of extreme rarity (5 or fewer occurrences range-wide or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.
G2 = imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.
G3 = Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g. a single western state, a physiographic region in the East) or because of other factor(s) making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 to 100.
G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.
G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
Q = Taxonomy uncertain

State Heritage Status Rank Definitions (S RANK)
The priority assigned by the Michigan Natural Features Inventory for data collection and protection based upon the element's status within the state. Criteria not based only on number of occurrences; other critical factors also apply. Note that ranks are frequently combined.
S1 = Critically imperiled in the state because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extirpation in the state.
S2 = Imperiled in state because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation from the state.
S3 = Rare or uncommon in state (on the order of 21 to 100 occurrences). S4 = apparently secure in state, with many occurrences.
S5 = demonstrably secure in state and essentially ineradicable under present conditions.
SX = apparently extirpated from state.

EO Rank Codes

Element Occurrence (EO) ranks refer to the viability or ecological integrity of the occurrence; they provide an assessment of the likelihood that if current conditions prevail the EO will persist for a defined period of time, typically 20-100 years.

A - Excellent estimated viability/ecological integrity
A? - Possibly excellent estimated viability/ecological integrity
AB - Excellent or good estimated viability/ecological integrity
AC - Excellent, good, or fair estimated viability/ecological integrity
B - Good estimated viability/ecological integrity
B? - Possibly good estimated viability/ecological integrity
BC - Good or fair estimated viability/ecological integrity
BD - Good, fair, or poor estimated viability/ecological integrity
C - Fair estimated viability/ecological integrity
C? - Possibly fair estimated viability/ecological integrity
CD - Fair or poor estimated viability/ecological integrity
D - Poor estimated viability/ecological integrity
D? - Possibly poor estimated viability/ecological integrity
E - Verified extant (viability/ecological integrity not assessed)
F - Failed to find
F? - Possibly failed to find
H - Historical
H? - Possibly historical
X - Extirpated
X? - Possibly extirpated
U - Unrankable
NR - Not ranked

Section 7 Comments for Rare Species Review #5237
Lenawee County Solar Project
Pallavi Sirajuddin
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200 West 22nd Street
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December 5, 2024

For projects involving Federal funding or a federal agency authorization

The following information is provided to assist you with Section 7 compliance of the Federal Endangered Species Act (ESA). The ESA directs all Federal agencies "to work to conserve endangered and threatened species. Section 7 of the ESA, called "Interagency Cooperation," is the means by which Federal agencies ensure their actions, including those they authorize or fund, do not jeopardize the existence of any listed species."

The project falls within the range of the following federally listed/proposed/candidate species which have been identified by the U.S. Fish and Wildlife Service (USFWS) to occur in **Lenawee County, Michigan:**

Federally Endangered

Indiana bat – there are known occurrences within 1.5 miles of the project. Indiana bats (*Myotis sodalis*) are found only in the eastern United States and are typically confined to the southern three tiers of counties in Michigan. Indiana bats that summer in Michigan winter in caves in Indiana and Kentucky. This species forms colonies and forages in riparian and mature floodplain habitats. Nursery roost sites are usually located under loose bark or in hollows of trees near riparian habitat. Indiana bats typically avoid houses or other artificial structures and typically roost underneath loose bark of dead elm, maple and ash trees. Other dead trees used include oak, hickory and cottonwood. Foraging typically occurs over slow-moving, wooded streams and rivers as well as in the canopy of mature trees. Movements may also extend into the outer edge of the floodplain and to nearby solitary trees. A summer colony's foraging area usually encompasses a stretch of stream over a half-mile in length. Upland areas isolated from floodplains and non-wooded streams are generally avoided.

Management and Conservation: Every March, the USFWS publishes survey guidelines to assist project proponents (both Federal and non-Federal) with conservation planning for Federally listed bats in Michigan. We strongly encourage project managers and their designated representatives to use the U.S. Fish and Wildlife Service (USFWS) online planning tool Information for Planning and Consultation (IPaC) to evaluate potential effects of proposed activities on listed bats and other Federally listed species in Michigan. Projects that complete consultation or coordination through IPaC automatically adhere to the recommendations provided in these guidelines and are not required to implement any additional conservation measures for listed bats.

Rayed bean mussel – there are known occurrences in the Raisin River. The federally and state endangered rayed bean mussel *(Villosa fabalis)* occurs in fine mud substrates and riffles among roots of aquatic vegetation. Limits of the breeding season are not known but gravid specimens have been found in May.

Management and Conservation: like other mussels, threats to the rayed bean include: natural flow alterations, siltation, channel disturbance, point and non-point source pollution, and exotic species. Maintenance or establishment of vegetated riparian buffers can help protect mussel habitats from many of their threats. Control of zebra mussels is critical to preserving native mussels. And as with all mussels, protection of their hosts habitat is also crucial.

Northern riffleshell – there are known occurrences in the Raisin River. The federal and state endangered northern riffleshell *(Epioblasma torulosa rangiana)* inhabits medium to large rivers in gravel riffles, where the water is highly

oxygenated. This species was formerly widespread in the Midwest, but it has declined in range by more than 95% and now exists in only eight to ten isolated populations, most of which are small and peripheral.

Conservation and Management: members of the genus *Epioblasma* seem to be particularly sensitive to impacts from impoundment, which include population fragmentation and streamflow alteration. Other threats include habitat destruction (e.g. channelization, dredging, bulkheading), exotic species introductions, siltation, pollution, and modified streamflows due to wetland loss, dam operation, and intensive landscape modification. The other two subspecies of *E. torulosa*, *E. torulosa torulosa* and *E. torulosa gubernaculum*, appear to have already gone extinct due to modification and degradation of river systems.

Northern long-eared bat – Northern long-eared bat (*M. septentrionalis*) numbers in the northeast US have declined up to 99 percent. Loss or degradation of summer habitat, wind turbines, disturbance to hibernacula, predation, and pesticides have contributed to declines in Northern long-eared bat populations. However, no other threat has been as severe to the decline as White-nose Syndrome (WNS). WNS is a fungus that thrives in the cold, damp conditions in caves and mines where bats hibernate. The disease is believed to disrupt the hibernation cycle by causing bats to repeatedly awake thereby depleting vital energy reserves. This species was federally listed in May 2015 primarily due to the threat from WNS.

There are known occurrences within 1.5 miles of the project. In addition, this activity occurs within the designated WNS zone (i.e., within 150 miles of positive counties/districts impacted by WNS.

Also called northern bat or northern myotis, this bat is distinguished from other *Myotis* species by its long ears. In Michigan, northern long-eared bats hibernate in abandoned mines and caves in the Upper Peninsula; they also commonly hibernate in the Tippy Dam spillway in Manistee County. This species is a regional migrant with migratory distance largely determined by locations of suitable hibernacula sites.

Northern long-eared bats typically roost and forage in forested areas. During the summer, these bats roost singly or in colonies underneath bark, in cavities or in crevices of both living and dead trees. Roost trees are selected based on the suitability to retain bark or provide cavities or crevices. Common roost trees in southern Lower Michigan include species of ash, elm and maple. Foraging occurs primarily in areas along woodland edges, woodland clearings and over small woodland ponds. Moths, beetles, and small flies are common food items. Like all temperate bats this species typically produces only 1-2 young per year.

Management and Conservation: Every March, the USFWS publishes survey guidelines to assist project proponents (both Federal and non-Federal) with conservation planning for Federally listed bats in Michigan. We strongly encourage project managers and their designated representatives to use the U.S. Fish and Wildlife Service (USFWS) online planning tool Information for Planning and Consultation (IPaC) to evaluate potential effects of proposed activities on listed bats and other Federally listed species in Michigan. Projects that complete consultation or coordination through IPaC automatically adhere to the recommendations provided in these guidelines and are not required to implement any additional conservation measures for listed bats.

Federally Threatened

Copperbelly water snake – there does not appear to be suitable habitat within 1.5 miles of the project. One of the larger snakes in Michigan, the federally threatened and state endangered copperbelly water snake (*Nerodia erythrogaster neglecta)* can grow to a length of 4-5 feet. Adult snakes are easily identified by their deep brown or black back which contrasts easily with the unmarked reddish-to-orange belly and chin.

Copperbelly water snakes are usually found in or near shrub swamps, ponds, lakes, oxbow sloughs, fens, and slow-moving streams. They can also be found in mature or second-growth woodlands and in more open habitats adjacent to wetland areas. In spring these snakes often inhabit the open edges of shallow ponds and buttonbush swamps and frequently bask on shoreline vegetation, muskrat lodges, or woody debris. When temperatures rise, and these seasonal waters begin to dry up in early summer, the snakes migrate to permanent waters (lake and stream edges), often using

fairly dry wooded or grassy upland corridors. They may become largely nocturnal during hot weather. As excellent swimmers, they hunt aquatic species including tadpoles, frogs, salamanders, insect larvae, and crayfish. In the spring, tadpoles seem to be especially tasty to hungry copper-bellied water snakes.

Management and Conservation: a copperbelly water snake travels often during spring, summer, and fall. It moves to different wetlands as water levels and food availability change and then travels to and from its hibernation site. When moving to various locations, these snakes are vulnerable to predators (e.g., skunks, raccoons, raptors, and snapping turtles), especially if the snakes must travel across cleared areas, such as roads, mowed areas and farmlands. The decline of this species can be attributed to habitat loss and fragmentation, collection for the pet trade and predation.

Conservation efforts should protect or create riparian corridors and habitat corridors between wetlands, protect existing and expand upland forest habitats, and reduce forest fragmentation. Permanently lowering water tables can cause seasonally inundated wetlands and hibernacula sites to become permanently dry which could lead to local population extirpations. Maintaining adequate prey base (i.e., mainly frogs) and shrub and log cover along the edge of wetlands for cover and thermoregulation also is crucial. Please inform field crews that snakes should not be killed, harmed, or harassed. Any copperbelly water snake sightings should be reported to this office.

Eastern massasauga rattlesnake (EMR) – there does not appear to be suitable habitat within 1.5 miles of the project. **The project falls outside Tier 1/Tier 2 EMR habitat** as designated by the U.S. Fish & Wildlife Service (USFWS). The federally threatened and state special concern Eastern massasauga rattlesnake *(Sistrurus catenatus)* is Michigan's only venomous snake and is found in a variety of wetland habitats including bogs, fens, shrub swamps, wet meadows, marshes, moist grasslands, wet prairies, and floodplain forests. Eastern massasaugas occur throughout the Lower Peninsula but are not found in the Upper Peninsula. Populations in southern Michigan are typically associated with open wetlands, particularly prairie fens, while those in northern Michigan are better known from lowland coniferous forests, such as cedar swamps. These snakes normally overwinter in crayfish or small mammal burrows often close to the groundwater level and emerge in spring as water levels rise. During late spring, these snakes move into adjacent uplands they spend the warmer months foraging in shrubby fields and grasslands in search of mice and voles, their favorite food.

Often described as "shy and sluggish", these snakes avoid human confrontation and are not prone to strike, preferring to leave the area when they are threatened. However, like any wild animal, they will protect themselves from anything they see as a potential predator. Their short fangs can easily puncture skin and they do possess potent venom. Like many snakes, the first human reaction may be to kill the snake, but it is important to remember that all snakes play vital roles in the ecosystem. Some may eat harmful insects. Others like the massasauga consider rodents a delicacy and help control their population. Snakes are also a part of a larger food web and can provide food to eagles, herons, and several mammals.

Management and Conservation: protection of extant populations and suitable wetland and adjacent upland habitats is crucial for successful conservation of the Eastern Massasauga. Maintaining or restoring open habitat conditions is critical for this species. Fragmentation of suitable wetland-upland habitat complexes by roads or other barriers should be avoided or minimized. Land management practices such as timber harvesting, mowing, disking or prescribed burning should be conducted in such a manner so as to minimize the potential for adverse impacts to massasaugas (e.g., conducting management activities during the snakes' inactive season (November through early March) or on days when snakes are less likely to be active on the surface during the active season). Protecting suitable hibernation sites also is critical.

USFWS Section 7 Consultation Technical Assistance can be found at:

https://www.fws.gov/service/esa-section-7-consultation

The website offers step-by-step instructions to guide you through the Section 7 consultation process with prepared templates for documenting "no effect" as well as requesting concurrence on "may affect, but not likely to adversely affect" determinations.

Please let us know if you have questions.

Michael Sanders
Environmental Review Specialist/Zoologist
Michigan Natural Features Inventory

APPENDIX B

Representative Photographs of Protected Natural Resources (Wetlands, Surface Waters, and Habitat)



Photograph 1. Wetland WA001_PEM facing west. Photographed 6/27/2023 by L. Jones.



Photograph 2. Wetland WA002_PEM facing west. Photographed 6/27/2023 by L. Jones.



Photograph 3. Wetland WA005_PEM facing east. Photographed 6/29/2023 by L. Jones.



Photograph 4. Wetland WA006_PEM facing south. Photographed 6/29/2023 by L. Jones.



Photograph 5. Wetland WA007_PEM facing west. Photographed 6/29/2023 by L. Jones.



Photograph 6. Wetland WA007_PFO facing south. Photographed 6/29/2023 by L. Jones.



Photograph 7. Wetland WA010_PEM facing north. Photographed 6/29/2023 by L. Jones.



Photograph 8. Wetland WA011_PFO facing west. Photographed 6/29/2023 by L. Jones.



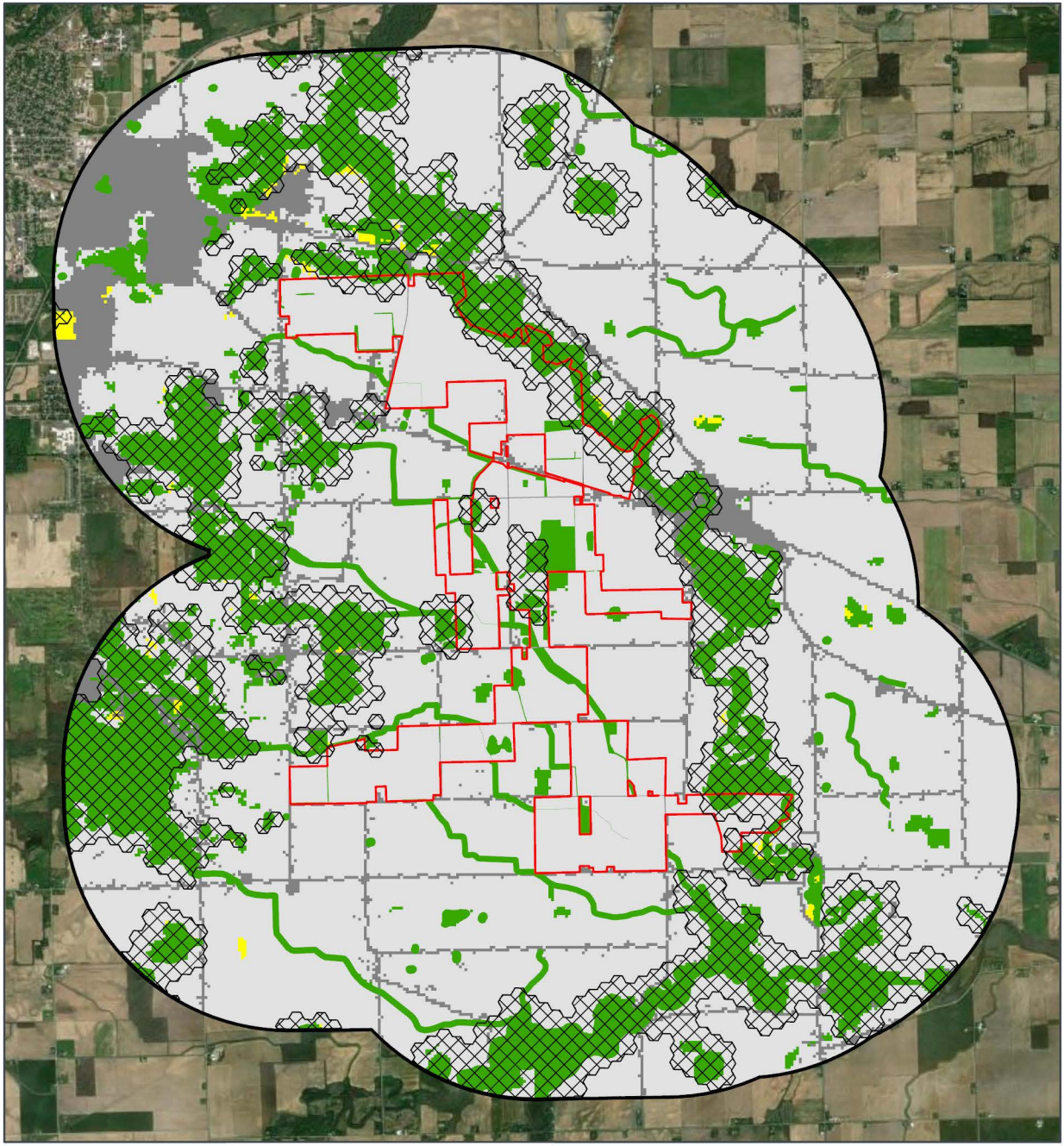
Photograph 9. Stream SA002_INT facing downstream. Photographed 6/27/2023 by L. Jones.



Photograph 10. Stream SA003_INT facing downstream. Photographed 6/27/2023 by L. Jones.

APPENDIX C

Potential Habitat within the Rouget Road Solar Project Area and Review Area



ROUGET ROAD SOLAR

Species Habitat Map

USFWS Indiana bat/northern long-eared bat habitat suitability model

Project Area

1.5-Mile Buffer Review Area

Habitat Potential

High

Medium

Low

None

Lenawee County, MI
USGS 7.5' Quadrangle:
Adrian, MI, 41084-H1
Tecumseh South, MI, 41083-H8
Jasper, MI, 41084-G1
Palmyra, MI, 41083-G8
NAD 1983 StatePlane Michigan South FIPS 2113 Feet
41.8547°N 83.9598°W

Base Map: Esri ArcGIS Online, accessed October 2025
Updated: 10/23/2025
Project No. 78878
Layout: SCR_06_HabitatModel
Aprx: 78878_Rouget_SCR

0 2,500 5,000 Feet
0 490 980 Meters

N

1:70,000

SWCA ENVIRONMENTAL CONSULTANTS

APPENDIX D

Field Training Materials for Rare, Threatened, and Endangered Species

Field Identification Card – Allegheny Plum (*Prunus umbellata*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Blooms from April-May.

• Typical Habitat: Pine barrens, oak-pine savanna, and oak savanna remnants, as well as right-of-ways and driveway cuts.

Identification Features

• Size: Small shrub; up to 3 meters tall.

• Color: Branches are black, with white flowers and green leaves.

• Distinct Features: White flowers and large thorns that protrude from the branches.

Habitat Description

Found in pine barrens, oak-pine savanna, and oak savanna remnants. It often occurs along road rights-of-way, driveway cuts, and edges of more closed canopy forest

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example





Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Bald Eagle (*Haliaeetus leucocephalus*)

Quick Facts

• Federal Status: Protected under the Bald and Golden Eagle Protection Act.

• State Status: State special concern in Michigan.

• Active Period: In the United States year-round – further south in late fall/winter, returning around January, February, or March.

• Typical Habitat: Areas with open water for foraging.

Identification Features

• Size: Large; body length approximately 40 inches; wingspan up to 8 feet.

• Color: Brown torso with white head and tail feather

• Distinct Features: Striking white head and large wingspan, up to 8 feet.

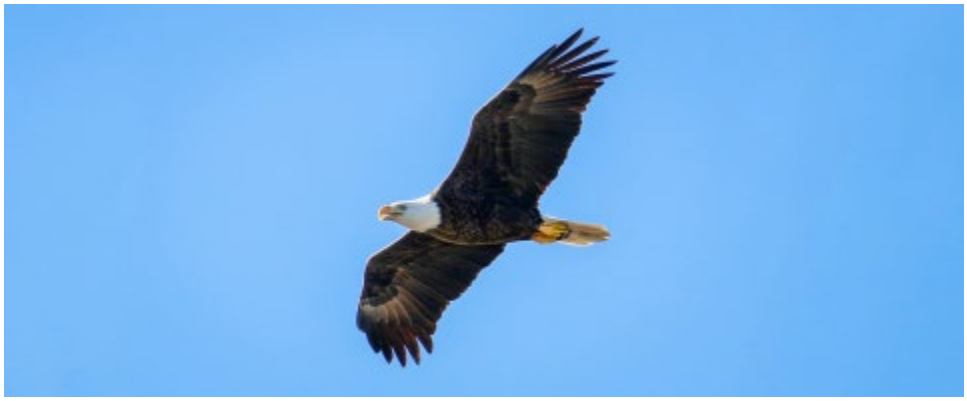
Habitat Description

Bald eagle habitat includes estuaries, large lakes, reservoirs, rivers and some seacoasts and marshes where they forage for fish. They are known to nest around the Raisin River in Lenawee County.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird, the tree or structure the bird is on, or the birds nest (if anywhere nearby).
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Black-billed Cuckoo (*Coccyzus erythropthalmus*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Found in Michigan in late Spring through Summer.

• Typical Habitat: Woodlands and thickets.

Identification Features

• Size: Small-medium; body length approximately 12 inches, and wingspan approximately 15 inches.

• Color: Brown upperparts, white underparts. Red ring around eye, and black bill.

• Distinct Features: Song is often a series of "*cu-cu-cu*" that are distinct. Long slender tail, and a black bill, different from other cuckoo species.

Habitat Description

Dense woodlands and thickets with deciduous and evergreen trees, often near water for foraging. During migration, they will use woodlands, gardens, thickets, orchards, and scrublands for foraging.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Bobolink (*Dolichonyx oryzorus*)

Quick Facts

• Federal Status: Bird of Conservation Concern.

• State Status: N/A

• Active Period: Found in Michigan during breeding season; late Spring to mid-Summer.

• Typical Habitat: Prairies, meadows, as well as marshes.

Identification Features

• Size: Small; body length approximately 8 inches; wingspan 10.6 inches.

• Color: Breeding males have a white back with black underparts, as well as a straw-colored patch on their head. Females and non-breeding males are mostly tan/yellow with brown wings.

• Distinct Features: Tan patch on breeding male head, as well as mostly black under parts.

Habitat Description

Nest in tallgrass and mixed prairie, as well as hayfields and meadows, in the Midwest. Move to marshes and agricultural fields (particularly rice fields) to molt before migration.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Breeding Male



Females and non-breeding males

Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Calico Crayfish (*Faxonius immunis*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Early March to late October

• Typical Habitat: Waterbodies, including streams, lakes, ponds, etc.

Identification Features

• Size: Small to medium; carapace length is up to 1.5 inches.

• Color: Light green to gray with cream or gray stripe down the carapace and abdomen.

• Distinct Features: Has a shorter form I gonopod elements that curve close to 90 degrees to the main shaft of the gonopod. A deep incision at the base of the movable finger of the chela (claw).

Habitat Description

Streams with gravel substrate, slow flowing streams and rivers with muddy substrate, lakes, ponds, and well vegetated flooded ditches.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not handle or disturb the crayfish.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Cerulean Warbler (*Setophaga cerulea*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Active in Michigan during the breeding season; mid-May to early Fall.

• Typical Habitat: Mature forests.

Identification Features

• Size: Small; body length approximately 4.3 inches; wingspan 8 inches.

• Color: Males are a sky blue with a white stomach, and dark streaking. Females are bluish green with pale stomachs.

• Distinct Features: Males have a blue band around their neck, as well as the distinct sky-blue color.

Habitat Description

Found in mature forests with large, tall trees of broad-leaved, deciduous species. Prefer white oak, cucumber magnolia, bitternut hickory, and sugar maple for nesting and foraging, while they tend to avoid oak and red maple.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Breeding male.



Female.

Emergency Contact Information

• Environmental Lead: [Name, Phone]

- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Chimney Swift (*Chaetura pelagica*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Found in Michigan during breeding season; mid-Spring to mid-Fall.

• Typical Habitat: Towns and cities.

Identification Features

• Size: Small; body length approximately 6 inches; wingspan 12 inches.

• Color: Sooty gray.

• Distinct Features: Long wings and short tail. Flaps very quickly while flying – similar to how bats flap their wings.

Habitat Description

Now most common over towns and cities; within its range, few forests remain with hollow trees large enough to serve as nest sites.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its roost/nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Corylus Dagger Moth (*Acronicta falcula*)

Quick Facts

• Federal Status: N/A

• State Status: State special concenr in Michigan

• Active Period: Late May to mid-late August

• Typical Habitat: Lowland hardwoods and mesic hardwoods

Identification Features

• Size: Medium; 4.2 centimeter wingspan.

• Color: Dark purple-gray.

• Distinct Features: Dagger like marks near the forewing, and thin, dark dagger-like marks on the forewings.

Habitat Description

Found in lowland hardwoods and mesic hardwoods. They need hazelnut trees as the larval host.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the moth.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Creek Heelsplitter (*Lasmigona compressa*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Early August to mid September.

• Typical Habitat: Creeks and rivers.

Identification Features

• Size: Medium ; up to 4 inches.

• Color: Tan to yellow with broad green rays.

• Distinct Features: Quite compressed. Wedge shaped at the posterior end, coming to a blunt squared-off point at the ventral-posterior corner

Habitat Description

Found in creeks and small rivers in a variety of substrates.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Virginia Water-Horehound

Quick Facts

• Federal Status: N/A

• State Status: State Special Concern in Michigan

• Active Period: Blooms from June-August

• Typical Habitat: Found in first and second bottoms of floodplain forests.

Identification Features

• Size: Up to 3 feet tall.

• Color: Green stem with white blooms. Leaves are dark green to purple.

• Distinct Features: Fruit are four tiny nutlets, and small white blooms.

Habitat Description

Found in first and second bottoms of floodplain forests, particularly along the River Raisin in Lenawee County. Needs a partly shaded canopy and lots of water.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example





Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Deertoe (*Truncilla truncata*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Early April to early October.

• Typical Habitat: Lakes and rivers.

Identification Features

• Size: Small; up to 3.5 inches.

• Color: Pale yellow, yellow-orange, grayish-tan and green.

• Distinct Features: Patterns of dark green broken, continuous or smudged rays, sometimes displaying a distinct zig-zag pattern within the rays.

Habitat Description

Prefers habitats of firm sand or gravel substrates in rivers and lakes with a moderately swift current but has been observed occasionally in smaller streams.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Eastern Box Turtle (*Terrapene carolina carolina*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened

• Active Period: Spring through fall (March–November)

• Typical Habitat: Sandy soils near a source of water, including wetland areas.

Identification Features

• Size: Small; body length approximately 5-8 inches.

• Color: Brown shell and head, with distinct yellow markings on the carapace and plastron

• Distinct Features: Highly domed carapace with a mid-dorsal ridge. The turtle has yellow/orange markings on the carapace, and a hinged plastron to fully enclose the turtle's head.

Habitat Description

Forested habitats with sandy soils and sources of water nearby, such as ponds, streams and lakes, or various wetlands like marshes, swamps and bogs. Access to unshaded sandy soils is necessary for reproduction and laying of eggs. They may also be found in adjacent thickets, old fields, pastures, or vegetated dunes.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the turtle.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site’s Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Eastern Massasauga Rattlesnake (*Sistrurus catenatus*)

Quick Facts

• Federal Status: Threatened

• State Status: State threatened in Michigan

• Active Period: Early April to late October.

• Typical Habitat: Wet meadows, edge of wetlands

Identification Features

• Size: Small to medium; 18-30 inches long.

• Color: Typically, they are gray or light brown, and rarely black.

• Distinct Features: Color pattern of dark brown rectangular or saddle-shaped blotches down the back and two or three additional rows of dark spots along the sides of the body.

Habitat Description

Wet areas including wet prairies, marshes, and low areas along rivers and lakes. In many areas they also use adjacent uplands during part of the year. They often hibernate in crayfish burrows but may also be found under logs and tree roots or in small mammal burrows.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the snake.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.

6. Document the observation using the site's Unanticipated Discovery Form.

Additional Note

These snakes are venomous, so use extra caution if spotted.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Elktoe (*Alasmidonate marginata*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Streams and rivers.

Identification Features

• Size: Small; up to 4 inches.

• Color: Yellowish green with broad dark green rays and dots

• Distinct Features: Yellowish green shell that has striking dark green rays. Shaped like the hoof of an elk.

Habitat Description

Found in clean, clear water of small to large sized streams and small to medium rivers.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Engelmann's Spike Rush

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Blooms from June-July.

• Typical Habitat: Wetlands

Identification Features

• Size: Small; up to 40 centimeters tall.

• Color: Green with brown fruit at the top of the leaves.

• Distinct Features: Brown fruit/inflorescence located at the top of the leaves. Fruit within is surrounded by scales.

Habitat Description

Found in sandy, intermittently wet soils. Wetland areas such as ponds, temporary pools, and sandy/muddy/peaty areas.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Evening Bat (*Nycticeius humeralis)*

Quick Facts

• Federal Status: N/A

• State Status: State Threatened

• Active Period: Spring through early fall (April–October)

• Typical Habitat: Old and mature forested areas with access to water for foraging.

Identification Features

• Size: Small; body length approximately 3.6 inches; wingspan 9–10 inches.

• Color: Sparse, dark brown fur; lighter belly. Wings and arms are black.

• Distinct Features: Rounded, forward curving tragus (skin flap at front of ear) and number of upper incisors (two instead of four).

Habitat Description

Evening bats prefer mature and old forests, with loose bark or cavities for roosting depending on breeding or non-breeding seasons. Foraging habitat includes open areas above water and forest clearings/edges.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Flutedshell (*Lasmigona costata*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Small and medium rivers.

Identification Features

• Size: Large; up to 6 inches.

• Color: Yellow, tan, green, or dark brown, with green or brown rays.

• Distinct Features: Numerous green and brown rays, and fluted texture.

Habitat Description

Small and medium rivers with sandy mud or gravel substrates.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Grasshopper Sparrow (*Ammodramus savannarum*)

Quick Facts

• Federal Status: Bird of Conservation Concern.

• State Status: N/A

• Active Period: Found in Michigan during the breeding season; mid-Spring to mid-Fall

• Typical Habitat: Grasslands and prairies.

Identification Features

• Size: Small; body length approximately 4.5 inches; wingspan up to 7.9 inches.

• Color: Brown and tan with light streaking.

• Distinct Features: Yellow between the eye and the beak, as well as on the bend of the wing.

Habitat Description

Typically found in grasslands, meadows, prairies, and pastures that have some bare ground for breeding.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Hairy-fruited Sedge (*Carex trichocarpa*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Fruits from June-August

• Typical Habitat: Margins of floodplain forests and in open wetlands along streams and marsh borders.

Identification Features

• Size: Leaves up to 48 inches long.

• Color: Leaves are green, with the fruit being yellowish-green.

• Distinct Features: Perigynia are pubescent and relatively large (7-9 mm long) with prominent beaks.

Habitat Description

Found in wetlands including wet meadows, marshes, and floodplain forests.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Indiana Bat (Myotis sodalis)

Quick Facts

• Federal Status: Endangered

• State Status: Endangered in Michigan

• Active Period: Spring through early fall (April–October)

• Typical Habitat: Forested areas with access to water; roosts under loose tree bark or in tree cavities.

Identification Features

• Size: Small; body length approximately 3.5 inches; wingspan 9–10 inches.

• Color: Dull grayish-brown to dark brown fur; lighter belly.

• Distinct Features: Pinkish forearms, short fine fur, keeled calcar (a cartilaginous spur on the hind foot used for flight).

Habitat Description

Indiana bats prefer mature forests near water sources. During summer, they form maternity colonies under loose bark of dead or dying trees, especially shagbark hickory and elm. Winter hibernation occurs in caves or abandoned mines with stable, cold temperatures.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example

[Insert Indiana Bat Photo Here]

Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Lilliput (*Toxolasma parvum*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Creeks with mud or clay substrates.

Identification Features

• Size: Small; up to 2 inches.

• Color: Yellowish-tan or green to brownish grey

• Distinct Features: Inflated and oblong shell, and beak sculpture made up of 4-6 obliquely aligned concentric ridges.

Habitat Description

Found in creeks with mud or clay substrates, but can also be found in rivers, lakes, and impoundments

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Monarch Butterfly (*Danaus plexippus*)

Quick Facts

• Federal Status: Proposed threatened

• State Status: N/A

• Active Period: Breeds year-round

• Typical Habitat: Variety of habitats, but milkweed is needed.

Identification Features

• Size: 3-4 inch wingspan.

• Color: Orange wings with a black border, and a black body.

• Distinct Features: Bright orange wings that have a black border with double rows of white spots. Black veins across wings.

Habitat Description

Monarch butterflies are found in all varieties of habitats. They need milkweed, though, to inhabit an area. This is because they need milkweed to lay their eggs on, and they also feed on the nectar of the milkweed plant, as well as many other flowering plants.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the butterfly, or the plant it is on (if applicable).
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Northern Long-eared Bat (*Myotis septentrionalis)*

Quick Facts

• Federal Status: Endangered

• State Status: State threatened in Michigan

• Active Period:

• Typical Habitat: Trees, caves, and anthropogenic structures, such as barns and sheds.

Identification Features

• Size: Small; Body length up to 3.7 inches, and wingspan up to 10.2 inches.

• Color: Medium to dark brown on back, with paler brown underside.

• Distinct Features: Ears that are larger than other bats of the genus *Myotis*, as the name implies.

Habitat Description

Forages primarily within forest interiors, along linear features such as forest edges and streams, and over water sources such as ponds. Spends summers in the forest interior and hibernates in caves and mines during winter months.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Pectoral Sandpiper (*Calidris melanotos*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Found in Michigan during migration; might be seen while migrating during Spring or late Summer/early Fall.

• Typical Habitat: Plowed farms, fields, and natural/saltwater marshes

Identification Features

• Size: Medium; body length approximately inches; wingspan inches.

• Color: Mostly brown/tan upper parts, with a white stomach.

• Distinct Features: Long beak, similar to other shore birds. Brown and tan coloration, as well as white belly are distinct from other shorebirds. Stippling/rows on chest are “neat” and “uniform.”

Habitat Description

Breeds mostly in wet coastal tundra dominated by grasses and sedges. This species will forage in plowed farm fields, sod farms, rice fields, and natural freshwater and saltwater marshes with low grassy cover. Michigan is in the migration habitat/pathway.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site’s Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Prothonotary Warbler (*Protonotaria citrea*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Found in Michigan during the breeding season; mid-Spring to mid-Summer (April-July)

• Typical Habitat: Shaded forests with open understory.

Identification Features

• Size: Small; body length approximately 5.5 inches; wingspan approximately 8.5 inches.

• Color: Striking yellow bird with grayish wings.

• Distinct Features: Bright yellow coloration.

Habitat Description

Found in low elevation, flat terrain, shaded forest habitats with sparse understory, near water with suitable nest cavity sites.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Purple Wartyback (*Cyclonaias tuberculata*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Medium to large rivers.

Identification Features

• Size: Large; up to 5 inches.

• Color: Shell is yellowish-brown or green-brown as juveniles, and dark brown as adults.

• Distinct Features: Round shell with many bumps covering approximately 75% of the shell. The beak has many deep ridges. The inside of the shell is purple and white.

Habitat Description

Found in medium to large rivers with gravel or mixed sand and gravel substrates.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the mussel or surrounding soil
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Rainbow (*Villosa iris*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Small to medium-sized streams.

Identification Features

• Size: Medium; up to 3 inches.

• Color: Yellow to dark tan with green rays.

• Distinct Features: Yellow to dark tan shell with green rays. Beak sculpture consists of irregular double looped ridges.

Habitat Description

Found within sand and gravel substrate within small to medium sized streams.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Raven's-foot Sedge (*Carex crus-corvi*)

Quick Facts

• Federal Status: N/A

• State Status: State endangered in Michigan

• Active Period: Fruits from May-August

• Typical Habitat: Wet depressions in forested floodplains

Identification Features

• Size: Medium; Up to 1 meter tall.

• Color: Green

• Distinct Features: Green sedge with fruits that grow in clusters on the plant. Perigynia flattened, large (8 mm long), with a broad spongy base and long prominent beak.

Habitat Description

Found in wet depressions and forested floodplains. Conservation of this species requires protection of habitat and hydrological regime, including fluctuating water tables.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Rayed Bean (*Villosa fabalis*)

Quick Facts

• Federal Status: Endangered

• State Status: State endangered in Michigan

• Active Period: Survey periods from early June to early October.

• Typical Habitat: Smaller headwater creeks and occasionally large rivers and glacial lakes

Identification Features

• Size: Small; up to 1.5 inches.

• Color: Dark green or olive with heavy wavy rays

• Distinct Features: Heavy hinge teeth, and dark green/olive shell with heavy rays.

Habitat Description

Found in small, shallow rivers, in and near riffles and often near aquatic vegetation. It also occurs along shallow, wave-swept shores of lakes. This species is often buried deep in sand or gravel.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Red-headed Woodpecker (*Melanerpes erythrocephalus*)

Quick Facts

• Federal Status: Bird of Conservation Concern

• State Status: N/A

• Active Period: Can be found in Michigan year round – during both breeding and over wintering.

• Typical Habitat: Pine savannahs and open forests with clear understories.

Identification Features

• Size: Medium; Approximately 9 inches long, and up to 16.5-inch wingspan.

• Color: Black and white wings, white body, and red head.

• Distinct Features: Striking red head, in stark contrast to the white and black body.

Habitat Description

Deciduous woodlands with oak or beech, groves of dead or dying trees, river bottoms, burned areas, recent clearings, beaver swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest/nesting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Round Pigtoe (*Pleurobema sintoxia*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Survey periods from early June to early October

• Typical Habitat: Large rivers.

Identification Features

• Size: Large; 4 inches.

• Color: Brown with faint green rays visible near the beak

• Distinct Features: Shallow beak cavity and beak sculpture consisting of 2 to 3 elevated ridges. The beak is low and only slightly elevated above the hinge line.

Habitat Description

Found in mud, sand, or gravel substrates of medium to large rivers.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the mussel or surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Rusty Blackbird (*Euphagus carolinus*)

Quick Facts

• Federal Status: Bird of Conservation Concern.

• State Status: N/A

• Active Period: Found in Michigan during the non-breeding season; mid-Fall to late-Spring

• Typical Habitat: Wet forests, swamps, and ponds.

Identification Features

• Size: Medium; body length approximately 9.5 inches; wingspan 14.6 inches.

• Color: Breeding males are all black. Non-breeding males are mostly black with some rusty-brown colored feathers. Females are gray-brown and have feathers with rusty edges.

• Distinct Features: In the winter, the males have distinct rusty colors on their feathers, contrasting the black feathers. Females have a brown upper parts and head, with gray further down the body.

Habitat Description

Breeds in wet forests, fens, bogs, muskeg, and beaver ponds; winters in swamps, wet woodlands, and pond edges.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or its nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Breeding Male



Female.

Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Rusty-patched Bumble Bee (*Bombus affinis*)

Quick Facts

• Federal Status: Endangered

• State Status: State endangered in Michigan

• Active Period: Late April to Late October

• Typical Habitat: Dunes, marshes, forests, agricultural land, and urban areas – habitat generalists.

Identification Features

• Size: Medium; 0.5 inches in length (Queens are up to 0.8 inches)

• Color: Yellow and black, with rusty-brown patches.

• Distinct Features: Rusty brown patches on second segment of body and

Habitat Description

Habitat generalist and can be found foraging in dunes, marshes, forests, agricultural land, and urban areas. Nests are typically underground in old rodent burrows.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bee(s) or the nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Slippershell (*Alasmidonta viridis*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Survey periods from early June to early October

• Typical Habitat: Creeks and headwaters of rivers in sand or gravel substrates, and sometimes larger rivers and lakes and mud substrates.

Identification Features

• Size: Small; 1.5 inches in length.

• Color: Yellowish-brown and marked with fine green rays

• Distinct Features: 3-4 loops on the beak, with poorly developed lateral teeth. Yellowish-brown shell with fine green rays with a square posterior end and a rounded anterior end.

Habitat Description

Found in Creeks and headwaters of rivers in sand or gravel substrates, and sometimes larger rivers and lakes and mud substrates. Need clear, clean water and substrates, similar to other mussel species.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the mussel or the surrounding substrate.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Smooth Ruellia (*Reullia strepens*)

Quick Facts

• Federal Status: N/A

• State Status: State endangered in Michigan

• Active Period:

• Typical Habitat: Rich lowland woods, as well as riparian forests, thickets, and streambanks.

Identification Features

• Size: Medium; Up to 1 meter tall.

• Color: Green stem and leaves. Flower/bloom is violet to blue.

• Distinct Features: Vibrant violet to blue bloom.

Habitat Description

Only found in Lenawee County in rich lowland woods. In Ohio the species is more common in riparian forests, thickets, and streambanks. This species likely requires some opening in forest canopy to thrive. Flowering smooth ruellia is usually found in partial light or at forest margins

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Spotted Turtle (*Clemmys guttata*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Late March to mid-late October

• Typical Habitat: Shallow standing or slow flowing bodies of water.

Identification Features

• Size: Small; 3.5-4.5 inches.

• Color: Carapace and top of head/legs are brown, with lighter underside. Plastron is yellow with brown or black blotches.

• Distinct Features: Small yellow or orange spots on the carapace.

Habitat Description

Found in clean, shallow bodies of standing or slow-flowing water with mucky bottoms and aquatic or emergent vegetation.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the turtle.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Toadshade (*Trillium sessile*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Blooms from April-May

• Typical Habitat: Floodplains and mesic forests, especially moist ravines, rich moist woods and bluffs

Identification Features

• Size: Medium; Up to 40 centimeters tall.

• Color: Leaves and stem are green; leaves are mottled. Flower petals are dark red and <4 centimeters in length.

• Distinct Features: Red flower petals.

Habitat Description

Found in floodplains and mesic forests, especially moist ravines, rich moist woods, and bluffs, and is especially frequent on limestone derived soils. This species requires healthy floodplain forests with minimal forest fragmentation

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Tricolored Bat (*Perimyotis subflavus*)

Quick Facts

• Federal Status: Proposed endangered

• State Status: State Threatened in Michigan

• Active Period: Early April to late October

• Typical Habitat: Forested areas with trees that have dead or live foliage, and caves, tunnels, etc.

Identification Features

• Size: Small; body length up to 3.2 inches, and wingspan

• Color: Golden to reddish brown fur, with black wings and red forearms.

• Distinct Features: Fur is dark colored at the base, light in the middle, and dark again at the tip of the fur.

Habitat Description

Tricolored bat maternity and other summer roosts are mainly in dead or live tree foliage, caves, mines, rock crevices, human-made structures, or tree cavities. Hibernation sites often are in caves, mines, cavelike tunnels, or box culverts under highways.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bat or its roosting tree.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Virginia Bluebells *(Mertensia virginica)*

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Bloom in mid to late spring.

• Typical Habitat: First and second bottoms of riparian forests.

Identification Features

• Size: Medium; Up to 60 centimeters tall.

• Color: Green stems and leaves with blue flowers.

• Distinct Features: Flowers/blooms that are blue and bloom in a way such that the bloom is open downwards, in the shape of a bell.

Habitat Description

Found in first and second bottoms of riparian forests. They require healthy mature floodplain forests with minimal fragmentation.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

• Environmental Lead: [Name, Phone]

• Construction Manager: [Name, Phone]

• RWE Environmental Compliance: [Name, Phone]

Field Identification Card – White Lady Slipper (*Cypripedium candidum*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Typically blooms in May-August.

• Typical Habitat: Alkaline wetlands – fens.

Identification Features

• Size: Small; 20-30 centimeters.

• Color: Stems are green with white flowers.

• Distinct Features: Flowers are small and white, and are shaped like a pouch or a slipper, as the name implies.

Habitat Description

Found in alkaline wetlands in southern Lower Michigan, particularly prairie fens.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Whooping Crane (*Grus americana*)

Quick Facts

• Federal Status: Endangered – experimental population in North America.

• State Status: N/A

• Active Period: Found in Michigan during migration periods in Spring and Fall.

• Typical Habitat: Variety of habitats, including various wetlands, agricultural fields, etc.

Identification Features

• Size: Large; weigh up to 17.2 pounds, and a wingspan up to 7 feet.

• Color: White with a crimson head/face. Legs and beak are black.

• Distinct Features: All white body and crimson face.

Habitat Description

Breeds, migrates, winters and forages in various habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields. Areas of open water are important to the bird. There is a low chance of stopover during migration in the Project area.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird or nest.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Wild Hyacinth (*Camassia scilloides*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Blooms from March-June

• Typical Habitat: Floodplain forests with open canopy, as well as near rivers.

Identification Features

• Size: Up to 2-feet tall.

• Color: Green stem with purple flowers.

• Distinct Features: Grass-like leaves near the base of the 2-foot stem. Stalk is topped by a purplish flower with 5-7 inch spikes

Habitat Description

Found in floodplain forests with a fairly open canopy, as well as on river bottom flats and banks. Wild hyacinths require healthy mature floodplain forests with minimal fragmentation. Wild hyacinth is known to occur in the floodplain of the Raisin River oxbows in the northeast part of the project area.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Wood Thrush (*Hylocichla mustelina*)

Quick Facts

• Federal Status: Birds of Conservation Concern

• State Status: N/A

• Active Period: Seen in United States during Spring and Summer.

• Typical Habitat: Mature mixed and deciduous forests

Identification Features

• Size: Small; up to 8.3 inches long and up to 13.4-inch wingspan

• Color: Cinnamon brown upperparts and white chest/underparts that are speckled with brown spots.

• Distinct Features: The very white underparts and speckled brown, as well as the cinnamon brown upperparts are distinct. The song is also distinct, sounding like *ee-oh-lay.*

Habitat Description

Mixed and deciduous mature forests that have thick understory and plenty of leaf litter for foraging. Overwinter in South America.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the bird, the tree or location it is nesting in, or the nest itself.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Woodland Lettuce (*Lactuca floridana*)

Quick Facts

• Federal Status: N/A

• State Status: State threatened in Michigan

• Active Period: Blooms from August to October

• Typical Habitat: Lakeplain areas and sandy oak woods.

Identification Features

• Size: Large; 2 meters tall.

• Color: Stems are green with blue flowers.

• Distinct Features: Blue flowers and 2-meter height.

Habitat Description

Rich woods and thickets, and lakeplain areas. Sandy oak woods particularly.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not damage, handle, or disturb the plant the soil immediately surrounding it.
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Field Identification Card – Yellow Globelet (*Mesodon clausus*)

Quick Facts

• Federal Status: N/A

• State Status: State special concern in Michigan

• Active Period: Early May to late June.

• Typical Habitat: Forested river valleys, grasslands, shrubby successional habitats and railroad embankments

Identification Features

• Size: Shell is 0.5 inches in diameter.

• Color: Yellow to yellowish-brown shell.

• Distinct Features: Yellow to yellowish-brown shell, with 4-5 whorls, and a relatively high, dome-shaped spire.

Habitat Description

Found in forested river valleys, grasslands, shrubby successional habitats and railroad embankments.

Field Protocol if Observed

1. Cease all work activities in the immediate area.
2. Do not approach, handle, or disturb the snail or the plant that it is on (if applicable).
3. Mark the location using flagging or GPS coordinates.
4. Take a photograph if safe and feasible.
5. Notify the Environmental Lead or Compliance Coordinator immediately.
6. Document the observation using the site's Unanticipated Discovery Form.

Photo Example



Emergency Contact Information

- Environmental Lead: [Name, Phone]
- Construction Manager: [Name, Phone]
- RWE Environmental Compliance: [Name, Phone]

Natural Resource Unanticipated Discovery Plan – Training Materials

Training Topics Checklist

Training Topic	Description	Completed (Y/N)	Trainer Initials	Date
Overview of Natural Resources Regulations	Clean Water Act, NREPA, MPSC requirements			
Identifying Wetlands and Waterbodies	Visual cues, hydrology, vegetation, soils			
Floodplains and Vernal Pools	Indicators, seasonal timing, ecological value			
Sensitive Habitats	Forested patches, grasslands, edge-of-wetland zones			
Rare, Threatened, and Endangered (RTE) Species	Species appearance, habitats, behavior, legal protections			
Flagging and Marking Protocol	How to recognize and respect flagged, fenced, or signed areas			
Procedure for Reporting an Unanticipated Discovery	Chain of communication, documentation			
Use of Field Identification Materials	How to use field cards or guides for accurate ID			
Documentation and Notification Requirements	Who to notify and when, form completion			

Sample Field Identification Card

Sensitive Species & Habitats – Quick ID Guide

Species	Key ID Features	Habitat
Indiana Bat (*Myotis sodalis*)	Small brown bat, pinkish forearms, roosts in trees	Forested areas with tree snags.
Evening Bat (*Nycticeius humeralis)*	Small brown bat, dark brown/black arms and wings.	Forested areas with loose bark.
Northern Long-eared Bat (*Myotis sodalis*)	Small bat with medium to dark brown fur. Long ears compared to other bats of the genus *Myotis*.	Forested areas with trees that have DBH greater than 3 inches, and barns, caves, sheds, etc.
Tricolored Bat (*Perimyotis subflavus*)	Small yellowish brown bat. Fur is dark colored at the base, light in the middle, and dark again at the tip of the fur.	Forested areas with trees that have dead or live foliage, and caves, tunnels, etc.
Bald Eagle (*Haliaeetus leucocephalus)*	Large bird, with a wingspan of up to 8 feet. White head and tail, with a brown body.	Breeds in wetlands habitats, winters in upland terrestrial areas. Need open water.
Black-billed Cuckoo (*Coccyzus erythropthalmus)*	Slender, long tailed bird with white below and brown above. Black bill and red ring around eye.	Woodlands and thickets; aspen, poplar, birch, sugar maples, hickory, hawthorn and willow.
Bobolink (*Dolichonyx oryzivorus*)	White back and black underparts. Males have a straw colored head.	Mixed prairies and tallgrass, as well as hayfields and meadows. Marshes before migration.
Cerulean Warbler (*Setophaga cerulea)*	Small blue bird. Males have cerulean neck band and streaks down the side. Females will be a more dusky blue-green	Mature forests with tall broad leaved trees.
Chimney Swift (*Chaetura pelagica)*	Small, sooty gray bird that has a short tail, and long wings. Flaps wings quickly while flying, similar to a	Towns and cities.

	bat.	
Grasshopper Sparrow (*Ammodramus savannarum*)	Small bird that is mostly brown with yellow shoulders and yellow spots near the eye.	Moderately open grasslands and prairies with patchy bare ground
Pectoral Sandpiper (*Calidris melanotos*)	Small shore bird. Distinctive stippled breast that ends in a white belly. Back and head are also stippled/brown and white.	Forages in plowed farm fields, sod farms, rice fields, and natural/saltwater marshes
Prothonotary Warbler (*Protonotaria citrea*)	Small bird with entirely yellow head and underparts. Wings are a slate-gray color.	Shaded forests with open understory. Flat terrain near water with suitable cavities for nesting
Red-header Woodpecker (*Melanerpes erythrocephalus*)	Bird with an entirely red head, a white body, and half black/half white wings.	Deciduous woodlands, dead or dying stands of trees, forest edges, farmland, and roadsides.
Rusty Blackbird (*Euphagus carolinus*)	Rusty edges to feathers and pale eyebrow in winter with black feather bases. Breeding males will be glossy black.	Wet forests, fens, bogs, and beaver ponds, as well as swamps and ponds in winter.
Whooping Crane (*Grus americana*)	Large bird. Nearly entirely white, except for the crown which is a red color, and a few other spots of darker feather such as flight feathers and the nape.	Stopover in agricultural fields, rivers, ponds, and wet open areas.
Wood Thrush (*Hylocichla mustelina*)	Smaller bird with cinnamon brown upperparts and a white chest speckled with brown spots.	Mature deciduous and mixed forests.
Eastern Box Turtle (*Terrapene carolina Carolina*)	Small land turtle with a high domed carapace and hinged plastron. Brown or black shell with yellow or orange markings.	Sandy soils near a source of water and adjacent thickets. Old fields and pastures.
Eastern Massasauga	Thick-bodied snake, dark blotches, rattling tail.	Wet meadows, edge of wetlands

(Sistrurus catenatus)		
Spotted Turtle (*Clemmys guttata*)	Small turtle with brown shell and yellow or oranges spots on the back.	Clean shallow bodies of standing or slow flowing water with mucky bottoms.
Calico crayfish (*Faxonius immunis*)	Small to medium crayfish. Light green to gray with cream or gray stripe down the carapace and abdomen.	Streams with gravel substrate, slow flowing streams and rivers with muddy substrate, lakes, ponds, and well vegetated flooded ditches.
Creek heelsplitter (*Lasmigona compressa*)	Tan to yellow mussel with broad green rays.	Creeks and rivers with a variety of substrates.
Deertoe (*Truncilla truncata*)	Small to medium mussel that is often yellow, grayish-tan, green, or yellow-orange with dark green rays.	Rivers and lakes with firm sand or gravel substrate and moderate flow rate.
Elktoe (*Alasmidonta marginata*)	Small mussel. Yellowish green with dark green rays and dots.	Clean, clear water of small to large streams and small to medium rivers.
Flutedshell (*Lasmigona costata*)	Large mussel. Yellow, tan, green, or dark brown, with green or brown rays.	Small and medium rivers with sandy mud or gravel substrates.
Lilliput (*Toxolasma parvum*)	Small mussel. Yellowish-tan, green, or brownish grey.	Found in creeks with mud or clay substrates, but can also be found in rivers, lakes, and impoundments.
Purple wartyback (*Cyclonaias tuberculate*)	Small mussel. Round, bumpy shell. Yellowish brown, green brown, or dark brown.	Found within sand and gravel substrate within small to medium sized streams
Rainbow (*Villosa iris*)	Small mussel. Yellow or dark tan, with green rays.	Found within sand and gravel substrate within small to medium sized streams

Rayed Bean Mussel (*Villosa fabalis*)	Small, oval shell, light green to brown, ray patterns	Clean, flowing streams
Round pigtoe (*Pleurobema sintoxia*)	Large mussel. Smooth brown shell with green rays.	Found in mud, sand, or gravel substrates of medium to large rivers
Slippershell (*Alasmidonta viridis*)	Small mussel. Yellowish brown shell with thin green rays.	Creeks and headwaters of rivers in sand or gravel substrates.
Yellow globelet (*Mesodon clausus*)	Small snail. Brown to black shell with lighter underside.	Forested river valleys, grasslands, and shrubby successional habitats.
Corylus dagger moth (*Acronicta falcula*)	Dagger-like marking near the forewing. Medium sized moth that is dark purple-gray. Forewings are gray or grayish brown, with thin dashes.	Lowland hardwoods and mesic hardwoods, and its larval host plant is hazelnut.
Rusty-patched bumble bee (*Bombus affinis*)	Medium sized bee. Yellow and brown bumblebee where the second segment of the thorax is half yellow, half brown, with sporadic brown markings	Nest in old rodent burrows. Will forage in dunes, marshes, forests, farmland, and urban areas.
Alleghany plum (*Prunus umbellata*)	Small, straggly clonal shrub. Stems have thorny, black branches and narrow elliptic leaves with acute tips. Flowers have 5 white petals.	Pine barrens, oak-pine savanna, and oak savanna remnants. It often occurs along road rights-of-way, driveway cuts, and edges of more closed canopy forest
Engelmann's spike rush (*Eleocharis engelmannii*)	Small, annual spike-rush. Topped by narrow pyramidal cap, often without bristles.	Seepages, and intermittent wetlands
Hairy-fruited sedge (*Carex trichocarpa*)	Clumped sedge. Leaves are 3-9mm with reddish bases.	Margins of floodplain forests and in open wetlands along streams and marsh borders.
Raven's-foot	Clumped sedge. Perigynia	Wet depressions in

sedge (*Carex crus-corvi*)	flattened, large with broad spongy base and long prominent beak.	forested floodplains.
Smooth ruellia (*Ruellia strepens*)	Green stem up to one meter tall with vibrant violet to blue blooms.	Rich lowland woods in Lenawee County. Can also be found in riparian forests, thickets, and streambanks.
Toadshade (*Trillium sessile*)	Medium sized forb. Broad oval leaves, sessile, strongly mottled; flowers are sessile with dark red, short petals.	floodplains and mesic forests, especially moist ravines, rich moist woods and bluffs. Limestone derived soils.
Virginia bluebells (*Mertensia virginica*)	Medium sized branching forb. Leaves are broadly elliptical with smooth margins and rounded tips. Glabrous. Flowers are blue and bell shaped.	First and second bottoms of riparian forests
Virginia water-horehound (*Lycopus virginicus*)	Medium sized forb. Leaves elliptical and coarsely serrate. Flowers are small and white. Fruits are four tiny nutlets.	First and second bottoms of floodplain forests, particularly along the River Raisin in Lenawee County.
White lady slipper (*Cypripedium candidum*)	Small orchid. Leaves are narrowly elliptic. Flower a small ivory-white pouch-like slipper.	Alkaline wetlands in southern Lower Michigan, particularly prairie fens
Wild hyacinth (*Camassia scilloides*)	Perennial forb. Leaves are long and narrow, with white flowers that have 6 petals grouped on a tall raceme.	Floodplain forests with a fairly open canopy, as well as on river bottom flats and banks
Woodland lettuce (*Lactuca floridana*)	Very tall forb, leaves are either elliptic with serrated margins or deeply dissected. Flowers are blue in an open inflorescence.	Found in lakeplain areas and sandy oak woods.

What To Do If You Encounter a Natural Resource

1. STOP WORK immediately in the vicinity.
2. Mark the location (flagging or GPS if available).
3. DO NOT touch, handle, or disturb the resource or species.
4. Photograph the find if safe and appropriate.
5. Notify your Supervisor or Environmental Lead.
6. Complete the Unanticipated Discovery Form provided in the site binder.
7. Wait for direction from the Environmental Lead or RWE Compliance Coordinator before resuming work.

Emergency Contact:

Environmental Lead: [Name, Phone]

Construction Manager: [Name, Phone]

RWE Environmental Compliance: [Name, Phone]

Rouget Road Solar Farm

Exhibit A-1.15: Participating Parcel List MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 N Clark St.
30th Floor
Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants
200 W 22nd St.
Suite 220
Lombard, IL 60148

EXHIBIT A-1.15 – PARTICIPATING PARCEL LIST

A-1.15.(a) – Provide a list of all parcels that are participating or adjacent to the proposed facilities, including landowner information for each parcel. Landowner information may be redacted and filed confidentially pursuant to protective order at the discretion of the applicant if the landowner information is not available publicly.

Appendix II Exhibit A-1.15A provides a list of all participating parcels. The landowner information has been redacted for confidentiality. Additionally, a table of adjacent (non-participating) parcels has been included in **Exhibit A-1.15B**. Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1. See also **Appendix I, Exhibit 2**, Direct Testimony C. Mcknight, at pp. 10.

Exhibit A-1.15A: Participating Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Owner Name	Parcel Acreage	Fenced in PV Acreage
PA0-107-4025-00	COMSTOCK, DEBORAH J, TRUST	60.5	49.2
PA0-107-4550-00	CREQUE, JEFF, FARMS, INC	57.4	46.4
PA0-108-3050-00	CREQUE, JEFF, FARMS, INC	19.9	15.7
PA0-108-3100-00	GREAT DIRT LLC	45.1	27.4
PA0-108-3550-00	CREQUE, JEFF, FARMS, INC	39.9	27.8
PA0-108-3825-00	SMITH, HENRY E	127.1	84.4
PA0-108-4800-00	CREQUE PROPERTIES, LLC	17.2	8.0
PA0-109-3550-00	CREQUE PROPERTIES, LLC	17.3	0.0
PA0-116-1100-00	FRYE, LAWRENCE E	43.5	33.4
PA0-116-1550-00	CREQUE, GREGORY A, 2006 FAMILY TRST	42.0	34.7
PA0-116-1800-00	TERRY, RYAN M & TIFANIE L, TRUST	61.2	37.5
PA0-116-3300-00*	TERRY FAMILY LIVING TRUST	40.1	0.0
PA0-116-3700-00	TERRY FAMILY LIVING TRUST	28.6	19.7
PA0-116-3900-00	TERRY FAMILY LIVING TRUST	37.8	23.7
PA0-117-1300-00	SMITH, HENRY E & TAMMY S	50.7	41.0
PA0-117-1800-00	SMITH, HENRY E & TAMMY S	41.9	34.2
PA0-117-2300-00	CREQUE PROPERTIES, LLC	51.1	31.9
PA0-117-4350-00	CREQUE, GREGORY A, 2006 FAMILY TRST	31.4	13.3
PA0-117-4925-00	FRYE, LAWRENCE E & SUSAN	30.1	20.5
PA0-120-2300-00	TERRY FAMILY LIVING TRUST	64.9	44.1
PA0-120-2800-00***	TERRY FAMILY LIVING TRUST	11.5	4.9
PA0-120-4050-00	MAPLE ROW FARMS PROPERTIES LLC	81.4	40.0
PA0-120-4600-00	ROBACK FAMILY LIVING TRUST	19.4	6.1
PA0-120-4800-00	ROBACK FAMILY LIVING TRUST	24.9	10.9
PA0-121-1050-00	TERRY FAMILY LIVING TRUST	109.5	52.6
PA0-121-1300-00	TERRY FAMILY LIVING TRUST	29.9	4.0
PA0-121-2550-00	TERRY, RYAN M & TIFANIE L, TRUST	42.8	22.7

Exhibit A-1.15A: Participating Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Owner Name	Parcel Acreage	Fenced in PV Acreage
PA0-121-3050-00	TERRY FAMILY LIVING TRUST	19.6	10.8
PA0-121-3650-00*	TERRY, DAVID & SUSAN, TRUST	40.5	0.0
PA0-121-4050-00**	GREAT DIRT LLC	57.0	0.0
PA0-122-3155-00**	GREAT DIRT LLC	21.9	0.0
PA0-128-1050-00	TERRY, DAVID A & SUSAN M, TRUST	78.6	43.1
PA0-128-1555-00* Formerly (PA0-128-1550-00)	JUDSON FARMS LLC	37.7	0.0
PA0-128-1850-00*	JUDSON FARMS LLC	37.4	0.0
PA0-128-3350-00*	JUDSON FARMS LLC	39.8	0.0
PA0-128-4055-00* Formerly (PA0-1284050-00)	JUDSON FARMS LLC	62.7	0.0
PA0-128-4750-00	SHELDON, SHIRLEY A, LIVING TRUST	37.0	19.3
PA0-129-2850-00*	JUDSON FARMS LLC	19.6	0.0
PA0-129-3200-00	ENGEL FAMILY FARMS LTD	13.0	10.4
PA0-129-3305-00	MAPLE ROW FARMS PROPERTIES LLC	39.5	20.0
PA0-129-3800-00	ENGEL FAMILY FARMS LTD	34.9	22.9
PA0-129-4050-00*	WEGNER, MARK E	78.2	0.0
PA0-130-4400-00	ENGEL FAMILY FARMS LTD	12.7	9.5
PA0-130-4550-00	ENGEL FAMILY FARMS LTD	39.8	32.5
PA0-130-4800-00	ENGEL FAMILY FARMS LTD	50.9	46.7
PA0-133-1800-00	ENGEL FAMILY FARMS LTD	106.2	78.2
PA0-133-2050-00	ENGEL FAMILY FARMS LTD	79.0	53.2
Total		2,132.8	1,053.7

1 PIN = local tax parcel identifier per [County] GIS/Tax Roll as of [07/11/2025]. Owner names reflect the same source & date

* Collection only easement parcel (underground collection only; no above-ground generation equipment planned)

** Participating parcel with executed agreement; no project facilities currently planned

***Conservation Reserve Program (CRP) easement present

Exhibit A-1.15B: Adjacent (Non-Participating) Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Landowner	Parcel Acreage
PA0-107-2550-00	MARTINEZ, JUAN A & IRENE V	25.8
PA0-107-2600-00	CHRIST TEMPLE CHURCH OF ADRIAN	10.0
PA0-107-2700-00	CHRIST TEMPLE CHURCH OF ADRIAN	13.6
PA0-107-2750-00	PALMER, MICHAEL L & CATHY S	10.0
PA0-107-2800-00	SPARKS, TODD A & LEIGHANN M	10.0
PA0-107-2850-00	GOSSMAN, KELSEY & HEATHER	10.0
PA0-107-2900-00	DIER, JACOB MICHAEL & JAIME LYNN	10.0
PA0-108-1600-00	GREAT LAKES WASTE SYSTEMS	29.9
PA0-108-1800-00	DELANEY, OLIVIA LARA	5.8
PA0-108-3275-00	HORD, RONALD DALE & CARLIE G	2.0
PA0-108-1950-00	HERB, TIFFANY & SHAWN	15.7
PA0-108-2780-00	ENGEL, GALEN T & SYDNEY	59.1
PA0-108-2900-00	HINDES, KENNETH D, JR	10.2
PA0-108-2950-00	SEIDL, ALEX	10.0
PA0-108-WATR-00	****	6.8
PA0-109-3055-00	WELLNITZ, JULIE	40.2
PA0-109-3300-00	MASON, VICKY MARIE	8.7
PA0-109-3400-00	BURSKEY, BONNIE E; BRIAN E & LISA M MILLER	77.2
PA0-116-1050-00	CREQUE, GREGORY A, 2006 FAMILY TRST	10.1
PA0-116-1300-00	BURSKEY, BONNIE E; BRIAN E & LISA M MILLER	24.3
PA0-116-2255-00	PAPENHAGEN, STEVEN A & PEGGY	18.6
PA0-116-2700-00	VEREECKE, FRANK J & GAIL M	7.4
PA0-116-2605-00	PAPENHAGEN, STEVEN A & PEGGY	38.1
PA0-116-4100-00	JACOBS, GRANT D & NANCY	3.2
PA0-116-4050-00	FRYE, LAWRENCE E & SUSAN	91.3
PA0-116-4600-00	BROWN, JUSTIN D	1.7
PA0-121-1350-00	METZINGER, SCOTT A	0.7
PA0-121-1360-00	VALLEJO, KAREN R & MANUEL	0.7
PA0-121-2120-00	ELLIS, WILLIAM M, JR, LIVING TRUST; LINDA S ELLIS LIVING TRUST	0.7
PA0-121-2140-00	BROWN, JUSTIN D	2.0
PA0-121-2250-00	KELLEY, SONYA; MICHELE KELLEY	1.0
PA0-121-2200-00	REAUME, EARL & ANN, REVOCABLE TRUST	10.0
PA0-121-2050-00	REAUME, EARL & ANN, REVOCABLE TRUST	40.4
PA0-121-4350-00	PELL, VIVIAN J & DAVID J	32.6
PA0-122-3380-00	PELL, VIVIAN L & DAVID J	19.5
PA0-122-3160-00	PRIME, LAWRENCE CADE	3.2
PA0-122-3800-00	LENNARD AG LAND LLC	38.3
PA0-122-3550-00	PELL, VIVIAN L & DAVID J	7.0

Exhibit A-1.15B: Adjacent (Non-Participating) Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Landowner	Parcel Acreage
PA0-121-4800-00	LENNARD AG LAND LLC	89.5
PA0-121-3300-00	LENNARD AG LAND LLC	20.0
PA0-121-3250-00	JACKSON, JEFFREY A, LIVING TRUST	36.2
PA0-121-3725-00	JACKSON, JEFFREY A & MICHELLE	4.0
PA0-128-2050-00	FORD, ERMA L, LIVING TRUST	134.3
PA0-128-4350-00	IOTT, GARY G, LIVING TRUST	66.8
PA0-127-3305-00	IOTT, GARY G, LIVING TRUST	49.0
PA0-134-1300-00	GOETZ RIVER FARMS INC	112.2
PA0-133-2800-00	GOETZ RIVER FARMS INC	80.1
PA0-133-4350-00	REED, MICHAEL K & CANDACE L; WILLIAM B REED	33.9
PA0-133-3300-00	WARNER, JAMES B, LIVING TRUST	80.5
PA0-133-3550-00	THOMPSON PORTER LLC	69.6
PA0-133-3100-00	KNIERIM, MITCHELL L, TRUST; CS FARMS LLC	11.1
PA0-133-1550-00	KNIERIM, MITCHELL L, TRUST; CS FARMS LLC	20.1
PA0-133-1050-00	SALENBIEN FAMILY LIVING TRUST	19.9
PA0-128-3550-00	ONDROVICK, ALLEN R, TRUST	13.8
PA0-128-3600-00	MAC BETH, TROY CONRAD	6.0
PA0-128-3100-00	HARRINGTON, MELVIN A, JR	36.7
PA0-128-3800-00	JUDSON FARMS LLC	17.8
PA0-128-3325-00	DIVER, MARVIN	22.2
PA0-128-3300-00	SZCZEPANSKI, OLIVIA	1.7
PA0-128-3150-00	HARRINGTON, MELVIN A, JR	1.1
PA0-128-3050-00	JUDSON FARMS LLC	19.9
PA0-129-4800-00	ONDROVICK, ALLEN R, TRUST	19.9
PA0-129-4600-00	MAPLE ROW FARMS PROPERTIES LLC	7.4
PA0-129-4580-00	SNEAD, DALTON A	5.0
PA0-129-4560-00	MAPLE ROW FARMS PROPERTIES LLC	5.0
PA0-129-4540-00	MAPLE ROW FARMS PROPERTIES LLC	5.0
PA0-129-4520-00	MAPLE ROW FARMS PROPERTIES LLC	5.0
PA0-129-3850-00	CAGLE, TRAVIS S & JANELLE	4.0
PA0-129-4620-00	BROSAMER, BLAKE CARL BAKER; LAURA JO BROSAMER	7.0
PA0-129-3900-00	HAYES, JASON R & KERRI L	1.0
PA0-132-2100-00	KNIERIM, RICK K, TRUST; CHERYL L KNIERIM TRUST	40.1
PA0-132-1350-00	GOLDEN ACRES FARMS	24.1
PA0-132-1300-00	WILLETT, JONATHAN J & HILLARY	3.0
PA0-132-1100-00	GOLDEN ACRES FARMS	52.6
PA0-131-2300-00	GOLDEN ACRE FARMS	40.5
PA0-129-3700-00	ENGEL, MARY W	4.4

Exhibit A-1.15B: Adjacent (Non-Participating) Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Landowner	Parcel Acreage
PA0-131-2050-00	ONDROVICK, VICKI S, TRUST	25.0
PA0-131-1375-00	KNIERIM, RICK K, TRUST; CHERYL L KNIERIM TRUST	46.0
PA0-130-3800-00	KNIERIM FARMS LLC	42.0
PA0-130-3900-00	BRANDT, STEVEN & DANA	5.0
PA0-130-3300-00	CHITTENDEN, ROBERT	1.5
PA0-130-4100-00	KUKUK, TIMOTHY	20.1
PA0-130-4050-00	POWELL, DENNIS D & GLORIA J	18.1
PA0-130-4350-00	RAU, VERNON A	16.5
PA0-129-3050-00	PANCONE, MICHAEL J & LINDA	22.0
PA0-129-1550-00	GOLDEN ACRES FARMS	55.8
PA0-129-1800-00	MAKULA FAMILY TRUST	30.9
PA0-129-2725-00	IRWIN, DUSTIN J	2.7
PA0-129-2740-00	THOMPSON, KEATON CHRISTOPHER	3.6
PA0-129-2800-00	LONESOME WIND RANCH LLC	19.7
PA0-129-2520-00	D & C FARMS LLC	16.5
PA0-129-2350-00	LONESOME WIND RANCH LLC	38.3
PA0-129-2050-00	DIVER, MARVIN; KAREN DAYSS	39.0
PA0-120-4900-00	DIVER, MARVIN; KAREN DAYSS	20.1
PA0-121-3625-00	PARKER, KENLEY	1.7
PA0-128-1025-00	DEWEY, LEON A, TRUST	1.5
PA0-121-3640-00	PARRISH, RUSSELL S & ROSSANA	1.4
PA0-121-3600-00	MORGAN, ELIZABETH	6.5
PA0-121-3550-00	NICOLAI, DONALD & CYNTHIA	10.5
PA0-121-3100-00	SOUTHERN MICHIGAN PIPELINE LLC	0.8
PA0-120-4375-00	FICK, JERRY W	3.0
PA0-120-4550-00	ROBACK FAMILY LIVING TRUST	19.3
PA0-120-3300-00	TATE, O'NEIL & LINDA	96.2
PA0-120-1805-00	TATE, O'NEIL & LINDA	111.8
PA0-117-3925-00	HILLARD, EUGENIE & GREGORY	71.4
PA0-117-4575-00	TATE, O'NEIL D & LINDA A	22.4
PA0-117-4600-00	STEVENS, PERL B	5.0
PA0-120-2050-00	TATE, O'NEIL D & LINDA A	43.9
PA0-120-2200-00	PALMYRA TOWNSHIP	5.3
PA0-117-4700-00	TATE, O'NEIL D & LINDA A	39.8
PA0-117-4450-00	FROST, BREANNA; NOAH KNOWLES	0.8
PA0-117-4460-00	TAYLOR, HUGH, II	0.4
PA0-117-4380-00	CRIST INVESTMENT COM	0.5
PA0-117-4370-00	KNOBLAUCH, SHIRLEY M	0.4

Exhibit A-1.15B: Adjacent (Non-Participating) Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Landowner	Parcel Acreage
PA0-117-4360-00	ROSS, ROBERT T & TERRI L	0.8
PA0-117-4400-00	MC KINNEY, ALISHA N	1.2
PA0-116-3125-00	JOSEPH, DAVID M	2.4
PA0-116-3105-00	BETZ, KAREN	16.7
PA0-116-3600-00	TERRY FAMILY LIVING TRUST	0.6
PA0-116-3625-00	MORTON BUILDINGS INC	3.9
PA0-116-3675-00	SHOEMAKER, KEVIN D & NANCY A	2.0
PA0-116-3050-00	SAUTER, JOE W	9.1
PA0-117-2800-00	CASTILLO, JOSE	4.7
PA0-420-0330-00	SMITH, JACOB B	0.9
PA0-420-0320-00	BUSSE, ROY & EUGENIA	0.9
PA0-420-0310-00	BAUGHEY, CHAD, II; CALLIE RAE GAFNER	0.8
PA0-420-0300-00	MOHR, DARRYL E	0.8
PA0-420-0290-00	FONSECA, THOMAS J	0.8
PA0-420-0280-00	FRANCOEUR, NATAY	0.8
PA0-420-0270-00	MILLER FREDRICK, DONREITA	0.8
PA0-420-0260-00	REINKE, TONI LYNN; JAMIE LYNN REINKE	0.8
PA0-420-0250-00	KLINGER, TRACIE	0.8
PA0-420-0240-00	LENAWEE CO DRAIN COMM; MAN-NOR FARMS ASSOC	0.8
PA0-420-0230-00	GUST, ALAN M	0.7
PA0-420-0220-00	GUST, ALAN M & VALERIE	0.7
PA0-420-0210-00	KOESTER, ANGELA F, TRUST	0.7
PA0-420-0200-00	SHIPMAN, JASON & DANIELLE	0.7
PA0-420-0190-00	BOSQUEZ, JUAN; ODILIA GARZA	0.7
PA0-420-0180-00	SMITH, KELLY A	0.6
PA0-420-0120-00	SMITH, ALLEN R & MICHELLE R	0.7
PA0-420-0110-00	ELROD, JEFFERY LYNN, JR; JACEY AUTUM TERRILL	0.7
PA0-420-0100-00	FLORES, ESTEFANA; RICHARD & VERONICA STETTEN	0.7
PA0-117-1850-00	M & D ADRIAN PROPERTIES LLC	8.9
PA0-117-1900-00	JENKINS, JOSEPH M & MEKILAH S	5.7
PA0-117-1925-00	SELLERS, ROBERT L SR & JOY L	9.6
PA0-117-1975-00	CAPETILLO, ANGELA	3.8
PA0-420-0340-00	PETERSEN, KATHLEEN A	1.4
PA0-108-3900-00	EATON, RICHARD & HELEN	3.2
PA0-420-0350-00	HYDER, KELLIE; MICHELLE D BROWN	1.4
PA0-420-0590-00	WISE, RICHARD & KARON D	1.3
PA0-118-2350-00	CREQUE, HAROLD, TRUST	67.8
PA0-107-3900-00	LEE, ROBERT G & THELMA A, TRUST	88.5

Exhibit A-1.15B: Adjacent (Non-Participating) Parcel List for the Rouget Road Solar Farm, Lenawee County, Michigan (Parcels are depicted on Sheets 3 through 5 on the Site Plans in Appendix II Exhibit A-1.1)

PIN[1]	Landowner	Parcel Acreage
PA0-107-4600-00	ZIMMERMAN, CYNTHIA J & RONALD O	2.1
PA0-107-4575-00	WOERNER, CRAIG A & JUDITH	2.0
PA0-107-3440-00	FOUNTAIN, PATRICK & GABRIELLE	1.0
PA0-107-3420-00	LEE, ROBERT G & THELMA A, TRUST	1.5
PA0-107-3250-00	MUCK, JAMES H & CONSTANCE L	4.4
PA0-107-3280-00	MUCK, JAMES & CONSTANCE	1.7
PA0-107-3350-00	SKOW FAMILY LIVING TRUST; RODNEY J & ROSEMARY E SKOW	9.4
PA0-107-3300-00	HAMMOUD, ZAHI	10.9
PA0-107-1800-00	BARBER, JON L & ELIZABETH L, TRUST	72.1
PA0-133-2600-00	PRIELIPP, ALISON	1.0
PA0-133-1300-00	PARQUET, STEVEN T	12.5
PA0-133-2500-00	SEIDL, LEEANN	0.5
PA0-133-1950-00	CARUSO, ANTHONY	1.6
PA0-120-2350-00	MORAN, PATRICK LEE	2.0
PA0-117-2700-00	TATE, O'NEIL & LINDA A	95.0
PA0-128-4855-00	WEI, ANGEL ELIZABETH & HAOTIAN	2.6
PA0-120-4325-00	FICK, JERRY W	3.0
PA0-128-1990-00	SHEPARD, DAVID T	2.0
PA0-128-4900-00	FEENEY, ALEXANDER	0.5
PA0-120-0000-00	****	0.3
PA0-129-3425-00	POWELL, RYAN N & MORGAN M	5.6
PA0-128-1725-00	WARD, CAROLYN L & RICHARD L	3.2
PA0-128-4150-00	IOTT, GARY G, LIVING TRUST	17.5
PA0-129-3550-00	ENGEL FAMILY FARMS LTD	35.7

1 PIN = local tax parcel identifier per [County] GIS/Tax Roll as of [07/11/2025]. Owner names reflect the same source & date
**** = owner information not available through Lenawaee County ARC GIS or Registrar of Deeds public records

Rouget Road Solar Farm

Exhibit A-1.16: Complaint Resolution Process MPSC Requirements

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 N Clark St.
30th Floor
Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants
200 W 22nd St.
Suite 220
Lombard, IL 60148

EXHIBIT A-1.16 – COMPLAINT RESOLUTION PROCESS

A-1.16.(a) – Provide a complaint resolution process for the site. The complaint process should include:

1. **The name of a designated applicant representative provided with the authority to resolve local complaints.**
2. **A dedicated phone number for complaints.**
3. **An email address for complaints.**
4. **Website information instructing the public on the complaint resolution process.**
5. **Procedures for regular reporting of complaints received and how each complaint was resolved to be filed on a periodic basis in the docket.**

A Complaint Resolution Process for the Project has been established and is detailed in **Appendix II, Exhibit A-1.16**. This process includes a designated Applicant representative authorized to address local complaints, along with a dedicated phone number and email address for submitting complaints. Additionally, website information is provided to guide the public on how to use the complaint resolution process. As set forth in **Exhibit A-1.16**, procedures are in place for periodic reporting of complaints received and their resolutions, which will be filed on a quarterly basis in the docket.

For more information, see **Appendix I, Exhibit 2**, Direct Testimony of C. Mcknight, at pp 22-23.

Rouget Road Solar Farm

Exhibit A-1.16: Complaint Resolution Plan

Lenawee County, Michigan

SEPTEMBER 2026

PREPARED FOR

Rouget Road Solar Farm, LLC
353 N Clark St., 30th Floor
Chicago, IL 60654

PREPARED BY

SWCA Environmental Consultants
200 W 22nd St., Suite 220
Lombard, IL 60148

COMPLAINT RESOLUTION PLAN FOR THE ROUGET ROAD SOLAR PROJECT, LENAWEE COUNTY, MICHIGAN

Prepared for

Rouget Road Solar Farm, LLC
353 North Clark Street
Suite 300
Chicago, Illinois 60654

Prepared by

SWCA Environmental Consultants
200 22nd Street, Suite 220
Lombard, Illinois 60148
(630) 705-1762

www.swca.com

SWCA Project No.

September 2026

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ATTACHMENTS

Attachment 1: Complaint Resolution Form

PROJECT OVERVIEW

SWCA Environmental Consultants ("SWCA"), on behalf of Rouget Road Solar Farm, LLC ("Rouget Road" or "Applicant"), has established the following Complaint Resolution Plan for the Rouget Road Solar Project ("Project"). The Project consists of the construction and operation of a utility-scale solar-powered electric generation facility in Lenawee County, Michigan with a nameplate capacity of 175-megawatts alternating current. The Project will include a 138 kilovolt ("kV") aboveground generation tie-in line, that will run from the internal Project substation to facilitate the Project's interconnection to the regional transmission grid via a proposed switchyard. The Project is sited on private property in an agricultural area; however, there are several public roadways in the vicinity of the Project. Rouget Road endeavors to ensure that the Project is constructed and operated in a responsible manner to minimize its impact on nearby residents or those passing through the area.

Rouget Road will construct and operate the Project in accordance with all applicable federal, state, and local laws and permits. If residents observe issues during construction or operation, this outlined complaint resolution plan has been established to define a process for receiving, investigating, and addressing complaints.

COMPLAINT FILING PROCESS

Individuals wishing to file a complaint may employ any of the following options:

1. Local complaints can be directed to the Rouget Road Solar Farm, LLC complaint resolution officer.
    a. Complaint Resolution Officer Contact Information

        Name: Kevin Cole
        Phone Number: 517- 745-7546
        Email: rougetroadsolar@rwe.com

2. Individuals may call the Applicant at (517) 312-8949 at any time to submit complaints by phone.
3. Individuals may send an email at any time to rougetroadsolar@rwe.com to submit complaints.
4. Individuals may visit the website listed below for instructions on how to submit complaints to the complaint resolution process: (Rouget Road Solar Farm | Rouget Road in the Americas).
5. Individuals may submit written complaints by mail to RWE 353 N Clark Street, 30th Floor, Chicago, IL 60654 Attention: Legal.
6. Individuals may submit complaints via email to the construction manager or operations and maintenance ("O&M") staff during construction and operations, respectively. Email addresses will be included in this plan and provided to Lenawee County officials once they are established.

The following information should be provided to Rouget Road to accurately and thoroughly address complaints:

- Name and contact information of the complainant
- Date of complaint
- Detailed description of the complaint, including, if possible, the location, date, and time that the issue occurred, and any other details that can help identify and resolve the issue.

COMPLAINT REVIEW PROCESS

Rouget Road will coordinate with the complainant with the intent to quickly and effectively address issues such that both parties are satisfied. Rouget Road will enter complaints into a complaint log, document the details of the complaint, and assign a point of contact to investigate the complaint. The construction manager, or alternative designee, will be responsible for initiating the review of complaints received during the construction process. On-site O&M staff will be responsible for initiating the review of complaints reported during the operational phase. Complaint resolution forms may be picked up at the onsite O&M building.

Rouget Road will determine if complaints violate federal, state, or local laws or permit conditions, and if there are notifications or required steps to address those violations. Rouget Road will also determine if outside resources are necessary to address issues. Rouget Road will acknowledge receipt of complaints within 5 business days and provide status updates at least every 30 days until resolution. Rouget Road is committed to resolving reasonable complaints within 60 days, unless extenuating circumstances necessitate a longer time period, or it is determined that the complaint is unresolvable. Rouget Road will provide an explanation to the complainant for the extended period and the timeline for addressing the complaint should complaint resolution take longer than 60 days. Rouget Road will provide a complaint summary report detailing logged complaints and the resolutions for each complaint to the MPSC on a quarterly basis until such time as the MPSC directs that such complaint reports may cease.

ATTACHMENT 1

Complaint Resolution Form

Rouget Road Solar Farm, LLC

Complaint Resolution Form

Complaint Number (Rouget Road to Assign): **Date:**

Project: Rouget Road Solar Farm, LLC **Complainant Title:**

Complainants Name: **Complainant Phone Number:**

Complainant Address:

Complaint Description:

Corrective Action:

The undersigned agree that the subject complaint is adequately described herein and that the specified corrective action is appropriate.

Complainant Signature: Date:

The undersigned agree that the subject complaint has been adequately resolved and that no further action is required by RWE.

Complainant Signature: Date: