



Conditional Use Permit Application for Utility-Scale Solar Energy Generation Facility

Sylvan Solar Project

Garfield Township, Newaygo County, Michigan



Prepared for
Sylvan Solar, LLC

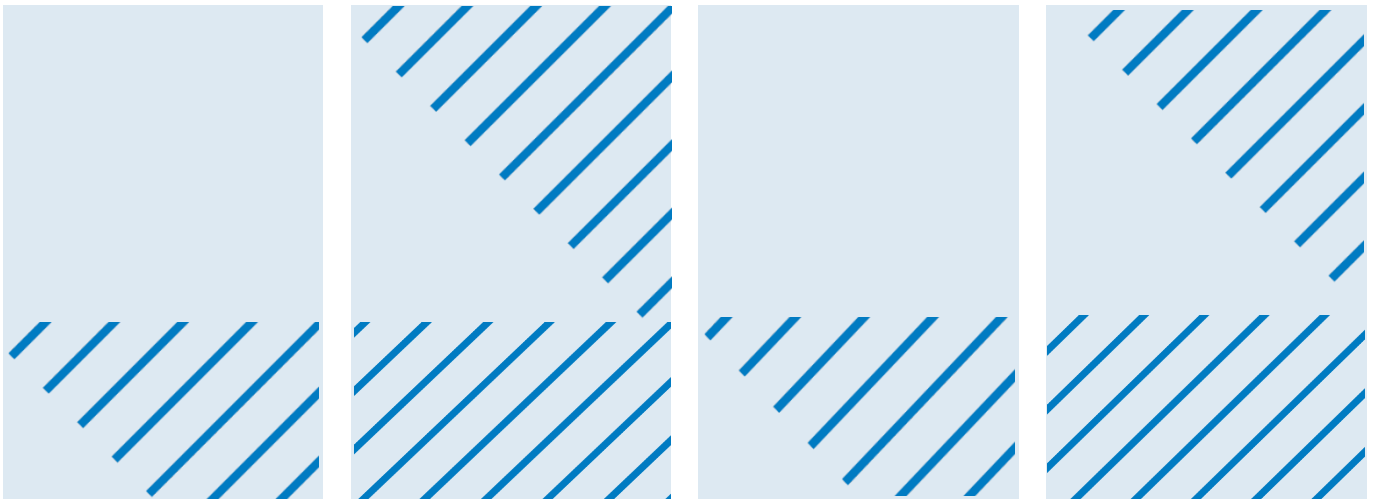


Prepared by
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August 2025

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August 14, 2025

Mr. George Suchy
Garfield Township Supervisor
7190 Bingham Avenue
Newaygo, MI 49337

Re: Letter of Intent to Apply for a Conditional Use Permit from Garfield Township

Dear Mr. Suchy,

This letter serves as documentation of the commitment from Sylvan Solar, LLC (Sylvan Solar), an affiliate of AES Clean Energy Development, LLC, to submit a Conditional Use Permit application that meets the Garfield Township Principal-Use Solar Energy System (SES) requirements as described in Sections 14.28 and 18.19(B) of the Zoning Ordinance and adopted on June 10, 2025. Sylvan Solar recognizes the optional permitting route through Public Act 233 that designates permitting authority for SES over 50 megawatts (MW) to the Michigan Public Service Commission (PSC). However, Sylvan Solar currently intends to work with local officials to obtain local land use permits and incorporate community feedback into the design to the extent possible. If Sylvan Solar obtains local land use permits, it will not need to pursue the optional permitting route through the PSC.

In line with this statement of intent, Sylvan Solar is pleased to submit the enclosed application for a Conditional Use Permit and Site Plan approval for the up to 220-MW Sylvan Solar Project (Project), approximately 144-MW of which will be located in Garfield Township, Newaygo County, Michigan. Sylvan Solar is proposing to construct, own, operate, and decommission the Project. We look forward to working with you and the Garfield Township Planning Commission to answer questions as you complete your review and this Project moves forward to the Planning Commission and Township Board for consideration.

If you have any questions or require more information, please contact Dana Schultz, Development Manager at 720-416-4524 or Lauren Colwell, Permitting Project Manager at 763-269-5892.

Sincerely,

 Frank Krawczel

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Director of Development
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Conditional Use Permit Application

August 2025



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Abbreviations

AC	alternating current
AES	AES Clean Energy Development, LLC
AG	agricultural
Applicant	Solar Sylvan, LLC
Application	Conditional Use Permit Application
Barr	Barr Engineering Michigan LLC
BMPs	Best Management Practices
CUP	conditional use permit
dBA	A-weighted decibels
DC	direct current
DNR	Department of Natural Resources
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EPC	Engineering, Procurement, and Construction
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
gen-tie	generation tie line
GW	gigawatt
HV	high voltage
kV	kilovolt
MDARD	Michigan Department of Agriculture and Rural Development
MV	medium voltage
MW	megawatt
NESC	National Electrical Safety Code
NLEB	northern long-eared bat
NRCS	Natural Resources Conservation Science
O&M	Operations & Maintenance
PA 116	Public Act 116 - Michigan Farmland and Open Space Preservation Program
Project	Sylvan Solar Project
PV	photovoltaic
QHA	Qualitative Habitat Assessment
SCADA	supervisory control and data acquisition
SES	solar energy system
SWPPP	Stormwater Pollution Prevention Plan
Sylvan Solar	Sylvan Solar, LLC
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMP	Vegetation Management Plan

1 Introduction

This application for a Conditional Use Permit (Permit) for the Sylvan Solar Project (Project) in Garfield Township, Newaygo County, Michigan is submitted by Sylvan Solar, LLC (Sylvan Solar, Applicant), an affiliate of AES Clean Energy Development, LLC. AES Clean Energy Development, LLC (AES) is a subsidiary of The AES Corporation based in the United States that owns and operates solar, wind, battery, and green hydrogen projects across the United States, grossing 9.1 gigawatts (GWs) in operation at the end of 2024. Sylvan Solar, a Delaware limited liability company, is an independent power producer that is qualified to do business in Michigan.

Sylvan Solar is proposing to construct, own, operate, and decommission the 220-megawatt (MW) Sylvan Solar Project (Project), which spans both Garfield and Sheridan Charter Townships. The Project will generate an annual average of approximately 445,000 megawatt (MW) hours of renewable energy over its anticipated 35-year life span, which is enough electricity to power the equivalent of 55,000 Michigan homes per year. The Project represents a significant private investment into Newaygo County which will contribute to the local labor income and tax base with no local incentives or long-term strain on township and county services. Additionally, the Project incorporates a well-sited design and will provide direct and indirect social and economic benefits to the townships and county.

The Applicant respectfully requests approval for a Permit for the construction and installation of approximately 144 MWs of the Project and accompanying facilities and infrastructure situated in Garfield Township (a separate application is being made to the Fremont Community Joint Planning Commission for the Project components located in Sheridan Charter Township). If approved, the Project will be the first utility-scale solar project in Garfield Township.

This Permit application (Application) was written in accordance with the Garfield Township Zoning Ordinance, including its June 10, 2025, amendment to regulate Solar Energy Systems (SES), for submittal to Garfield Township. A detailed analysis of how the Project meets each of the requirements of the Conditional Use and SES ordinances is included in Sections 4 and 5 of this Application.

2 Project Information

2.1 Project Description

The proposed Project is an up to 220-MW photovoltaic (PV) solar generation facility within a 2,166-acre Project area on land within Garfield Township and Sheridan Charter Township, Newaygo County, Michigan (Figure 1). The Project is approximately 4.5 miles southeast of Fremont, Michigan. The Project is generally north of North River Drive, west of Bingham Avenue, south of Michigan Highway 82, and east of South Osborn Avenue. A Vicinity Map is included on Sheet PV-G.00.01 of the attached Site Plan (Attachment 1). The Project boundary and surrounding area primarily consists of agricultural fields, wooded areas, agricultural ditches, and Newaygo County designated drains. The Muskegon River is approximately 900 feet south of the Project at its closest point.

Of the total 2,166 acres leased for the Project, a total of approximately 1,250 acres of the Project area will be located within the perimeter fence line and consist of the solar energy facility (Figure 2). Buried medium voltage (MV) collection lines will be installed within and outside the fenced area to connect the blocks of solar panels in the Project area.

A <500-foot-long overhead high voltage (HV) generation tie line (gen-tie) will be constructed between the proposed Project substation and a proposed utility-owned switchyard that will connect to the existing 345-kilovolt (kV) Ludington to Kenowa overhead transmission line (point of interconnection). The gen-tie line and point of interconnection are located near the northeast corner of the Project area in Garfield Township (Site Plan, Attachment 1).

The contents of this Application include only the Project area within Garfield Township. A list of participating parcels is included as Attachment 2. The following table summarizes the estimated metrics for the Project:

Table 1 Estimated Project Quantities

Project Details	Garfield Township
Megawatts (MW)	144 MW
Total acres	1,383 acres
Fenced area	830 acres
Substation and utility-owned switchyard (included in fenced area above)	10 acres
HV Gen-tie Line	<500-feet-long

Construction of the Project is anticipated to commence in mid-2027, and the solar energy facility is expected to be operational in late 2028. Activities that define the start of construction may include purchase of the generator step-up transformer for the substation, executing the Generator Interconnection Agreement or Power Purchase Agreement, or contracting the initial civil work at the site. If construction is delayed more than a year after the anticipated mid-2027 start date, Sylvan Solar will submit a new request for site plan approval pursuant to the Garfield Township Zoning Ordinance.

2.2 General Facility Description

The solar energy facility will generate up to 220 MW of solar power. The facility will include multiple rows of PV solar panels oriented north-south on single-axis tracking structures, inverters that convert direct current (DC) to alternating current (AC), transformers, primarily underground 34.5-kV MV collection lines, meteorological stations, a stormwater management system, a 345-kV Project substation with associated HV gen-tie line, and a utility-owned and operated switchyard and HV gen-tie line.

In Garfield Township, the Project area within the fence line (Development Area, Figure 2) will encompass approximately 830 acres. The Development Area represents Sylvan Solar’s anticipated maximum number of developed acres within the Project boundary in Garfield Township. As the Project approaches construction, additional engineering studies will be completed that may further refine the design shown on the attached Site Plan. Typical changes include shifting equipment within the Development Area, changes to the Project substation and gen-tie line orientation in coordination with the utility, and a potential reduction of the area within the perimeter fence line. These changes will be minimal, result in the same or lesser

environmental and social impact, and are typical of solar project development. Sylvan Solar will coordinate a pre-construction meeting with Garfield Township to review the final Site Plan.

The Development Area (830 acres) includes the following Project components (Site Plan, Attachment 1):

- PV solar arrays,
- inverter skids that will house inverters and medium voltage step-up transformers,
- underground MV collection lines,
- gravel access roads,
- meteorological stations,
- security fencing and gates,
- stormwater management system,
- Project substation and control room housing the supervisory control and data acquisition (SCADA) system,
- <500-foot-long overhead HV gen-tie line between the Project substation and utility-owned switchyard,
- temporary construction laydown areas,
- operations and maintenance (O&M) building, which will be located within a proposed construction laydown area near the substation or utilize an existing building within the Project area, and
- utility-owned and operated switchyard and overhead HV gen-tie.

The PV solar arrays will occupy a significant portion of the parcels at full build-out. The solar arrays will convert sunlight into DC electricity, which is conveyed to an inverter. The inverter will convert the DC power to AC power, which will then flow to the medium-voltage transformers. The MV collection lines will be installed to connect the blocks of solar panels and will transport electricity from the PV solar arrays to the proposed Project substation in Garfield Township.

During construction, temporary laydown areas, construction trailers, and parking areas will be located within the Project area. Fencing, lighting in select areas (i.e., Project substation and O&M building), and electronic security systems will secure the Project facilities. The perimeter fence will be an approximately 8-foot-high woven wire fence. Security fencing around the Project substation and utility-owned switchyard will consist of a 7-foot-tall chain link fence topped with a 1-foot barbed wire strand per the National Electrical Safety Code (NESC).

During the operation of the Project, downlit, dark-sky friendly security lighting will be installed at the O&M building and Project substation. The Project's O&M building will be located either within a laydown area near the substation or in an existing building within the Project area, and will include maintenance facilities, restrooms, and ancillary support systems such as component storage.

2.3 Project Construction

Construction of the Project is anticipated to commence in mid-2027 with commercial operations expected to begin in late 2028. Sylvan Solar anticipates that construction will likely take 19 months to complete.

Mobilization activities may include but are not limited to:

- Locating and marking existing utilities;
- Delineating the limits of construction disturbance areas by surveying, flagging, and staking;
- Installing stabilized construction entrances and sediment control Best Management Practices (BMPs);
- Installing any necessary temporary security fencing;
- Adding gravel and grading the temporary laydown areas for office trailers, storage of construction materials and shipped equipment containers, receiving construction deliveries, and temporary parking for Project-related vehicles;
- Mobilizing office trailers and construction equipment;
- Receiving material deliveries; and
- Surveying and marking the locations of access roads, solar arrays, collection system, and gen-tie line alignment.

Construction activities may include but are not limited to:

- Installing erosion and sediment control BMPs per applicable permit requirements;
- Recontouring and grading land where necessary within the solar arrays and Project substation;
- Constructing access roads;
- Installing fencing, inverters, and transformer pads;
- Pile driving and installation;
- Installing the racking system and solar modules;
- Installing inverters;
- Installing MV collection system and communication lines;
- Installing the communications shelter; and
- Installing gen-tie line (right of way preparation, foundation installation, tower installation, attach cross-arms or davit arms and insulators, and conductor stringing onto the structures) and constructing Project substation.

Sylvan Solar anticipates the Project to generate approximately 530 temporary construction jobs on-site at the peak of the construction of the Project, which accounts for over half of the anticipated average annual 1,085 total net jobs supported during construction as described in Section 5.2 of this Application. Generally, the number of construction workers on-site will be lower in the early stages of pre-construction activities, approximately several dozen, and will peak during the concurrent and phased installation of Project components. As construction of the Project components ends and commissioning and restoration activities begin, the number of workers on-site will decrease.

Sylvan Solar estimates that semi-trucks will be used for bulk load equipment delivery during construction. Higher volumes of semi-truck traffic will occur for delivery of piles, trackers and modules at the peak of construction. Light duty trucks and/or passenger vehicles will also be used to transport construction workers to and from the site daily. Workers may be responsible for their own transportation, and/or the Engineering, Procurement, and Construction (EPC) contractor may transport groups of workers to the site. Traffic impacts from construction and operation of the Project are described in the Traffic Impact Statement (Attachment 3).

The Project area will be seeded to minimize dust and erosion during construction. As portions of the Project near completion, demobilization of equipment and restoration of the temporary laydown yards and other temporary disturbance areas will occur. This includes final grading, decompacting soils, and establishing vegetation in accordance with the Project's Vegetation Management Plan (VMP; Attachment 4). The VMP includes guidelines and recommendations regarding site preparation, seed mixes, management of invasive species and noxious weeds, and ongoing management and monitoring after construction. Note that the VMP is subject to change and will be updated in accordance with Garfield Township's Zoning Ordinance after ongoing consultation with appropriate stakeholders and review by Sylvan Solar's construction contractors.

2.4 Project Operation

Once operational, power production for the Project will be remotely operated and monitored 24 hours per day via the SCADA system housed in the control room at the Project substation. Additionally, the Project is projected to support four full-time onsite O&M employees, which are included as part of the net 10 full-time jobs expected to be generated during Project operations as described in Section 5.2 of this Application. O&M employees will be on-site on business days and as necessary, to complete maintenance and operational activities. As described in the Traffic Impact Statement (Attachment 3), O&M employees are anticipated to visit each site entrance approximately five times per day in light duty trucks. This level of traffic is compatible with existing traffic patterns and is not expected to have an adverse impact on daily traffic.

2.5 Decommissioning

The Project lifespan is currently expected to be 35 years. At the end of the Project lifespan, the Project will be re-powered or will be decommissioned as outlined in landowner lease agreements and the Decommissioning Plan (Attachment 5), which involves removing and disposing of aboveground Project equipment and restoring the land to pre-construction conditions to the extent possible. Per Section 18.19(B)(s)(1) of the Garfield Township Zoning Ordinance, the Applicant will post financial assurance at the start of construction that covers the net cost of decommissioning equipment within parcels not enrolled in Public Act (PA) 116. At the time of this Application, approximately 388 acres of the Development Area in Garfield Township are not enrolled in PA 116 or are included in the Project substation and utility-owned switchyard parcel. In accordance with PA 116, a separate decommissioning bond will be posted with the

Michigan Department of Agriculture and Rural Development (MDARD) to cover the costs of removing equipment and restoring the remaining acres of land enrolled in PA 116.

To provide for an accurate financial assurance amount at the time of construction, the Applicant will hire an independent, third-party registered engineer to update the net decommissioning cost estimate and provide to Garfield Township prior to construction, after equipment has been procured and with up-to-date information on lands enrolled in PA 116 at the time of construction. Refer to Section 4.19 and Attachment 5 of this Application for additional details on the decommissioning phase of the Project.

3 Environmental Studies

The Applicant completed various surveys and studies to support Project design (see the summary table below for relevant studies). The layout and siting of the Project has been and will continue to be designed based on the following considerations:

Table 2 Environmental Studies

Study Completed	Project Status
Wetland Delineation – Completed July 2024 (Figure 3)	A wetland delineation was completed per the standards outlined in the U.S. Army Corps of Engineers (USACE) 1987 Manual and Regional Supplement. The MV lines crossing Newaygo County drains will be bored in accordance with Newaygo County Drain Commission crossing standards and will not impact the drains. Sylvan Solar designed the Project to meet Garfield Township's 75-foot setback requirement between solar panels and regulated wetlands, streams, lakes, and county drains. All impacts, permanent and temporary, to regulated wetlands and surface waters will be permitted through the Department of Energy, Great Lakes, and the Environment (EGLE) and the Newaygo County Drain Commission, as applicable.

Study Completed	Project Status
Qualitative Habitat Assessment (QHA) – Completed July 2024 (Figure 3)	A QHA was completed by recording habitat types within the Project area and determining if the present habitat can support federal and state threatened and endangered species. The Project area in Garfield Township contains potentially suitable habitat for the Northern Long-Eared Bat (NLEB; federally listed as endangered). Forested areas were excluded from the Project design, and Sylvan Solar will follow U.S. Fish and Wildlife Service (USFWS) guidelines to avoid impacts to NLEB. A consultation letter dated July 1, 2025, generated by the USFWS Michigan Ecological Field Office indicates that Project activities are Not Likely to Adversely Affect or have No Effect on federally listed species (Attachment 8). Sylvan Solar will continue coordinating with the USFWS and Michigan Department of Natural Resources (DNR) as the design progresses to avoid or minimize impacts to federal and state-listed species.
Cultural Resources Desktop Report & Survey – Completed March 2025	A Cultural Resources Desktop Report identified areas with high probability of containing archeological artifacts in September 2023. Field surveys of the high probability zones were completed in November 2024 and March 2025. Seven historic farmstead sites were identified in the field survey, and Sylvan Solar elected to voluntarily avoid these areas in the Project design. Sylvan Solar will implement an Unanticipated Discovery Plan that outlines methods to address potential effects to any significant archaeological sites if cultural materials are discovered during ground-disturbing activities associated with Project construction.
Hydrology Study – Completed December 2024 Stormwater Pollution Prevention Plan (SWPPP)	The Project does not propose construction within the FEMA Floodplain. Detailed Project design is ongoing. A Soil Erosion and Sedimentation Control Permit and Construction Stormwater Permit are required for construction disturbing more than 1 acre of land within 500 feet of a lake or stream. The results of the Hydrology Study will be utilized to develop a SWPPP to National Pollutant Discharge Elimination System and Newaygo County Drain Commission stormwater management standards for approval prior to construction.

4 Garfield Township Conditional Use Requirements

Sylvan Solar requests a conditional use for the Project area to install a Principal-use SES. A Principal-use SES is defined as a commercial, ground-mounted SES that converts sunlight into electricity for the primary purpose of off-site use through the electrical grid or export to the wholesale market. As stated in the township's SES ordinance, the Garfield Township Planning Commission may only approve a Principal-use

SES as a conditional land use in the Agricultural (AG) district subject to the procedures, standards, and requirements for conditional uses in the zoning ordinance. The proposed Project is situated entirely within the AG district (Agricultural-Enterprise and Agricultural-Residential).

A complete Garfield Township Conditional Use Permit application form is provided in Attachment 6. A detailed description confirming the Project meets Garfield Township's requirements for a Principal-use SES is included in the subsections below. These subsections include the township's requirements (text in black) and how Sylvan Solar will meet each one (text in blue).

4.1 Minimum Lot Size

Requirement: A Principal-use SES shall not be constructed on parcels less than eighty (80) acres in size provided, however, that the Planning Commission may consider a joint application of adjacent properties so long as the total acreage of all participating parcels is not less than the minimum acreage provided for in this section.

The Project is proposed on the parcels depicted on Sheet 1 of the Site Plan (Attachment 1). The total acreage of the parcels is greater than 80 acres. The total acreage of leased parcels in Garfield Township is 1,383 acres, and the total fenced area is 830 acres.

4.2 Height

Requirement: Total height for a Principal-use SES shall not exceed sixteen (16) feet measured from the ground to the top of the system when oriented at maximum tilt.

The total height of the PV solar panels will not exceed 16 feet measured from the ground to the top of the system when oriented at maximum tilt. Based on the anticipated racking system and module specifications, the height of the solar panels at maximum tilt is estimated to be approximately 9 feet on average above the ground surface.

4.3 Setbacks

Requirement: Setback distance shall be measured from the property line or road right-of-way to the closest point of the solar array at minimum tilt or substation and as follows:

1. Fifty (50) feet from any property line of a non-participating lot;
2. For Principal-Use SES with an output capacity greater than 50 megawatts, Seventy-Five (75) feet from any public or private right-of-way or easement;
3. Three hundred (300) feet from any existing non-participating dwelling unit;
4. A Principal-use SES is not subject to property line setbacks for common property lines of two or more participating lots, except that road right-of-way setbacks shall apply; and
5. Seventy-five (75) feet, or such other setback as may be required by the Newaygo County Drain Commission, from a stream, river, pond, lake, wetland, drain, or lands located within a 100-year floodplain as identified by the Federal Emergency Management Agency.

The Project proposes to meet or exceed the setback requirements from non-participating property lines by incorporating the following:

- a 50-foot setback between the perimeter fence line and adjacent, non-participating property lines with a primary agricultural use, and
- a 100-foot setback between solar panels and other aboveground Project equipment and adjacent, non-participating property lines with a primary residential use.

In addition, the Project meets the 75-foot setback requirements between the perimeter fence line and Township road rights-of-way, and regulated wetlands, lakes, streams, and Newaygo County drains. The Project's perimeter fence line will meet the 300-foot setback from existing occupied dwellings on adjacent non-participating parcels. The Project does not involve development within 75 feet of a 100-year FEMA floodplain.

4.4 Fencing

Requirement: A Principal-use SES shall be secured with perimeter fencing to restrict unauthorized access. Perimeter fencing shall be eight (8) feet in height. All access doors to Principal-use SES and related components and structures shall be locked to prevent entry by unauthorized persons. Fencing is not subject to setbacks as a component of the Principal-use SES. The Planning Commission may require wildlife-friendly fencing with openings that allow wildlife (except for deer) to traverse over or through a fenced area or Knox boxes and keys for emergency personnel access.

The Project design includes security fencing and locked gates to restrict unauthorized access per the NESC. Sylvan Solar has initiated conversations and will continue to coordinate with local emergency personnel to provide access to the Principal-use SES in the event of an emergency.

The Project's perimeter fencing will be 8 feet in height. Sylvan Solar proposes an open style, woven wire fence to allow smaller wildlife to pass through gaps at the bottom of the fence. The post material for the woven wire fence will be either wood or steel, depending on availability and costs of materials closer to construction (refer to Attachment 1 for the proposed fencing diagram).

The substation fencing will also be 8 feet in height, consisting of a 7-foot-tall chain-link fence with 1-foot barbed wire at the top, per the requirements of the NESC.

4.5 Screening/Landscaping

Requirement: A Principal-use SES shall be buffered by installed trees and/or native vegetative plantings to provide for a visual buffer between the solar facility and (a) an adjacent public right of way, and (b) any adjacent, occupied residential structure existing on a non-participating parcel as of the date of Planning Commission approval of the Principal-use SES. Any required screening and landscaping shall be placed outside the perimeter fencing.

1. When current zoning district screening and landscaping standards are determined to be inadequate based on a legitimate purpose consistent with Township planning documents, the Planning Commission may require substitute screening.
2. The Planning Commission may reduce or waive screening requirements provided that any such adjustment is in keeping with the intent of this Ordinance.

3. Screening and landscaping details shall be submitted as part of the site plan that identifies the type and extent of screening for a Principal-use SES, which may include planting, strategic use of berms, and fencing.

Sylvan Solar will install residential landscape screening and public roadway screening to meet Garfield Township requirements. Residential landscape screening, in the form of tree and shrub species ranging up to approximately 20 feet tall at mature height will be installed between the Project and adjacent, non-participating residential dwellings. The majority of the proposed tree and shrub species are fast-growing and are expected to reach mature height in 3 to 5 years. Screening along public roadways will include planting a tall pollinator seed mix, with an average height of 4 feet, up to a maximum height of 6 feet. The tall pollinator mix is anticipated to take 3 years to fully establish.

Proposed landscape screening areas are shown as green (residential screening) and pink (native vegetative planting) linear areas on the Site Plan (Attachment 1) and described further in the VMP (Attachment 4, Figure 6). The VMP includes a list of proposed tree and shrub species to be used as residential landscape screening and provides details of the tall pollinator seed mix.

Visual renderings of the Project during the operation stage from representative vantage points within the Project area that show the proposed residential and roadway screening at mature height are provided in Attachment 7.

4.6 Ground Cover

Requirement: Principal-use SES shall include the installation of ground cover vegetation maintained for the duration of the operation until the site is decommissioned. The application shall include a ground cover vegetation establishment and management plan as part of the site plan. The following standards apply:

1. Sites bound by Farmland Development Rights (PA 116) Agreement must follow the Michigan Department of Agriculture and Rural Development's (MDARD) Policy for Allowing Commercial Solar Panel Development on PA 116 Lands.
2. Ground cover at sites not enrolled in PA 116 must implement one or more of the four types of Dual Use defined in this ordinance:
 - i. Pollinator Habitat,
 - ii. Conservation Cover,
 - iii. Forage, and
 - iv. Agrivoltaics.
3. Project sites that are included in a brownfield plan adopted under the Brownfield Redevelopment Financing Act, PA 381 of 1996, as amended, that contain impervious surface at the time of construction or soils that cannot be disturbed, are exempt from ground cover requirements.

As described in the VMP (Attachment 4), Sylvan Solar will implement conservation cover (option ii listed above) in accordance with the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Code 327 (Conservation Cover). Sylvan Solar will restore native plants,

grasses, and prairie in consultation with the NRCS with the goal of protecting beneficial species habitats and providing ecosystem services through improved soil health. Sylvan Solar will apply the Conservation Cover seed mix (array seed mix) to the solar array areas and perimeter areas of the Project, including the parcels enrolled in PA 116 in accordance with MDARD's Policy for Allowing Commercial Solar Panel Development on PA 116 Lands.

The Project area does not include sites with brownfield plans adopted under the Brownfield Redevelopment Financing Act, PA 381 of 1996.

4.7 Lot Coverage

Requirement: The total area of a single Principal-use SES, including all components, shall not exceed 1,500 acres in total size on all participating lots.

The Project area within Garfield Township will not exceed 1,500 acres. The proposed Project design indicates that the Development Area within the perimeter fencing, including the Project substation and utility-owned switchyard, totals approximately 830 acres.

4.8 Land Clearing

Requirement: Land disturbance or clearing shall be limited to what is minimally necessary for the installation and operation of the SES and to ensure sufficient all-season access to the solar resource given the topography of the land. Topsoil distributed during site preparation on the parcel shall be retained on site.

Sylvan Solar will limit land disturbance and vegetation clearing to what is minimally necessary for the installation and operation of the Project. The Site Plan (Attachment 1) depicts the maximum extent of acres required for the Project; as additional engineering studies are completed, the size of the Project may reduce further prior to construction.

Sylvan Solar will obtain all applicable permits related to land disturbance, including preparing a SWPPP and obtaining a Soil Erosion and Sedimentation Control Permit prior to construction. Any excavated or graded topsoil will be retained and remain within the Project area in Garfield Township.

4.9 Environmental Impact

Requirement: The Planning Commission shall review potential impacts on wildlife, water, and other environmental factors present on the site. The Principal-use SES applicant must provide all permits and related information from state and federal agencies.

Sylvan Solar has completed several environmental studies which demonstrate how the Project was designed to avoid or minimize impacts to sensitive environmental features (See, Section 3 of Application). Notably, the Project avoids potential suitable habitats for federal- and state-listed species (refer to Attachment 8 for the USFWS consultation letter), avoids historic farmstead sites identified during the cultural survey, and incorporates the 75-foot setback between solar panels and regulated wetlands, streams, lakes, and Newaygo County drains to avoid or minimize potential impacts to these features. In addition, based on feedback received during the first open house, Sylvan Solar adjusted the perimeter fencing to allow for additional space for wildlife corridors. Finally, though a few isolated individual trees may need to be cleared pending the final design, a significantly larger number of trees will be planted as part of the vegetative screening.

As required by federal, state, and local regulations, Sylvan Solar will obtain the necessary permits or approvals for the Project prior to construction as detailed in the Project's Permit Matrix (Attachment 8).

4.10 Access Drives

Requirement: The Principal-use SES applicant must maintain an emergency access road to the site that is accessible to Fire Department response apparatus. All access drives within the SES shall be designed to minimize the extent of soil disturbance, water runoff, and soil compaction on the premises. The use of geotextile fabrics and gravel placed on the surface of the existing soil for the construction of temporary drives during the construction of the SES is permitted, provided that the geotextile fabrics and gravel are removed once the SES is in operation.

Sylvan Solar will establish 16-foot-wide internal access roads throughout the Project area with turnaround areas that will be accessible to the local fire departments (Site Plan, Attachment 1). Access drives will be designed to minimize the extent of soil disturbance, water runoff, and soil compaction in accordance with the Soil Erosion and Sedimentation Control Permit and SWPPP.

Sylvan Solar does not currently anticipate the need for temporary access roads during construction; however, should temporarily access roads be required, geotextile fabrics and gravel placed for the construction of temporary drives will be removed once the SES is in operation.

4.11 Wiring

Requirement: SES wiring, including communication lines and distribution lines, shall be co-located on existing poles wherever possible. Any above-ground wiring components within the footprint of the SES shall not exceed the height of the solar array at maximum tilt.

All proposed MV collection lines for the Project that connect the solar arrays to the Project substation will be underground and will not exceed the height of the solar array at maximum tilt. The exception to this will need to be where the MV lines are required to be aboveground to connect to the Project substation. The aboveground DC wiring between solar panel rows will not exceed the height of the solar array at maximum tilt.

In addition, Sylvan Solar will install a <500-foot-long overhead HV gen-tie line between the proposed Project substation and the utility-owned switchyard, which will connect the power generated by the Project to the existing 345-kV Ludington to Kenowa overhead transmission line. At its maximum height, the overhead HV gen-tie line will be approximately 100 feet tall as required to match the height of the existing Ludington to Kenowa overhead transmission line.

4.12 Lighting

Requirement: Principal-use SES lighting shall be limited to inverter and/or substation locations, site entrance locations, and operations and maintenance buildings only. Light fixtures shall have downlit shielding and be placed to keep light on-site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited.

Sylvan Solar will install lighting at the following Project locations: the Project substation and the O&M building. Light fixtures will have downlit shielding and be placed to keep light on-site and glare away from adjacent properties, surface waters, and adjacent roadways. No flashing or intermittent lights are proposed.

4.13 Glare

Requirement: All solar energy system location/tilt components shall be designed, maintained and operated to avoid glare and reflection of sunlight and other artificial lighting which may affect navigation by air, water, and roadway. Solar energy system designs shall comply with all Federal Aviation Administration (FAA) siting requirements. Glare and reflection of sunlight from any component of a solar energy system shall not have a negative impact on any non-participating property.

Sylvan Solar completed a Glint/Glare Study to assess the potential for glare and reflection of sunlight from the Project area. Using the ForgeSolar analysis tool, the solar array blocks and elevations were modeled to evaluate potential glint and glare throughout the year based on observation points represented by the nearby non-participating residences and adjacent roadways. The study showed no glare at adjacent, non-participating residences and no adverse impacts to adjacent roadways.

In addition, the ForgeSolar tool indicated that the Project complies with FAA siting requirements. Based on the distance from the nearest airport, the topography, and the anticipated height of Project equipment, the Project area in Garfield Township does not trigger the Notice Criteria for the FAA.

4.14 Public Safety

Requirement: Principal-use SES shall have an emergency shutdown procedure in place and shall provide the local fire department site safety plans to include electrical, fire, smoke, and hazardous materials release, emergency response protocols and identification of typical hazards related to, electrical, fire, smoke and hazardous materials pertinent to the facility. Principal-use SES projects shall provide each affected local fire department with any special equipment reasonably required, in the discretion of the chief local fire official, to safely and efficiently extinguish fires at the facility site. At the Township's request, all Principal-use SES facilities shall provide first responder training at the site.

Sylvan Solar will have an emergency shutdown procedure in place and will provide a site-specific Emergency Response Plan to the Newaygo and Fremont fire departments prior to construction that includes contingencies for hazards including electrical, fire, smoke, and hazardous materials release. The site-specific safety plan will include identification of typical hazards related to electrical, fire, smoke and hazardous materials, and describe emergency response protocols.

Sylvan Solar has initiated discussions with the Newaygo County Emergency Services Department and the Fremont Fire Department regarding the Project and will coordinate with Newaygo Fire Department and Fremont Fire Department to identify and provide needed equipment prior to Project construction. Sylvan Solar will provide training applicable to the site-specific safety plan at the Applicant's expense for local emergency response groups.

4.15 Signage

Requirement: No advertising or non-project graphics are permitted on any part of the solar arrays or other components of the USES. Entrance gate signs, directional signs or other information that may be required by authorities having jurisdiction over such electrical operations or for the safety and welfare of the public, are permitted.

Sylvan Solar will not allow advertising or non-Project graphics within the Project area. Entrance gate signs that provide relevant contact and safety information, directional signs, and other safety signage will be installed during construction and operation of the Project.

4.16 Noise

Requirement: The sound pressure level of a Principal-use SES and all ancillary solar equipment shall not exceed fifty-five (55) dBA at the property line of an adjoining non-participating lot or at a public or private road right-of-way or easement.

The noise modeling memo (Attachment 9) shows that operation of the solar generation facility will not exceed 55 dBA at the property line of adjacent, non-participating parcels or at public road rights-of-way. The highest levels of modeled noise at an adjacent, non-participating property line and public road right-of-way were below 50 dBA. The modeled distance from the inverters to the 55 dBA contour typically ranges from 22 to 28 meters (72 to 92 feet) depending on the overlapping effects of the other inverters.

Construction noise impacts are anticipated to be temporary, intermittent, limited to daytime hours, and localized. The noise from construction activities would dissipate with distance and may be audible at varying decibels, depending on the distance from the equipment to the receptor. Construction activity for the Project will be limited to daytime hours to minimize potential impacts to neighboring properties

4.17 Inspection

Requirement: The Township shall have the right, upon approving any principal use SES, to inspect the premises on which the SES is located upon reasonable notice during normal business hours.

Sylvan Solar will comply with Garfield Township's inspection requirement as stated above.

4.18 Repowering

Requirement: In addition to repairing or replacing SES components to maintain the system, a Principal-use SES may at any time be repowered, without the need to apply for a new special land use permit, by reconfiguring, renovating, or replacing the SES to increase the power rating within the existing footprint. A proposal to change the project footprint of an existing SES shall be considered a new application, subject to the conditional use standards at the time of the request.

Sylvan Solar will comply with Garfield Township's repowering requirement as stated above. If at the end of the anticipated 35-year lifespan of the Project, it is economically viable to continue producing power and participating landowners wish to continue leasing the land, Sylvan Solar will engage with local officials and the community to inform and request feedback prior to repowering. Sylvan Solar acknowledges that proposing to expand the Project footprint would require a new application.

4.19 Decommissioning

Requirement: A decommissioning plan is required at the time of application.

1. The decommissioning plan shall include at a minimum:

- i. A written description of the proposed service life of the Principal-use SES,

- ii. The anticipated manner in which the project will be decommissioned, including a description of which above-grade and below-grade improvements will be removed, retained (e.g., access drive, fencing), or restored for viable reuse of the property consistent with the zoning district,
 - iii. The projected decommissioning costs prepared by an independent third-party Registered Engineer for removal of the SES (net of salvage value in current dollars) and soil stabilization, less the amount of the surety bond posted with the State of Michigan for decommissioning of panels installed on PA 116 lands, and
 - iv. The method of ensuring that, prior to commencing construction, funds will be available to cover 100% of the costs of site decommissioning and stabilization from an acceptable source as determined by the Planning Commission (in the form of surety bond, irrevocable letter of credit, or cash deposit).
2. A review of the amount of the performance guarantee based on inflation, salvage value, and current removal costs shall be completed every five (5) years, for the life of the project, and approved by the Planning Commission. An SES owner may at any time:
- i. Proceed with the decommissioning plan approved by the Planning Commission under this section and remove the system as indicated in the most recent approved plan, or
 - ii. Amend the decommissioning plan with Planning Commission approval and proceed according to the revised plan.
3. Decommissioning an SES must commence when the soil is dry to prevent soil compaction and must be complete within eighteen (18) months after abandonment. An SES that has not produced electrical energy for twelve (12) consecutive months shall prompt an abandonment hearing.
- i. An abandonment hearing shall be held as a public hearing in the same manner the use was established at the Planning Commission. During the hearing, the Planning Commission will hear comments and make a determination if the SES has been abandoned. If the Planning Commission determines the SES has been abandoned, the decommissioning shall immediately proceed as described within the approved decommissioning plan.

Sylvan Solar prepared a Decommissioning Plan (Attachment 5) in accordance with the requirements stated above. An independent, third-party registered engineer estimated the total decommissioning costs, salvage value estimates, and net decommissioning costs for the portion of the Project in Garfield Township that is not enrolled in PA 116 per Table 3.

At the time of this Application, approximately 388 acres (46.8%) of the Development Area in Garfield Township are not enrolled in PA 116; this acreage includes the Project substation and utility-owned switchyard. As such, the net decommissioning cost estimate for Project components in these 388 acres would be approximately **\$3,039,000**.

Table 3 Decommissioning Cost Estimates

Decommissioning Cost Estimates		Total
Total Estimated Decommissioning Cost (excl. PA 116 Land)		\$4,511,000
Total Estimated Salvage Value (excl. PA 116 Land)		\$1,472,000
Net Estimated Decommissioning Cost for Garfield Township (excl. PA 116 Land)		\$3,039,000

Sylvan Solar will provide financial assurance prior to commencing construction in the form of a self-bond, surety bond, or letter of credit. Financial assurance will be maintained during the deferment period after initiation of construction activities, unless there is abandonment or decommissioning of the Project prior to that time.

To provide an accurate financial assurance amount at the start of construction, the Applicant will hire an independent, third-party registered engineer to update this net decommissioning cost estimate after equipment has been procured and with up-to-date information on the acreage enrolled in PA 116 at the time of construction. In accordance with PA 116, a separate decommissioning bond will be posted with MDARD to cover the costs of removing equipment and restoring the remaining acres of land enrolled in PA 116.

4.20 Transfers

Requirement: The owner of a Principal-Use Solar Energy System shall provide written notice of any assignment of the assets comprising the Principal-Use Solar Energy System to a third party within 60 days of consummating such assignment. Any assignment must include an express written agreement that the new owner agrees to carry out the terms of the conditional use and site plan approval.

Sylvan Solar will comply with Garfield Township's written notice requirement as stated above.

5 Community Engagement

AES is committed to ensuring communities are informed and heard throughout the development of our projects. Our Stakeholder Engagement and Communications team exists to serve this purpose, engaging as early and often as possible, maintaining clear and timely communications, building relationships, and fostering transparency and trust.

Our team collaborates to produce multiple means of communication for the community to participate in and voice their opinions on the Project. To date, we have sent monthly newsletters and mailings, hosted in-person meetings with neighbors, landowners, and local officials and organizations, and created a Project phone number, email, and webpage.

AES also strengthens positive impact through mutually beneficial partnerships in the communities where we work. We are currently partnering with Camp Newaygo and TrueNorth Community Services to mobilize the reforestation of the Wetland Trail and have sponsored the River Country Chamber of Commerce Gus

Macker Basketball Tournament. AES will continue partnering with organizations within the community throughout the lifetime of the Project that align with our Social Impact focus pillars:

- Accessibility to Affordable Energy and Basic Services;
- Inclusive Economic Growth & Education;
- Environmental Health; and
- Community Well-Being.

Sylvan Solar brought in the Center for Energy Education to present one Utility-Scale Solar Workshop for Public Officials on May 8, 2025, and held two Open Houses on May 13 and July 23, 2025, to answer questions and receive feedback on how the Project could best benefit and integrate into the community. Table 4 below provides a summary of comments and concerns received during the open houses, officials workshop, and community or neighbor meetings, along with Sylvan Solar's planned mitigation measures.

Table 4 Local Agency and Community Feedback

Topic	Question / Concern	Addressed in Permit Application
Loss of Farmland	Concern about removal of farmland from production and reduction in the land available to produce food.	The Project has an anticipated 35-year lifespan, at which time the Project will be decommissioned (or repowered as described in Section 4.20 of this Application). The Project's Decommissioning Plan details how the Project components will be removed and the land restored in accordance with landowner agreements. The Project allows landowners to diversify their land assets while keeping the land in families for future generations.
Wildlife Corridors and Protected Species	Concern about how fencing would affect movement of deer through project area. Concern about the Project's impact on protected species.	The fencing in the design was modified to maintain connections between forested areas where possible. For example, Project neighbor feedback was the basis for removing fencing between two forested areas south of West 80th Street and east of South Luce Avenue. A qualitative habitat assessment identified areas of potential suitable habitat for protected species. As a result of the assessment and to minimize impacts on protected species, the Project design avoids forested areas under guidance provided by the USFWS and DNR.

Topic	Question / Concern	Addressed in Permit Application
Property Values	Concern about the potential impact on property values of surrounding properties.	A Michigan- and site-specific property value study was performed to assess the potential impact to property values, which found <i>“no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm, with regard to unit sale prices or other influential market indicators.”</i> Refer to the executive summary from CohnReznick for additional details (Attachment 10).
Aesthetics / Visual Impact	Concerns and questions about how the project would change the current rural aesthetics of the area, and what the project will look like after construction.	To mitigate the potential visual impact through screening, the VMP (Attachment 4) includes descriptions of the proposed tree and shrub species that will be installed and maintained between the Project and adjacent residences where existing tree lines do not exist, and the proposed tall pollinator seed mix that will be planted and maintained between the Project and adjacent public roadways. In addition, a series of twelve (12) photo-realistic visual renderings were completed to show what the views may look like post-construction at key vantage points throughout the Project area (Attachment 7). Vantage points were selected based on topography, locations of project components, and proximity of residences. The visual renderings incorporate the proposed visual screening as described in Section 4.5 of this Application.
Site Entrances	Concern about an initial site entrance location on Warner Avenue.	Sylvan Solar initiated coordination with the Newaygo County Road Commission and will continue to coordinate as the Project approaches construction. Based on feedback from the Road Commission, one site entrance off of Warner Avenue (north of West 88 th Street in Sheridan Charter Township) was shifted to be oriented north-south off of West 88 th Street to minimize impacts to traffic and to address safety concerns.

Topic	Question / Concern	Addressed in Permit Application
Drainage	Concern about impacts to existing drain tile and access to county drains for maintenance activities.	Sylvan Solar entered into a Cooperation Agreement with the Newaygo County Drain Commission and will continue to coordinate and obtain applicable approvals from the Drain Commission as the Project approaches construction. Sylvan Solar will avoid, repair, or replace existing private drain tiles as needed during construction in order to maintain existing drainage conditions to the extent possible. In addition, the Project components will be set back 75-feet from the Newaygo County drain centerlines, and the drains will not be fenced across so as to not encumber the county's maintenance activities.
Hunting	Question about whether hunting activities will be allowed on adjacent, non-participating parcels.	The Project will not impact the uses of adjacent, non-participating parcels, including hunting activities.

5.1 Community Host Agreement

Per Section 14.28 of the Garfield Township Zoning Ordinance:

A Principal-Use Solar Energy System conditional use permit holder under Article XVIII shall enter into a host community agreement with the Township within 90 days after issuance of the permit. The host community agreement shall require that, upon commencement of any operation, the energy facility owner must pay the Township Three Thousand (\$3,000) dollars per megawatt of nameplate capacity located within the Township. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the Township and the permit holder within said 90 days.

Sylvan Solar agrees to provide a one-time payment of \$3,000 per megawatt of nameplate capacity located within the Township at the commencement of operation of the Project, to be used as agreed between Sylvan Solar and Garfield Township.

5.2 Economic Benefits

In addition to the benefits from the community host agreement, the Project is expected to bring significant economic benefits to the region. Michigan State University (MSU) Extension conducted an Economic Impact Study that identified the following economic benefits:

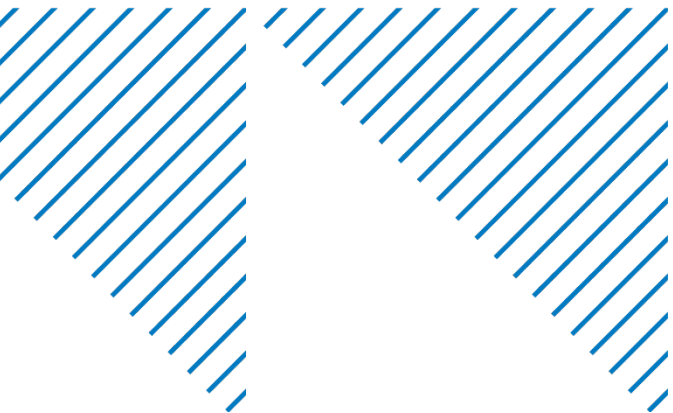
- ~\$402 million in capital investment in the Project,

- ~\$293 million in net economic benefits for southern Newaygo County,
- Approximately 1,000 net average annual jobs during construction, including construction workers and supporting employment for local businesses,
- Approximately 10 net jobs during operation, and
- Project ancillary benefits to the local community such as supporting local businesses including restaurants, convenience stores, construction equipment, building materials and lodging.

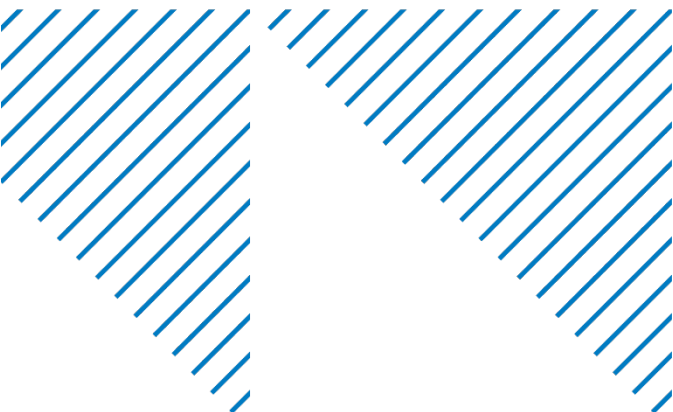
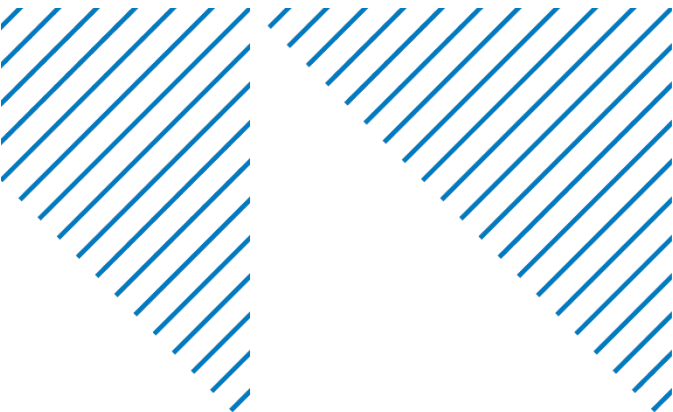
6 Conclusion

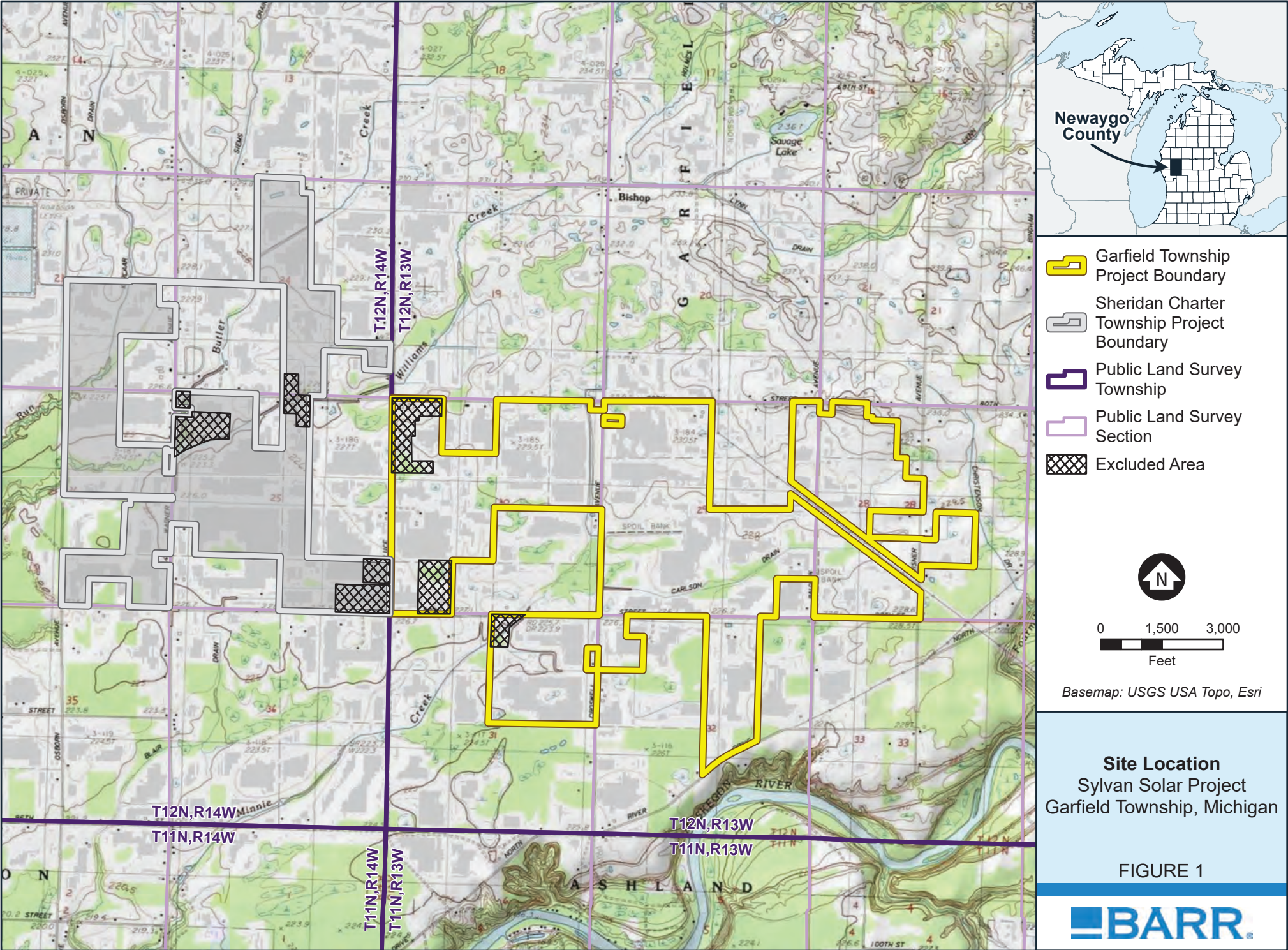
Sylvan Solar is committed to developing a Project that benefits the environment and the community of Garfield Township. The Project is designed to comply with the requirements of the Garfield Township Zoning Ordinance and SES amendment. Sylvan Solar therefore respectfully requests review and approval of the Permit application.

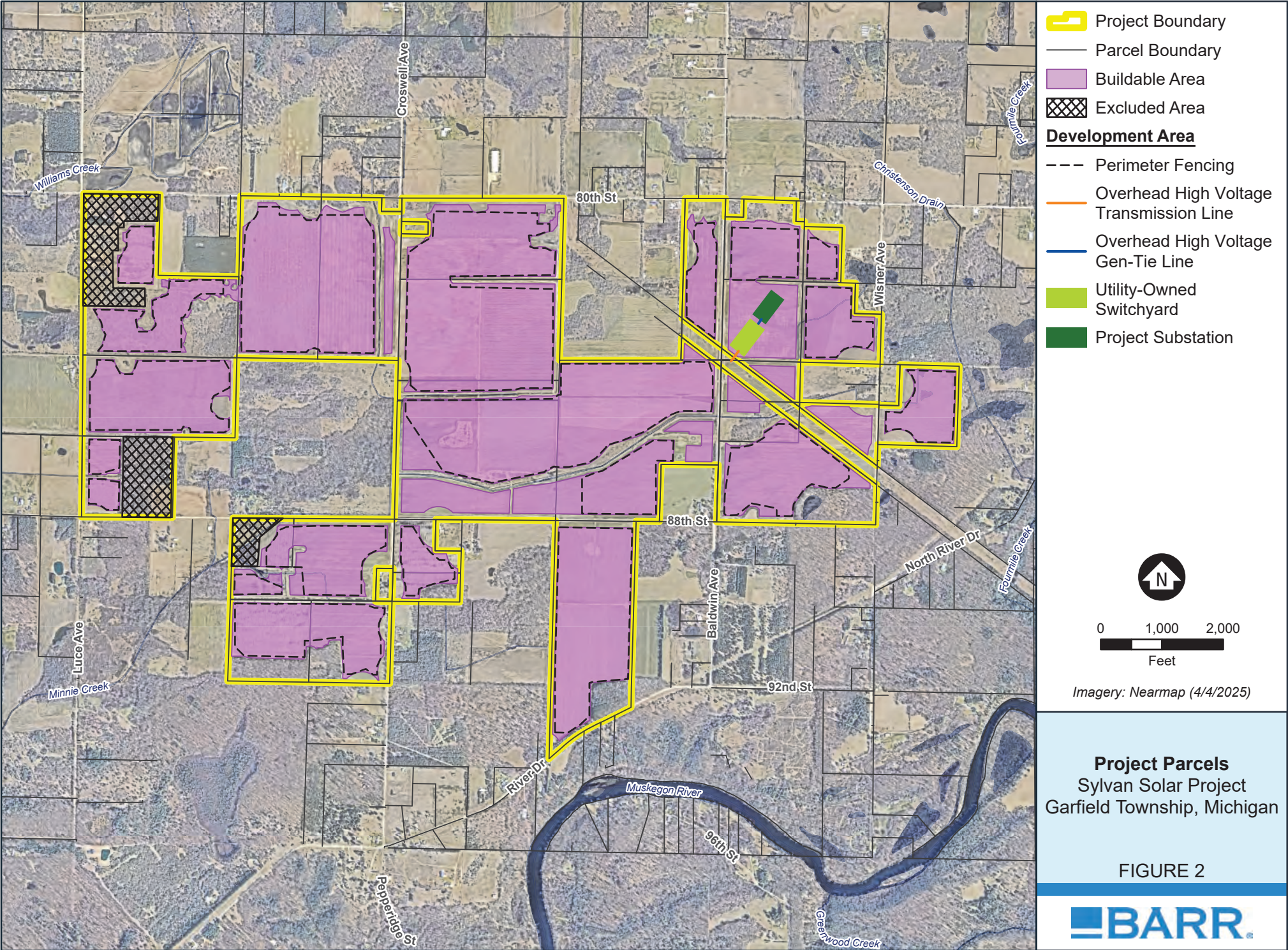
If you have any questions or require more information for the Permit application or Project, please contact Dana Schultz at (720) 416-4524 or dana.schultz@aes.com, or Lauren Colwell at (763) 269-5892 or lauren.colwell@aes.com.

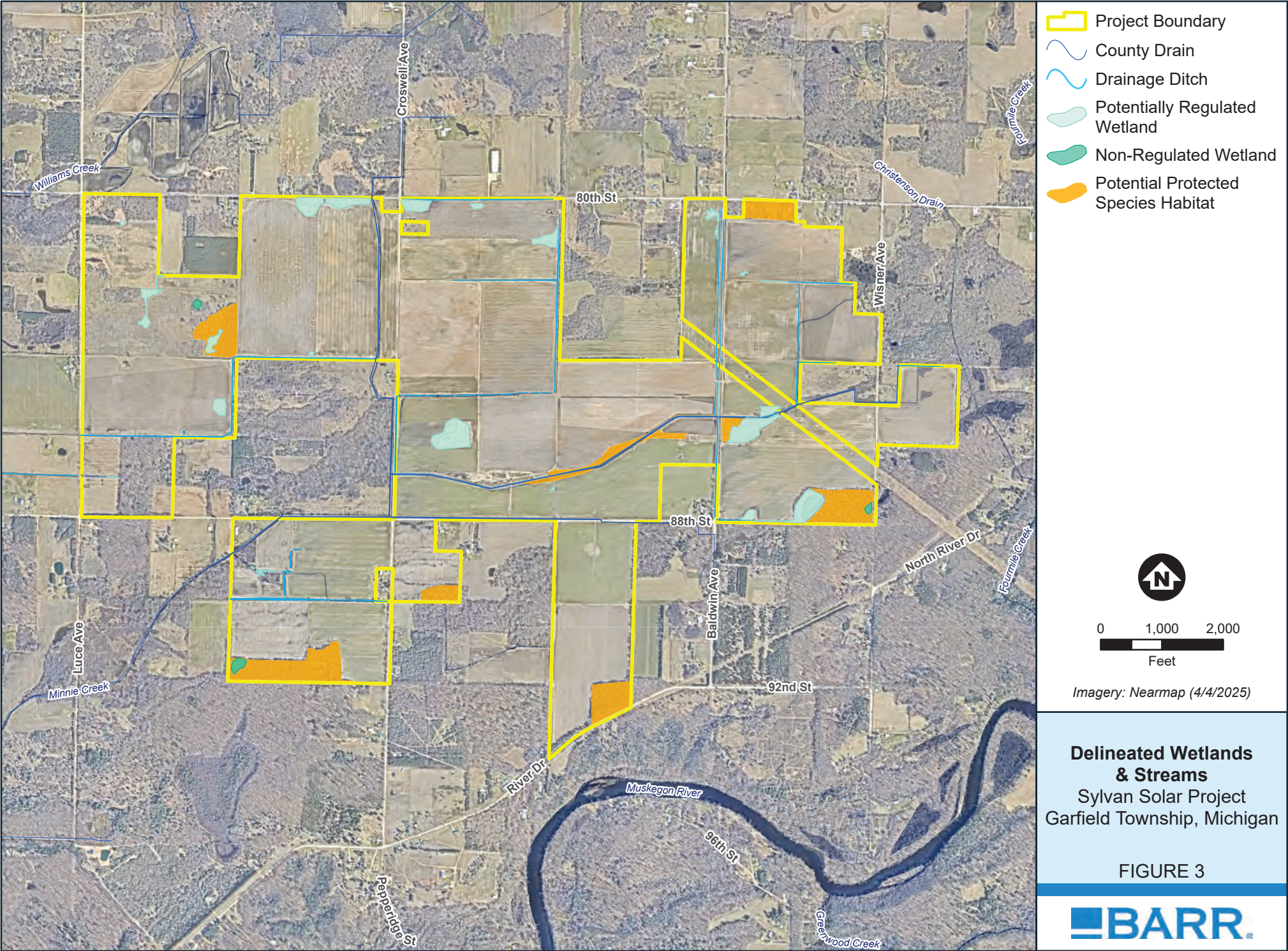


Figures



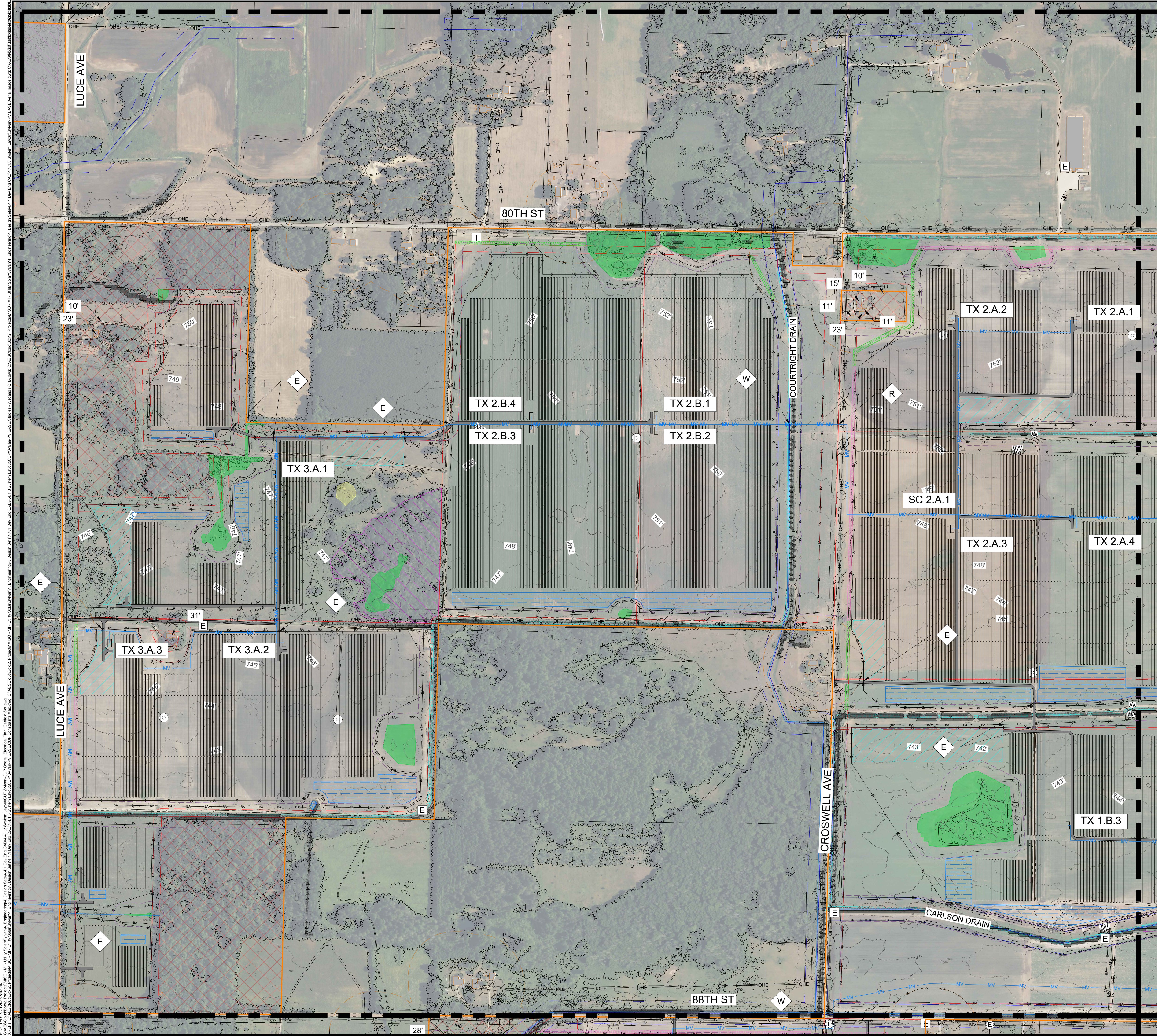








Attachment 1 - Site Plan



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SHEET NOTES

- E** SITE ENTRANCE W/ 24' GATE
- W** WETLAND/WATER UG MV CROSSING
- R** ROAD UG MV CROSSING

LEGEND

EXISTING

- AES PARCEL BOUNDARY
- AES PARCEL SETBACK
- ADJACENT PARCEL
- EXCLUDED PARCEL AREA
- MAJOR PUBLIC ROAD
- GRAVEL ROAD
- DIRT ROAD
- ROAD RIGHT-OF-WAY
- POTENTIALLY REGULATED WETLAND
- WETLAND SETBACK
- NON-REGULATED WETLAND
- WASH / DRAINAGE
- WASH / DRAINAGE SETBACK
- COUNTY DRAIN CENTERLINE
- COUNTY DRAIN SETBACK
- RIVER
- RIVER SETBACK
- WATERBODY
- 100-YEAR FLOOD BOUNDARY
- POTENTIAL PROTECTED SPECIES HABITAT
- AVOIDANCE AREA
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- ELECTRIC METER & BOX
- OVERHEAD POWER LINE & POLE
- OVERHEAD XFMR & LIGHT POLE
- UTILITY ROW
- IRRIGATION PIVOT & VALVE
- COMMUNICATIONS LINE & PEDESTAL
- FIBER LINE

PROPOSED

- SYLVAN SOLAR PROJECT BOUNDARY
- BUILDABLE AREA
- 100' EQUIPMENT SETBACK
- FENCE
- POTENTIAL STORMWATER MANAGEMENT AREA
- UTILITY SWITCHYARD
- AES SUBSTATION
- INTERIOR ROADS
- LAYDOWN AREA
- VEGETATIVE SCREENING AREA
- NATIVE VEGETATIVE PLANTING AREA
- UG MV FEEDER
- XFMR SKID
- PV PANELS

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	05/22/2025	INITIAL CUP SET
1	06/06/2025	ADDED STRUCTURE HEIGHTS
2	07/02/2025	ADDED PARCEL WITHIN SITE BOUNDARY
3	07/15/2025	REVISED BUILDABLE AREA CONSTRAINTS
4	07/28/2025	REVISED MV ROUTING & BUILDABLE AREA

PROJECT TITLE:

SYLVAN SOLAR

PROJECT LOCATION:

GARFIELD TOWNSHIP,
NEWAYGO COUNTY,
MICHIGAN 49337

SHEET TITLE & DESCRIPTION:

NORTHWEST SECTION
DETAIL VIEW

220 MW AC

PROJ
NUM:

DES: S. PERI

DWN: J. PERRINE

CHK: D. SCHULTZ

APV:

DATE: 05/22/2025

SCALE AT 24" x 36":

0 150' 300' 450' 600'

1" = 300'

SHEET NO: PV-E.01.02

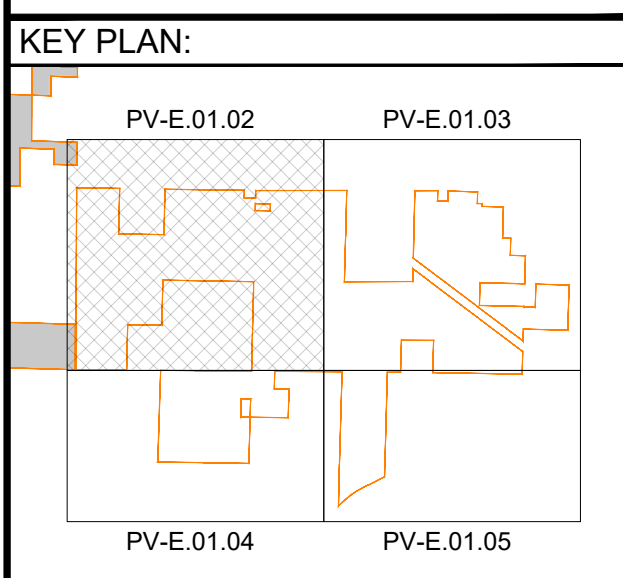
REV: 4

ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION



2180 South 1300 East, Suite 600
Salt Lake City, UT 84106-2749
(801) 679 - 3500

PE STAMP:



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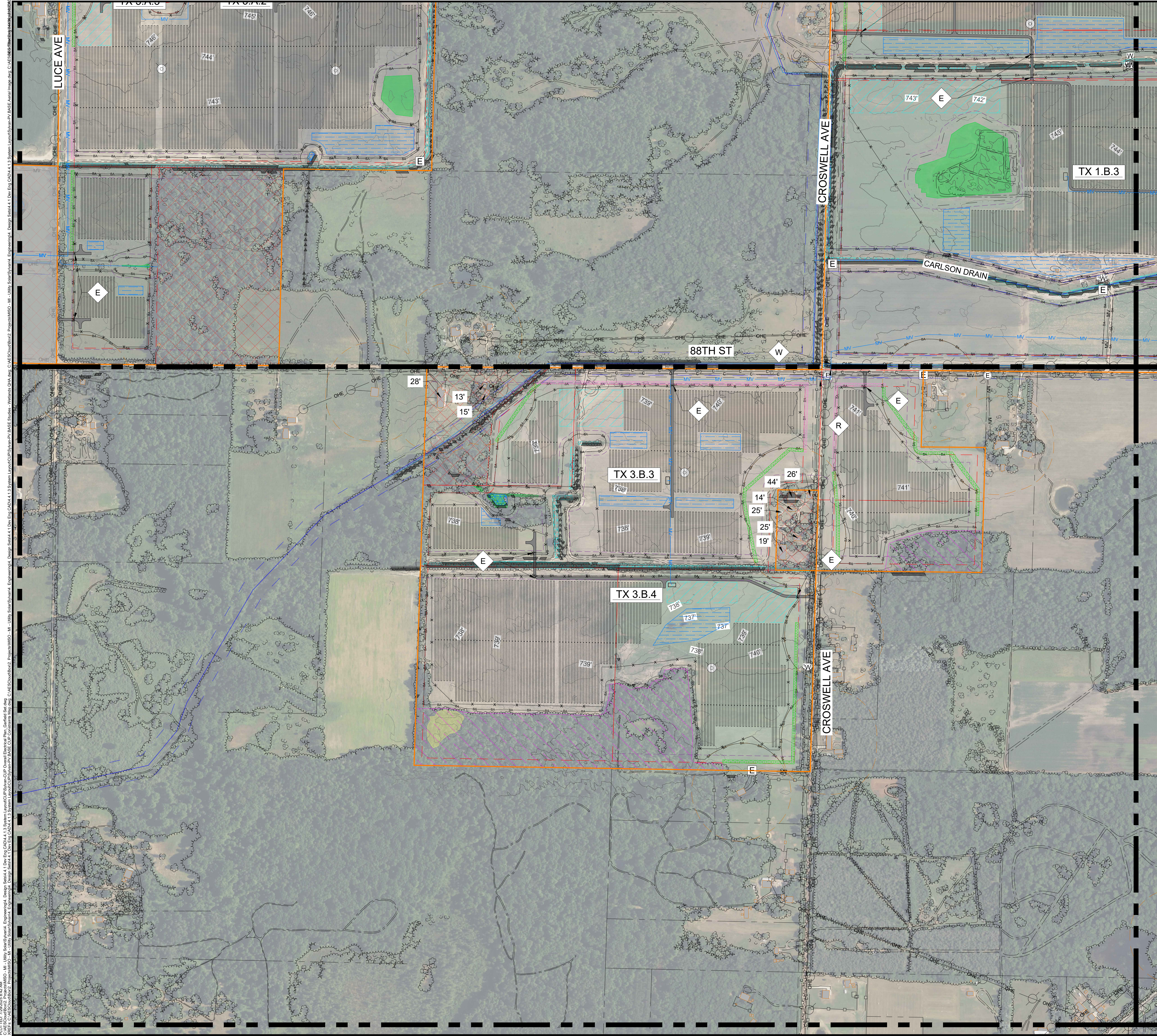
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ISSUED FOR
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2180 South 1300 East, Suite 600
Salt Lake City, UT 84106-2749
(801) 679 - 3500

PE STAMP:

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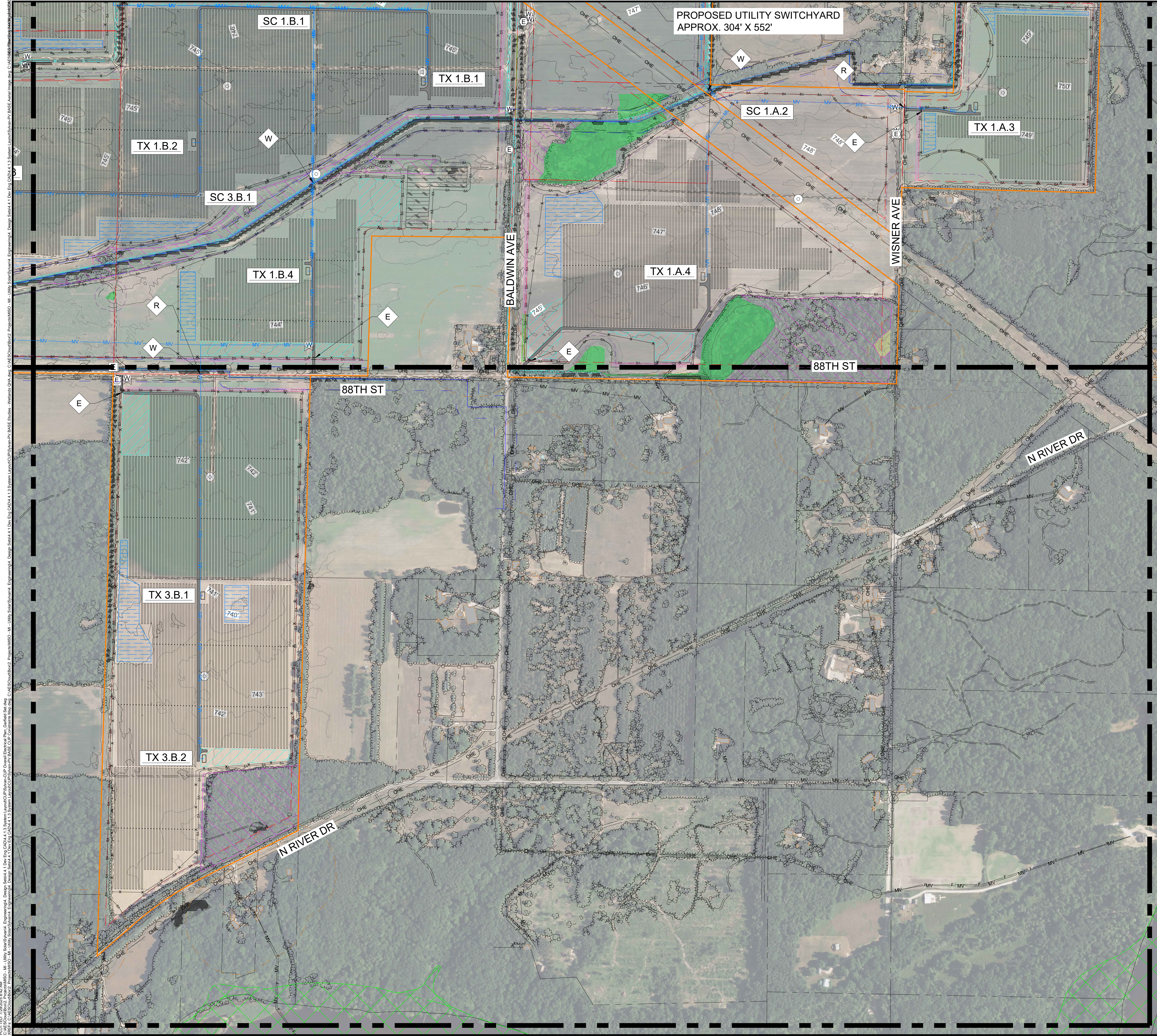
SHEET TITLE & DESCRIPTION:

**SOUTHWEST SECTION
DETAIL VIEW**

220 MW AC

PROJ NUM:	
DES:	S. PERI
DWN:	J. PERRINE
CHK:	D. SCHULTZ
APV:	
DATE:	05/22/2025
SCALE AT 24" x 36": 0 150' 300' 450' 600' 1" = 300'	

SHEET NO:	PV-E.01.04	REV:	4
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- IRRIGATION PIVOT & VALVE
- COMMUNICATIONS LINE & PEDESTAL
- FIBER LINE

PROPOSED

- SYLVAN SOLAR PROJECT BOUNDARY
- BUILDABLE AREA
- 100' EQUIPMENT SETBACK
- FENCE
- POTENTIAL STORMWATER MANAGEMENT AREA
- UTILITY SWITCHYARD
- AES SUBSTATION
- INTERIOR ROADS
- LAYDOWN AREA
- VEGETATIVE SCREENING AREA
- NATIVE VEGETATIVE PLANTING AREA
- 345KV OVERHEAD GEN-TIE LINE
- UG MV FEEDER
- OH MV FEEDER
- XFMR SKID
- PV PANELS

ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION

N

SCALE AT 24" x 36":
0 150' 300' 450' 600'
1" = 300'

DATE: 05/22/2025

2180 South 1300 East, Suite 600
Salt Lake City, UT 84106-2749
(801) 679 - 3500

PE STAMP:

KEY PLAN:

REVISIONS:		
NO.	DATE	DESCRIPTION
0	05/22/2025	INITIAL CUP SET
1	06/06/2025	ADDED STRUCTURE HEIGHTS
2	07/02/2025	ADDED PARCEL WITHIN SITE BOUNDARY
3	07/15/2025	REVISED BUILDABLE AREA CONSTRAINTS
4	07/28/2025	REVISED MV ROUTING & BUILDABLE AREA

PROJECT TITLE:
SYLVAN SOLAR

PROJECT LOCATION:
**GARFIELD TOWNSHIP,
NEWAYGO COUNTY,
MICHIGAN 49337**

SHEET TITLE & DESCRIPTION:
**SOUTHEAST SECTION
DETAIL VIEW**

220 MW AC

PROJ NUM:	
DES:	S. PERI
DWN:	J. PERRINE
CHK:	D. SCHULTZ
APV:	
DATE:	05/22/2025

SHEET NO:	PV-E.01.05	REV:	4
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PLOTTED: 7/28/2025 8:42 AM
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User: jperri
Plot Device: HP DesignJet T1100e
Plot Style: aes.ctb
Scale: 1" = 300'



- ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION



Attachment 2 – Participating Parcels

Sylvan Solar Conditional Use Permit Application

Attachment 2 – Garfield Township Participating Parcels

PARCEL ID	LANDOWNER NAME	MAILING ADDRESS	ZONING	LEGAL DESCRIPTION
62-18-31-200-015	ACRETRADER 192 LLC	26 W CENTER ST FL 2 FAYETTEVILLE AR 72701	AG-R	The N ½ of the NE ¼ of Section 31, T12N, R13W, Garfield Township, Newaygo County, Michigan. EXCEPT the W 992.5 feet of the N 790 feet. ALSO EXCEPT the S 537 feet of the E 270 feet thereof.
62-18-31-200-014			AG-R	The SW ¼ of the NE ¼ of Section 31, T12N, R13W.
62-18-31-200-012			AG-R	The S ½ of the SE ¼ of the NE ¼ of Section 31, T12N, R13W. ALSO the N ½ of the SE ¼ of the NE ¼ of said Section 31.
62-18-30-100-001	BROWN LARRY TRUST	8112 S LUCE AVE FREMONT MI 49412	AG	The W ½ of the NW ¼, also the SE ¼ of the NW ¼ of Section 30, T12N, R13W.
62-18-30-300-003	CALKINS RONALD CLIFFORD	6535 MYERS LAKE AVE ROCKFORD MI 49341	AG-R	The W ¼ of the SE ¼ of the SW ¼ and the SW ¼ of the SW ¼, Section 30, T12N, R13W.
62-18-31-200-008	SCHROCK ANDY E ET UX	9050 NATURE TRAIL FREMONT MI 49412	AG-R	W 992.5 feet of the N 790 feet of N ½ of the NE ¼ of Section 31, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-32-100-013	SCHROCK ANDY ET UX FANNIE M	9050 NATURE TRAIL FREMONT MI 49412	AG-R	The S 12 acres of the W 1105 feet of the N ½ of the NW ¼ of Section 32, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-32-100-014			AG-R	The W 1105 feet of the N ½ of the NW ¼ of Section 32, T12N, R13W, Garfield Township, Newaygo County, Michigan. Except the South 12 acres thereof. Also Excepting the following lands: The N 510 feet of the E 428 feet of the following described parcel; Land situated in the Township of Garfield, County of Newaygo, State of Michigan, described as follows: The W 1105 feet of the N ½ of the NW ¼ of Section 32, T12N, R13W, Garfield Township, Newaygo County, Michigan. Except the S 12 acres thereof.
62-18-28-100-009	VOGEL PRODUCE INC	6720 MAPLE ISLAND RD HOLTON MI 49425	AG-R	The NW ¼ of the NW ¼ of Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan EXCEPT that part described as Commencing at the NE corner of the NW ¼ of the NW ¼ of said Section 28; thence South 336 feet; thence W 140 feet; thence N 336 feet; thence E 140 feet to the Point of Beginning AND EXCEPT the W 300 feet of the N 300 feet of said NW ¼ of the NW ¼ of said Section 28.
62-18-28-100-011			AG-R	The W 620 feet of the S 900 feet of the NE ¼ of the NW ¼ of Section 28; T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-29-100-001			AG	The N ½ of the NW ¼ of Section 29, T12N, R31W, Garfield Township, Newaygo County, Michigan; EXCEPT that part commencing at the NW corner, thence S 380 feet to the place of beginning; thence E 435.6 feet, thence S 200 feet, thence W 435.6 feet, thence N 200 feet to the place of beginning.

Sylvan Solar Conditional Use Permit Application

Attachment 2 – Garfield Township Participating Parcels

PARCEL ID	LANDOWNER NAME	MAILING ADDRESS	ZONING	LEGAL DESCRIPTION
62-18-29-300-004	VOGEL PRODUCE INC	6720 MAPLE ISLAND RD HOLTON MI 49425	AG	The SW ¼ of Section 29, T12N, R13W, Garfield Township, Newaygo County, Michigan, EXCEPT the N 40 acres there.
62-18-28-100-004	VOGEL REAL ESTATE LLC	6726 LAKE DRIVE FREMONT MI 49412	AG	The SW ¼ of the NW ¼ except a triangular parcel in the NW ¼ described as commencing at the W ¼ post, thence S 88°36'32" E along the E and W ¼ line 267.41 feet N 53°02'23" W 328.8 feet to the W line, thence S 01°22'45" W along said W line 191.26 feet to beginning. Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-28-100-006			AG	The SE ¼ of the NW ¼, EXCEPT the N 495 feet of the E 440 feet thereof, Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-28-300-002			AG	The N ½ of the NW ¼ of the SW ¼ except a strip 250 feet wide across the N ½ of the NW ¼ of the SW ¼ described as commencing at the W ¼ post, thence S 88°36'32" E along the E and W ¼ line 267.41 feet, S 53°02'23" E 1132.5 feet to the S line of the N ½ of the NW ¼ of the SW ¼, N 88°43'58" W along the S line of the N ½ of the NW ¼ of the SW ¼ 428.49 feet N 53°02'23" W 934.86 feet to the W line of said Section N 01°32'57" E along said W line 115.89 feet to beginning, Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-28-300-004			AG	The S ½ of the NW ¼ of the SW ¼, except a strip 250 feet wide across the S ½ of the NW ¼ of the SW ¼ described as commencing at the W ¼ post thence S 88°36'32" E along the E and W ¼ line of said Section 28 267.41 feet, S 53°02'23" E 1132.5 feet to a point on the N line of the S ½ of the NW ¼ of the SW ¼, which said point is the Point of Beginning, thence S 53°02'23" E 130.59 feet to the W 1/8TH line, S 01°30'34" W along said W 1/8TH line 306.9 feet N 53°02'23" W 656.59 feet to the N line of the S ½ of the NW ¼ of the SW ¼; S 88°43 '58" E along the N line 428.49 feet to beginning, Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-28-300-006			AG	The S ½ of the NE ¼ of the SW ¼; also the S ½ of the SW ¼ except a strip of land 250 feet wide across the E ½ of the SW ¼ described as to find Point of Beginning commencing at the W ¼ post of Section 28, thence S 88°36'32" E along the E and W ¼ line of said Section 267.41 feet S 53°02'23" E 1263.09 feet to the W 1/8TH line of said Section and Point of Beginning of description, thence continuing S 53°02 '23" E 1592.78 feet to the N and S ¼ line 307.04 feet to a point 654.62 feet Northerly of the S ¼ post as measured along the N and S ¼ line N 53°02'23" W 1593.03 feet to the W 1/8th line N 01°30'34" E along said 1/8th line

Sylvan Solar Conditional Use Permit Application

Attachment 2 – Garfield Township Participating Parcels

PARCEL ID	LANDOWNER NAME	MAILING ADDRESS	ZONING	LEGAL DESCRIPTION
				306.9 feet to the Point of Beginning, Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-28-400-016	VOGEL REAL ESTATE LLC	6726 LAKE DRIVE FREMONT MI 49412	AG	The NW ¼ of the SE ¼ except the N 670 feet of the W 325.07 feet thereof, Section 28, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-29-100-004			AG	The S ½ of the NW ¼, also the N 330 feet of the SW ¼, Section 29, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-29-200-005			AG-R	Situated in Garfield Township, Newaygo County, Michigan: E ½ of the E ½ of the NE ¼ of Section 29, T12N, R13W, except 250 foot strip for Consumers Power Company towerline as recorded in Series C-4346.
62-18-29-300-002			AG	The S ½ of the N ¼ of the SW ¼, Section 29, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-30-200-001			AG	The W ½ of the NE ¼ of Section 30, T12N, R13W
62-18-30-200-003			AG	The E ½ of the NE ¼ except the N 220 feet of the E 330 feet thereof, Section 30, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-30-300-001			AG-R	The N ½ of the SW Fractional ¼, Section 30, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-32-200-001			AG-R	The W ½ of the NE ¼; also Lot 2 N of Old Muskegon State Road, Section 32, T12N, R13W, Garfield Township, Newaygo County, Michigan.
62-18-29-400-004	VOGEL SCOTT A ET UX ASHLEIGH J	17563 EGAN DR COOPERSVILLE MI 49404	AG	THE SE 1/4 OF SECTION 29, T12N, R13W, EXCEPT COMMENCING AT THE E 1/4 CORNER FOR THE POINT OF BEGINNING; THENCE SOUTH 01°32'57" W 115.89 FEET; THENCE N 53°02'23" W 191.82 FEET TO THE E-W 1/4 LINE; THENCE N 89°48'44" E 156.41 FEET TO THE POINT OF BEGINNING, ALSO EXCEPT THE S 933.4 FEET OF THE E 933.4 FEET OF SECTION 29, T12N, R13W.



Attachment 3 - Traffic Impact Statement

Traffic Impact Statement

Sylvan Solar Project



Prepared for
Sylvan Solar, LLC

Prepared by
Prein&Newhof

August 2025



August 12, 2025
2250662

**RE: Sylvan Solar Project, Garfield Township, Michigan
Traffic Impact Statement**

This brief traffic impact statement (TIS) was developed prior to the proposed construction of the Sylvan Solar Project (Project) located in Garfield Township, Newaygo County, Michigan. The Project vicinity is shown in **Figure 1**. The proposed Project will consist of constructing an up to 220-megawatt (MW) solar generation facility within 2,130-acres of undeveloped land in Garfield Township. The Project is primarily located south of Michigan Highway 82 (M-82), north of North River Drive, west of Bingham Avenue, and east of South Osborn Avenue in an area that consists of mostly agricultural fields, wooded areas, agricultural ditches, and Newaygo County designated drains. Access to the Project area will be provided by 24 access points in Garfield Township. This TIS will focus on three representative new access points, with each access located along the east sides of Warner Avenue, Croswell Avenue, and Baldwin Avenue, respectively, as shown in **Figure 2**. Construction of the Project is anticipated to begin in 2027, and the solar energy generation facility is expected to be operational by late 2028.

Although the project is expected to generate more than 100 peak hour trips during the construction phase, this limited traffic impact statement does not include an analysis of the site total generated traffic impact on the adjacent roadway network. During normal post-construction operations, the Solar Project is expected to generate less than 100 inbound trips during any one hour of the day and this limited number of Project generated trips is not expected to have any significant impact on the surround roadway network.

Existing Roadway Conditions

Michigan Highway 82 (M-82), within the vicinity of the Project, is a two-lane, undivided roadway with gravel shoulders and has a National Functional Classification (NFC) of a minor arterial. M-82 provides connectivity from the City of Newaygo to the City of Fremont, providing access to various agricultural, commercial, and residential properties in the Project vicinity. With an east/west alignment, M-82 has a posted speed limit of 55 miles per hour (mph). There are no pedestrian facilities present along this highway. The current Average Daily Traffic (ADT) on M-82 is approximately 8,274 vehicles per day (vpd) as reported from MDOT's online *Transportation Data Management System Traffic Counts*.

With north/south alignments, Warner Avenue and Baldwin Avenue are two-lane, rural roadways with gravel shoulders and both roadways have a National Functional Classification of a major collector. Warner Avenue and Baldwin Avenue have posted speed limits of 55 mph and offer parallel routes between the City of Bridgeton and River Drive to the south and M-82 to the north, providing access to various agricultural and residential properties. The current ADT on Warner Avenue is 6,029 vpd, while the current ADT on Baldwin Avenue is 474 vpd.

Croswell Avenue is classified as a local two-lane roadway and is unpaved within the vicinity of the Project. It has a north/south alignment and extends from North River Drive in the south towards M-82 to the north. There is no posted speed limit on Croswell Avenue.

80th Street serves the area as a paved, two-lane roadway with an east/west alignment. There is no posted speed limit within the vicinity of the Project area. 80th Street is a rural, local roadway that currently provides access to various residential and agricultural properties. With the construction of the proposed Project, 80th Street will serve as the primary east/west corridor for Project generated traffic, utilizing this paved roadway connection to access the adjacent north/south roadways and the proposed Project area. There is no curb, gutter, or pedestrian facilities present along the roadway.

88th Street is an unpaved rural roadway, with no posted speed limit. 88th Street has an east/west alignment and extends from Osborn Avenue in the west to Wisner Avenue towards the east providing access to agricultural and residential properties.

The intersection of M-82/Warner Avenue is an un-signalized, four-leg intersection controlled by a STOP sign on the northbound and southbound approaches. Eastbound and westbound traffic on M-82 is free flow. The northbound and westbound approaches to the intersection each provide an exclusive left turn lane and a shared through/right turn lane. The eastbound approach offers an exclusive left turn lane, a single through lane and an exclusive right turn lane, while the southbound vehicles approaching the intersection utilize a single shared left turn/through/right turn lane.

The un-signalized, four-leg, two-way STOP controlled intersections of M-82/Croswell Avenue, M-82/Baldwin Avenue, and 80th Street/Baldwin are controlled by STOP signs on the northbound and southbound approaches. Eastbound and westbound traffic on M-82 and 80th Street is free flow. All three intersections offer the same lane configurations by providing a single shared left turn/through/right turn lane in the northbound, southbound, eastbound and westbound directions.

The intersection of Warner Avenue/80th Street is an un-signalized, four-leg, two-way STOP controlled intersection. The eastbound and westbound approaches to the intersection are controlled by a STOP sign, while northbound and southbound traffic is free flow. Each approach to the intersection provides a single shared left turn/through/right turn lane.

The un-signalized intersection of 80th Street/Croswell Avenue is a four-leg intersection with All-Way STOP control on all four approaches. Each leg of the intersection offers a single shared left turn/through/right turn lane.

Existing lane configurations and traffic control are shown in **Figure 3**.

Proposed Access

Access to the proposed Project area in Garfield Township will be provided by 20 proposed gated access points that will serve the Project and be in operation during construction and post-construction. Three of these typical access points were selected as representative sites for this conservative analysis.

The first Project access point selected for study will be located along the east side of Baldwin Avenue, approximately 1,400 feet south of 80th Street and form a new 'T' shaped intersection. The Baldwin Avenue access will provide vehicles exiting the Project site with a single shared left turn/right turn lane and will be under STOP sign control. Traffic on Baldwin Avenue will remain free flow. Northbound traffic entering this access point will be offered a single shared through/right turn lane, while southbound traffic will utilize a single shared left turn/through lane. This access point into the Project area will also have a 24-foot gate installed to prevent unauthorized vehicles from entering the Project area.

The second Project access point for study will be located along the east side of Croswell Avenue, approximately 2,900 feet south of 80th Street and form a new 'T' shaped intersection. The Croswell Avenue access will offer vehicles exiting the Project area with a single shared left turn/right turn lane and will be under STOP sign control. Traffic on Croswell Avenue will remain free flow. Northbound traffic entering the site will be offered a single shared through/right turn lane, while southbound traffic will utilize a single shared left turn/through lane. A 24-foot gate will be installed to prevent unauthorized vehicles from entering the proposed Project area at this ingress/egress location.

Approximately 2,600 feet south of 80th Street, along the east side of Warner Avenue will be the proposed third access point for review into the Project area forming a new 'T' shaped intersection. The Warner Avenue access will provide a single shared through/right turn lane for northbound vehicles and a single shared left turn/through lane for southbound vehicles turning into the Project area. Westbound vehicles exiting the Project area will utilize a single shared left turn/right turn lane and will be under STOP sign control. Traffic on Warner Avenue will remain free flow. This primary access into the Project area will also have a 24-foot gate installed to restrict unauthorized vehicles from entering the proposed Project area.

Sight distances at the future proposed access points should be verified during the Project design process.

Trip Generation

Trip generations for potential development projects are typically developed utilizing nationally agreed upon data contained in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 10th Edition*. Solar farms are not included as a land use code in the ITE trip generation manual, therefore, trip generation estimates were based on conversations and information provided by AES Clean Energy (AES) and distributed on the adjacent roadway network based on current traffic trends and engineering judgement.

The proposed solar generation facility will require construction equipment, trucks and workers to travel to and from the Project area throughout construction and will also require a significantly lower total number of daily maintenance workers after construction is completed. A conservative approach was used to determine the number of daily trips by utilizing the highest expected number of heavy vehicle trips generated during construction.

Trip generation for the Project was estimated based on the following:

- During peak construction, it is estimated that a maximum number of 80 trips per day will occur, as mostly large dumps trucks, and the expected construction traffic will be divided between the 20 proposed access points. However, for this limited analysis a conservative approach was used by dividing the Project generated heavy truck traffic between the three typical proposed access points outlined above.
- In addition to the expected heavy vehicle truck traffic generated by the Project during construction, it is estimated that approximately 530 construction workers will be on site during the peak construction phase. The workers are expected to travel to/from the Project site in a similar distribution pattern as the heavy vehicle trips and are estimated to add an additional 350 trips as personal vehicles, utilizing the three outlined study access points and parking in designated areas on-site.

- During normal operations and maintenance, after completion of the construction phases, five (5) trips per day, as mostly $\frac{3}{4}$ -ton trucks and passenger vehicles are expected at each of the three access points.
- A limited approach was taken for the trip generation by assuming the highest number of daily truck trips expected (30 heavy vehicle trips per access) will occur during the AM and PM peak hours of the day at each of the study access points.

The cumulative result of the above outlined weekday peak trip generation for the Project is estimated to be approximately fifteen (15) average daily peak hour inbound/outbound heavy vehicle trips per access point. During the peak hours of the solar generation facility's construction and operation, it is expected that the majority of inbound truck traffic will concentrate at the three access points outlined for this limited analysis.

This limited traffic impact statement does not include further analysis of the estimated 350 personal vehicle trips to/from the Project area (approximately 117 personal vehicle trips per access point) needed to accommodate the estimated 530 construction workers during the peak construction phase.

Trip distribution for the proposed Project was based on current volumes and traffic patterns near the Project area. **Figure 4** shows the weekday trip distribution for the Project as a percentage of net new primary trips as well as the traffic assignment of the new site generated heavy vehicle trips to/from the Project intersections within the Project vicinity.

With the number of existing low volume, paved arterial and collector roadways providing multiple routes in the Project vicinity to access the Project as well as the adjacent properties surrounding the Project area having a similar type of land use with large areas of land served by larger style equipment, it is expected that this new solar energy generation facility will fit with the character of the Project vicinity.

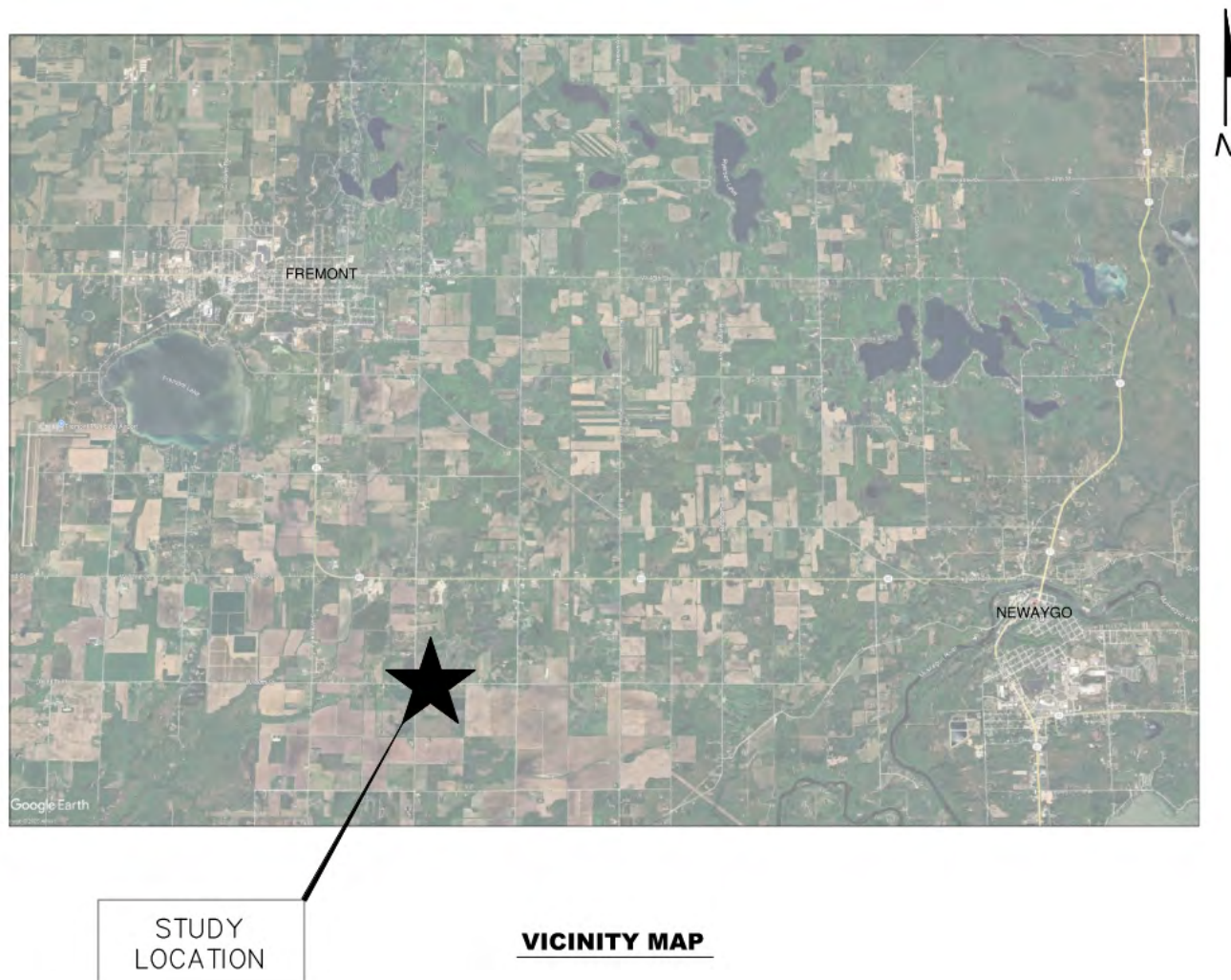
Further analysis would be required to fully understand how the total number of Project generated trips impact the surrounding roadway network. Sight distances and proper spacing requirements for the proposed access point locations along Baldwin Avenue, Croswell Avenue, and Warner Avenue should be evaluated during the Project design process.

Each of the three main access points are recommended to have STOP signs installed on the outbound approaches to the adjacent roadways.

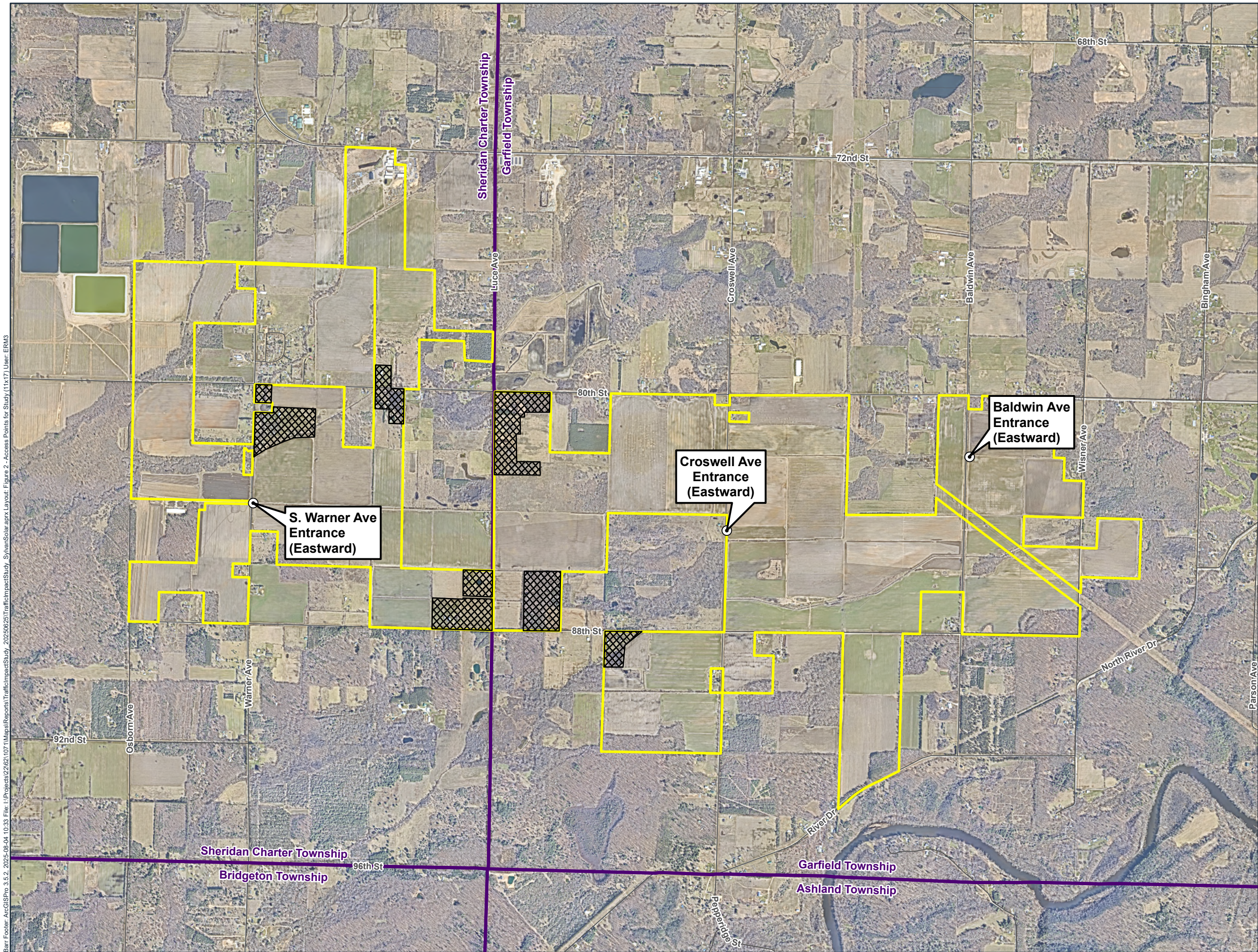
Proposed lane configurations and traffic control for each study intersection are shown in **Figure 5**.

Attachments: Figure 1: Vicinity Map
Figure 2: Project Site Plan
Figure 3: Existing Lane Configurations
Figure 4: Trip Assignment & Distribution for Heavy Vehicles
Figure 5: Proposed Lane Configurations

Figure 1: Vicinity Map



Barr Footer ArcGISPro 3.5.2, 2025-08-04 10:33 File: I:\Projects\2262621071\Map\Reports\TrafficImpactStudy_20250825\TrafficImpactStudy_SylvanSolar.aprx Layout: Figure 2 - Access Points for Study (11x17) User: ERM3





Public Land Survey Township



Project Boundary



Excluded Area



Access Points for Study



020004,000

Feet

Imagery: Nearmap (4/4/2025)

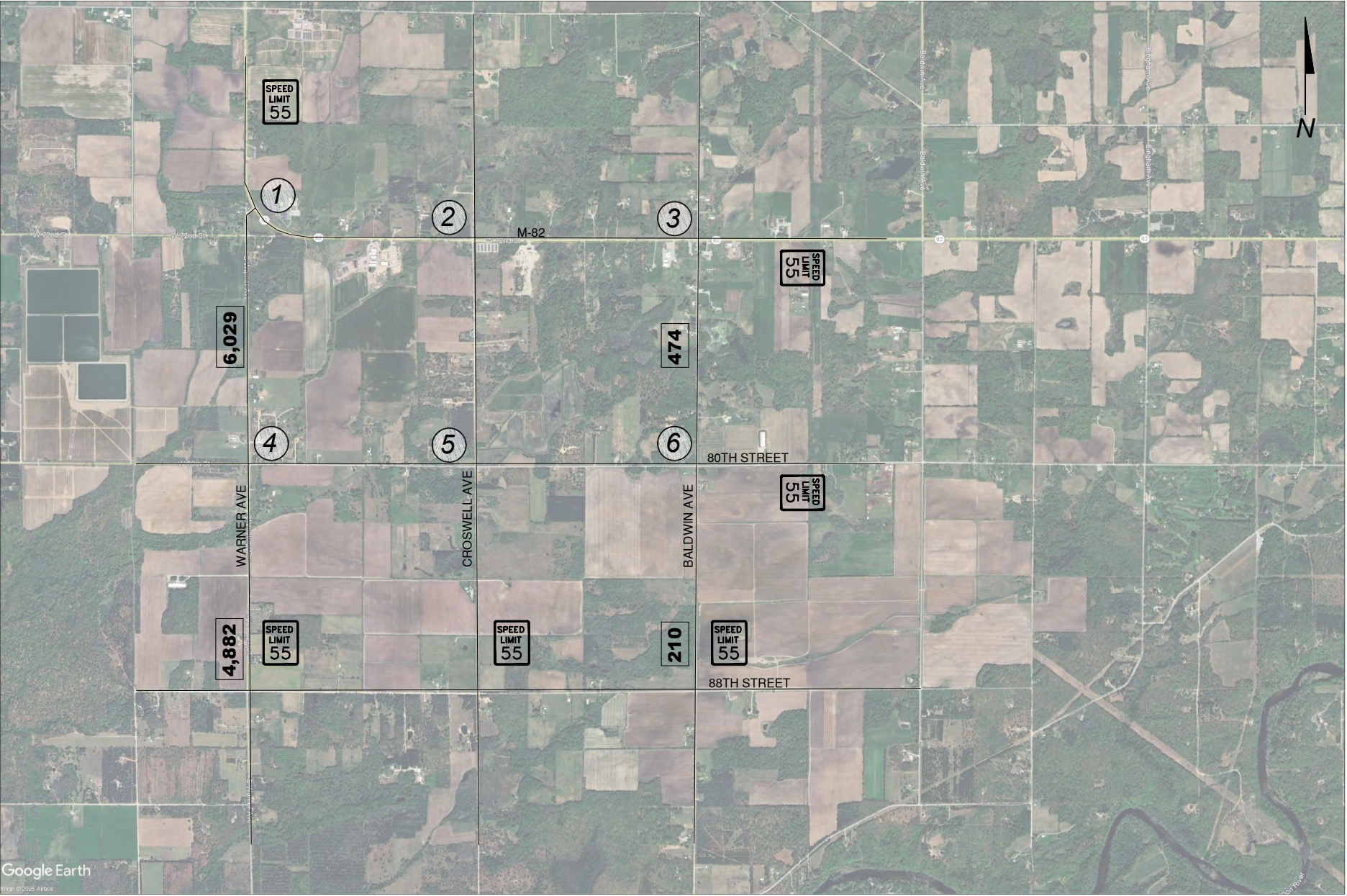
Access Points for Study

Sylvan Solar Project

Newaygo County, Michigan

FIGURE 2





LEGEND:

-  = STOP SIGN
-  = SPEED LIMIT SIGN
-  = AVERAGE DAILY TRAFFIC (ADT)

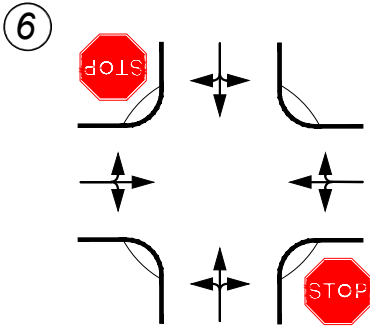
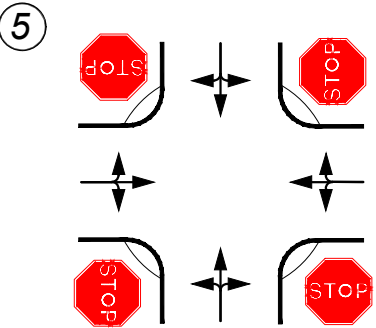
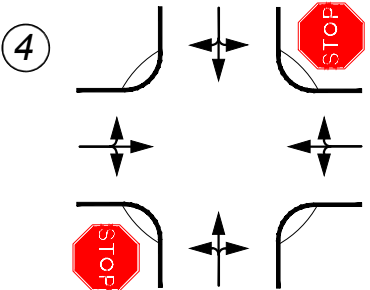
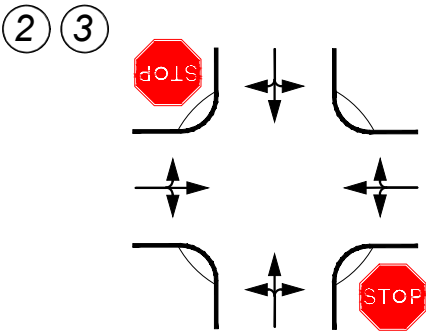
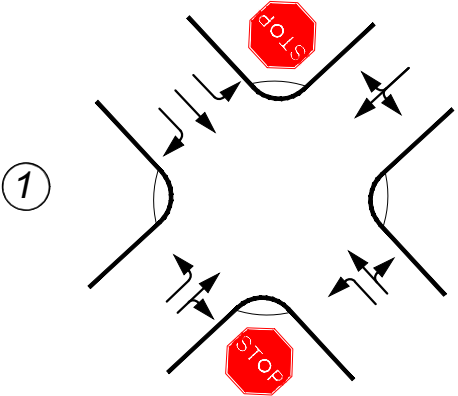
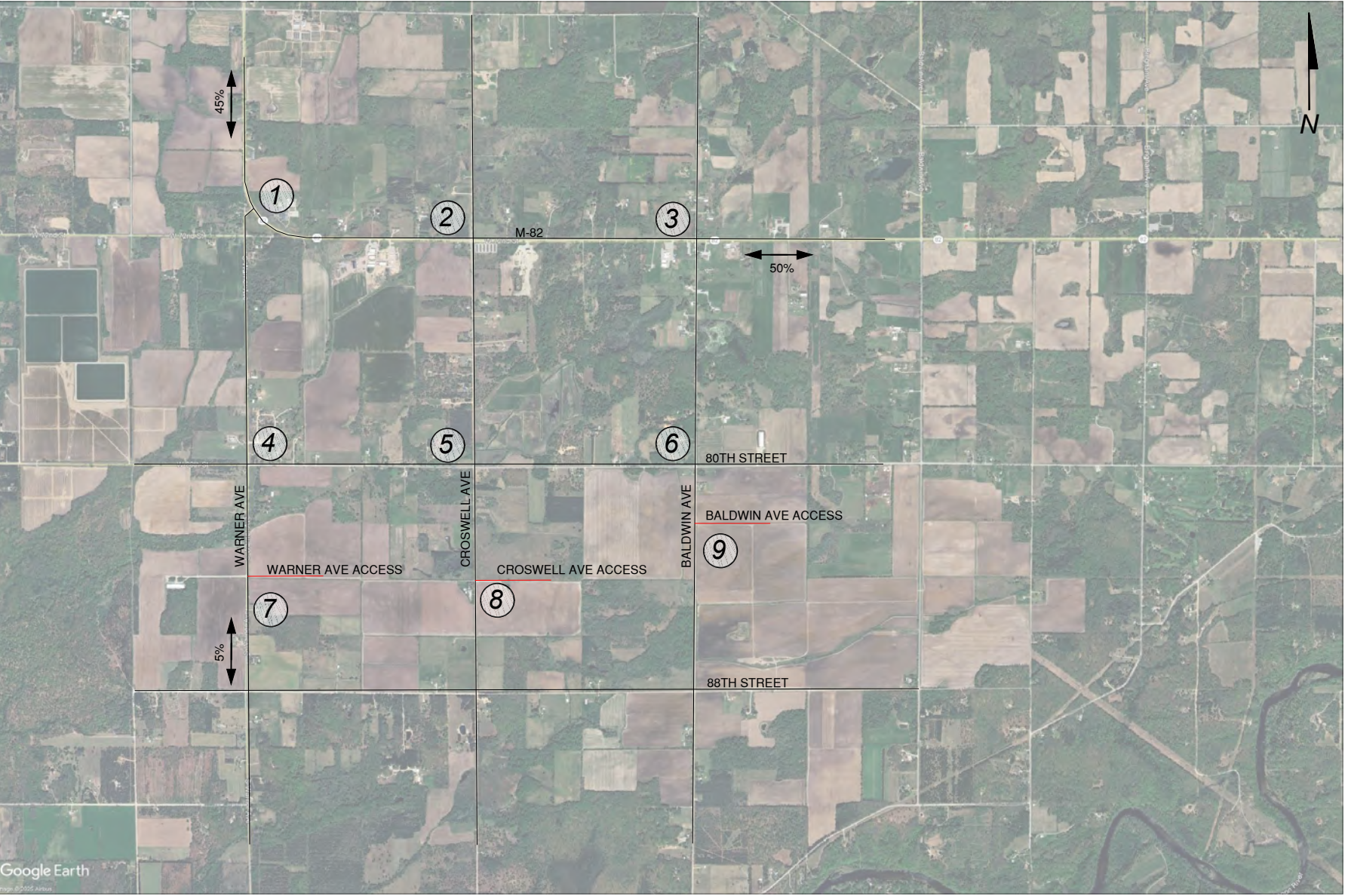


Figure 3: Existing Lane Configurations / Traffic Control



LEGEND:

XX = AM Peak Hour
(XX) = PM Peak Hour

 = STOP SIGN

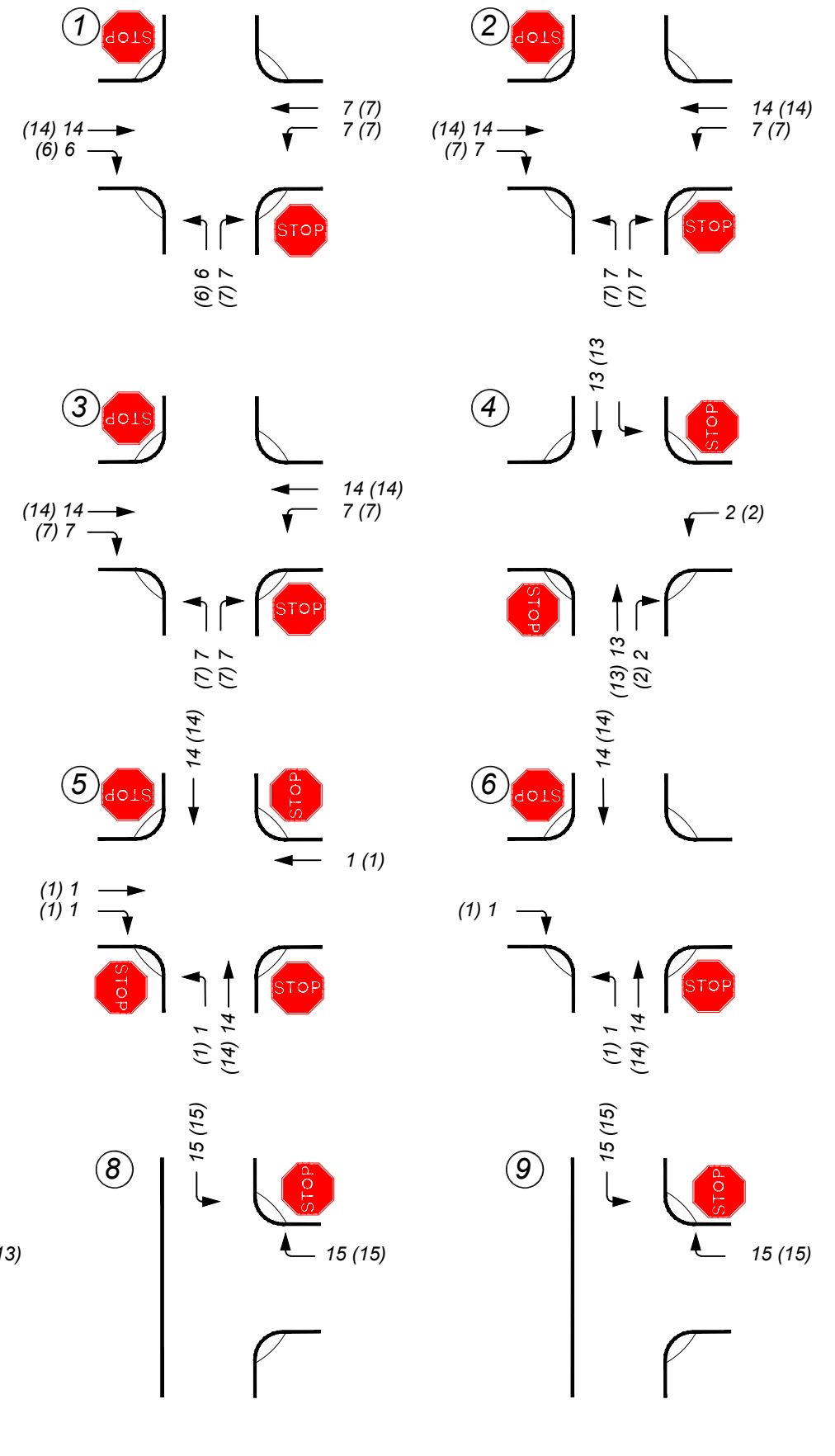
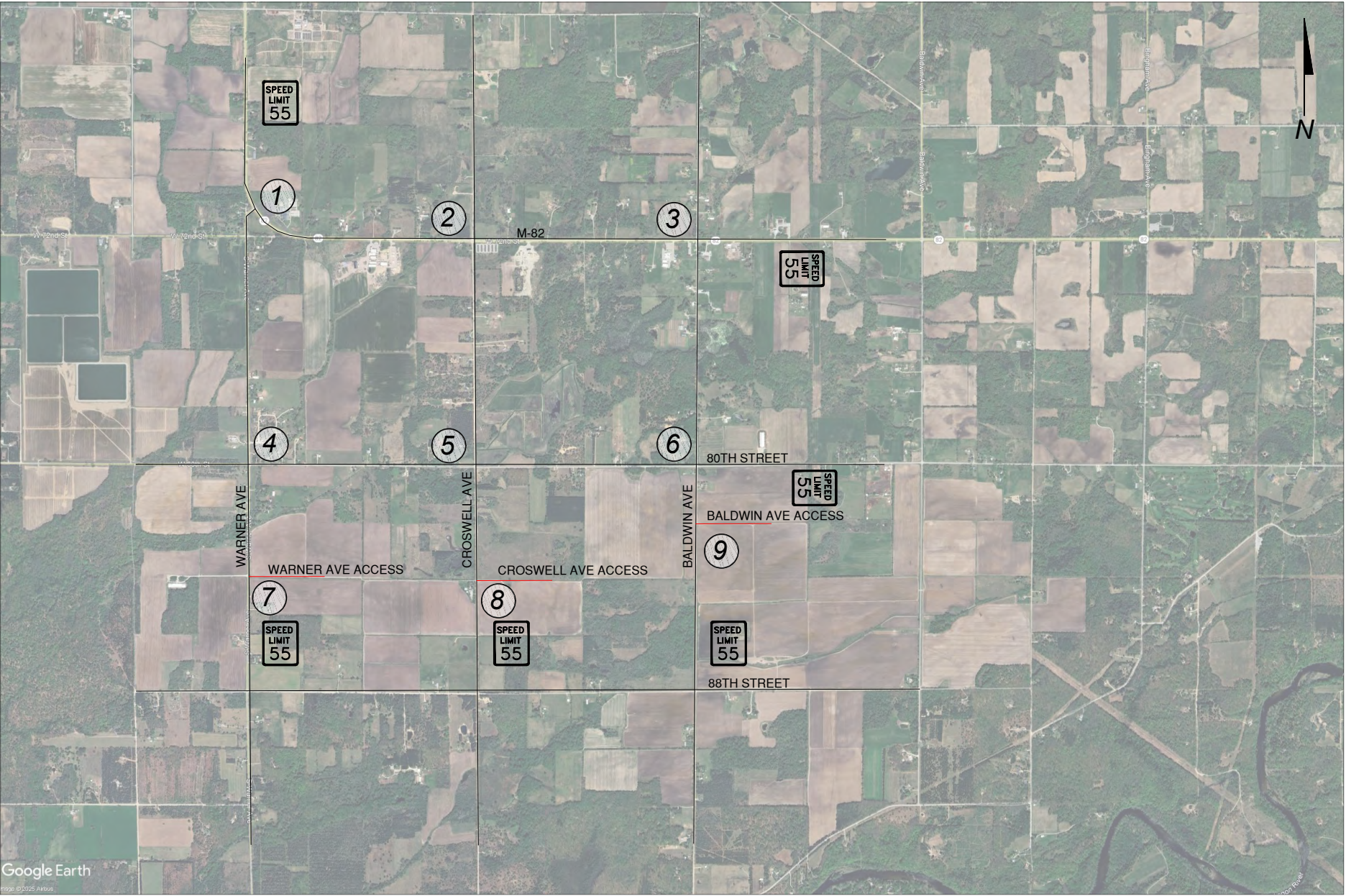


Figure 4: Trip Assignment and Distribution for Heavy Vehicles



LEGEND:

 = STOP SIGN

 = SPEED LIMIT SIGN

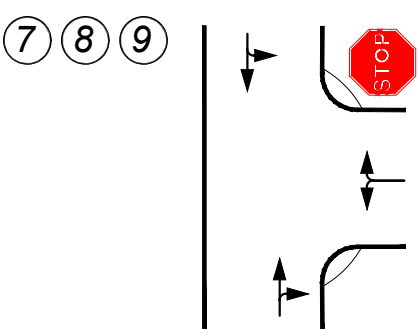
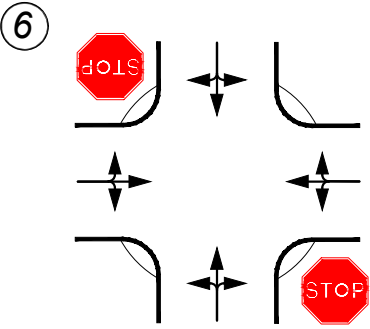
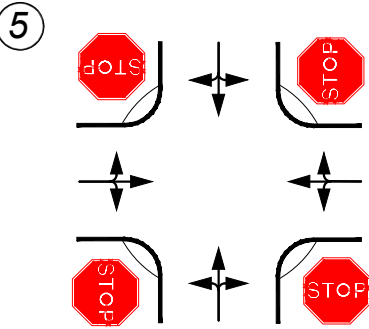
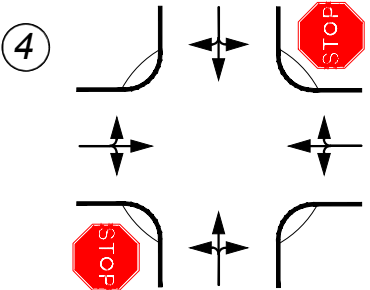
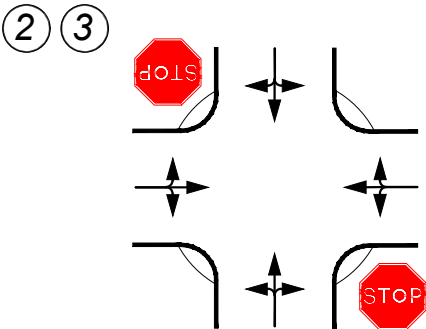
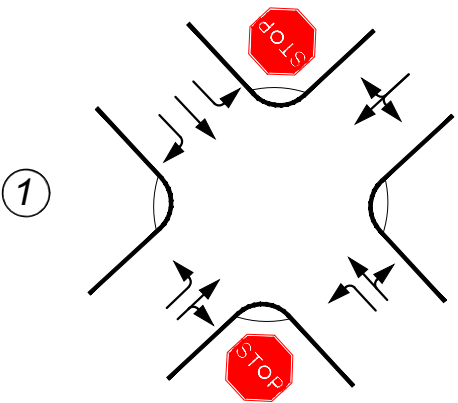


Figure 5: Proposed Lane Configurations / Traffic Control



Attachment 4 - Vegetation Management Plan



Vegetation Management Plan

Sylvan Solar Project: Garfield Township

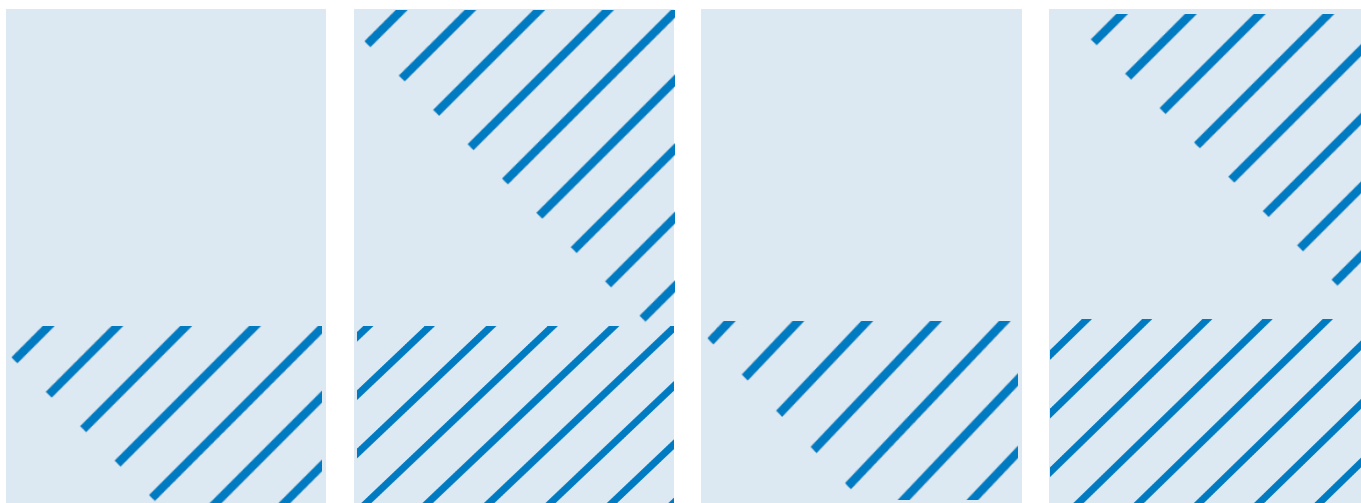


Prepared for
Sylvan Solar, LLC

Prepared by
MNL, Inc

August 2025

MNL, Inc
8740 77th Street NE
Otsego, MN 55362



Vegetation Management Plan

August 2025



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Appendices

Appendix A	NRCS Code 327
Appendix B	Sylvan Solar Seed Mixes



Abbreviations

AES	AES Clean Energy
gen-tie	generation tie line
kV	kilovolt
MW	megawatt
MDARD	Michigan Department of Agriculture & Rural Development
MNFI	Michigan Natural Features Inventory
NREPA	Natural Resources and Environmental Protection Act
NRCS	Natural Resources Conservation Service
PEM	palustrine emergent wetland
PFO	palustrine forested wetland
Plan	Vegetation Management Plan
Project	Sylvan Solar Project
PSS	palustrine scrub-shrub wetland
PV	photovoltaic
ROW	Rights-of-Way
SESC	Soil Erosion and Sedimentation Control
USDA	U.S. Department of Agriculture

1 Project Overview

MNL has prepared this Vegetation Management Plan (Plan) on behalf of Sylvan Solar, LLC (Sylvan Solar), an affiliate of AES Clean Energy, for the Sylvan Solar Project (Project) in Newaygo County, Michigan (Figure 1). AES Clean Energy (AES) is a division of The AES Corporation based in the United States that owns and operates solar, wind, battery, and green hydrogen projects across the country. The intent of the Project is to generate an annual average of approximately 445,000 megawatt (MW) hours of renewable energy over its anticipated 35-year life span.

The proposed Project is an up to 220-MW photovoltaic (PV) solar generation facility within a 2,166-acre Project area on land within Garfield Township and Sheridan Charter Township, Newaygo County, Michigan. The Project is approximately 4.5 miles southeast of Fremont, Michigan. The Project is generally north of North River Drive, west of Bingham Avenue, south of Michigan Highway 82, and east of South Osborn Avenue. The Project footprint and surrounding area primarily consist of agricultural fields, wooded areas, agricultural ditches, and Newaygo County designated drains. The Muskegon River is approximately 900 feet south of the Project at its closest point.

Of the total 2,166 acres leased for the Project, approximately 1,250 acres of the Project area will consist of the solar energy facility and generation tie line (gen-tie). A <500-foot-long overhead gen-tie line will be constructed between the proposed Project substation and a proposed utility-owned and operated switchyard, which will connect via a utility-owned overhead line to the existing 345-kilovolt (kV) Ludington to Kenowa overhead transmission line.

Construction of the Project is anticipated to commence in mid-2027, and the solar energy facility is expected to be operational in late 2028.

1.1 Purpose

The Plan has been established to comply with the landscape screening and ground cover provisions in Section 18.19(B) of the Garfield Township Zoning Ordinance. Specifically, Section 18.19(B)(e) of the Garfield Township Zoning Ordinance requires the use of native vegetation and landscape screening outside the perimeter fence line between the Project and adjacent, non-participating residential structures and where the Project is adjacent to public road rights-of-way (ROW). In addition, for parcels not enrolled in Public Act (PA) 116, the Michigan Farmland and Open Space Preservation Act, Section 18.19(B)(f) of the Garfield Township Zoning Ordinance requires implementation of one or more of the following types of Dual Use:

1. Pollinator Habitat,
2. Conservation Cover,
3. Forage, or
4. Agrivoltaics.

To meet this requirement, Sylvan Solar will implement conservation cover in accordance with the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Code 327 (Conservation Cover, Appendix A). This Plan describes how Sylvan Solar will restore native plants, grasses, and prairie in consultation with the NRCS with the goal of protecting beneficial species habitat and providing ecosystem services through improved soil health. This Plan also meets the minimum score on the Michigan Pollinator Habitat Scorecard for solar sites. Finally, Sylvan Solar will maintain an option for sheep grazing (i.e., forage) as a vegetation management tool (refer to Section 4.3 of this Plan).

Further, the Plan highlights strategies for quickly establishing vegetation to stabilize soils, reduce erosion, and minimize offsite sedimentation in accordance with Part 91, Soil Erosion and Sedimentation Control (SESC) of the Natural Resources and Environmental Protection Act (NREPA).

1.1.1 Conservation Cover

The USDA-NRCS Conservation Cover (Ac) (327) Conservation Practice Standard aims to establish and maintain permanent vegetation cover while improving soil health, providing habitat, and reducing erosion and sediment transport. General criteria applicable to the standard include the following:

- Select species that are adapted to the soil, ecological sites, and climatic conditions and are suitable for the planned purpose and site conditions.
- Ensure that planting dates, seeding rates, planting methods, and care in handling and planting seed or planting stock are used to accomplish the planned purpose.
- If the specific Rhizobium bacteria for selected legumes are not present in the soil, treat the seed with the appropriate available inoculum. Inoculate legumes at time of planting based on conservation objectives and site history.
- Prepare the site by eliminating weeds that will impede the establishment and growth of selected species.
- Apply nutrients and amendments as needed to ensure vegetation establishment and planned growth, as needed.
- For organic and transitioning-to-organic operations, all seeds, planting stock, materials, and methods used in the implementation of this practice standard must comply with the National Organic Program (NOP) Rules.

Significant general considerations applicable to the standard include the following:

- Mowing may be needed during the establishment period to reduce competition from weeds.
- During vegetation establishment, natural mulches, such as wood products or hay, can be used to conserve soil moisture, support beneficial soil life, and suppress competing vegetation.
- Including a diverse mix of species enhances the above- and below ground ecosystem biodiversity.

1.1.2 Landscape Screening

As described above, Section 18.19(B)(e) states the following:

“A principal-use SES shall be buffered by installed trees and/or native vegetative plantings to provide for a visual buffer between the solar facility and (a) an adjacent public right-of-way, and (b) any adjacent, occupied residential structure existing on a non-participating parcel...Any required screening and landscaping shall be placed outside the perimeter fencing.”

Sylvan Solar proposes to meet this requirement by installing the following types of visual screening where existing trees, shrubs, or tall vegetation is not present:

- Residential Screening: Between the Project perimeter fence and adjacent occupied residential dwellings, and

- Road Right-of-Way (ROW) Screening: Between the Project perimeter fence and public road ROW.

Sylvan Solar proposes to plant various types of trees and shrubs with heights ranging from 6 to 15 feet tall to provide a visual buffer from the perimeter fence and Project components behind the fence line. In addition, Sylvan Solar proposes to plant a tall pollinator seed mix (on average 4 feet tall, up to 6 feet tall) between the Project perimeter fence line and the road ROW within Garfield Township to provide a visual buffer while creating beneficial pollinator habitat. Refer to Section 3 of this Plan for a detailed description of how Sylvan Solar will meet the Garfield Township screening requirements.

1.2 Current Site Conditions

1.2.1 Soils and Topography

The USDA-NRCS soil map (Figure 2) shows 16 unique soils within the Project area, within Garfield Township, including several complexes of multiple soil types. The mapped soils range from loamy sand to sand with several wet areas with muck soils. The most common soil types are shown in Table 1-2. The soil map indicates that the soils in the Project area consist of poorly drained and somewhat poorly drained, sandy soils including several soils with mucky sand at the surface.

The slopes within the Project area are relatively flat, ranging from 0 to 4 percent (Figure 3). The Project's sandy soil is anticipated to have low erosivity; however, in high slope areas, establishing vegetation quickly in graded areas will be critical to reduce erosion.

Table 1-1 Soil Types Mapped in the Project Area in Garfield Township

Symbol	Name	Project Area (acres)
20	Granby mucky sand	516.2
5B	Pipestone sand, 0 to 4 percent slopes	434.6
27	Granby mucky sand, gravelly substratum	129.9
21	Kingsville mucky sand	82.4
28B	Watseka loamy sand, 0 to 4 percent slopes	79.4
4A	Cosad loamy sand, 0 to 3 percent slopes	67.4
51B	Thetford loamy fine sand, 0 to 4 percent slopes	36.0
49B	Toogood loamy sand, moderately wet, 0 to 4 percent slopes	33.3
3	Adrian muck, 0 to 1 percent slopes	20.7
19B	Covert sand, 0 to 4 percent slopes	18.5
55	Sickles loamy fine sand	10.3
91B	Plainfield sand, 0 to 6 percent slopes	7.7
32	Carlisle muck, 0 to 2 percent slopes	6.1
17C	Spinks-Metea-Coloma complex, 6 to 12 percent slopes	5.1
90	Histosols and Aquepts, ponded	1.5
94B	Brems sand, 0 to 4 percent slopes	0.4

1.2.2 Wetlands and Site Hydrology

Within the entire Project area encompassing both townships, field surveys identified 47 wetlands (Figure 4) totaling approximately 50.97 acres based on data collected during field surveys (Tetra Tech, Inc. 2024). Of the 47 wetland features, 27 features are classified as emergent wetland (PEM); two features are classified as palustrine forested wetland (PFO); six features are classified as palustrine scrub-shrub/emergent wetland (PSS/PEM); five features are classified as palustrine forested/emergent wetland (PFO/PEM); one feature is classified as palustrine forested/scrub-shrub wetland (PFO/PSS); and six features are classified as palustrine forested/scrub-shrub/emergent wetland (PFO/PSS/PEM). Many of the palustrine emergent wetlands are within cultivated fields and have row crops (often stunted) growing within the wetlands. Many of the wetland areas are dominated by reed canary grass (*Phalaris arundinacea*) in the herbaceous layer. Common shrubs include willows (*Salix* spp.) and common trees include green ash (*Fraxinus pennsylvanica*) and silver maple (*Acer saccharinum*).

In addition, 28 stream features were identified within the entire Project area encompassing both townships. Of the 28 stream features, 26 are classified as perennial and two are classified as intermittent. These streams primarily flow south and west to the Muskegon River, which is south of the Project area and flows west into Lake Michigan. In Garfield Township, these waterbodies primarily include designated county drains.

1.2.3 Historic Vegetation

The Michigan Natural Features Inventory (MNFI) indicates that the historic vegetation community in the Project vicinity as of 1800 was primarily mixed conifer swamp (Cohen et al. 2020). This area has likely been drained for use in agriculture, whereas other surrounding drier areas are still in forested cover. Common trees in this community in the 1800's included red maple (*Acer rubrum*), black ash (*Fraxinus nigra*), white pine (*Pinus strobus*), and hemlock (*Tsuga canadensis*). Common small trees and shrubs included mountain maple (*Acer spicatum*), tag alder (*Alnus incana*), and paper birch (*Betula papyrifera*). Common herbaceous layer species included wild sarsaparilla (*Aralia nudicaulis*), Jack-in-the-pulpit (*Arisaema triphyllum*), beggar-ticks (*Bidens* spp.), and many species of sedge (including *Carex intumescens*, *C. crinita*, and others).

According to the MNFI, western portions of the Project area were historically in a beech-sugar maple-hemlock forest, whereas the eastern portions were in a white pine-mixed hardwood forest. These forested communities were in drier soil than the mixed conifer swamp, primarily in well-drained sandy soils. Much of these areas and the surrounding landscape are still forested.

1.2.4 Existing Vegetation

Existing vegetation within the Project area consists predominantly of agricultural crops including corn (*Zea mays*) and soybeans (*Glycine max*). Common species in field perimeters and wetlands include common milkweed (*Asclepias syriaca*), smooth brome (*Bromus inermis*), sedges (*Carex* spp.), Canada thistle (*Cirsium arvense*), green ash (*Fraxinus pennsylvanica*), jewelweed (*Impatiens capensis*), perennial rye grass (*Lolium perenne*), reed canary grass (*Phalaris arundinacea*), Kentucky bluegrass (*Poa pratensis*), and common buckthorn (*Rhamnus cathartica*).

2 Vegetation Establishment

This vegetation establishment plan is for the areas where Sylvan Solar intends to plant and maintain native vegetation from seed mixes installed within the Project area. Other areas will be maintained according to the adaptive vegetation management plan described in Section 3.0 including management of prohibited, restricted, and noxious weed species in accordance with Michigan Act 359 (Noxious Weeds) and Michigan Seed Law Act 329.

2.1 Vegetation Establishment Sequence

The majority of the existing vegetation within the Project area is currently in row crops, which is generally already being managed to provide for a well-prepared seed bed. Existing vegetation (other than row crops) will need to be managed before seeding by mowing and/or herbicide treatments. Table 2-1 summarizes the planned activities for vegetation establishment.

Table 2-1 Vegetation Establishment Sequence

Vegetation Establishment Activities	Timing of Activities
Existing vegetation that may interfere with new vegetation establishment may be treated with mowing and/or herbicide treatments. (This step may not be necessary in actively farmed crops.)	Beginning up to 1 year prior to seeding
Prepare seedbed via topsoil decompaction, vegetation removal, and disking where necessary.	<1 month prior to seeding
Install seed mixes throughout the Project area. ^[1]	Prior to construction
Construction activities, including temporary seeding, where necessary.	During construction
Re-seed permanent seed mixes in disturbed soils following completion of activities in each area.	Primarily during construction as work in each area is completed; may continue to post-construction, if needed.

^[1] Cover crops may be installed in areas that will be disturbed by construction.

2.2 Contractor Qualifications

Sylvan Solar will select seeding and management contractor(s) prior to Project construction. Contractors will provide references demonstrating their ability to successfully perform similar work on utility scale solar projects or expect to work with a contractor to direct their work.

2.3 Site Preparation

Before and during grading activities, the contractor will install SESC controls in accordance with the Project's Soil Erosion Plan and SESC Permit. Sylvan Solar will limit grading work to the degree feasible to minimize areas of disturbance and to reduce impacts to the existing topsoil. The proposed Project layout is shown in Figure 5.

2.3.1 Topsoil Management

Generally, seed installation will occur before construction, grading, and earthwork activities that disturb the soil. During construction, it is expected that some of the recently seeded areas will be disturbed. These areas will require re-seeding. Soil in the disturbed areas will be managed to preserve the topsoil

and ensure a suitable seedbed for post-construction seeding. The contractor may segregate topsoil during grading and redistribute it across graded areas. Where necessary, the contractor may decompact topsoil impacted by construction activities with chisel plows, rippers, or tillers depending on the depth and severity of the compaction. Any disturbed topsoil will be disked to prepare a smooth, evenly textured soil surface for seeding.

2.3.2 Existing Vegetation Management

Before construction, weed management will consist of a combination of herbicide applications and mowing to control prohibited, restricted, and noxious weeds and prevent the production of undesirable seeds according to Michigan Act 359. If possible, Sylvan Solar will work with landowners to pre-treat areas with prohibited, restricted, or noxious weeds and invasive species in the prior growing season in preparation for seed installation. These areas will primarily include field edges, but treatment may also be required in larger field areas that will be seeded within the Project area as needed. Tree clearing, grubbing, and stump removal will occur only where necessary.

Preparatory treatments may occur on existing undesirable vegetation within the Project area as necessary to prepare areas for seeding and/or to reduce seed production into the Project area. Mowing may occur to reduce the height of the vegetation or to prepare it for more effective herbicide applications. Herbicide application may occur before scheduled seeding, with an application of a non-specific herbicide to live vegetation and may include additional herbicides for species that may be present. Herbicide selection and application will be completed under the guidance and oversight of a commercial applicator certified by the Michigan Department of Agriculture & Rural Development (MDARD). Herbicide will not be applied within 50 feet of any wetlands or streams depicted on Figure 4 or onto surface water. Herbicide use will be discontinued at least one year prior to decommissioning to ensure breakdown of residual herbicides prior to restoration activities. Before seeding, dead plant material may require removal to open the soil for future seeding.

2.3.3 Seedbed Preparation

Prior to application of the seed mixes, the contractor will prepare the seed bed to promote successful propagation and survival of the desired plants. Where necessary, decompaction or vegetation removal areas will be followed by disking to prepare a smooth and evenly textured soil surface. Sylvan Solar may seed some areas with previously existing vegetation directly into the killed vegetation or stubble. As much as possible, areas that are not compacted will remain intact, without decompaction or tilling, to preserve soil structure.

2.4 Seed Installation

Seed will be installed prior to construction to establish vegetation that will provide soil stability during construction activities, prevent erosion, and maintain a cleaner working area for the equipment. Construction will inevitably result in some disturbance to these seeded areas, which may require re-seeding after completion of the work in that area.

All seed will be installed using a Truax no-till drill or Trillion type seeder (or similar) specific to native seed mixes. Where drill-seeding is not practical due to site conditions, including the presence of solar panels and posts, seed will be broadcast onto the soil surface using a Vicon seeder (or similar) and raked to ensure good seed-to-soil contact.

The seeding contractor will calibrate and adjust seeding equipment beforehand to ensure the proper seeding rate and depth. Operators will ensure complete coverage during operation. Equipment will be thoroughly washed before seeding work begins to prevent contamination from outside seed sources.

2.4.1 Seed Mixes

Three conservation cover seed mixes (Appendix B) were developed for the Project to be tolerant of disturbance during construction, grow to an appropriate height, and adapted to sandy soils. As much as possible, the seed mixes will be purchased from a local vendor and from locally sourced seed. These three unique native-dominated seed mixes will be planted within different areas of the Project area (Table 2-2; Figure 6).

Table 2-2 Seed Mixes

Seed Mixes	Location
1. Array Seed Mix	Solar array areas Within 15 feet inside and outside of the perimeter fence line Perimeter areas (between the fence line and Project boundary) that will not be used for pollinator buffers or will not continue to be farmed
2. Tall Pollinator Seed Mix	Between the Project fence line and public road ROWs Perimeter areas (between the fence line and the Project boundary) that will not be used for the short-statured solar array seed mix or will not continue to be farmed
3. Stormwater Basin Seed Mix	Stormwater basins in Project area.

Each of these seed mixes are composed of plant species native to open grassland habitats in the region and will have the following characteristics:

1. **Array Seed Mix** will be seeded within the solar array footprint including underneath panels, in array rows, surrounding equipment and roads within the arrays, within a minimum of 15 feet inside and outside of fence lines, and in perimeter areas (between the fence lines and Project boundary) that are not farmed or used for pollinator buffers.
 - a. Composed of short-statured native species that will remain mostly shorter than 24 inches tall (lowest panel height) and will include mostly grasses and sedges. Several species of native forbs will be included all of which are generally tolerant of clopyralid herbicide (brand name: Transline®, Sonora™). This will allow for management of many noxious weed species with minimal impact on the seed mix.
 - o Provide conservation cover benefits for species habitat and improved soil health. The area will be regularly maintained to prevent interference with operations, reduce thatch, and control undesirable plant species.
- **Tall Pollinator Seed Mix** will be seeded between the Project fence line and public road ROWs in Garfield Township in accordance with the Garfield Township Zoning Ordinance, and in other perimeter areas that will not be used for the short-statured array mix or will not continue to be farmed.
 - o Seeded with diverse native species that are expected to reach 4 feet tall on average and up to 6 feet tall and will include grasses, sedges, and forbs.

- a. Provide high-quality native habitat and be maintained for control of undesirable species, to prevent interference with operations, and to reduce thatch.
- **Stormwater Basin Seed Mix** will be seeded in Project stormwater basins within the Project area.
 - a. Seeded with diverse native species with emergent wetland and sedge meadow species, and will include a high diversity of grasses, sedges, and forbs.
 - b. Provide wetland habitat along with infiltration and stormwater retention functions and be maintained to prevent noxious and undesirable species.

The native-dominated seed mixes will have the following characteristics:

- Meet the standards for conservation cover in accordance with NRCS Code 327.
- Seed mixes will be composed of primarily native species, which are hardy and tolerate a wide variety of environmental conditions (drought, periods of excessive moisture, etc.)
- Seed mixes will contain a blend of grasses, sedges, and forbs to maximize adaptability to potential growing conditions, including shade-tolerant species for under panel areas and bunch-forming grasses for habitat structure.
- Seed mixes will be dominated by perennial species that greatly reduce the likelihood of re-seeding during the lifespan of the solar site.
- Seed mixes will be adaptable to soil conditions present within the Project area including species that can tolerate dry, mesic, and wet-mesic conditions. The Stormwater Basin Mix is adapted to wet soils.
- Seed mixes will include temporary cover crops to stabilize soils quickly.

2.4.1.1 Timing of Seed Installation

The majority of pre-construction seeding will occur during spring, summer, and dormant season timeframes. These are the preferred seed timing windows: spring (April 1 to May 20), late summer (August 10 to October 1), or dormant season (after hard frost until spring). After construction, seed installation may occur at any time of the year, after the soil disturbance is complete and a proper seedbed is restored and prepared for seed.

2.4.1.2 Cover crops

During site construction, temporary cover crop seed will be applied to disturbed soils within five calendar days of achieving final grade or the final earth change to reduce the risk of erosion in accordance with Part 91 of NREPA. Permanent seed mixes will include cover crops, at a reduced rate, during vegetation establishment. Cover crops are annual grass species that germinate and establish quickly, such as oats (for spring or summer seeding), annual rye (for spring or summer seeding), or wheat (for fall seeding).

2.4.2 Seed Substitutions

Availability of species in planned seed mixes is subject to change based on Project approval and construction timelines, and variability in supply. Sylvan Solar must approve any substitutions, and they must remain consistent with the stated goals and objectives in this Plan. Suitability for substitutions

should consider bloom season, phenology, sun exposure and soil preferences, height, cost, and native status.

3 Landscape Screening Areas

Section 18.19(B)(e) of the Garfield Township Zoning Ordinance requires tree and shrub plantings between adjacent occupied residential structures on non-participating parcels and the Project perimeter fence line. In addition, a Tall Pollinator Mix will be seeded between the Project perimeter fence line and public road ROWs (Table 3-1).

Table 3-1 Proposed Landscape Screening

Seed Mixes	Location
1. Tall Pollinator Seed Mix	Between the Project perimeter fence line and Garfield Township public road ROWs
2. Tree and Shrub Plantings	Between the Project perimeter fence line and adjacent non-participating residential structures

The tree and shrub plantings will include installation of trees and shrubs within the designated areas shown in Figure 6. Trees and shrubs will be installed at spacing to appropriately screen the Project area once the trees and shrubs have reached their full expected height. Tree and shrub species may include those listed in Table 2-4; however, other species may be used if the selected species are appropriate for the conditions and non-invasive.

Table 3-2 Potential Trees and Shrubs for Landscape Screening

Scientific Name	Common Name	Approximate Height at Maturity (feet)	Approximate Age to Maturity (years)
<i>Amorpha fruticosa</i>	False Indigo	10 to 15	3 to 6
<i>Aronia melanocarpa</i>	Chokeberry	8 to 10	3 to 5
<i>Cephalanthus occidentalis</i>	Buttonbush	6 to 12	3 to 5
<i>Cornus sericea</i>	Red osier dogwood	6 to 10	3 to 5
<i>Juniperus scopulorum</i> 'Moonglow'	Juniper moonglow	15 to 20	10 to 15
<i>Lindera benzoin</i>	Spicebush	8 to 12	5 to 7
<i>Physocarpus opulifolius</i>	Common ninebark	6 to 9	3 to 5
<i>Picea glauca</i> 'Conica'	Dwarf Alberta spruce	10 to 13	25 to 30
<i>Sambucus canadensis</i>	Black elderberry	5 to 12	3 to 5
<i>Thuja occidentalis</i> 'Smaragd'	Emerald green arborvitae	10 to 15	12 to 18
<i>Viburnum trilobum</i>	Highbush Cranberry	6 to 15	5 to 7

4 Adaptive Vegetation Management

To establish vegetation that meets Project requirements, ongoing maintenance will be necessary. During the first growing season, mowing is anticipated to be the predominant measure used to manage, reduce, and eliminate invasive species and prohibited, restricted, and noxious weeds. In cases where woody species or perennial invasive or noxious weed species are present, herbicide may be used as an alternative. Table 3-1 provides typical vegetation management services following an adaptive management approach.

Table 4-1 Typical Adaptive Management Approach

Adaptive Management Technique	Timeframe	Notes
Early season site assessment, planning, and reporting	Spring	Incorporate recommendations from the previous year, as needed
First round of maintenance: mowing or sheep grazing is typical	Early Summer	Spot-cutting preferred if possible
Second round of maintenance: spot herbicide treatment is typical	Mid-Summer	Targeted applications
Third round of maintenance: mowing, spot cutting, spot herbicide treatment as needed	Late Summer to Fall	Mowing or spot cutting employed to remove shading/interference
End of season site assessment and reporting	Fall	Assess the impact of techniques performed during the year; suggest adjustments if needed

4.1 Mowing

Mowing reduces vegetation height, prevents or removes shading from solar modules, controls weeds and woody species, clears away dormant vegetation, and improves the aesthetics of a site. After vegetation establishment, mowing may occur in the following areas: solar array area, open area(s) within the fence, entrances around gates, and area(s) outside the fence. Mowing implements include agricultural tractors with flail or rotary mower attachments, zero-turn mowers, robotic mowers, and/or other mechanical options (with Sylvan Solar's approval). Flail mower implements mulch the cut material and avoid forming a mat of cut vegetation which could smother desirable plant growth. Where appropriate, mower height should be at least 6" from the ground to minimize damage to native plants.

Wet areas pose challenges for mowers because water restricts access and increases the risk of equipment damaging the soil and/or seeded plants through rutting. Therefore, mowing in wet areas should occur only when conditions are dry, or avoided altogether and replaced with hand cutting/weed whipping if necessary.

Mowing native pollinator species more than once per month after establishment and/or too low (repeatedly less than 6") will damage or kill these species and reduce overall habitat quality.

4.2 Herbicide

Herbicide treatments may include selective or non-selective herbicides, spot or broadcast applications, and pre-emergent applications. Treatments will be used to control prohibited, restricted, and noxious weeds and woody species which mowing does not effectively control alone. Herbicide treatment will reduce the populations of undesirable species, prevent the spread of noxious weed seeds, and kill vegetation that may be encroaching on or shading solar modules and equipment. Herbicide selection and application will be completed under the guidance and oversight of a commercial applicator certified by the MDARD. Herbicide will not be applied within 50 feet of any wetlands or streams depicted on Figure 4 or onto surface water.

For general noxious weed and tree control in pollinator habitat, selective herbicides (formulated for specific plant groups) and spot application (applying directly to the foliage of target plants) are preferential over broadcast and non-selective applications. This will promote good control of undesirable species

while minimizing off-target damage to desirable species. Broadcast applications may occur if there are large areas dominated by a single noxious weed species or type, such as Canada thistle (*Cirsium arvense*). In that scenario, Sylvan Solar will use the most selective herbicide and limit the application to the minimum effective area or use proper timing to minimize non-target damage. If non-selective herbicides are necessary for certain weed species, Sylvan Solar will limit their use to the minimum effective area and method of application.

In addition to herbicide treatment for weeds, pre-emergent and non-selective herbicides application may occur in specific areas of the Project area (around electrical equipment and along roads/gravel) to maintain bare ground. Herbicide treatments for bare ground include a chemical adjuvant to increase soil deposition/adsorption and prevent runoff.

4.3 Sheep Grazing

Sheep grazing is an option to manage plant height and shading, reduce thatch, and provide weed control, while also maintaining pollinator habitat value. Grazing has the potential to reduce or eliminate the necessity for other vegetation management services such as mowing, haying, weed whipping, noxious weed herbicide treatments, and/or bare ground herbicide treatments. This is because sheep can easily access areas of solar sites where equipment cannot, removing vegetation around equipment, underneath panels, and along interior fence lines. Grazing is also the most effective method of reducing vegetative thatch buildup which reduces the risk and intensity of wildfires. Grazing animals are more ecologically-appropriate and sustainable than mechanical cutting, enhancing the benefits of pollinator habitats by enhancing soil carbon and nutrients.

To provide uniform height and vegetation reduction across the site, grazing should occur at high animal stocking density (greater than 20 animal units per acre) for a short duration (1-2 weeks per deployment, no more than 4 weeks on a particular area). This method achieves a high-intensity grazing event that clears or defoliates 70-90 percent of vegetation, mimicking the effect of fire. To maintain the diversity and health of native plant communities, grazing should not occur more than once during each growing season. Low-intensity grazing may occur in certain situations, particularly for dormant season thatch reduction or on sites with non-native vegetation.

4.4 Invasive Species and Weed Species Management

Sylvan Solar will manage prohibited, restricted, and noxious weeds for the life of the Project as required for safe operation of the solar equipment and in accordance with Michigan laws. NREPA Act 359 Part 413 should be referenced for a list of prohibited and restricted weeds in the state of Michigan. This list includes species that may occur within the Project area (among others):

- European Frog-bit (*Hydrocharis morsus-ranae*)
- Flowering Rush (*Butomus umbellatus*)
- Giant Hogweed (*Heracleum mantegazzianum*)
- Japanese Knotweed (*Fallopia japonica*)
- Phragmites (*Phragmites australis*)
- Purple Loosestrife (*Lythrum salicaria*)

Michigan Seed Law Act 329 of 1965 should be referenced for a list of noxious weed species. This list includes species that may occur within the Project area (among others):

- Canada thistle (*Cirsium arvense*)
- Giant ragweed (*Ambrosia trifida*)
- Wild parsnip (*Pastinaca sativa*)
- Poison hemlock (*Conium maculatum*)
- Yellow nutsedge (*Cyperus esculentus*)
- Leafy spurge (*Euphorbia esula*)

Sylvan Solar will manage invasive plant species to prevent or remove interference with solar equipment and maintain the health and quality of pollinator habitat. Sylvan Solar may not control certain invasive species such as reed canary grass and smooth brome unless they are expected to interfere with operations or solar panels. These species are often extremely difficult to eradicate without extensive effort and collateral damage to desirable species. In addition, they are already abundant in the area, are not considered prohibited, restricted, and noxious weeds, and are not expected to negatively impact neighboring properties.

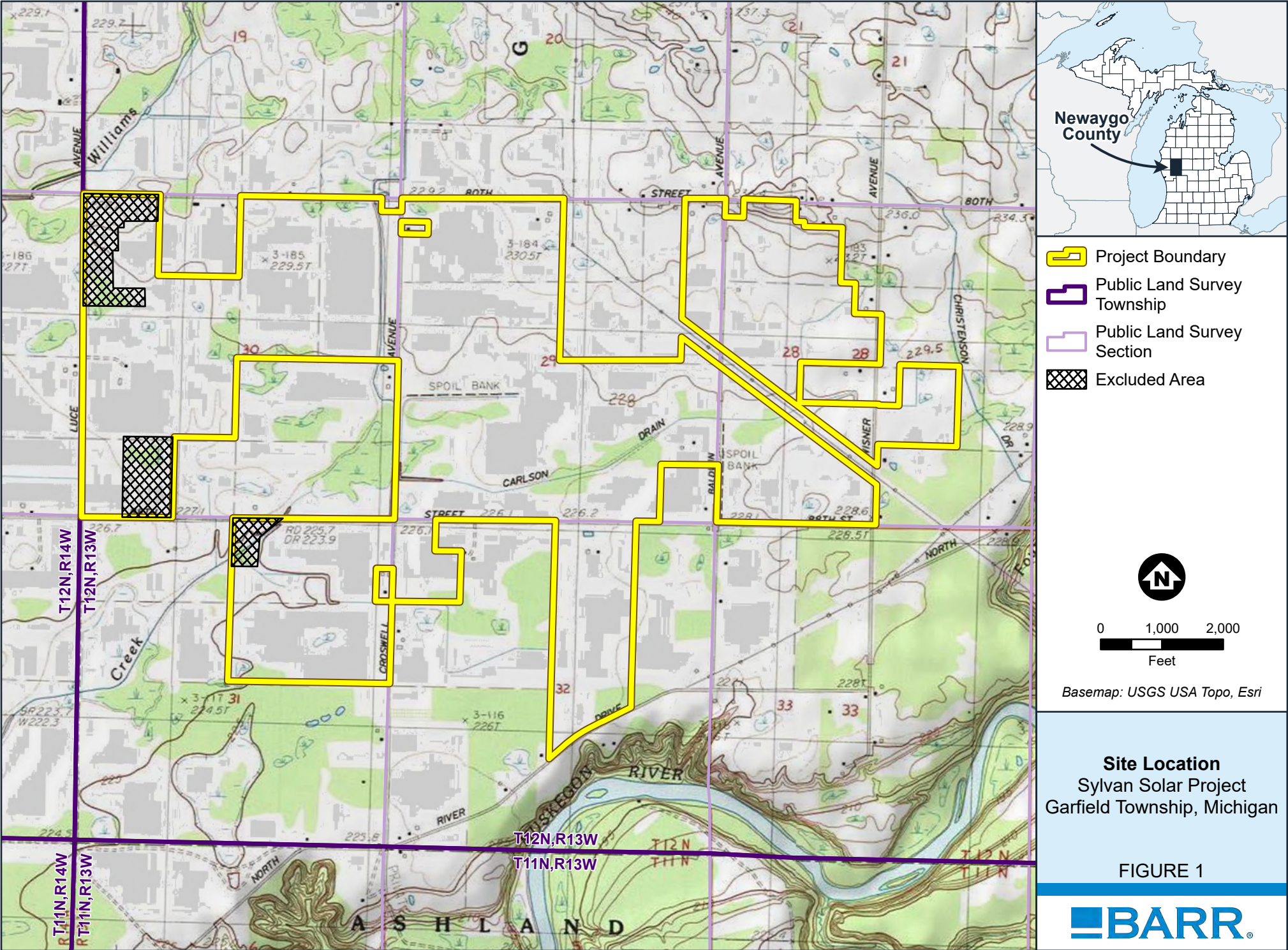
Other undesirable species on solar projects are those which interfere with electrical equipment, shade panels, or damage fences or other infrastructure, particularly trees, shrubs, vines, and tall and aggressive herbaceous species.

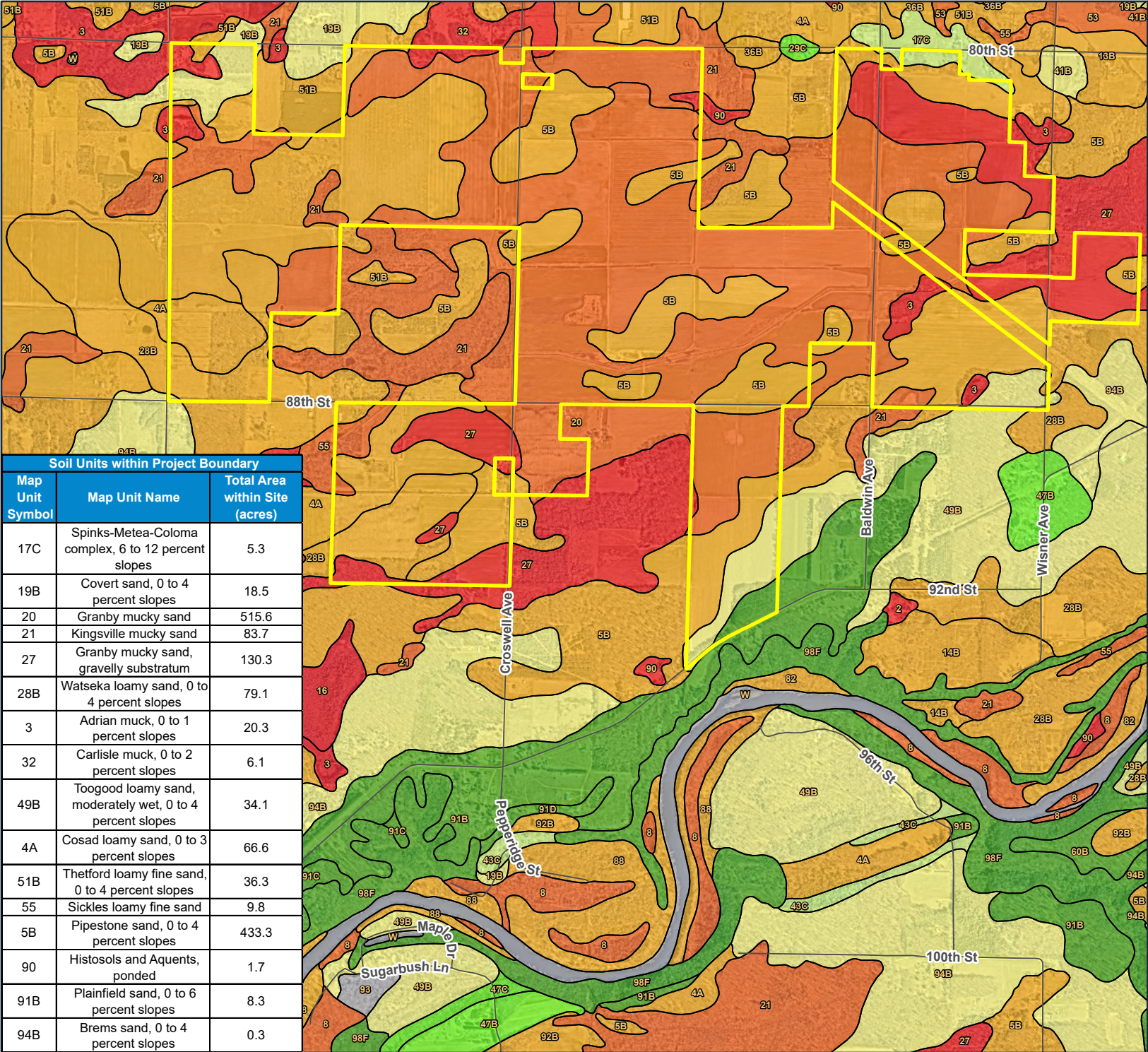
Sylvan Solar will require inspection and cleaning of vegetation management equipment prior to arrival at the Project to minimize the importation of invasive species. This consists of removing plants, seeds, mud, and dirt clods by washing or blowing with compressed air as applicable. Sylvan Solar will require the cleaning and inspection of any unclean equipment arriving at the Project site.

5 References

- Cohen, J.G., M.A. Kost, B.S. Slaughter, D.A. Albert, J.M. Lincoln, A.P. Kortenhoven, C.M. Wilton, H.D. Enander, and K.M. Korroch. 2020. Michigan Natural Community Classification [web application]. Michigan Natural Features Inventory, Michigan State University Extension, Lansing, Michigan.
Available <https://mnfi.anr.msu.edu/communities/classification>. (Accessed: May 21, 2025).
- Tetra Tech, Inc. 2024. *Wetland Delineation Report*. Presented to AES Clean Energy Development, LLC. July 2024.

Figures





Soil Units within Project Boundary		
Map Unit Symbol	Map Unit Name	Total Area within Site (acres)
17C	Spinks-Metea-Coloma complex, 6 to 12 percent slopes	5.3
19B	Covert sand, 0 to 4 percent slopes	18.5
20	Granby mucky sand	515.6
21	Kingsville mucky sand	83.7
27	Granby mucky sand, gravelly substratum	130.3
28B	Watseka loamy sand, 0 to 4 percent slopes	79.1
3	Adrian muck, 0 to 1 percent slopes	20.3
32	Carlisle muck, 0 to 2 percent slopes	6.1
49B	Toogood loamy sand, moderately wet, 0 to 4 percent slopes	34.1
4A	Cosad loamy sand, 0 to 3 percent slopes	66.6
51B	Thetford loamy fine sand, 0 to 4 percent slopes	36.3
55	Sickles loamy fine sand	9.8
5B	Pipestone sand, 0 to 4 percent slopes	433.3
90	Histosols and Aquents, ponded	1.7
91B	Plainfield sand, 0 to 6 percent slopes	8.3
94B	Brems sand, 0 to 4 percent slopes	0.3

- Project Boundary
- Soil Map Unit
- Drainage Class**
- Very Poorly Drained
 - Poorly Drained
 - Somewhat Poorly Drained
 - Moderately Well Drained
 - Well Drained
 - Somewhat Excessively Drained
 - Excessively Drained
 - NA



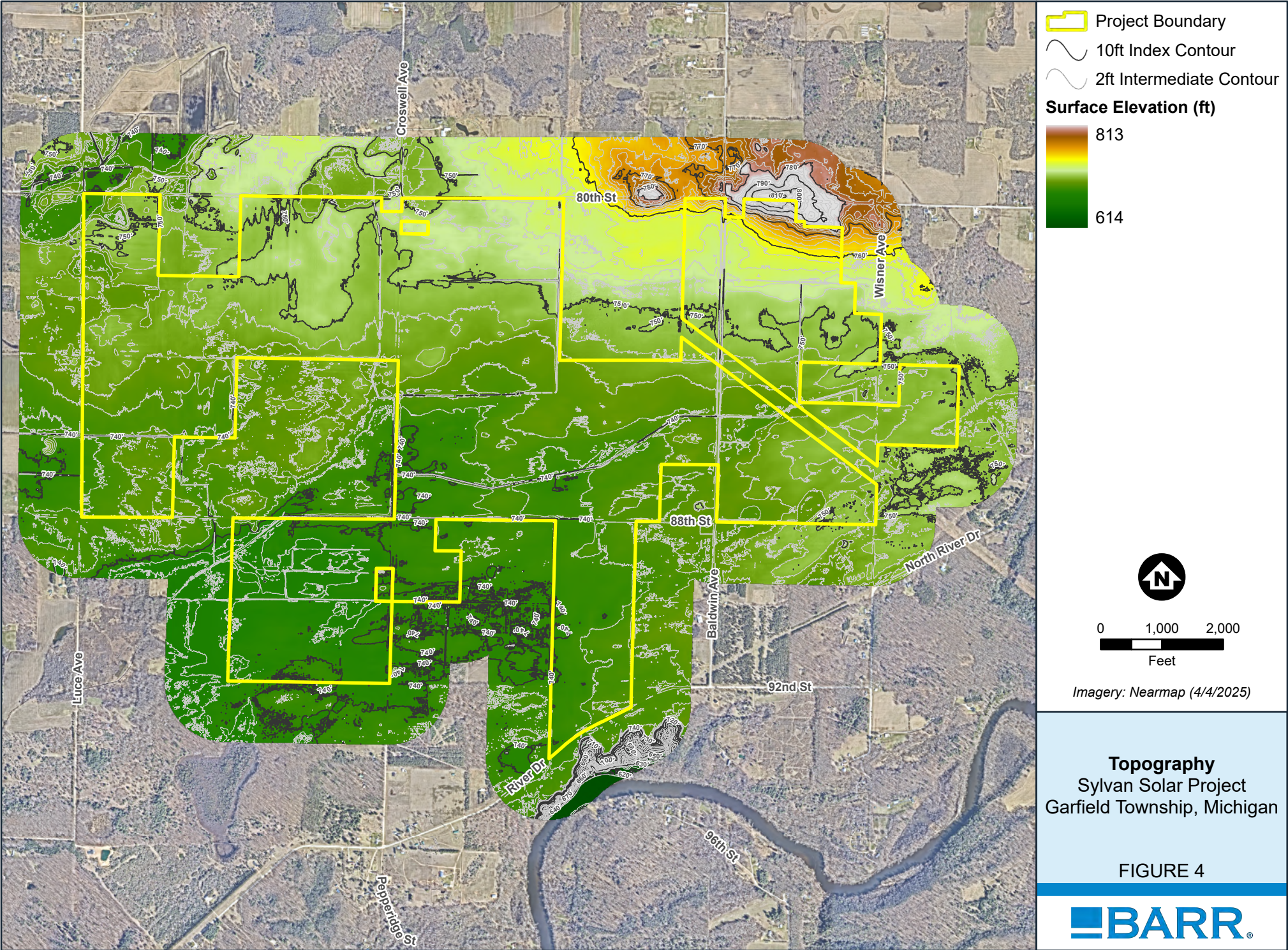
0 1,000 2,000
Feet

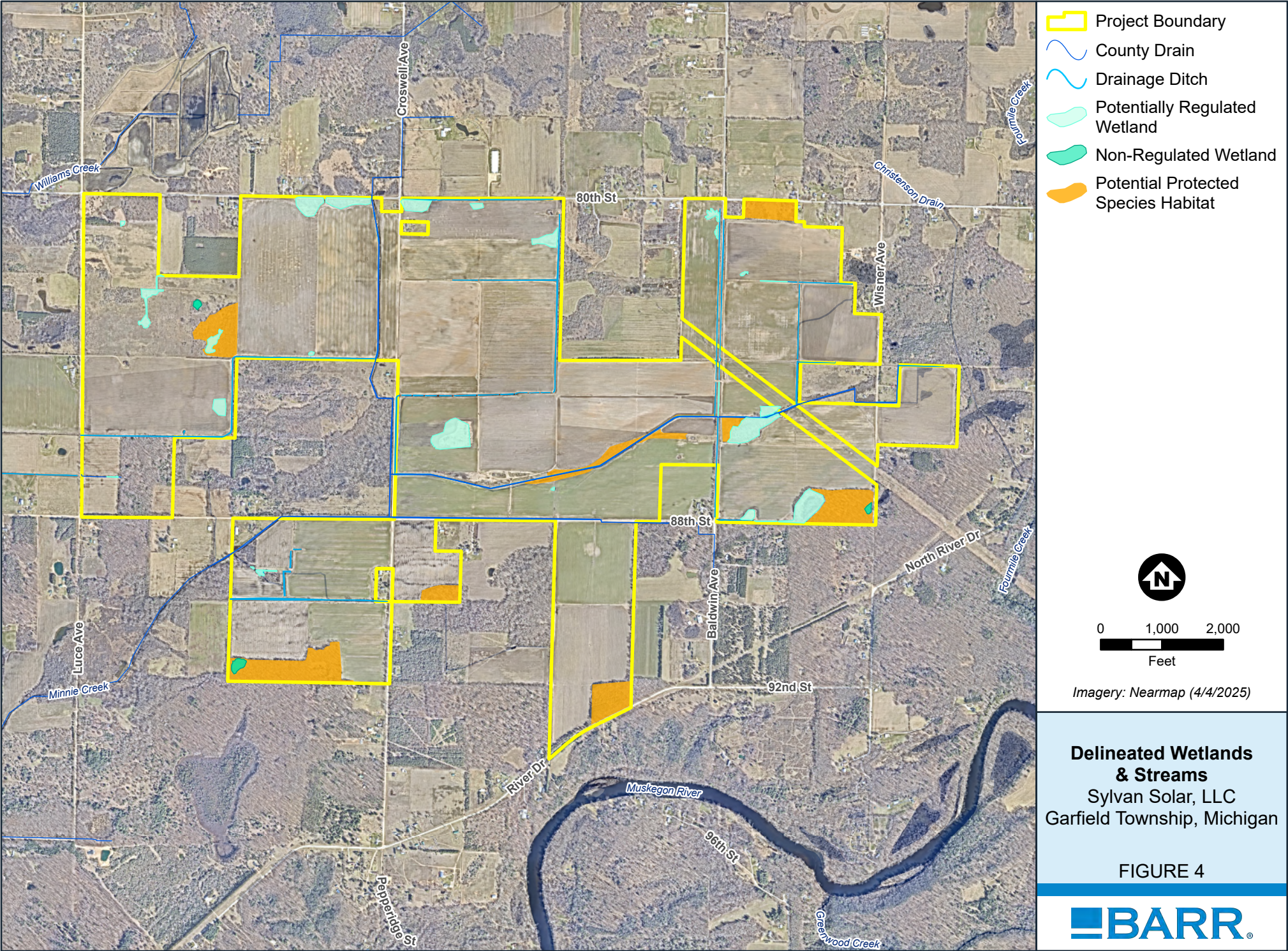
Imagery: Nearmap (4/4/2025)

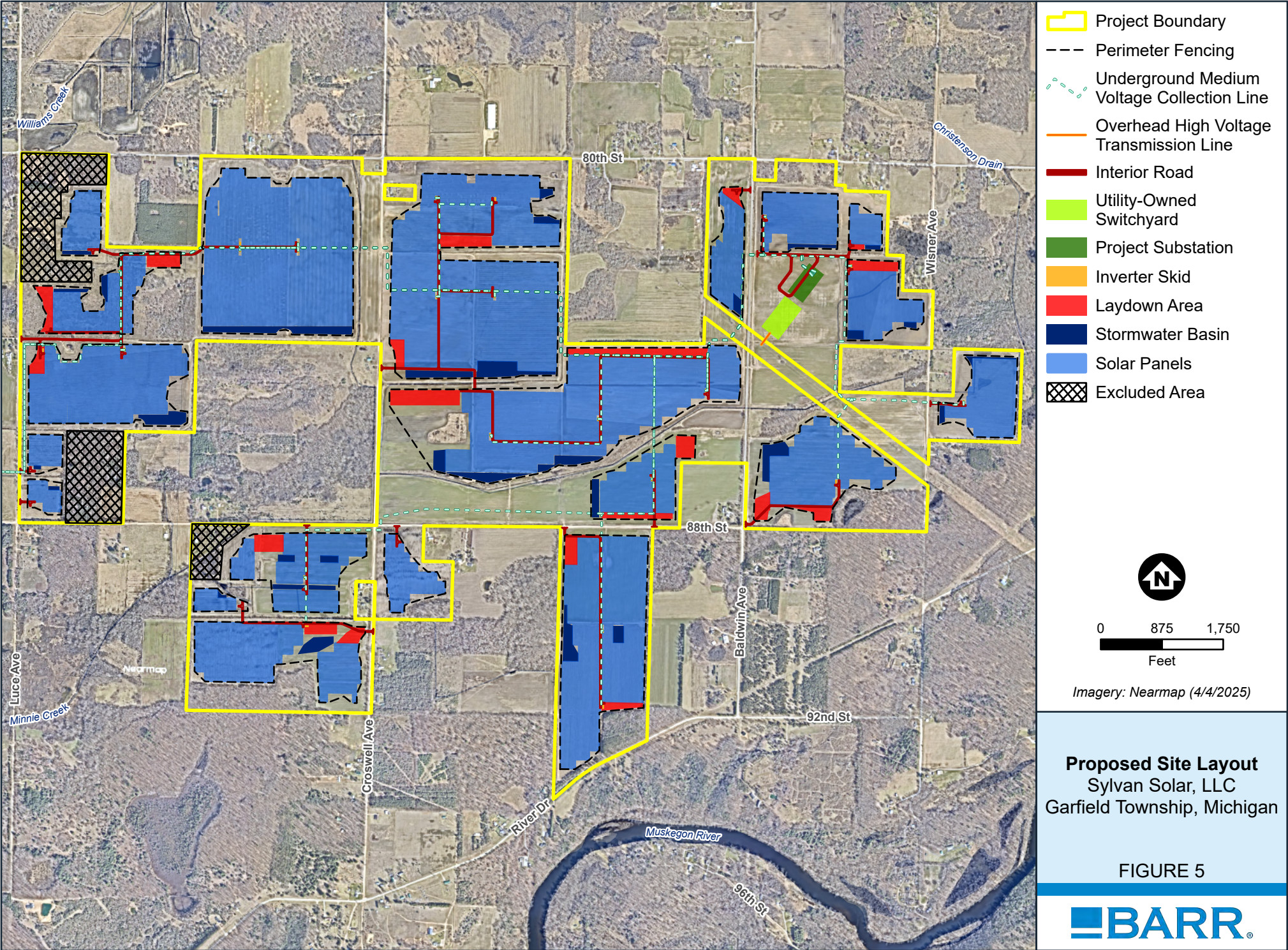
NRCS Mapped Soil Types
Sylvan Solar Project
Garfield Township, Michigan

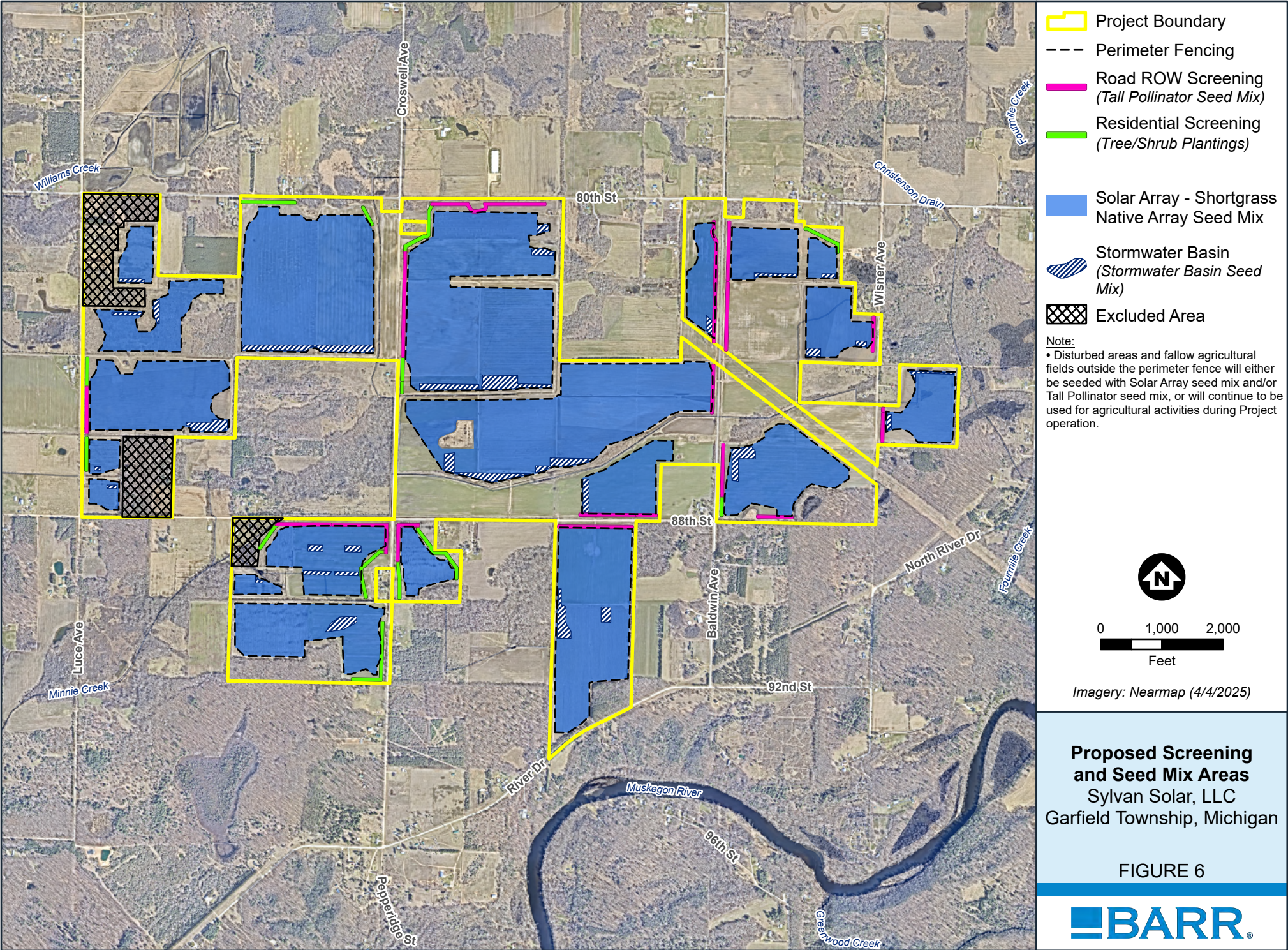
FIGURE 2













Appendix A

Appendix A – NRCS Code 327





Sylvan Solar
Array Mix - Dry Soil
Newaygo County, Michigan

Grass PLS lbs/ac:	7.78
Sedge PLS lbs/ac:	0.72
Forb PLS lbs/ac:	0.50
Species Count:	19
Grass/Sedge Seeds/SF:	58
Forb Seeds/SF:	18
Avg Height Range:	12-30"

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season	Seeds/SF
Grasses:	Bouteloua curtipendula	Side-oats Grama	26.00	2.34		8.55
	Bromus kalmii	Prairie Brome	8.00	0.72		2.12
	Elymus hystrix	Bottlebrush Grass	6.00	0.54		1.51
	Elymus trachycaulus	Slender Wheat Grass	11.00	0.99		2.51
	Elymus villosus	Silky Wild Rye	11.00	0.99		2.00
	Koeleria macrantha	Junegrass	1.00	0.09		5.79
	Schizachyrium scoparium	Little Bluestem	20.45	1.84		10.14
	Sporobolus cryptandrus	Sand Dropseed	3.00	0.27		19.83
Sedges:	Carex brevior	Plains Oval Sedge	5.00	0.45		4.79
	Carex houghtoniana	Houghtons Sedge	1.00	0.09		0.16
	Carex sprengeii	Long-beaked Sedge	2.00	0.18		0.66
Forbs:	Achillea millefolium	Yarrow	0.75	0.07	Summer	4.34
	Allium cernuum	Nodding Onion	0.75	0.07	Summer	0.19
	Aquilegia canadensis	Columbine	0.75	0.07	Spring	0.94
	Drymocallis arguta	Prairie Cinquefoil	0.50	0.05	Summer	3.80
	Monarda punctata	Spotted Bee Balm	0.30	0.03	Summer	0.89
	Symphyotrichum lateriflorum	Calico Aster	0.75	0.07	Fall	6.20
	Verbena stricta	Hoary Vervain	1.00	0.09	Summer	0.93
	Zizia aurea	Golden Alexanders	0.75	0.07	Spring	0.27
Cover Crop:	Determined at the time of seeding	Oats/Winter Wheat		25.00		
						75.61

Terms:

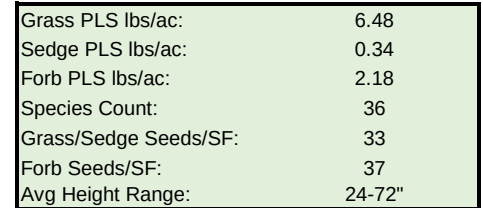
Down Payment: 25% down payment required to secure order.

Pricing: Prices and availability subject to change at any time without notice.

Terms: Payment due upon receipt for all customers. Approved credit customers Net 30 days.

Freight: All prices are FOB Foley MN. Shipping and/or delivery available.

Warranty: MNL strives to produce the highest quality native seed and plants, but we do not warranty/guarantee our products due to factors outside our control. If an item was damaged in shipping or you have other concerns about quality, please contact MNL Customer Service at info@mnlcorp.com



69.20

Office: (763) 271-1074



Sylvan Solar
Stormwater Basin Mix
 Newaygo County, Michigan

Grass PLS lbs/ac:	5.16
Sedge PLS lbs/ac:	0.82
Forb PLS lbs/ac:	2.02
Species Count:	30
Grass/Sedge Seeds/SF:	126
Forb Seeds/SF:	127
Avg Height Range:	30-48"

	Scientific Name	Common Name	% of Mix	PLS lbs/ac	Bloom Season	Seeds/SF
Grasses:	Beckmannia syzigachne	American Slough Grass	20.00	1.60		29.38
	Calamagrostis canadensis	Blue-joint Grass	0.50	0.04		4.11
	Elymus virginicus	Virginia Wild Rye	21.00	1.68		2.59
	Glyceria striata	Fowl Manna Grass	6.00	0.48		15.87
	Leersia oryzoides	Rice Cutgrass	10.00	0.80		9.99
	Spartina pectinata	Prairie Cordgrass	7.00	0.56		1.36
Sedges:	Carex hystericina	Porcupine Sedge	1.75	0.14		1.54
	Carex stipata	Awl-fruited Sedge	2.00	0.16		2.00
	Carex vulpinoidea	Fox Sedge	5.00	0.40		11.90
	Scirpus atrovirens	Green Bulrush	0.75	0.06		10.14
	Scirpus cyperinus	Woolgrass	0.75	0.06		37.47
Forbs:	Acorus americanus	Sweet Flag	1.00	0.08	Summer	0.19
	Asclepias incarnata	Rose Milkweed	5.00	0.40	Summer	0.71
	Bidens cernua	Nodding Beggarstick	2.00	0.16	Summer	2.06
	Boltonia asteroides	False Aster	1.50	0.12	Fall	7.05
	Eryngium yuccifolium	Rattlesnake Master	1.50	0.12	Summer	0.33
	Eutrochium maculatum	Joe-pye Weed	0.50	0.04	Summer	1.77
	Eupatorium perfoliatum	Boneset	0.75	0.06	Fall	5.51
	Helenium autumnale	Sneezeweed	1.50	0.12	Fall	5.73
	Liatris pycnostachya	Prairie Blazing Star	2.00	0.16	Summer	0.65
	Lythrum alatum	Winged Loosestrife	0.50	0.04	Summer	13.88
	Mimulus ringens	Monkey Flower	1.00	0.08	Summer	67.58
	Monarda fistulosa	Wild Bergamot	0.50	0.04	Summer	1.03
	Solidago rigida	Stiff Goldenrod	1.00	0.08	Fall	1.20
	Sparganium eurycarpum	Giant Burreed	2.00	0.16	Summer	0.03
	Symphyotrichum novae-angliae	New England Aster	0.75	0.06	Fall	1.45
	Thalictrum dasycarpum	Purple Meadow Rue	0.75	0.06	Summer	0.44
	Verbena hastata	Blue Vervain	2.00	0.16	Summer	5.47
	Veronicastrum virginicum	Culver's Root	0.50	0.04	Summer	11.75
	Zizia aurea	Golden Alexanders	0.50	0.04	Spring	0.16
Cover Crop:	Determined at the time of seeding	Oats/Winter Wheat		25.00		

253.36

Terms:

Down Payment: 25% down payment required to secure order.

Pricing: Prices and availability subject to change at any time without notice.

Terms: Payment due upon receipt for all customers. Approved credit customers Net 30 days.

Freight: All prices are FOB Foley MN. Shipping and/or delivery available.

Warranty: MNL strives to produce the highest quality native seed and plants, but we do not warranty/guarantee our products due to factors outside our control. If an item was damaged in shipping or you have other concerns about quality, please contact MNL Customer Service at info@mnllcorp.com



Appendix B

Appendix B – Sylvan Solar Seed Mixes

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

CONSERVATION COVER

(Ac.)

CODE 327

DEFINITION

Establishing and maintaining permanent vegetative cover

PURPOSE

This practice is applied to support one or more of the following purposes:

- Reduce sheet, rill, and wind erosion and sedimentation.
- Reduce ground and surface water quality degradation by nutrients and surface water quality degradation by sediment.
- Reduce emissions of particulate matter (PM), PM precursors, and greenhouse gases.)
- Enhance wildlife, pollinator and beneficial organism habitat.
- Improve soil health.

CONDITION WHERE PRACTICE APPLIES

This practice applies on all lands needing permanent herbaceous vegetative cover. This practice does not apply to plantings for forage production or to critical area plantings. This practice can be applied on a portion of the field.

CRITERIA

General Criteria Applicable to All Purposes

Select species that are adapted to the soil, ecological sites, and climatic conditions that are suitable for the planned purpose and site conditions. Periodic removal of some products such as high value trees, medicinal herbs, nuts, and fruits is permitted provided the conservation purpose is not compromised by the loss of vegetation or harvesting

disturbance.

Inoculate legumes at planting time.

Choose seeding rates and planting methods that will be adequate to accomplish the planned purpose.

Planting dates, planting methods and care in handling and planting of the seed or planting stock shall ensure that planted materials have an acceptable rate of survival.

Prepare the site by establishing a consistent seeding depth. Eliminate weeds that would impede the establishment and growth of selected species.

Base the timing and equipment selection on the site and soil conditions.

Apply nutrients as needed to ensure crop establishment and planned growth.

Additional Criteria to Reduce Sheet, Rill, and Wind Erosion and Sedimentation

Determine and maintain the amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective by using the current approved wind and/or water erosion prediction technology.

Additional Criteria to Reduce Emissions of Particulate Matter (PM), PM Precursors, and greenhouse gases

In perennial crop systems such as orchards, vineyards, berries and nursery stock, establish vegetation to provide full ground coverage in the alleyway during mowing and harvest operations to minimize generation of particulate matter.

Additional Criteria to Enhance Wildlife, Pollinator and Beneficial Organism Habitat

Plant a diverse mixture grasses and forbs

species to promote bio-diversity and meet the needs of the targeted species using approved habitat appraisal guides, evaluation tools, and appraisal worksheets for the respective state.

Locate habitat plantings to reduce pesticide exposures that could harm wildlife, pollinators, and other beneficial organisms.

Additional Criteria to Improve Soil Health

To maintain or improve soil organic matter, select plants that will produce high volumes of organic material. The amount of biomass needed will be determined using the current soil conditioning index procedure.

CONSIDERATIONS

This practice may be used to promote the conservation of wildlife species in general, including threatened and endangered species.

Certified seed and planting stock that is adapted to the site should be used when it is available.

Mowing may be needed during the establishment period to reduce competition from weeds.

On sites where annual grasses are an expected weed problem it may be necessary to postpone nitrogen fertilizer application until the planted species are well established.

Where applicable this practice may be used to conserve and stabilize archeological and historic sites.

Consider rotating management and maintenance activities (e.g. mow only one-fourth or one-third of the area each year) throughout the managed area to maximize spatial and temporal diversity.

Where wildlife management is an objective, the food and cover value of the planting can be enhanced by using a habitat evaluation procedure to aid in selecting plant species and by providing or managing for other habitat requirements necessary to achieve the objective. Encouraging plant species diversity and establishing plantings that result in multiple structural levels of vegetation within the conservation cover will maximize wildlife use.

Where pollinator and wildlife habitat are primary purposes consider less dense seeding rates as long as soil loss is within tolerable soil loss limits.

To provide habitat for natural enemies of crop pests, select a mix of plant species that provide year round habitat and food (accessible pollen or nectar) for the desired beneficial species. Consider habitat requirements of predatory and parasitic insects, spiders, insectivorous birds and bats, raptors, and terrestrial rodent predators. Consult Land Grant University Integrated Pest Management recommendations for beneficial habitat plantings to manage the target pest species.

Use a diverse mix of cover plant species that come into bloom at different times and provide a sequence of bloom throughout the year (e.g., plant at least three flowering species from each of the three bloom periods (spring, summer, and fall).

Where practical, use native species that are appropriate for the identified resource concern and management objective. Consider trying to re-establish the native plant community for the site.

If a native cover (other than what was planted) establishes, and this cover meets the intended purpose and the landowner's objectives, the cover should be considered adequate.

During vegetation establishment, natural mulches, such as wood products or hay, can be used to conserve soil moisture, support beneficial soil life, and suppress competing vegetation.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for the site to include, but are not limited to:

- recommended species,
- seeding rates and dates,
- establishment procedures,
- management actions needed to insure and adequate stand

Specifications and operation and maintenance shall be recorded using approved Implementation Requirement document.



Attachment 5 - Decommissioning Plan

Decommissioning Plan

Sylvan Solar Project – Garfield Township



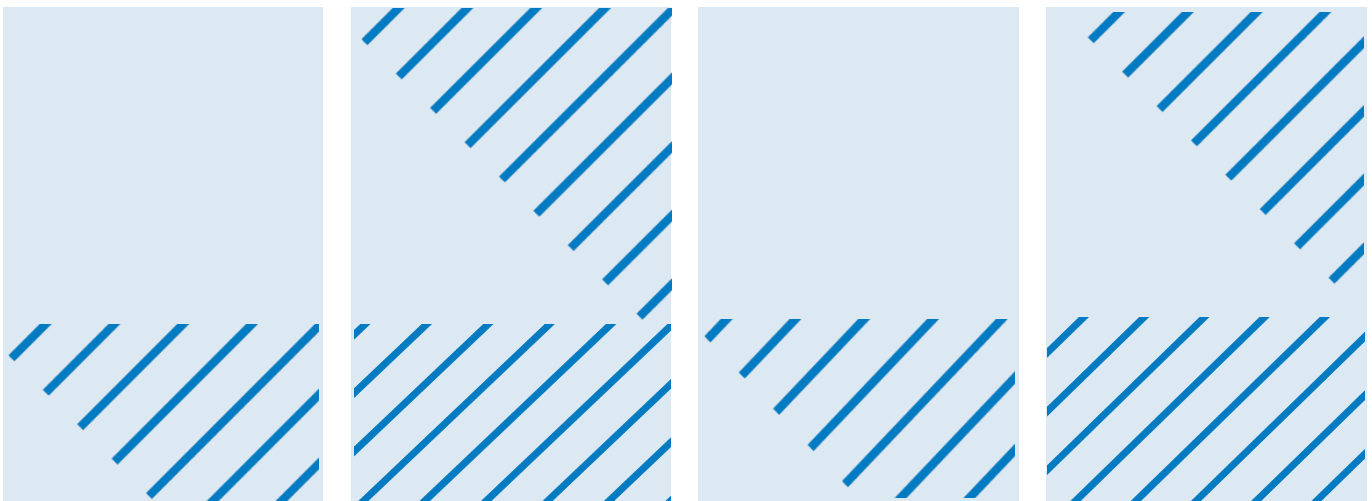
Prepared for
Sylvan Solar, LLC

Prepared by
Barr Engineering Michigan LLC

August 2025

3005 Boardwalk Street, Suite 100
Ann Arbor, MI 48108
734.922.4400

barr.com



Certification

A handwritten signature in black ink that reads "Joel E Bahma".

Joel Bahma, PE

August 18, 2025

Date

Decommissioning Plan

August 2025



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2	Project Information	1
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Abbreviations

AC	alternating current
AES	AES Clean Energy
Barr	Barr Engineering Michigan LLC
BMPs	Best Management Practices
DC	direct current
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EPA	U.S. Environmental Protection Agency
gen-tie	generation tie line
HV	high voltage
kV	kilovolt
MDARD	Michigan Department of Agriculture and Rural Development
MDOT	Michigan Department of Transportation
MW	megawatt
MPSC	Michigan Public Service Commission
O&M	Operations & Maintenance
Plan	Decommissioning Plan
Project	Sylvan Solar Project
PV	photovoltaic
SCADA	supervisory control and data acquisition
SES	solar energy system
SESC	Soil Erosion and Sedimentation Control
SPCC	Spill Prevention, Control, and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan
Sylvan Solar	Sylvan Solar, LLC

1 Introduction

Barr Engineering Michigan LLC (Barr) has prepared this Decommissioning Plan (Plan) on behalf of Sylvan Solar, LLC (Sylvan Solar), an affiliate of AES Clean Energy, for the Sylvan Solar Project (Project) in Newaygo County, Michigan. AES Clean Energy (AES) is a division of The AES Corporation based in the United States that owns and operates solar, wind, and battery projects across the country. The intent of the Project is to generate an annual average of approximately 445,000 megawatt (MW) hours of renewable energy over its anticipated 35-year life span.

This Plan was written in accordance with the Garfield Township Zoning Ordinance and Solar Energy System (SES) amendment requirements. The purpose of this Plan is to assess the potential impacts of the Project and to restore the Project area to its prior agricultural use or to another use if the economic conditions and landowner intentions indicate another use is appropriate for the Project area, in accordance with applicable local requirements.

2 Project Information

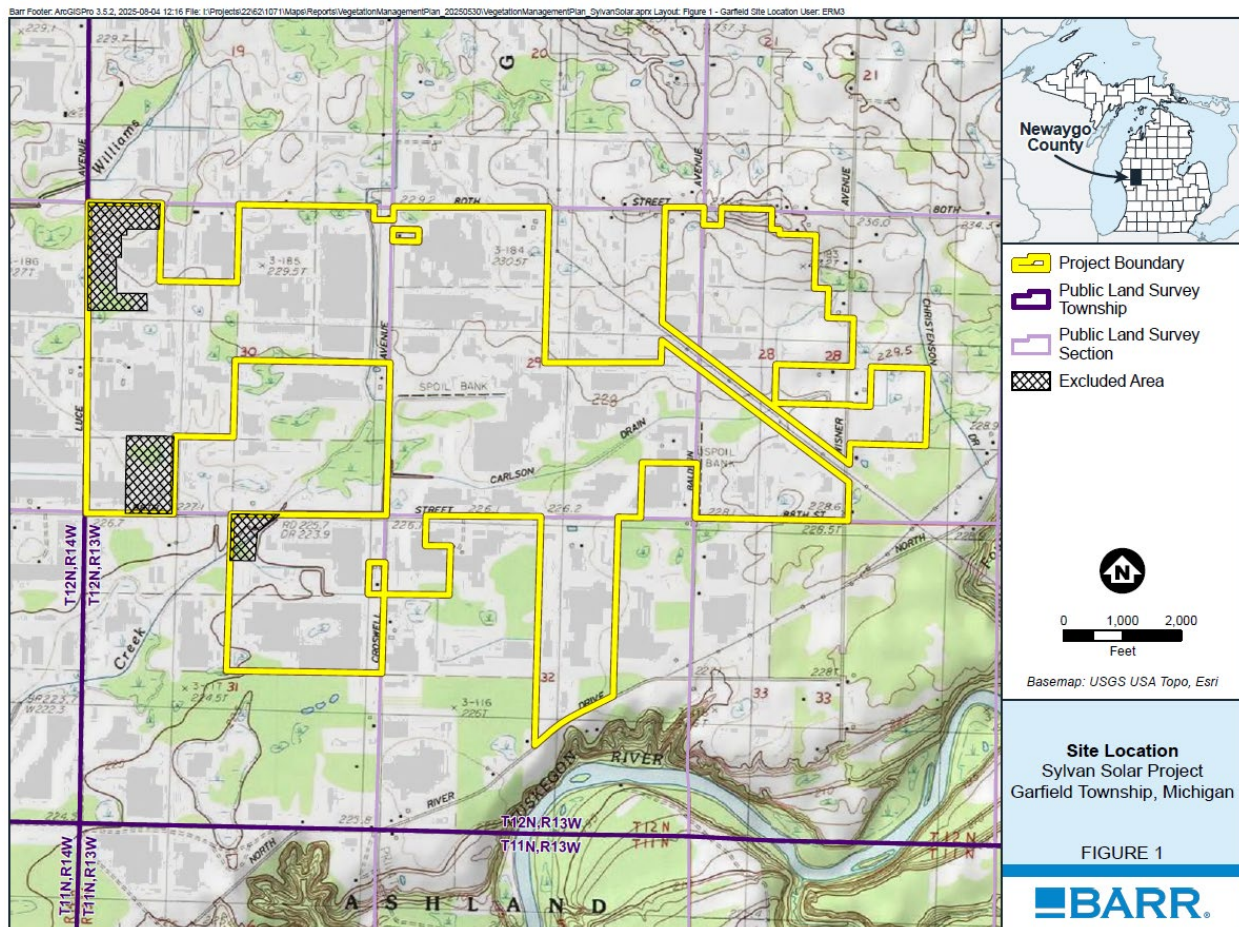
2.1 Project Description

The Project is an up to 220-MW photovoltaic (PV) solar generation facility within a 2,166-acre Project area of land within Garfield Township and Sheridan Charter Township, Newaygo County, Michigan. The Project is approximately 4.5 miles southeast of Fremont, Michigan (Figure 1). The Project is generally north of North River Drive, west of Bingham Avenue, south of Michigan Highway 82, and east of South Osborn Avenue. The Project footprint and surrounding area primarily consist of agricultural fields, wooded areas, agricultural ditches, and Newaygo County designated drains. The Muskegon River is approximately 900 feet south of the Project at its closest point.

Of the total 1,383 acres leased for the Project in Garfield Township, approximately 830 acres of the Project area will consist of the solar energy facility and generation tie line (gen-tie). A <500-foot-long overhead gen-tie line will be constructed between the proposed Project substation and a proposed utility-owned and operated switchyard, which will connect via a utility-owned overhead line to the existing 345-kilovolt (kV) Ludington to Kenowa overhead transmission line.

Construction of the Project is anticipated to commence in mid-2027, and the solar energy facility is expected to be operational in late 2028.

Figure 1 Site Location



2.2 General Facility Description

The facility will include multiple rows of PV solar panels oriented north-south on single-axis tracking structures, inverters that convert direct current (DC) to alternating current (AC), transformers, primarily underground 34.5-kV medium voltage collection lines, meteorological stations, a stormwater management system, and a 345-kV Project substation with associated high-voltage (HV) gen-tie.

In Garfield Township, the Development Area within the perimeter fence line will encompass approximately 830 acres, and include the following Project components:

- PV solar arrays,
- inverter skids that will house inverters and medium voltage step-up transformers,
- underground medium voltage collection lines,
- gravel access roads,
- meteorological stations,
- security fencing and gates,
- stormwater management system,
- Project substation and control room housing the supervisory control and data acquisition (SCADA) system,
- <500-foot-long overhead gen-tie line,
- operations and maintenance (O&M) building, and
- utility-owned and operated switchyard and overhead HV transmission line.

The PV solar arrays will occupy a significant portion of the private parcels at full build-out. The Project area will include underground medium voltage collection lines, which will connect the blocks of PV solar arrays within the Project area.

The PV modules will convert sunlight into DC electricity. Combiner boxes will collect the DC electricity from each PV module and convey it to an inverter. The inverter will convert the DC power to AC power, which will then flow to the medium-voltage transformers. The collection lines will transport electricity from the PV solar arrays to the proposed Project substation in Garfield Township.

During site development, temporary laydown areas, construction trailers, and parking areas will be provided within the Project area. Fencing, lighting in select areas, and electronic security systems will secure the Project facilities. The fence will be an approximate 8-foot-high woven wire fence. Downlit, dark-sky friendly security lighting will be installed at the O&M building, Project substation, and the Project entrance gates. The Project's O&M building will include maintenance facilities, restrooms, and ancillary support systems such as water treatment and component storage.

3 Time & Notification

3.1 Anticipated Project Timeline

Construction of the Project is anticipated to commence in 2027. The current anticipated lifespan is 35 years from the date of commercial operations. In accordance with Section 18.19(B)(s) of the Garfield Township Zoning Ordinance, Sylvan Solar will update the decommissioning plan and cost estimate prior to construction and every five years during operation.

3.2 Decommissioning Period

Sylvan Solar anticipates decommissioning would be complete within eighteen (18) months after abandonment or the end of its useful life. The end of useful life shall be presumed if no electricity is generated for a continuous period of twelve (12) months.

3.3 Notification

Sylvan Solar will provide written notification of intent to decommission to landowners, the Michigan Department of Agriculture and Rural Development (MDARD), Newaygo County, and Garfield Township prior to commencing decommissioning activities. Sylvan Solar will also confirm applicable local permitting requirements (e.g., regarding road restrictions or permits required prior to ground disturbance) with Newaygo County and Garfield Township. Sylvan Solar will provide written notification to landowners, MDARD, Newaygo County, and Garfield Township upon completion of decommissioning and restoration activities.

4 Permitting

Sylvan Solar will confirm permitting requirements prior to decommissioning activities and will obtain applicable approvals prior to ground-disturbing activities. Sylvan Solar anticipates a Soil Erosion and Sedimentation Control (SESC) Permit will be necessary for greater than one acre of disturbance. Local permits from Newaygo County and Garfield Township will also be considered, including potential permits required for work in road rights-of-way (Table 1).

Table 1 Potential Decommissioning Permits

Regulatory Authority	Permit/Authorization
Michigan Department of Environment, Great Lakes, and Energy (EGLE)	Natural Resources and Environmental Protection Act Part 303 permit for impacts to Waters of the U.S. and Waters of the State, including wetlands.
U.S. Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasures (SPCC) Plan if/when aggregate aboveground storage capacity is greater than 1,320 gallons
U.S. Fish and Wildlife Service (USFWS)	Section 7 or Section 10 consultation may be required if the decommissioning activities have the potential for “take” of a federally-listed threatened or endangered species.
Michigan Department of Transportation (MDOT)	Oversize/Overweight Permit for State Highways
Newaygo County Drain Commissioner	A SESC Permit is required for any earth change activity which disturbs one or more acres of land or which is within 500 feet of a lake or stream.

Regulatory Authority	Permit/Authorization
Newaygo County Road Commission	Moving permits for Oversize/Overweight loads

5 Decommissioning Tasks

5.1 Modules

Sylvan Solar intends to use approximately 296,200 bifacial PV modules for the Project portion located in Garfield Township. This Plan is based on the QCells Q.Peak Due ML-G125 module. Each module assembly (with frame) will have a total weight of approximately 84 pounds. The modules will be approximately 94 inches by 52 inches in width. The modules are mainly comprised of non-metallic materials such as silicon, glass, composite film, plastic, and epoxies, with an anodized aluminum frame.

Once deenergized, the modules will be disassembled and prepared for shipment. At the time of decommissioning, module components in working condition may be refurbished and sold in a secondary market yielding greater revenue than selling as salvage material. Modules that are not in working condition or are not marketable for resale will be recycled, if practicable, or landfilled.

5.2 Racking System and Supports

Cabling, wiring, and electrical components will be removed from racking. Racking and racking components will be disassembled and removed from the steel foundation posts, processed to appropriate size, and sent to a metal scrap facility.

5.3 Module Piles and Foundations

Module foundations are assumed to be comprised of steel driven piles. Steel piles will be fully removed from the ground, processed to an appropriate size and sent to a metal scrap facility. Concrete foundations or slabs will be demolished and hauled to a licensed facility. Remaining excavations and voids will be backfilled with soil. During decommissioning, the area around the foundation posts may be compacted by equipment and, if compacted, the area will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for vegetation.

5.4 Overhead and Underground Cables

Underground cables, conduits and junction boxes within 48 inches of the top of grade, or as specified in the landowner agreements, will be removed. Where facilities are removed, topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. Overhead lines and posts will be removed from the Project. Cabling will be scrapped or recycled based on current market rates.

5.5 Power Conversion Stations and Substation Components

Electrical equipment will be disconnected and disassembled. Parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at Sylvan Solar's sole discretion, consistent with applicable regulations and industry standards.

Foundations will be demolished and removed to a depth of 48 inches below grade or as specified in the landowner agreements. Remaining excavations and voids will be backfilled with soil.

5.6 Site Roads and Fencing

The Project will include a perimeter security fence around the solar array areas. The perimeter fence and foundations will be removed from the site to 48 inches below grade, or as specified in the landowner agreements, and then scrapped or hauled to a landfill.

Access roads will be removed from the Project unless written communication is received from the landowner requesting that the road be retained. Decommissioning activities include the removal and stockpiling of aggregate materials onsite for salvage preparation. Local townships or residents may accept the material prior to processing for use on local roads or field access roads.

Following removal of aggregate, the access road areas will be graded, de-compacted, backfilled with native soils, as needed, and land contours restored as near as practicable to pre-construction conditions.

5.7 Site Restoration

Per Section 18.19(B)(s)(3) of the Garfield Township Zoning Ordinance, decommissioning must commence when the soil is dry to prevent soil compaction and must be complete within eighteen (18) months after abandonment.

Erosion control measures will be installed during decommissioning per the site requirements, the SESC Plan, and the Project's Stormwater Prevention Pollution Plan (SWPPP). Excavated and backfilled areas will be graded as previously described to restore land contours as near as practicable to pre-construction conditions. Topsoil will be returned to disturbed areas and seeding will be applied according to the Project's Vegetation Management Plan (VMP), which will be based on the intended post-solar land use agreed to with participating landowners. After topsoil has been replaced, all areas that were traversed by vehicles and decommissioning equipment will be decompacted to restore soil conditions.

6 Cost Estimate

6.1 Decommissioning Cost Estimate

This Decommissioning Plan estimates decommissioning costs for the Project area within Garfield Township that are not enrolled in MDARD's Farmland and Open Space Preservation Program under Public Act (PA) 116. As of the date of this Plan, approximately 388 acres (46.8%) of the Development Area (i.e., within the perimeter fence line and including the Project substation and utility-owned switchyard area) are not enrolled in PA 116. Decommissioning costs for lands enrolled in the Farmland and Open Space Preservation Program will be estimated at a later date for MDARD.

Costs and salvage values associated with decommissioning the Project will be dependent on labor costs and market value of salvageable materials at the time of decommissioning. The cost estimate below was estimated using 2025 dollars. No escalation or future value has been calculated for the cost estimate.

This concept-level (Class IV, per *AACEI 17R-97: Cost Estimate Classification System*) cost estimate is based on partial design and is meant for feasibility uses. Costs will change with further design changes. Class IV estimates are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. The estimated accuracy range for the total cost is -30% to +50%. The accuracy range is based on professional judgment considering the level of design completed, the complexity of the Project, and the uncertainties in the Project as scoped.

Table 2 summarizes the Project's estimated decommissioning costs for facilities sited in Garfield Township that are not located on lands enrolled in PA 116.

Table 2 Estimated Decommissioning Costs

Activity	Total
General Conditions	\$732,000
PV Panel	\$2,156,000
Power Conversion Stations (Inverter Skids and Controller Stations)	\$233,000
Collection Circuit Line	\$19,000
Site Restoration	\$224,000
Fencing	\$168,000
O&M Removal	\$92,000
Substation Removal	\$102,000
Gen-tie (Transmission Line)	\$25,000
Met Station Removal	\$8,000
Contingency	\$752,000
Total Estimated Decommissioning Cost	\$4,511,000
Total Estimated Decommissioning Cost (Low Range -30%)	\$3,157,700
Total Estimated Decommissioning Cost (High Range +50%)	\$6,766,500

[1] Line-item totals rounded up to nearest thousand

6.2 Net Decommissioning Cost Estimate

The market value of scrap materials fluctuates daily. Salvage value estimates were based on the five-year average price of steel, copper and aluminum and derived from the online resource scrapmonster.com. The salvage value was calculated based on anticipated end-of-life values, with depreciation, instead of the salvage value at the start of construction. Table 3 summarizes the estimated decommissioning cost, estimated salvage value for the solar components, steel structures and construction materials, and net estimated decommissioning cost of the Project.

Table 3 Estimated Net Decommissioning Costs

Activity	Total
Total Estimated Decommissioning Cost	\$4,511,000
Total Estimated Salvage Value	\$1,472,000
Net Estimated Decommissioning Cost	\$3,039,000
Net Estimated Decommissioning Cost (Low Range -30%)	\$2,127,300
Net Estimated Decommissioning Cost (High Range +50%)	\$4,558,500

[1] Line-item totals rounded up to nearest thousand

7 Financial Assurance

Sylvan Solar will elect to provide financial assurance in one of the following forms prior to commencing construction: self-bond, surety bond, or letter of credit. Such financial assurance shall be expressly held for the benefit of Garfield Township.

In accordance with the Garfield Township Zoning Ordinance, the decommissioning cost shall include the removal of the SES, net of salvage value (calculated in current dollars), and soil stabilization, minus the amount of the surety bond posted with MDARD for panels installed on PA 116-designated lands. In accordance with PA 116, a separate decommissioning bond will be posted with MDARD to cover the costs of removing equipment and restoring the remaining acres of land enrolled in PA 116.

All of the funds for decommissioning must come from the owner of the SES or from the decommissioning bond.

To provide for an accurate financial assurance amount at the time of construction, Sylvan Solar will hire an independent, third-party registered engineer to update the net decommissioning cost estimate and provide it to Garfield Township prior to construction, after equipment has been procured and with up-to-date information on lands enrolled in PA 116 at the time of construction. A review of the amount of the performance guarantee based on inflation, salvage value, and current removal costs shall be completed every five (5) years for the life of the Project and approved by the Garfield Township Planning Commission.

**Attachment 6 - Garfield Township
Conditional Use Permit Application
Form**

Garfield Township

Newaygo County

APPLICATION FOR CONDITIONAL USE PERMIT

Date 08/14/2025

Application is hereby made for a conditional use permit pursuant to the terms and provisions of the Garfield Township Zoning Ordinance.

The undersigned application hereby represents that all answers and information provided herein, including maps, drawings, formal site plans and/or informal site plans are true and accurate to the best of the applicant's knowledge and belief.

Applicant furthermore stipulates that any conditional use permit granted is based specifically upon the representations made within this application and supporting documents, including but not limited to site plans and drawings; and applicant furthermore agrees and acknowledges that any conditional use permit issued hereunder may be revoked without notice upon breach of any representation or condition.

1. Legal description or address of premises:

Landowner addresses and parcel numbers are shown in Attachment 2 - Participating Parcels.

2. Title holder of premises (name and mailing address):

Title holder names and mailing addresses are shown in Attachment 2 - Participating Parcels.

3. Zoning district:

The Project area includes parcels in the Agricultural Residential and Agricultural Enterprise zoning districts. Zoning district codes by parcel are shown in Attachment 2 - Participating Parcels.

4. Nature of parcel:

Acreage ☒
Platted real estate ☐

5. Size of parcel: The Project boundary is ~1,383 acres and the area within the perimeter fence (Development Area) is 830 acres in Garfield Township.

6. Dimensions of parcel:

The extent of the Project area within Garfield Township is shown on Attachment 1 - Site Plan.

7. Specify conditional use permit requested:

Sylvan Solar, LLC submits this application for a Conditional Use Permit for the construction and operation of approximately 144 megawatts (MW) of the total 220-MW Principal-use Solar Energy System referred to as the Sylvan Solar Project (Project) in Garfield Township. The Project was designed to comply with Sections 14.28 and 18.19 of the Garfield Township Zoning Ordinance.

8. Applicant agrees to convey a non-refundable conditional use permit fee in the amount of \$ 1,000, in conjunction with this application. In addition, the Applicant agrees to provide a \$10,000 permit application review fee payment.

Site Plan Required: ☒ Formal ☐ Informal

Applicant Frank Krawczyk 8/14/2025 Date

Application fee of \$ 1,000 paid in full in conjunction with filing of application. Receipt # _____

☐ (Check if paid in full.)

TERMS AND CONDITIONS

1. Applicant covenants to at all times adhere to the terms and provisions of any conditional use permit issued, and conditions and restrictions applicable thereto.
2. Applicant agrees to at all times abide by the terms and provisions of the Garfield Township Zoning Ordinance and all other applicable laws.
3. Applicant agrees to submit in conjunction with this application either a formal site plan, or an informal site plan.

a. Informal site plan:

An informal site plan shall contain a description of the development plan, including but not limited to a description of the site and an indication as to the location of existing and proposed structures.

A description of the proposed use in question shall be contained therein. The plan shall convey information regarding lot dimensions, yard setbacks, parcel size and any other information deemed relevant.

b. Formal site plan:

Formal site plans shall be drawn to scale, and shall include the following information:

- (1) General description of proposed development.
- (2) Property dimensions.
- (3) Size, shape and location of existing and proposed buildings and structures.
- (4) Location of parking areas, parking spaces, driveways, etc.
- (5) Existing public rights of way and/or private easements, with dimensions.
- (6) Storm sewers.
- (7) Topography of site and relationship to adjoining land.
- (8) Existence of lakes, rivers, tributaries, including surface drainage-ways.
- (9) Set back distances from rights of way and lot lines.
- (10) Landscaping plan indicating location of proposed planting, screening, fencing, signs, advertising features and the like.

c. Requirement of formal site plan:

Applicant acknowledges in the event an informal site plan is proffered, that the planning commission may adjourn the public hearing called for pursuant to section 15-15-3 of the Garfield Township Zoning Ordinance until such time as a formal site plan is proffered, if the planning commission in its discretion deems that a formal site plan is required due to the complexity and/or magnitude of the project in question.

4. Applicant acknowledges that any permit issued based upon this application will not grant any right or privilege to erect any structure or to use the premises described herein for any purpose prohibited by the Garfield Township Zoning Ordinance or other applicable law.



Attachment 7 - Visual Renderings

Sylvan Solar Project,
Garfield and Sheridan Charter Townships, Newaygo County, Michigan
Sylvan Solar, LLC
Final visual renderings (12 locations)



Sylvan Solar Project Visual Renderings

KOP 1: View Near Bike Entrance

2025 photograph

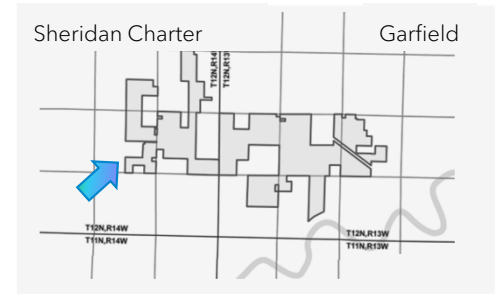


View facing Northeast from West 88th Street

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 2: Example of Proposed Residential Screening

2025 photograph

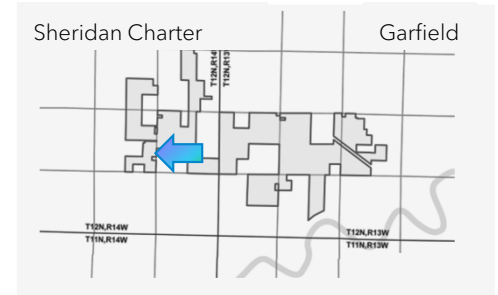


View facing West from S. Warner Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 3: Example of Proposed View Near Farm

2025 photograph

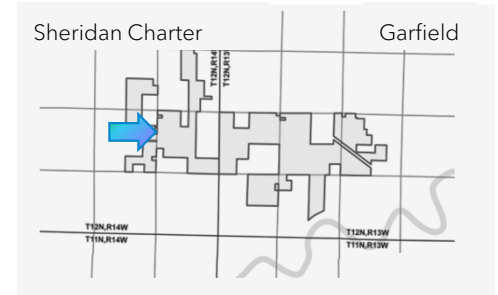


View facing East from South Warner Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 4: Example of Proposed View Near Farm

2025 photograph

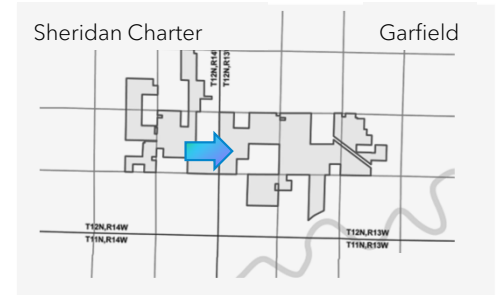


View facing East from South Luce Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 5: Example of Proposed View Near Residences

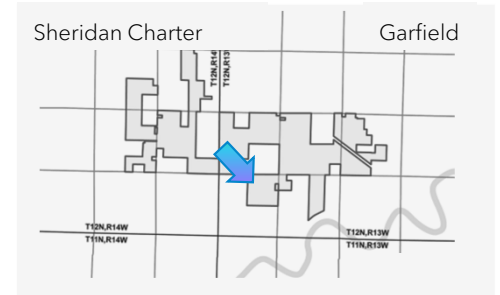
2025 photograph



3D visual render



Project area



View facing Southeast West 88th Street

Sylvan Solar Project Visual Renderings

KOP 6: Example of View from a Busy Road

2025 photograph

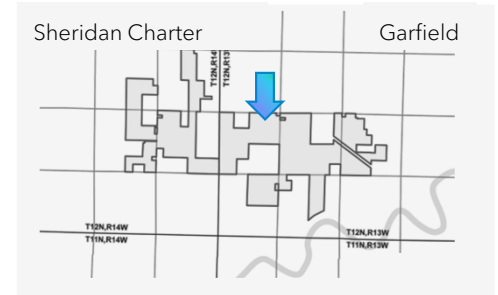


View facing South from West 80th street

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 7: Example of Proposed Site Near Residence

2025 photograph

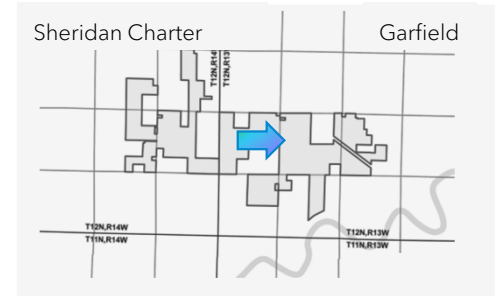


View facing East Croswell Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 8: Example of Proposed Site Entrance/Gate

2025 photograph

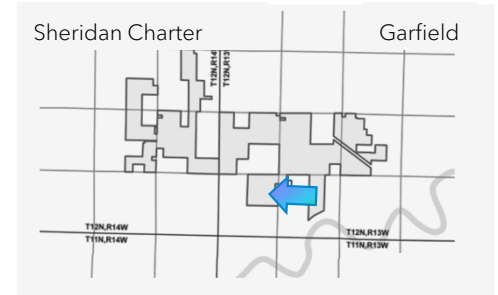


View facing West from Croswell Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 9: Example of a View Near Busy Road

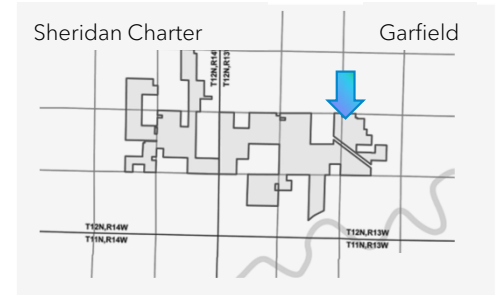
2025 photograph



3D visual render



Project area



View facing South from West 80th Street and Baldwin

Sylvan Solar Project Visual Renderings

KOP 10: View Near Project Substation

2025 photograph

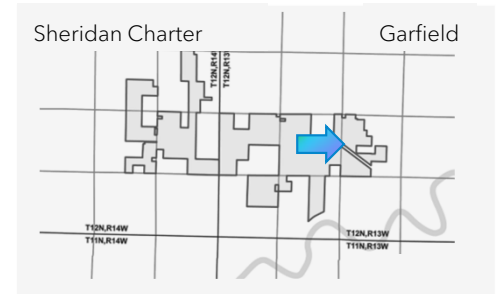


View facing East from Baldwin Avenue

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 11: Example of a View Near Site Entrance/Gate

2025 photograph

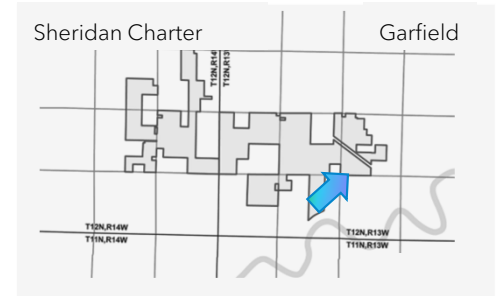


View facing Northeast West 88th Street

3D visual render



Project area



Sylvan Solar Project Visual Renderings

KOP 12: Example of a Non-Residential Screened Setback

2025 photograph

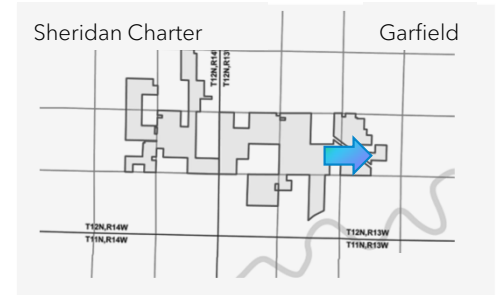


View facing East from Wisner Avenue

3D visual render



Project area





Attachment 8 - Permit Matrix

Sylvan Solar Conditional Use Permit Application

Attachment 8 - Permit Matrix

Regulatory Authority	Permit/Authorization	Permit Trigger Threshold Description	Status and Timing
FEDERAL			
U.S. Fish and Wildlife Service (USFWS)	Consultation under Section 7 of the Endangered Species Act (ESA)	Required if federal permit or other federal action is required, or the project involves federal funding.	Current design avoids potential suitable habitat for federally listed species. A consultation letter dated July 1, 2025, generated by the USFWS Michigan Ecological Field Office indicates that Project activities are Not Likely to Adversely Affect or have No Effect on federally listed species (refer to attached USFWS letter).
Federal Aviation Administration (FAA)	Determination of No Hazard to Air Navigation (Form 7460-1 Notice of Proposed Construction or Alteration)	Required if Project features or equipment are more than 200 feet tall or within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway.	Current design does not require filing with the FAA as anticipated equipment heights do not trigger the Notice Criteria.
U.S. Environmental Protection Agency (USEPA)	Spill Prevention, Control, and Countermeasure (SPCC) Plan	Plan required where oil storage of 1,320 gallons or more occurs.	Anticipated to be needed for storage at the Project substation. Will be completed prior to construction.
FEDERAL / STATE OF MICHIGAN			
Michigan Department of Environment, Great Lakes, and Energy (EGLE) Water Resources Division / U.S. Army Corps of Engineers (USACE)	Joint Permit Application (JPA) for Wetlands, Streams, & Floodplain permitting	Impacts to regulated wetlands and surface waters. EGLE has implemented four permit categories: General, Minor, Individual, and Major, which are organized by severity of impacts to water resources.	Will apply for appropriate category of EGLE permitting in 2026 when finalized waterbody crossing locations and crossing depths are available.
Michigan State Historic Preservation Office (SHPO)	Cultural Resources Review	Required if federal permit is required or the project involves federal funding.	The Project is not anticipated to require a federal permit; as such, consultation with the SHPO is not required. Current design avoids field-identified archaeological resources within the Project area.
STATE			
Michigan Natural Features Inventory (MNFI) / Michigan Department of Natural Resources (DNR)	Threatened & Endangered (T&E) Species Review/Permit	If a "take" is proposed on a state-listed T&E species.	The DNR provided best management practices (BMPs) to be implemented during construction and operation to avoid impacts to state-listed species. Sylvan Solar will follow the DNR's BMPs, and the current design avoids potentially suitable habitat for state-listed species; as such, a T&E Permit is not anticipated to be required.
EGLE	Water Withdrawal Permit	Water withdrawal permit for >2,000,000 gallons per day (GPD) or	Will obtain prior to construction, if needed.

Sylvan Solar Conditional Use Permit Application

Attachment 8 - Permit Matrix

Regulatory Authority	Permit/Authorization	Permit Trigger Threshold Description	Status and Timing
		1,388 gallons per minute (GPM). Water withdrawal registration for 100,000 GPD (or 70 GPM) to 2,000,000 GPD (1,388 GPM). Not required for temporary withdrawals of less than 180,000,000 gallons.	
EGLE	National Pollutant Discharge Elimination System (NPDES) General Permit – Construction Stormwater Notice of Coverage (NOC)	Earth disturbance that is larger than 5 acres. Sites disturbing less than 5 acres must apply for and will receive automatic permit coverage with the issuance of a Soil Erosion and Sedimentation Control (SESC) permit.	Will obtain prior to construction after receiving the SESC Permit from Nawaygo County Drain Commission (see below).
EGLE	Discharge Request	If culverts will be installed on streams with an upstream drainage area of more than 2 square miles (i.e., floodplain regulated by EGLE and a JPA may be required).	Will obtain prior to construction, as needed.
Michigan Department of Transportation (MDOT)	Oversize and/or Overweight Vehicles and Loads Permits	Transportation and use of oversize and/or overweight vehicles on state roads.	Will obtain prior to construction.
MDOT	Driveway/Construction	Construction work and installation of driveway within state road right-of-way (ROW).	Will obtain prior to construction.
Michigan Health Department District 10	Sewage and Well Permit	Required for the installation of on-site sewage disposal systems (septic systems) and water supply systems (potable wells).	Will obtain prior to construction, if needed.
Nawaygo County Drain Commission	Soil Erosion and Sedimentation Control (SESC) Permit	Any earth disturbance within 500 feet of any lake, river, stream, creek, drain, or watercourse, etc. of the county, or any grading, stripping, excavation or filling of more than one acre of land.	Will obtain in 2026.
Nawaygo County Drain Commission	Stormwater	Required to minimize flow rates after new developments/construction. Development of stormwater detention and/or retention measures.	Will obtain in 2026.

Sylvan Solar Conditional Use Permit Application

Attachment 8 - Permit Matrix

Regulatory Authority	Permit/Authorization	Permit Trigger Threshold Description	Status and Timing
Newaygo County Drain Commission	County Drain Encroachment Permit	Required to encroach within a drain easement.	Will apply in 2026 after locations of medium-voltage collection lines are finalized.
Newaygo County Drain Commission	County Drain Crossing Permit	Required to cross, modify, or discharge to a county drain.	Will apply in 2026 when engineering designs of county drain crossings are available.
Newaygo County Road Commission	Right-of-way (ROW) Permit	Work within a county road right-of-way	Will apply prior to construction.
Newaygo County Road Commission	Construction Permit (Commercial Driveway Approach)	Required for creating access from a county road.	Will apply prior to construction.
Newaygo County Road Commission	Utility Permit	Required if directional boring or open trenching (parallel to or across the road) are required for utility installation.	Will apply prior to construction.
Newaygo County Road Commission	Transportation Permit	Transportation of construction equipment on seasonal and county roads.	Will apply prior to construction.
TOWNSHIP			
Garfield Township	Conditional Use Permit / Site Plan Review	Required to construct a principal-use solar energy system (SES) within Garfield Township.	In progress. An application for a Conditional Use Permit is anticipated to be submitted in August 2025.
Garfield Township	Electrical Permit	Electrical work associated with a new facility.	Will apply prior to construction.
Garfield Township	Zoning Compliance Permit	Required prior to issuance of a building permit.	Will apply prior to construction.
Fremont Community Joint Planning Commission (FCJPC)	Special Land Use Permit / Site Plan Review	Required to construct a commercial SES within Sheridan Charter Township.	In progress. An application for a Special Land Use Permit is anticipated to be submitted in October 2025.
Sheridan Charter Township	Zoning Permit	Required prior to issuance of a building permit.	Will apply prior to construction.



United States Department of the Interior

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



In Reply Refer To:
Project code: 2025-0116708
Project Name: Sylvan Solar

07/01/2025 22:05:39 UTC

Subject: Technical Assistance letter for 'Sylvan Solar' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Lauren Colwell:

The U.S. Fish and Wildlife Service (Service) received on **July 01, 2025** your effect determination(s) for the 'Sylvan Solar' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

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

Species	Listing Status	Determination
Eastern Massasauga (=rattlesnake) (<i>Sistrurus catenatus</i>)	Threatened	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Proposed	No effect
	Threatened	
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA

Coordination with the Michigan Ecological Services Office is complete. Thank you for considering federally listed species during your project planning.

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

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

Your project is in the vicinity of a National Wildlife Refuge (NWR), <https://fws.gov/visit-us/refuges>. The intent of this letter is limited to assisting you in evaluating the effects of your action on Federally listed species in Michigan; other FWS programs may have additional input on your project. We recommend you contact the NWR near your project to determine whether additional FWS coordination is needed on your project.

Bald and Golden Eagles:

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

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

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

Planning Recommendations for Utility-Scale Solar Energy Developments in Michigan

We have compiled planning recommendations for utility-scale solar energy developments in Michigan (available here: <https://www.fws.gov/media/generic-michigan-solar-letter-d-key>), which we encourage solar developers to consider and implement to the extent practicable.

Monarch butterfly and other pollinators

Monarch butterfly was proposed for listing as threatened on December 12, 2024. Through May 19, 2025, we are gathering input through an extended public comment period to encourage the submission of any new information. We will review these comments and then will ultimately issue a final rule. If listed, protections would only go into place after the final rule is published. Section 7 conferences are required if a federal action is likely to jeopardize the continued existence of a proposed species.

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

Monarch and Pollinator BMP Recommendations

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

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

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

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

Resources:

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

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

Wetland impacts:

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

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

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

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

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

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

Listed Bats: When installing new or replacing existing permanent lights, you will use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, the goal is to be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. You will direct temporary lighting away from suitable listed bat habitat during the active season.

Listed Bats: Tree cutting/trimming and/or prescribed burning will not clear ≥ 20 contiguous acres of forest (excluding narrow, linear corridors < 1000 feet wide) and will not fragment a connective corridor between 2 or more forest patches of at least 5 acres.

Listed Bats: Herbicide application will follow all label instructions and limit application to targeted methods such as spot-spraying, hack-and-squirt, basal bark, injections, cut-stump, or foliar spraying on individual plants.

Listed Bats: All tree cutting/trimming will be conducted outside the period of October 1 through April 14 (that is, limited to April 15 through September 30).

Listed Bats: The project will not include the application or potential drift of insecticides, fungicides, or rodenticides into forested habitats.

Listed Bats: The action will not include prescribed burning within or adjacent to (within 200 feet of) mature forest.

Action Description

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

1. Name

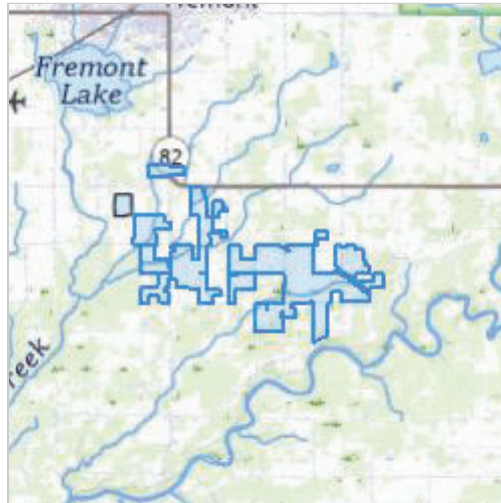
Sylvan Solar

2. Description

The following description was provided for the project 'Sylvan Solar':

Sylvan Solar (Project) is a proposed 220-megawatt solar facility that spans portions of Garfield and Sheridan Charter Townships in Newaygo County, Michigan. The Project's fenced area encompasses approximately 1,250 acres of agricultural land.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.3967194,-85.89200301089839,14z>



Attachment 9 - Noise Study

Technical Memorandum

To: Lauren Colwell, AES Clean Energy
From: Andrew Skoglund, Barr Engineering Co.
Subject: Sylvan Solar Noise Modeling – Garfield Township
Date: August 13, 2025
Project: 22621071.01
cc: LaurieBeth Nederveld, Alina Heydt, Barr Engineering Co.

1 Executive Summary

Garfield Township limits sound levels from solar energy systems to 55 dBA at the property line of non-participating adjoining lots or at a public or private road right-of-way or easement. For the Sylvan Solar Project (Project), the modeled Project operational sound levels at non-participating Garfield Township residences was 27 dBA to 41 dBA. The modeled operational sound levels at adjacent public road rights-of-way and non-participating property lines were all below 50 dBA. **Modeled impacts from the Project are well below both Garfield Township and Michigan state noise thresholds.**

2 Introduction

An assessment of operational noise impacts from the Sylvan Solar Project (Project) in Garfield Township, Newaygo County, Michigan was performed using a noise propagation model. Impacts were assessed at nearby properties using the Garfield Township Solar Energy Systems Ordinance (Garfield, 2025, 18.19.B.p) and Michigan's noise standards (Michigan Legislature 2023, § 460.1226, D3.4) and generated contours showing expected noise decay in the Project vicinity. This memorandum summarizes the methodology and input assumptions used for the analysis.

3 Methods

Figure 1 (attached) shows the modeled sound level contours projected for the Project vicinity using the iNoise model (DGMR B.V.). The iNoise modelling used the ISO 9613 standard methods for calculating outdoor sound propagation/attenuation (ISO9613-2, 2024). The model assumes ideal wind and weather conditions for sound propagation. Conservative estimates regarding ground effect and ground conditions were used. The ground attenuation value was modeled as mixed hardness (hardness value 0.5) and level throughout the modeling domain. Attenuation by vegetation or other foliage was conservatively excluded. Actual conditions in the Project area are likely to include additional elements which will reduce actual noise levels below the modeled projections (e.g. additional tree, vegetation, and terrain attenuation). Noise receptors were placed 1.5m (5 feet) above ground level to approximate a typical listener and typical monitoring height and 4.0m (13 feet) above ground level to represent potential second story residential receptors.

Modeling noise impacts examined the Project inverter skids and Project substation transformers alone. No other significant sources of noise are expected as part of the solar generation facility. Noise data for the equipment was derived from limited equipment specifications. Modeling used these equipment specifications:

- o SMA Flex Power Converter Skids: 65 dBA at 10m, 50 dBA at 50m per manufacturer spec
- o Substation GSU: 87 dBA at 6 feet per NEMA TR-1 (NEMA 2019)
- o Substation Service Power Transformer: 51 dBA at 6 feet per NEMA TR-1
- o Power Co. Substation/Switchyard Transformer: 87dBA at 6 feet (assumed size match to substation GSU, level per NEMA TR-1)

Using this data, the equivalent sound power level was determined for the equipment. The calculated sound power levels were used as input to the model. Since there are no significant structures proposed for installation around the sources at this time, no barriers were incorporated into the modeling. The impacts presented are limited to those occurring in Garfield Township, but Project noise sources outside Garfield Township were also included in the modeling to provide a comprehensive assessment of potential noise impacts.

4 Noise Modeling

Modeling yielded levels in compliance with Garfield Township Solar Energy Systems Ordinance (Garfield Township 2025, 18.19.B.p) and Michigan noise standards (Michigan Legislature 2023 § 460.1226, D3.4) (Figure 1 and Table 1). The maximum modeled sound level at a non-participating Garfield Township residence was 41 dBA at receptor R1. Based on typical central Michigan noise conditions, existing sound levels within and immediately adjacent to the Project are expected to be in the 30-50 dBA range depending on the proximity to roads and other sources of ambient noise. Figure 2 provides examples of common noise levels for comparison. Garfield Township limits sound levels from solar energy systems to 55 dBA at the property line of non-participating adjoining lots or at a public or private road right-of-way or easement. For comparison, state regulations in PA 233 call for sound levels no higher than 55 dBA at the wall of non-participating residences (with application guidance calling for factors accounting for wall reflection and tonal elements yielding a net limiting modeled level of 44 dBA) (MPSC, 2024, Att. D).

Modeled impacts from the Project are well below both Garfield Township and Michigan state noise thresholds.

5 Construction Sound Assessment

Distinct noise impacts during construction are anticipated to be minimal to significant depending on the activity occurring and equipment being used. Noise from construction will be temporary, intermittent, limited to daytime hours, and localized. The noise from construction activities would dissipate with distance and may be audible at varying decibels, depending on the distance from the equipment to the receptor.

Noise producing activities related to the installation of solar arrays are associated with clearing and grading, material delivery, and driving foundation posts. Much of the construction equipment that could be used on the site, such as grading equipment, man-lifts, and compactors, is anticipated to generate noise between 80 and 85 dBA at 50 feet from the equipment. Sound levels from grading equipment and compactors will be similar to typical tractors and other heavy equipment already used in agricultural communities. Driving of the rack supports, or helical pile equipment if Sylvan Solar decides to use helical piles, will be the most significant source of construction noises. The Federal Highway Administration Construction Noise Handbook shows the noise from power hammers to be approximately 90 dBA at 50 feet from the equipment (FHWA, 2006). Rhythmic pounding of foundation posts may be disruptive for the short period of post installation even if the noise levels associated with the activity have decayed with distance. If Sylvan Solar elects to install helical pile foundations based on conditions at the Project site, the installation will take longer but would be quieter. Sound levels typically decay 6 dBA per doubling of

distance. Heavy construction equipment levels would accordingly decay with distance to range from 74 to 84 dBA at 100 feet, 68 to 78 dBA at 200 feet, 62 to 72 dBA at 400 feet, 56 to 66 dBA at 800 feet, and so on.

Other construction activities, for example, installation of solar panels, are anticipated to have minimal noise impacts. A forklift may be used to place solar panels on the racking system. Construction activities will be sequenced, that is, site grading may occur at one location while post driving occurs at another location while racking and panel assembly might occur at another location, at the same time. Impact associated with a given element of construction is expected to be of short duration for any given receptor as Project development proceeds across the site. Construction activity for the Project will be limited to daytime hours only to minimize potential impacts to neighboring properties.

6 Conclusions

Construction noise impacts will be temporary, intermittent, limited to daytime hours, and localized. The noise from construction activities would dissipate with distance and may be audible at varying decibels, depending on the distance from the equipment to the receptor. Construction activity for the Project will be limited to daytime hours only to minimize potential impacts to neighboring properties.

Potential Project operational sound levels at non-participating Garfield Township residences were modeled from 27 dBA to 41 dBA. The maximum modeled operational sound level from the Project was 41 dBA at receptor R1. The modeled operational sound levels at adjacent public road rights-of-way and non-participating property lines were below 50 dBA. The modeled distance from the inverters to the 55 dBA contour typically ranges from 22 to 28m (72 to 92 feet) depending on overlapping effects of other inverters. **Modeled impacts from the Project are well below both Garfield Township and Michigan state noise thresholds.**

Table 1 Modeled Receptor Summary – Garfield Township Receptors

Receptor ¹	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R1	591514.69	4805962.56	41.1	55
R5	589026.88	4804896.44	40.2	55
R6	591419.75	4806412.51	40.2	55
R7	591377.37	4806065.97	40.2	55
R8	591173.81	4806787.09	40.1	55
R9	591040.05	4806849.63	40.1	55
R10	591397.71	4805924.41	39.9	55
R11	589099.07	4806696.59	39.7	55
R12	591017.01	4806910.16	39.2	55
R14	591118.78	4806910.2	38.7	55
R15	590430.77	4806836.63	38.4	55
R18	589035.57	4806796.07	38.1	55
R19	591492.03	4806624.5	38.1	55
R20	590601.9	4806974.81	38.1	55
R21	591512.15	4805626.02	38.0	55

¹ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ²	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R22	590596.04	4805349.24	37.8	55
R23	590322.11	4806847.96	37.5	55
R24	589026.79	4805957.87	37.5	55
R25	589113.88	4804674.32	37.4	55
R26	588509.63	4806850.57	37.2	55
R27	588249.33	4806772.79	37.1	55
R28	590206.34	4806823.68	37.0	55
R30	590329.33	4806934.1	36.9	55
R31	590251.35	4806897.09	36.7	55
R32	590998.02	4805202.81	36.7	55
R34	589993.29	4806816.26	36.6	55
R35	588181.6	4806783.37	36.5	55
R36	588389.89	4805168.56	36.5	55
R38	588556.73	4806913.02	36.4	55
R39	589289.14	4805205.05	36.4	55
R42	591577.23	4806780.26	36.1	55
R43	590058.33	4806914.4	36.0	55

² Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ³	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R44	590156.55	4806946.64	36.0	55
R45	589444.08	4805099.64	35.9	55
R46	590738.6	4805115.74	35.8	55
R47	588365.66	4805282.31	35.8	55
R49	588044.02	4806783.37	35.8	55
R50	588944.48	4807007.23	35.7	55
R51	589101.31	4804495.25	35.7	55
R52	590571.5	4807205.22	35.4	55
R53	591310.52	4805198.48	35.4	55
R54	591499.4	4805341.37	35.3	55
R56	590544.99	4804816.71	35.1	55
R57	587554.77	4806583.98	35.0	55
R59	591670.96	4806843.69	34.9	55
R60	590148.1	4804177.12	34.7	55
R63	590699.38	4804902.39	34.6	55
R64	590207.42	4804184.96	34.6	55
R69	589245.53	4807213.97	34.3	55

³ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁴	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R70	588325.53	4807064.89	34.3	55
R72	588991.26	4807205.54	34.0	55
R74	590544.79	4807365.75	33.9	55
R79	590589.38	4804560.69	33.8	55
R98	589848.4	4804115.74	33.1	55
R105	591417.66	4804987.46	32.9	55
R113	592050.26	4805529.85	32.7	55
R115	589037.28	4804169.45	32.6	55
R120	590505.41	4807547.87	32.4	55
R122	592199.71	4806008.93	32.4	55
R125	592180.34	4805673.99	32.1	55
R126	592006.52	4805356.43	32.1	55
R127	591434.07	4804865.23	32.0	55
R128	592210.76	4805745.27	32.0	55
R129	589176.66	4807490.5	32.0	55
R130	587575.71	4805077.84	32.0	55
R131	591638.32	4804996.46	32.0	55

⁴ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁵	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R132	591537.78	4804924.49	32.0	55
R134	590685.06	4807627.86	31.9	55
R137	592199.96	4806535.83	31.7	55
R138	591803.82	4805081.29	31.7	55
R139	590322.36	4807639.2	31.6	55
R140	591437.77	4804804.9	31.6	55
R141	589017.8	4804058.54	31.6	55
R143	592133.89	4805437.79	31.5	55
R144	589951.97	4803944.63	31.5	55
R146	591421.31	4807535.15	31.5	55
R147	592040.93	4806999.96	31.4	55
R148	591885.66	4807207.86	31.3	55
R149	589895.06	4803933.25	31.3	55
R150	592323.77	4805872.53	31.2	55
R151	589863.95	4803927.56	31.2	55
R152	591390.67	4804710.18	31.2	55
R153	591125.65	4804555.86	31.2	55

⁵ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁶	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R154	587717.21	4807517.33	31.1	55
R155	589665.15	4803946.91	31.0	55
R156	592144.96	4806909.75	31.0	55
R157	592361.15	4805989.88	31.0	55
R158	589421	4803984.92	31.0	55
R159	589118.56	4803976.41	30.9	55
R160	588949.22	4803967.94	30.9	55
R162	592196.66	4806841.37	30.9	55
R163	590538.28	4807784.09	30.8	55
R165	589851.43	4803876.72	30.8	55
R166	591431.95	4804647.21	30.7	55
R167	587680.78	4807663.5	30.7	55
R168	590345	4803896.93	30.5	55
R169	589587.94	4803899.18	30.5	55
R170	588968.7	4803914.6	30.5	55
R171	590220.42	4803840.76	30.4	55

⁶ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁷	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R173	592400.26	4805672.25	30.3	55
R174	591421.84	4807711.47	30.3	55
R175	587558.43	4807889.59	30.2	55
R176	587809.48	4807702.56	30.2	55
R179	590775.66	4804086.06	30.1	55
R181	592438.51	4805732.23	30.1	55
R183	591434.6	4804532.91	30.0	55
R184	590426.76	4803868.48	30.0	55
R185	590144.42	4803792.71	30.0	55
R186	592328.2	4805378.27	29.9	55
R187	589794.73	4803779.4	29.9	55
R188	589004.89	4807809.92	29.9	55
R189	591274.79	4804374.69	29.8	55
R190	590489.69	4803854.69	29.7	55
R193	591448.35	4804456.71	29.6	55
R194	591497.57	4804472.05	29.5	55

⁷ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁸	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R195	592515.87	4805634.87	29.3	55
R196	590491.97	4803799.95	29.3	55
R197	590565.98	4803823.23	29.3	55
R198	592591.5	4806084.63	29.3	55
R199	588969.38	4807923.88	29.2	55
R201	589447.4	4803706.58	29.2	55
R202	589131.24	4807957.74	29.1	55
R203	589778.17	4808018.35	29.1	55
R204	592598.45	4805862.97	29.1	55
R205	589193.91	4803701.75	29.1	55
R208	592624.53	4805976.15	29.0	55
R210	590167.95	4808068.73	29.0	55
R211	592208.22	4807348.74	28.9	55
R212	589022.23	4807993.25	28.9	55
R213	589145.65	4803676.35	28.9	55
R214	590637.53	4803794.35	28.8	55

⁸ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ⁹	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R215	590554.04	4803743.49	28.8	55
R216	592270.15	4807313.23	28.7	55
R217	592568.03	4805486.23	28.7	55
R218	589039.82	4803645.02	28.6	55
R219	588198.67	4807985.98	28.6	55
R220	589244.71	4803628.77	28.6	55
R221	588646.16	4803673.14	28.5	55
R222	589154.12	4803606.75	28.5	55
R223	592208	4807474.37	28.4	55
R224	592524.65	4805280.91	28.4	55
R225	592688.51	4805738.14	28.3	55
R226	589001.09	4808098.13	28.3	55
R227	592729.71	4806073.33	28.3	55
R229	591513.97	4804226.52	28.2	55
R232	592218.96	4807507.82	28.2	55
R235	591346.75	4804092.64	28.1	55

⁹ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ¹⁰	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R238	590742.91	4803716.25	28.1	55
R241	587593.96	4804069.54	27.9	55
R248	589142.69	4808209.85	27.8	55
R251	592279.08	4807547.44	27.7	55
R254	590800.23	4803675.31	27.7	55
R255	592441.92	4807359.64	27.7	55
R257	588409.57	4808219.35	27.5	55
R258	588679.86	4808231.91	27.5	55
R263	591977.52	4804389.72	27.4	55
R264	591452.06	4804009.56	27.4	55
R266	590889.88	4803653.32	27.3	55
R268	589404.58	4808345.87	27.3	55
R269	588522.13	4808283.93	27.3	55
R270	588986.23	4808330.18	27.2	55
R272	589067.98	4808341.74	27.2	55

¹⁰ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ¹¹	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R273	592189.21	4807768.74	27.2	55
R275	588888.79	4808328.52	27.2	55
R277	592774.65	4806914.08	27.1	55
R283	592571.83	4804918.99	27.0	55
R293	591408.43	4803797.28	26.6	55
R298	587691.79	4808555.89	26.5	55
R301	592896.35	4806984.49	26.3	55
R302	591694.95	4803920.66	26.3	55
R313	588278.36	4808599.22	25.9	55
R314	588014.1	4808649.59	25.8	55
R325	593202.94	4806543.08	25.3	55
R330	592630.04	4804447.4	25.1	55
R334	593038.73	4805063.07	25.1	55
R346	593304.64	4806461.37	24.8	55
R347	593313.33	4806375.31	24.8	55
R349	593323.85	4805899.48	24.8	55
R357	593359.41	4806355.32	24.6	55

¹¹ Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

Receptor ¹²	X (m) UTM 16N	Y (m) UTM 16N	Modeled Sylvan Solar Sound Pressure Level (dBA)	Garfield Township Noise Limit (dBA)
R360	587675.11	4809007.5	24.4	55
R365	593355.15	4805609.14	24.4	55
R389	587536.38	4809298.84	23.2	55

¹² Receptor numbering system includes all identified receptors within 1 mile of the Project. Only Garfield Township receptors are included in this report. Gaps in numbering reflect receptors outside the township.

References

Federal Highway Administration. (2006). *Construction noise handbook*. U.S. Department of Transportation.

Garfield Township. (2025). *Zoning ordinance: Section 18.19.B.p.* Garfield Township, Newaygo County, Michigan.

ISO 9613-2 (2024). *Acoustics — Attenuation of sound during propagation outdoors — Part 2: Engineering method for the prediction of sound pressure levels outdoors*.

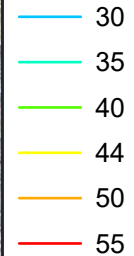
Michigan Legislature. (2023). *Section 460.1226 – Renewable energy and energy storage facility siting*. Michigan Compiled Laws.

Michigan Public Service Commission. (2024). *MPSC Certificate for Solar Energy, Wind Energy, and Energy Storage Facilities, Pursuant to Public Act 233 of 2023, Application Filing Instructions and Procedures*. Michigan Department of Licensing and Regulatory Affairs.

NEMA TR 1-2013 (2019). *Transformers, Step Voltage Regulators, and Reactors*.

Figures

- Modeled Project Sound (dBA)

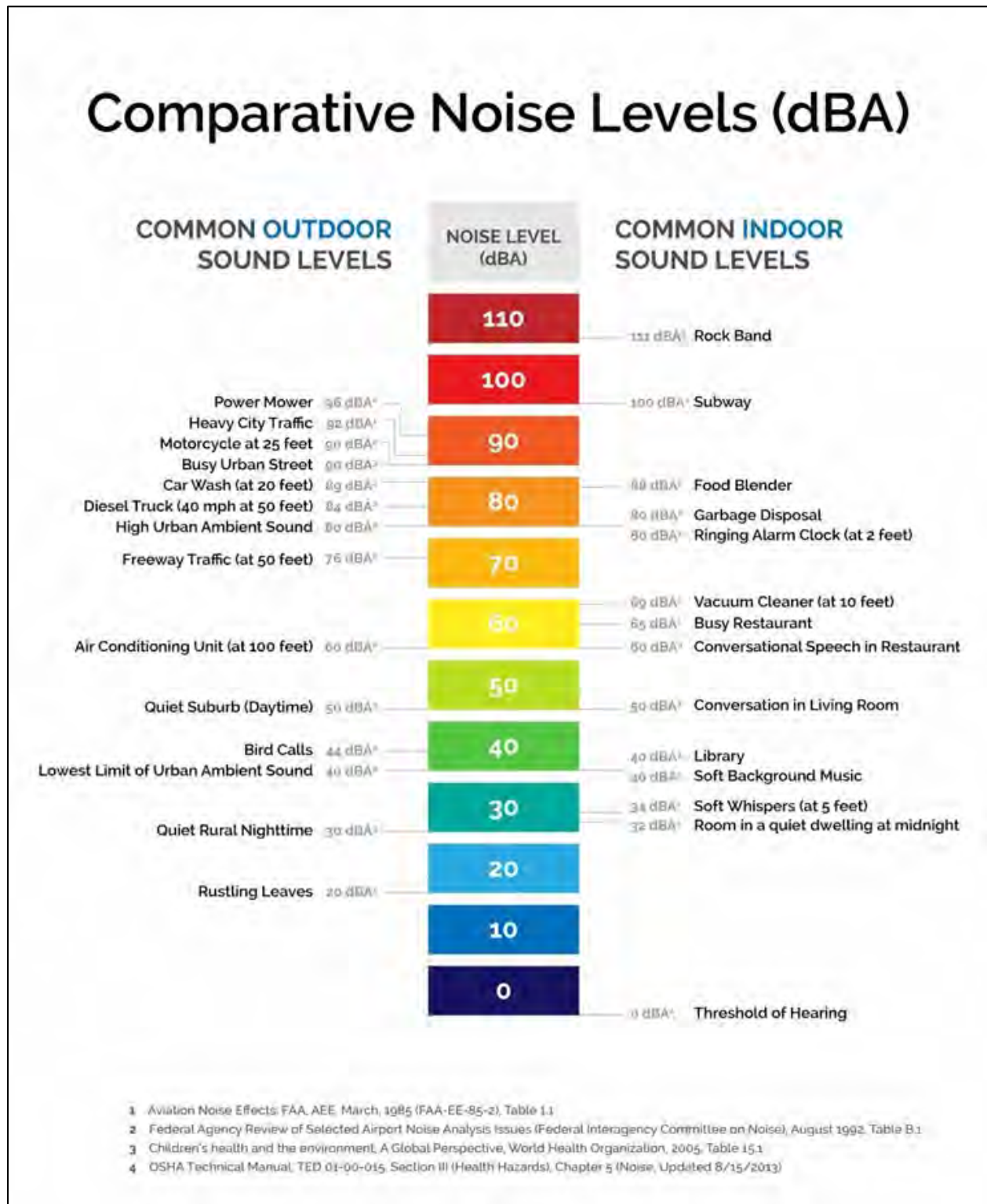


Imagery: Nearmap (4/4/2025)

Modeled Noise Impacts
Garfield Township CUP
Sylvan Solar, LLC
Newaygo County, Michigan

FIGURE 1

Figure 2. Common Noise Sources



OPERATION AND MAINTENANCE

Mowing and harvest operations in a perennial crop system such as orchards, vineyards, berries, and nursery stock shall be done in a manner which minimizes the generation of particulate matter.

If wildlife habitat enhancement is a purpose, maintenance practices and activities shall not disturb cover during the reproductive period for the desired species. Exceptions should be considered for periodic burning or mowing when necessary to maintain the health of the plant community.

Control noxious weeds and other invasive species.

Mowing may be needed during the establishment period to reduce competition from weeds.

To benefit insect food sources for grassland nesting birds, spraying or other control of noxious weeds shall be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife.

Re-vegetate bare spots.

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