

**REVISED
EXHIBIT K**

Visual Resource Assessment and Mitigation Plan

**Palomino Solar Energy Project
Case No. 21-0041-EL-BGN**

Visual Resource Assessment and Mitigation Plan – December 2021 Update

Palomino Solar Energy Project

December 2021



Document Information

Prepared for	Palomino Solar, LLC
Project Name	Palomino Solar Energy Project Visual Resource Assessment
Project Number	E320200500
Project Manager	Bruce Moreira
Date	December 2021

Prepared for:

Palomino Solar, LLC

Prepared by:



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Acronyms

AC	Alternating Current
DC	Direct Current
DSM	Digital Surface Model
FAA	Federal Aviation Administration
GPS	Global Positioning System
LT	Landscape Type
MW	Megawatt
NHL	National Historic Landmarks
NLCD	National Land Cover Database
NRHP	National Register of Historic Places
OAC	Ohio Administrative Code
OGS	Ohio Genealogical Society
OPSB	Ohio Power Siting Board
OSIP	Ohio Statewide Imagery Program
PV	Photovoltaic
SRHP	State Register of Historic Places
VRA	Visual Resource Assessment
VSA	Visual Study Area
VSR	Visually Sensitive Resource

1 Introduction

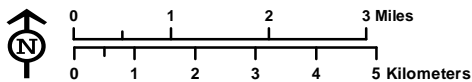
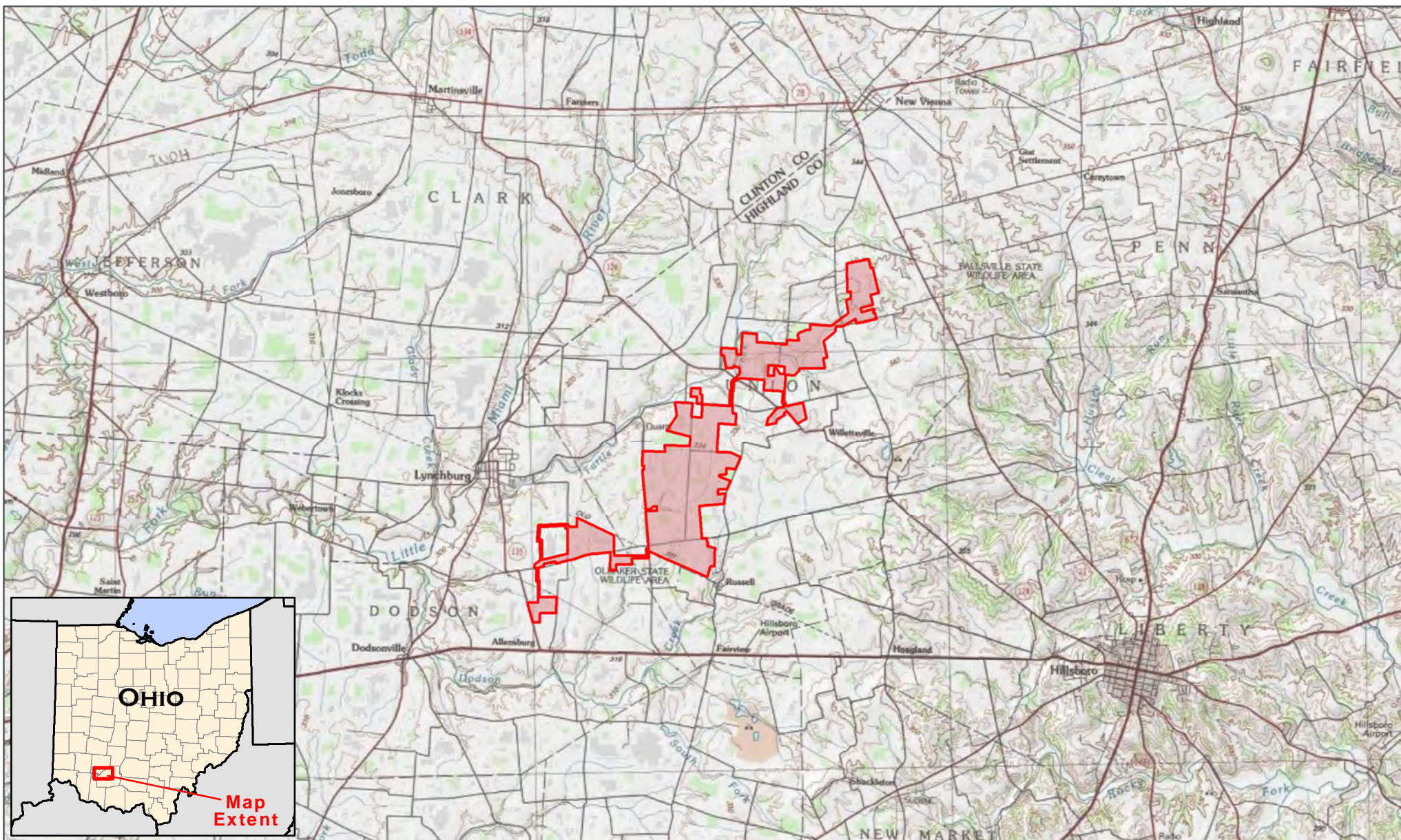
1.1 Purpose of the Investigation

At the request of Palomino Solar, LLC (Palomino), Cardno, Inc. (Cardno) has prepared this Visual Resource Assessment and Mitigation Plan (VRA) for the proposed 200-megawatt alternating current (MW_{ac}) Palomino Solar Energy Project (the Project), located approximately five miles west of Hillsboro, Ohio (Figure 1-1). The Project is proposed to be located in Union and Dodson Townships, Highland County, Ohio. This VRA is provided in support of Palomino's application to the Ohio Power Siting Board (OPSB) for a Certificate of Environmental Compatibility and Public Need (Certificate Application).

This report has been prepared to satisfy requirements of Ohio Administrative Code (OAC) 4906-4-08(D) regarding the identification of Visually Sensitive Resources (VSRs), project visibility, and potential visual impacts resulting from the construction of the proposed Project.

Consistent with the requirements of OAC 4906-4-08(D), the VRA includes the following:

- > Description of the visible components of the proposed Project;
- > Definition of the visual character of the Visual Study Area (VSA);
- > Inventory and evaluation of the existing VSRs within the VSA;
- > Evaluation of the potential visibility of the Project within the VSA;
- > Photographic simulations of the proposed Project from select locations;
- > Assessment of the visual impacts associated with the Project; and
- > Description of measures proposed to minimize visual impact.



■ Project Area

7.5' Quadrangles:
New Vienna, OH (1962)
Lynchburg, OH (1960)
New Market, OH (1976)

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1-1: Project Location - USGS Topographic Quad

Visual Resource Assessment for the Palomino Solar Energy Project

Palomino Solar, LLC

Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
www.cardno.com

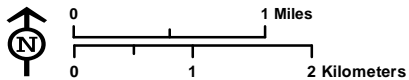
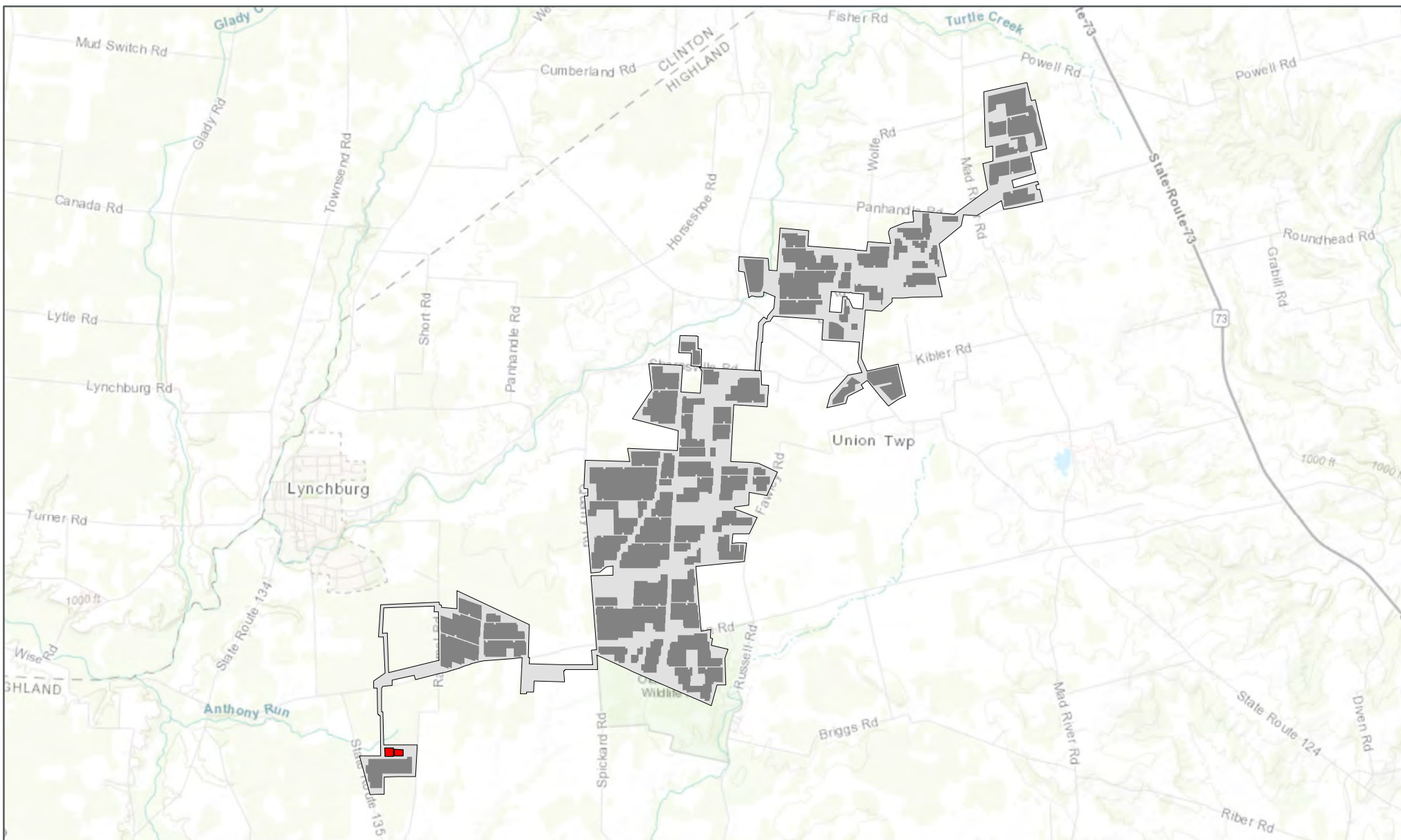
GIS Analyst: samuel.waltman

1.2 Project Location and Description

The Project is located approximately five miles west of Hillsboro, within the townships of Union and Dodson in Highland County, Ohio.

At the time of this VRA, the total acreage of the privately-owned parcels within which the Project is planned is approximately 2,668 acres (Study Area), with up to approximately 1,410 acres expected to be occupied by Project components (Project Area). The land use within and immediately adjacent to the Project Area consists primarily of agricultural land.

The proposed Project is a solar power electric generation facility with a generating capacity up to 200 MW. The Project will include the installation of single axis tracking photovoltaic (PV) solar panel arrays mounted on support piles that are driven into the ground. Inverters will be installed to convert the generated electricity from direct current to alternating current, which will be transferred to the collection substation via buried collection lines. The collection substation will be constructed to collect the generated electricity and increase the voltage for transfer to the electric transmission grid. Groupings of Project infrastructure will be surrounded by fencing for safety and security. Gravel-covered permanent access roads will be constructed to provide access to solar panel array components for use by maintenance crews and emergency services. The preliminary locations of the proposed major Project components are illustrated in Figure 1-2.



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1-2: Preliminary Project Layout Map

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Palomino Solar, LLC

Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
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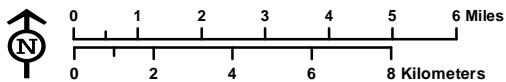
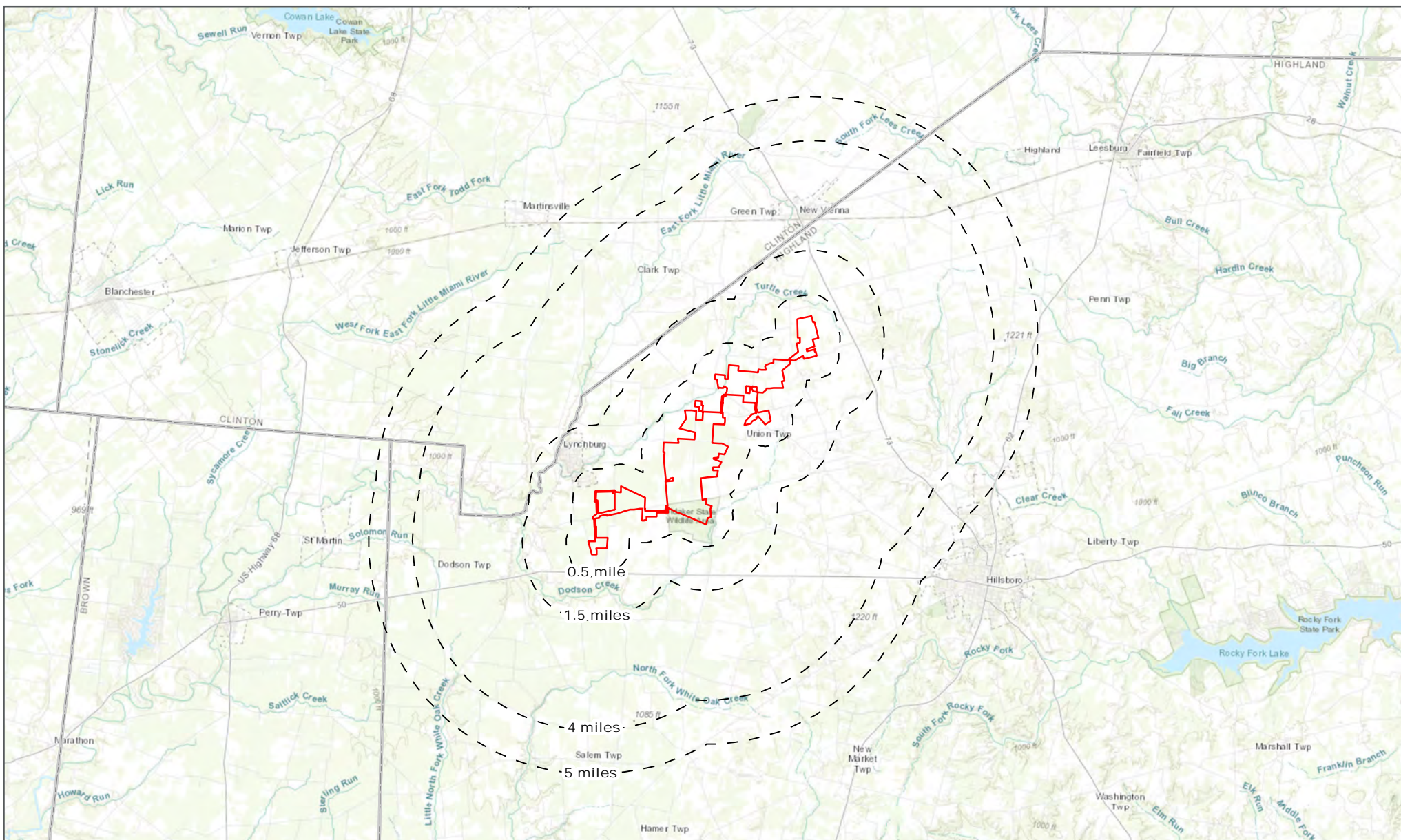
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Basemap: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

GIS Analyst: samuel.waltman

1.2.1 Visual Study Area

Under OAC 4906-4-08(D), visual impacts to recreational, scenic, and historic resources from a proposed generating facility must be evaluated within a 10-mile radius. Cardno determined that a 10-mile radius is of a size that is much larger than necessary for this VRA due to the low profile of the proposed Project components. In order to determine a more appropriately sized study area, a viewshed analysis was conducted to better understand the Project's area of potential effect. The viewshed analysis indicated that areas of potential Project visibility do not extend beyond five miles, with only discrete corridors and pockets of visibility extending beyond 0.5 miles from the Project. As such, Cardno determined that a five-mile radius around the Project would provide a more than sufficient VSA for the purposes of this assessment. The VSA encompasses a total of approximately 169.5 square miles, including portions of the Highland County townships of Fairfield, Hamer, Liberty, New Market, Penn, Salem, Union, and Dodson; the Clinton County townships of Clark, Green, Jefferson, and Washington; and the Brown County township of Perry. The location and extent of the VSA is illustrated in Figure 1-3



 Project Area
 - - Visibility Range Rings

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1-3: Visual Study Area Map

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3901 Industrial Boulevard, Indianapolis, IN 46254 USA
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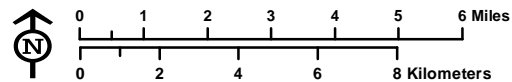
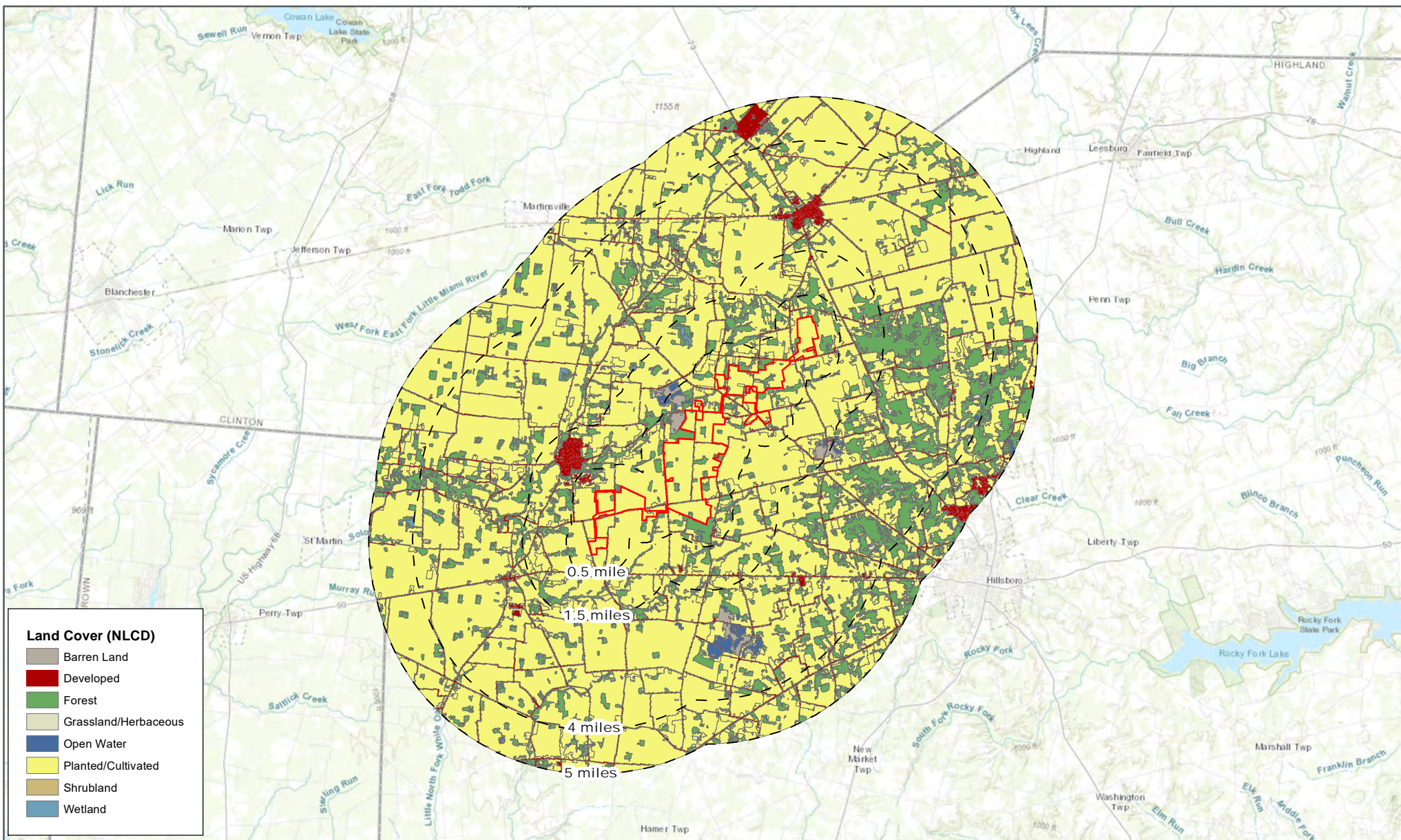
1.2.2 Landscape Character

The land use and landscape community types identified within the VSA are based on data provided by the Multi-Resolution Land Characteristics Consortium (MRLC) from the 2011 National Land Cover Database (NLCD), amended 2016 (MRLC 2018). Understanding the landscape types (LTs) within the VSA provides the framework for analyzing the potential visual effects of the Project. These LTs were categorized based on the similarity of various features, including landform, vegetation, and/or land use patterns. The LTs defined within the VSA are presented in Table 1-1 and Figure 1-4.

Table 1-1 Landscape Types within the Visual Study Area

LT	LT Total Area within the VSA (acres)	LT Total Area within the VSA (%)
Planted/Cultivated	69,824.52	64.36%
Forest	18,087.97	16.67%
Grassland/Herbaceous	13,422.20	12.37%
Developed	6,032.94	5.56%
Wetlands	184.46	0.17%
Open Water	477.43	0.44%
Barren Land	455.73	0.42%
Shrubland	21.70	0.02%
Total	108,506.09	100.0%

The Project components are proposed to be built principally within the Planted/Cultivated LT, which makes up 64.4 percent of the VSA. Because agricultural land typically lacks mature vegetation or other screening structures, this LT offers the greatest opportunities for views of solar panel arrays from within the Project and its surrounding vicinity. The Forest LT makes up 16.7 percent of the VSA. By its very nature, views from within the Forest LT are typically limited by the presence of dense vegetation. Like the Planted/Cultivated LT, the Grassland/Herbaceous LT, which makes up 12.4 percent of the VSA, also typically lacks mature vegetation or other screening structures and may offer open views of solar panel arrays from within the Project and its surrounding vicinity. The Developed LT makes up 5.6 percent of the VSA and includes the City of Hillsboro and the villages of Lynchburg, Martinsville, and New Vienna. The Developed LT typically provides limited outward views due to the presence of buildings and closely situated houses, landscaped yards/planted vegetation, utility poles, and other visual clutter. The Open Water and Wetlands LTs are scattered throughout the VSA and collectively make up only 0.6 percent of the VSA. These LTs are often associated with river or stream corridors. The most notable of these within the VSA are the East and West Forks of the Little Miami River, where long-distance views are typically limited due to the presence of tree-lined riverbanks and adjacent forested slopes.



 Project Area
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1-4: Land Cover Types within the Visual Study Area

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Palomino Solar, LLC

Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
 Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
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1.2.3 Distance Zones

Distance zones are used to divide the VSA into distinct radii around the Study Area that are based on the level of landscape detail that can be perceived by a viewer. Four distance zones have been defined, per agency protocols published by the U.S. Forest Service, Bureau of Land Management and U.S. Department of Transportation, as a guide for identifying distances at which landscape detail can be perceived by a viewer. Using appropriate adjustments associated with Ohio's landscape types, the following distance zones have been defined for use in this VSA:

- > Near-foreground: 0 to 0.5 miles. At this distance, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.
- > Foreground: 0.5 to 1.5 miles. At this distance, elements in the landscape tend to retain visual distinction, but specific textures become less defined. Larger, intact landscapes as well as seamless mosaics of landscape types will appear more as series or patterns instead of as discrete individual landscape components.
- > Middle ground: 1.5 to 4.0 miles. The middle ground is the prevalent distance at which landscapes are seen. At these distances, a viewer can recognize trees and individual structures but cannot perceive them in great detail. This is the zone where the parts of the landscape start to merge; individual hills become a range, individual trees merge into a forest, and buildings appear as shapes. Colors are softened and blended. Contrasts in texture between landscape elements are also decreased.
- > Background: Over 4.0 miles. The background encompasses the general regional landscape within the viewshed. Within this distance zone, the landscape is simplified; little detail is visible, vegetation and non-vegetated areas are seen as blocks of color, and colors are muted by atmospheric haze. Prominent land masses or other regional features (mountains, larger bodies of water, vast tracts of open lands, etc.) and/or the skyline are often the overriding visual characteristics in the background. The background acts as the backdrop for the foreground and middle ground features, creating the basis of the regional scenic quality.

For the purpose of this VRA, the visual conditions described in these distance zones depict potential perspectives for viewers during periods of peak visual clarity and do not account for variations in environmental factors such as atmospheric conditions, time of day, or background composition/coloration.

The LTs defined within the distance zones of the VSA are presented in Table 1-2. The most significant LT, Planted/Cultivated, is reflective of the agricultural nature of the area. The Forest LT is characteristic of certain areas within the VSA, with the density of forested areas in each given location varying as shown in Figure 1-4. Also of note, the Developed LT makes up an average of only approximately 5.6 percent across all distance zones within the VSA.

Table 1-2 Distance Zones by Landscape Type

Landscape Type	Total Area (acres) and Percentage of LT by Distance Zone			
	Near-foreground (0 – 0.5 mile)	Foreground (0.5 – 1.5 miles)	Middle Ground (1.5 – 4.0 miles)	Background (>4.0miles)
Planted/Cultivated	7,129.58 (66.49%)	9,766.19 (63.99%)	33,973.12 (62.86%)	18,961.87 (66.59%)
Forest	1,659.89 (15.48%)	2,310.68 (15.14%)	9,490.42 (17.56%)	4,627.28 (16.25%)
Developed	500.75 (4.67%)	924.88 (6.06%)	2,988.73 (5.53%)	1,617.41 (5.68%)
Wetlands	5.36 (0.05%)	50.36 (0.33%)	81.07 (0.15%)	42.71 (0.15%)
Open Water	33.24 (0.31%)	85.47 (0.56%)	329.68 (0.61%)	28.48 (0.10%)
Grassland/Herbaceous	1,288.88 (12.02%)	1,997.80 (13.09%)	6,939.47 (12.84%)	3,189.26 (11.20%)
Shrubland	2.14 (0.02%)	0.18 (0.00%)	16.21 (0.03%)	5.70 (0.02%)
Barren	101.87 (0.95%)	125.15 (0.82%)	221.59 (0.41%)	2.85 (0.01%)
Total Distance Zone Area	10,722.79	15,262.06	54,045.68	28,475.55

2 Methodology

2.1 Solar Panel Array Viewshed Analysis

Cardno conducted a viewshed analysis to assess the visibility of solar panel arrays within the Project Area. The analysis was conducted using a digital surface model (DSM) derived from the Ohio Statewide Imagery Program's (OSIP) 2007 lidar data for Highland and Clinton Counties and enhanced with Esri ArcGIS® software. Because the specific layout of the solar panel arrays is in the preliminary design phase, sample points were placed approximately 400 to 1,000 feet apart along the proposed solar panel array area within the Project Area boundary. The sample points were placed at a height of 15 feet to represent the maximum height of the solar panel arrays, and the analysis assumed a viewer height of six feet. Although the proposed substation and interconnection structures will result in some minimal visual impacts in their immediate vicinity, their location is in close proximity to an existing overhead transmission line and will comprise a footprint considerably smaller than the proposed solar panel arrays. For these reasons, the DSM did not include these structures.

The viewshed analysis incorporated the screening effects of existing topography, structures, and vegetation within the VSA. This was accomplished by creating a DSM of the VSA from the lidar data, which included the elevations of buildings, trees, and other objects large enough to be resolved by lidar technology. Transmission lines that were included in these lidar data were removed from the resulting DSM, and road centerlines were buffered 50 feet to remove utility lines. Lidar data for these narrow, vertical landscape features were removed from the DSM to avoid including artificial screening in the analysis. Additionally, vegetation within the proposed Project fence line, including narrow hedgerows that will be cleared during construction of the Project, was removed. This was done to simulate the bare-earth elevation.

Following the completion of the viewshed analysis, adjustments were made in ArcGIS® to address the instances where vegetation or structures in the DSM exceeded the viewer height. This allowed for a more accurate assessment of visibility by the viewer.

Although the viewshed analysis provides a useful representation of Project visibility, certain conditions are not incorporated into the DSM (e.g., color, distance from viewer, and atmospheric/weather conditions). Therefore, some areas within the VSA may always have actual visibility of the Project.

2.2 Visually Sensitive Resources

VSRs within the VSA were identified per the requirements of OAC 4906-4-08(D). Below are the potential VSR categories that may be present within the VSA. In addition, other aesthetic resources were considered for evaluation based on the type of resource or its prominence within the VSA. Typical VSRs include the following:

- > Landmarks such as districts, sites, buildings, structures, and objects that are recognized by, registered with, or identified as eligible for registration by the national registry of natural landmarks, the state historical preservation office, or the Ohio Department of Natural Resources;
- > Recreation areas that are any formally adopted land and water recreation areas, recreational trails, scenic rivers, scenic routes or byways;
- > Registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance; and
- > Other public areas such as state, federal, and interstate highways; schools; cities; and villages.

2.3 Field Verification

Cardno conducted site visits to the VSA on March 30 through April 1 and on June 1, 2021, to verify the results of the viewshed analysis, document the characteristics of the LTs and existing visual screening, and collect photographs for use in the creation of visual simulations.

The Cardno field team drove on public roads throughout the Project Area and collected photographs from 10 individual viewpoints. A viewpoint location map and photo log are included in Appendix A to this VRA.

2.4 Creation of Visual Simulations

Visual simulations of key components of the proposed Project were developed using a three-dimensional (3D) computer model of the proposed Project infrastructure based on specifications, dimensions, and locations provided by Palomino. Camera specifications and global positioning system (GPS) coordinates collected at each photograph location were incorporated into the 3D model. Next, each photograph was pulled into the model, and the scale and perspective of the Project components (e.g., fencing, panels) were adjusted appropriately.

At viewpoints where vegetative screening is proposed, plantings were added to the simulations to represent conditions approximately five to seven years after installation. Vegetative screening was illustrated based on the following screening applications that are planned for certain segments of the Project's perimeter. Greater detail for each module composition can be found in the separate Landscape Plan (Exhibit J to Certificate Application) prepared for the Project.

- > **Module 1** – Pollinator Mix (herbaceous plant material): establishes a visual and ecological buffer along the Project perimeter in areas where visibility of PV panels is generally low, such as at the back of fields, or in areas where potential visibility is higher but prolonged viewership is uncommon.
- > **Module 2** – Pollinator Mix and Large Shrub/Small Trees: provides vertical softening for use in areas of medium viewership and visibility potential but where low stationary (residential or recreational) activity occurs.
- > **Module 3** – Pollinator Mix, Large Shrub/Small Trees and Large Trees: provides the highest level of screening, for use in areas where stationary adjacent uses and non-participating viewers could be impacted by the installation of Project components.

3 Results

3.1 Viewshed Analysis

3.1.1 Solar Panel Array Viewshed Analysis

The analysis of the potential visibility of the proposed Project is summarized in Table 3-1, and the potential visibility is illustrated in Figure 3-1. The results of the analysis indicate the Project will be screened from approximately 69.2 percent of the VSA by topography, existing vegetation, and physical structures.

Table 3-1 Solar Panel Array Viewshed Analysis Results Summary

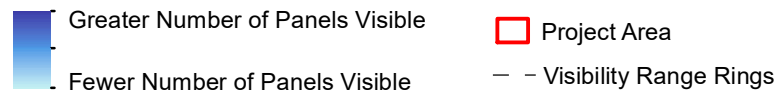
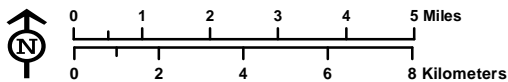
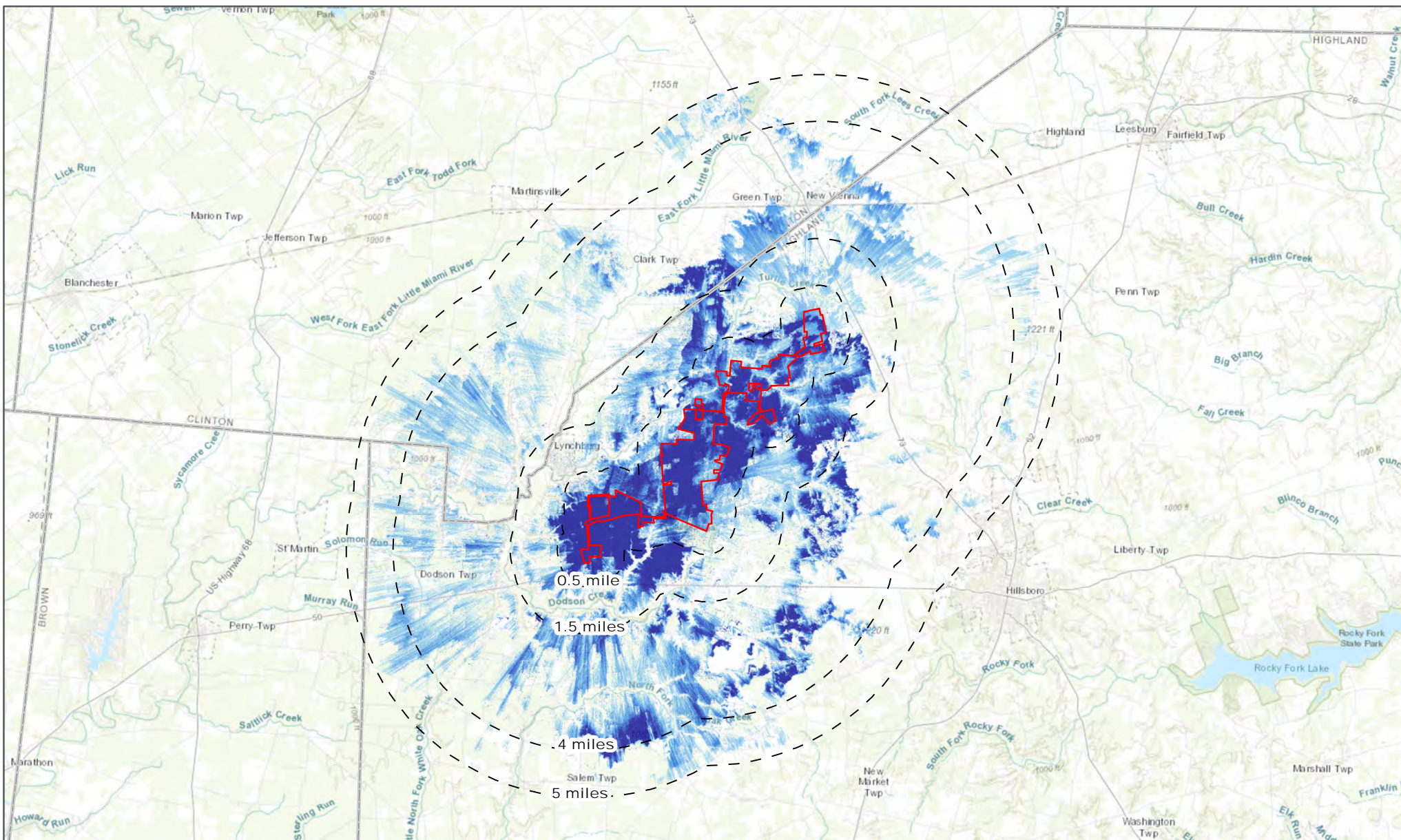
Analysis	VSA	Distance from Project			
		Near-foreground (0 – 0.5 miles)	Foreground (0.5 – 1.5 miles)	Middle Ground (1.5 – 4.0 miles)	Background (4.0 – 5.0 miles)
Total Area	169.5 mi ²	16.8 mi ²	23.8 mi ²	84.4 mi ²	44.5 mi ²
DSM Viewshed Visibility	52.2 mi ² (30.8%)	15.0 mi ² (89.3%)	12.1 mi ² (50.8%)	21.0 mi ² (24.9%)	0.4 mi ² (0.8%)

The majority of Project visibility is concentrated within the near-foreground distance zone, with 89.3 percent of the area 0-0.5 miles from the Project Area having potential views of some portion of the Project. Views from areas beyond the near-foreground and into the foreground distance zone (0.5 to 1.5 miles) are better screened, with 50.8 percent of the foreground distance zone having the potential for views of the solar panel arrays. The DSM viewshed analysis indicates that potential Project visibility is further reduced at distances beyond the foreground. Approximately 75 percent of the VSA is screened from view of the proposed solar panel arrays in the middle ground (1.5 to 4 miles), and approximately 99 percent is screened in the background (4 to 5 miles).

The topography and vegetation associated with the rivers and streams as well as the forested woodlots play significant roles in reducing potential solar panel array visibility within the VSA. Due to their establishment and orientation throughout the VSA, stream corridors and forested areas serve to concentrate areas of potential visibility in the near-foreground and foreground distance zones, predominantly on level open ground within agricultural tracts. A few additional locations of potential visibility are present in the distance zones beyond the near-foreground distance zone. These areas are corridors of visibility that result from open agricultural areas combined with slight topographic elevation. Due to the limited portion of the Project that would be visible and the distance from the Project, it is unlikely that Project visibility within these corridors or elevated viewpoints would be readily noticeable to a casual viewer.

Existing structures and vegetation (i.e., small woodlots and hedgerows) are assumed to fully block views of the Project. This scenario is likely in leaf-on conditions; however, during leaf-off conditions, this may be conservative since sparsely vegetated areas may not actually provide screening that fully obscures views of the Project. Furthermore, the lidar data used in this analysis are from 2007, and any changes to structures and vegetation since that time are not represented in the analysis. Cardno reviewed available recent aerial photography and field-collected photographs that suggest that the lidar data appear to accurately reflect current screening conditions within the VSA.

Figure 3-1 of the DSM viewshed analysis for a five-mile radius depicts both the bare earth model and a viewshed that incorporates the vegetative model. This figure illustrates that visibility beyond a 0.5-mile radius will be limited primarily to corridors of agricultural fields at higher elevations to the north, south, and southeast.



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3-1 Viewshed Analysis - PV Panel (5-mile radius)

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Palomino Solar, LLC
Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
www.cardno.com

Potential solar panel array visibility within the various LTs, as predicted by the DSM viewshed analysis, is summarized in Table 3-2.

Table 3-2 Landscape Types Viewshed Analysis Results Summary

Analysis	VSA	Landscape Types							
		Planted/ Cultivated	Grassland/ Herbaceous	Forest	Developed	Barren	Open Water	Wetlands	Shrubland
Total Area	169.5 mi ²	109.1 mi ²	21.0 mi ²	28.3 mi ²	9.4 mi ²	0.7 mi ²	0.7 mi ²	0.3 mi ²	0.03 mi ²
DSM Viewshed Visibility	52.2mi ² (30.8%)	37.6 mi ² (22.2%)	5.3 mi ² (3.1%)	4.1 mi ² (2.4%)	2.4 mi ² (1.4%)	0.2 mi ² (0.1%)	0.1 mi ² (0.05%)	0.1 mi ² (0.05%)	0.01 mi ² (0.005 %)

The greatest potential for visibility of the proposed solar panel arrays is indicated within the Planted/Cultivated LT. The DSM viewshed indicates that 22.2 percent of the total VSA could potentially offer views of the proposed solar panel arrays from this LT. Visibility within the Planted/Cultivated LT is most heavily concentrated in the near-foreground and foreground distance zones, within open agricultural fields.

The potential for solar panel array visibility within the Grassland/Herbaceous LT is indicated in approximately 3.1 percent of the total VSA. As in the Planted/Cultivated LT, the lack of tall vegetation and structures within the Grassland/Herbaceous LT offers open views of proposed solar panel arrays within the Project vicinity.

The potential for solar panel array visibility within the Forest LT is indicated in approximately 2.4 percent of the total VSA. Visibility may occur in small breaks or clearings in the forest vegetation, but the occurrence of these areas is generally limited. Visibility within this zone occurs most frequently along the forest edges where abutting open fields provide opportunities for outward views. However, there will be little to no solar panel array visibility from the majority of the forested areas, particularly during the growing season.

The potential for solar panel array visibility within the Developed LT is indicated in approximately 1.4 percent of the total VSA. The portions of this LT that may have views of the proposed solar panel arrays are primarily composed of roadways concentrated in the near-foreground and foreground distance zones, where the edges of roadway development abut open agricultural fields, allowing a relatively unbroken viewshed.

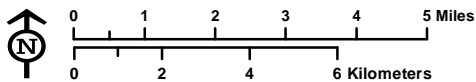
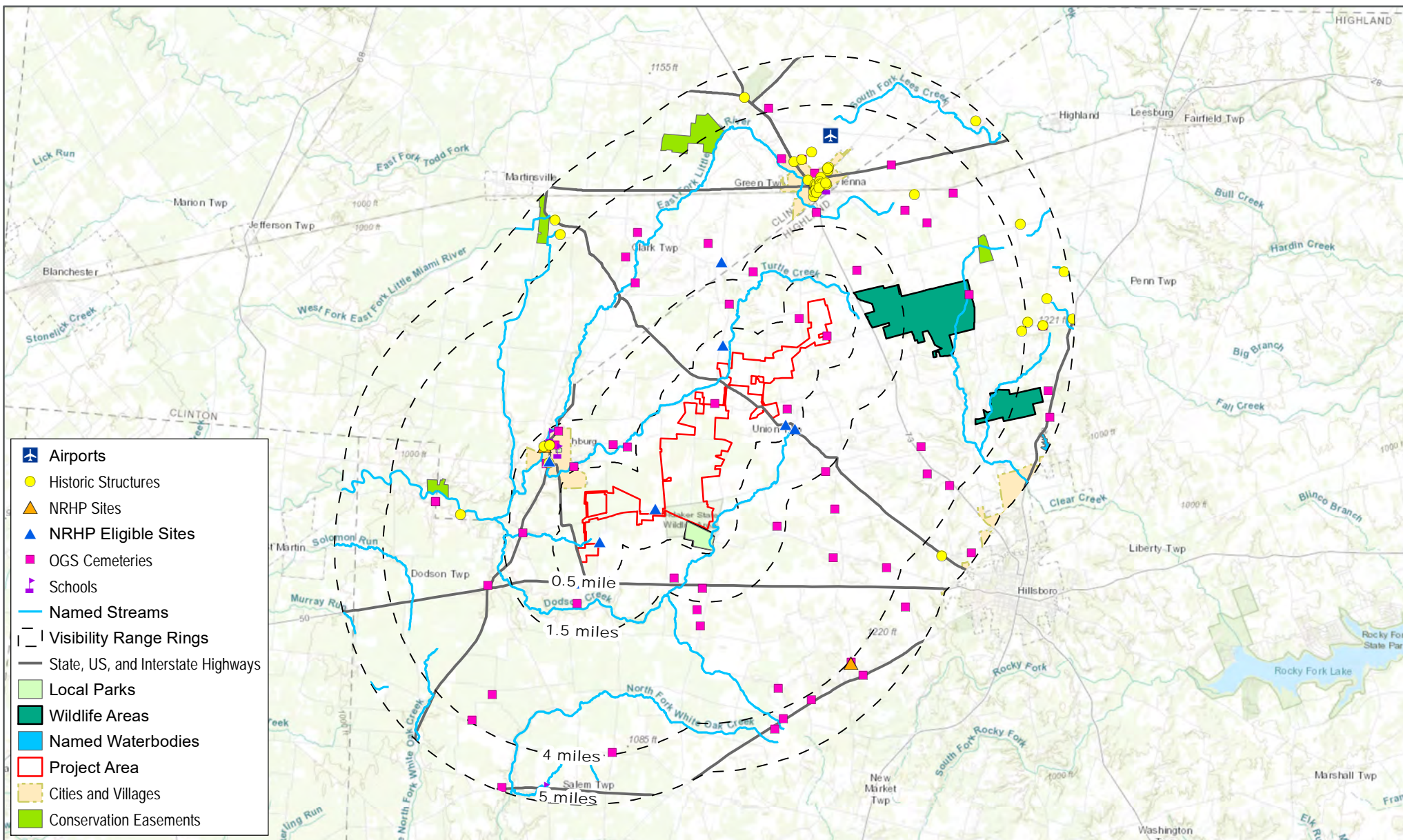
The LTs with the least amount of potential solar panel array visibility are the Barren (0.1 percent), Open Water (0.05 percent), Wetlands (0.05 percent), and Shrubland (0.005 percent) LTs. These LTs comprise 1.84 percent of the total VSA, and their visibility varies considerably based on the proximity to the Project, elevation, and orientation.

3.1.2 Visibility Results from Visually Sensitive Resources

Table 3-3 provides a summary of the DSM viewshed analysis indicating that 54 of the 137 VSRs identified within the VSA (39 percent) may have some level of visibility to the solar panel arrays. The locations of mapped VSRs within the VSA are illustrated in Figure 3-2 and listed individually in Appendix C to this VRA. Additionally, as required by OAC 4906-4-08(D)(1), Figure 3-3 shows resources to a distance of 10 miles from the Project Area.

Table 3-3 Visually Sensitive Resources in the DSM Viewshed

Visually Sensitive Resources	Total Number of Resources within the Visual Study Area	Total Number of Resources with Visibility
<i>Properties of Historic Significance</i>		
National Historic Landmarks (NHLs)	0	0
Sites Listed on National or State Registers of Historic Places (NRHP/SRHPs)	2	1
Sites Eligible for Listing on NRHPs or SRHPs	8	6
National/State Historic Sites	0	0
Ohio Historic Structures	43	7
Historic Bridges	1	0
OGS Cemeteries	54	22
Ohio Historic State Markers	0	0
Total	107	35
<i>Designated Scenic Resources</i>		
	<i>Total = 0</i>	<i>Total = 0</i>
Rivers Designated as National or State Wild, Scenic or Recreational	0	0
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for Designation as Scenic ([ECL, Article 49, Title 1] or equivalent)	0	0
Scenic Areas of Statewide Significance [Article 42 of Executive Law]	0	0
Other Designated Scenic Resources (Easements, Roads, Districts, and Overlooks)	0	0
Total	0	0
<i>Public Lands and Recreational Resources</i>		
	<i>Total = 11</i>	<i>Total = 6</i>
National Natural Landmarks [36 CFR Part 62], National Wildlife Refuges [16 U.S.C. 668dd]	0	0
Heritage Areas [Parks, Recreation and Historic Preservation Law Section 35.15], State Parks [Parks, Recreation and Historic Preservation Law Section 3.09], State Nature and Historic Preserve Areas [Section 4 of Article XIV of the State Constitution]	0	0
Wildlife Areas	2	2
State Forests	0	0
Other State Lands	0	0
Designated Trails	0	0
Local Parks and Recreation Areas	3	0
Publicly Accessible Conservation Lands/Easements	4	4
Named Lakes, Ponds, and Reservoirs	2	0
Total	11	6
<i>High-Use Public Areas</i>		
	<i>Total = 19</i>	<i>Total = 11</i>
State, US, and Interstate Highways	11	8
Cities and Villages	3	2
Schools	4	1
Airports	1	0
Total	19	11
Total Number of Visually Sensitive Resources in the VSA	Total = 137	Total = 54



7.5' Quadrangles:
New Vienna, OH (1962)
Lynchburg, OH (1960)
New Market, OH (1976)

PLSS: unsectioned

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Date: 12/16/2021

File Path: S:\PROJECTS\Innergex (PDX)\E320200500 - Palomino Solar\GIS\3-2 - Location of VSRs.mxd

Basemap: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

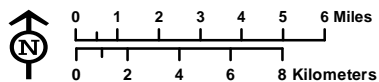
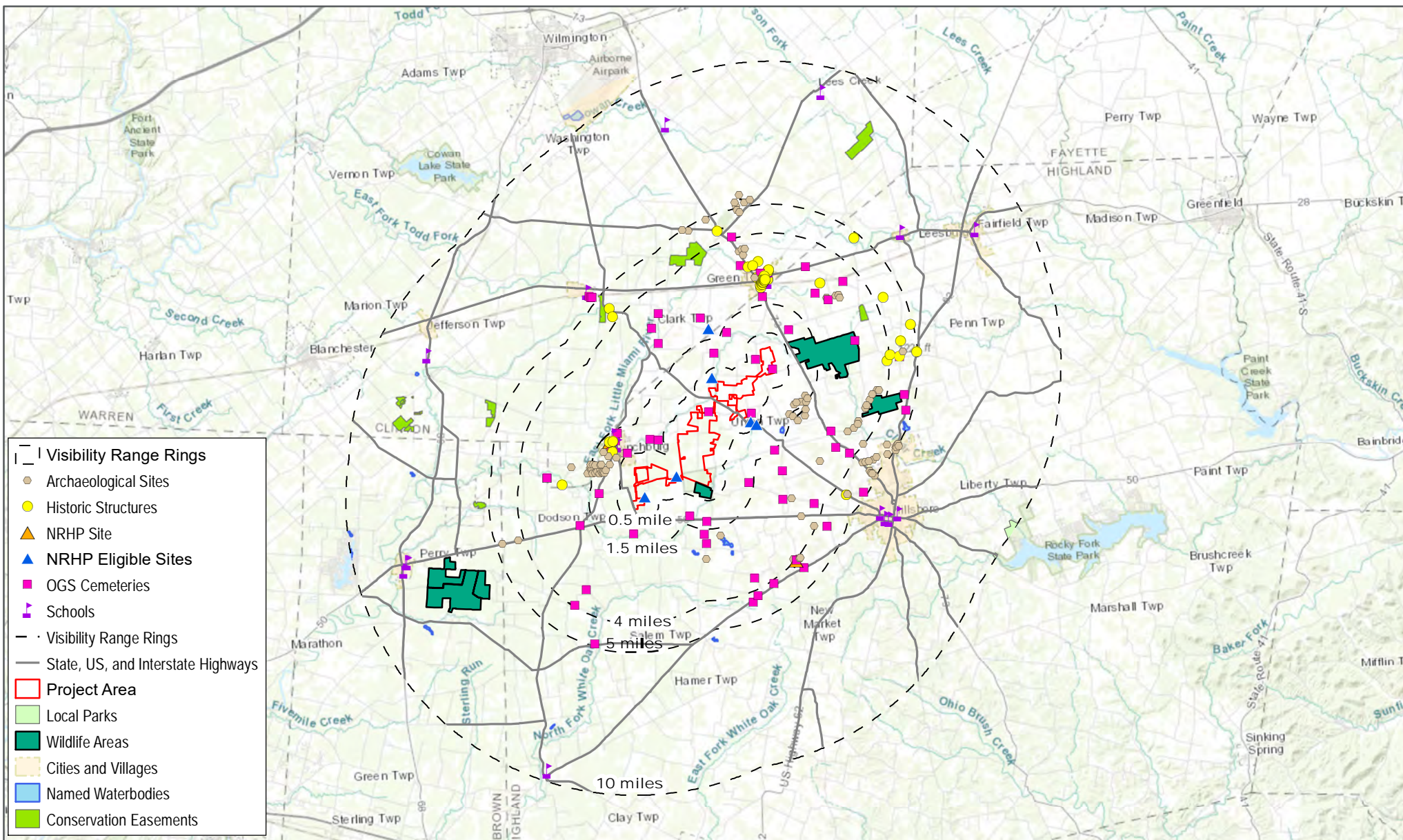
3-2: Location of Visually Sensitive Resources

Visual Resource Assessment for the Palomino Solar Energy Project
Palomino Solar, LLC
Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
www.cardno.com

GIS Analyst: samuel.waltman



7.5' Quadrangles:
New Vienna, OH (1962)
Lynchburg, OH (1960)
New Market, OH (1976)

PLSS: unsectioned

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3-3: Location of Visually Sensitive Resources Within 10 Miles

Visual Resource Assessment for the Palomino Solar Energy Project

Palomino Solar, LLC

Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
www.cardno.com

Date: 12/20/2021

File Path: C:\Users\samuel.waltman\Desktop\Palomino GIS Files\3-3 - Location of VSRs.mxd

Basemap: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

GIS Analyst: samuel.waltman

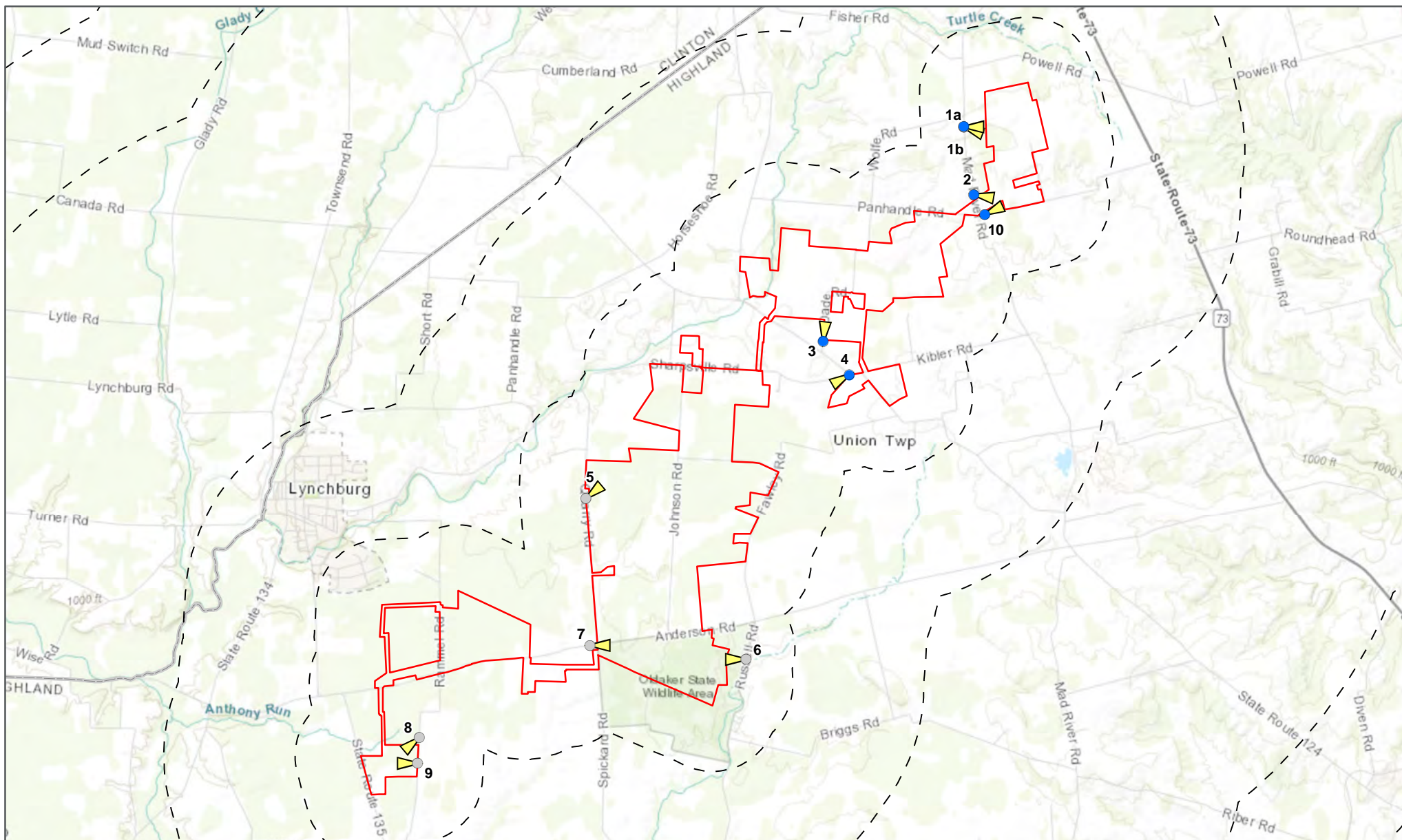
3.1.3 Field Verification Results

According to the DSM viewshed analysis, the Project will be screened from approximately 69.2 percent of the VSA by intervening landforms, vegetation, and structures. Field visits generally confirmed the results of this analysis, as Project visibility was observed to be largely restricted to areas adjacent to the Project Area where public roads are bordered by open agricultural fields. It was also confirmed during field visits that existing topography, as well as mature vegetation associated with stream corridors, woodlots, and hedgerows, will screen the Project from more distant portions of the VSA. Within the near-foreground (0-0.5 miles) distance zone, field review revealed that although portions of the Project are technically visible as indicated in the viewshed analysis, there is a low likelihood of discerning the proposed Project due to the level of visual blending into the background at the outer edges of this distance zone. During the growing season, the visibility of the Project from residences and roadways may also be limited by the growth of cultivated crops in the foreground agricultural fields. The combination of relatively low panel height, along with existing hedgerows, gently rolling topographic relief, and the atmospheric effects of distance, will significantly limit visibility of the Project from the majority of the VSA.



3.2 Visual Simulations



In the previous September 2021 VRA, ten visual simulations were created to illustrate the Project from nine representative locations. For the updated VRA, 5 visual simulations were created, utilizing four of the original locations and one new location to illustrate the updated Project layout. The visual simulations provide a time-lapse view of the period from existing conditions, to the initial construction of Project components, to five to seven years post-construction with the inclusion of prescribed vegetation plantings. The locations of the viewpoints selected for the production of visual simulations are illustrated in Figure 3-4.

A sub-set of visual simulations that are representative of typical views for the Project Area and a discussion of each of the potential visual effects associated with the Project are summarized below. Full-size images of all visual simulations are presented in Appendix B to this VRA.



Visual Simulation Locations

-  New
-  Previous

-  Project Area
-  Visibility Range Rings

7.5' Quadrangles:
New Vienna, OH (1962)
Lynchburg, OH (1960)
New Market, OH (1976)

PLSS: unsectioned

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Date: 12/21/2021

File Path: S:\PROJECTS\Innergex (PDX)\E320200500 - Palomino Solar\GIS\3-4 Visual Simulation Viewpoint Map.mxd

Basemap: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

3-4 Visual Simulation Viewpoints Map

Visual Resource Assessment for the Palomino Solar Energy Project
Palomino Solar, LLC
Dodson and Union Townships, Highland County, Ohio



3901 Industrial Boulevard, Indianapolis, IN 46254 USA
Phone (+1) 317.388.1982 Fax (+1) 317.945.6309
www.cardno.com

GIS Analyst: samuel.waltman

3.2.1.1 Viewpoint 4 Existing Conditions

Viewpoint 4 is situated along the intersection of State Road 124 and County Road 11 (Sharpsville Rd), facing west towards an open agricultural field. The existing conditions in this view show the plowed field in the foreground of the visual, abutted by an ephemeral drainage. Residences can be viewed in the background of the visual behind an existing tree line, approximately 1,400 feet from the viewpoint (Figure 3-5, Existing Conditions).

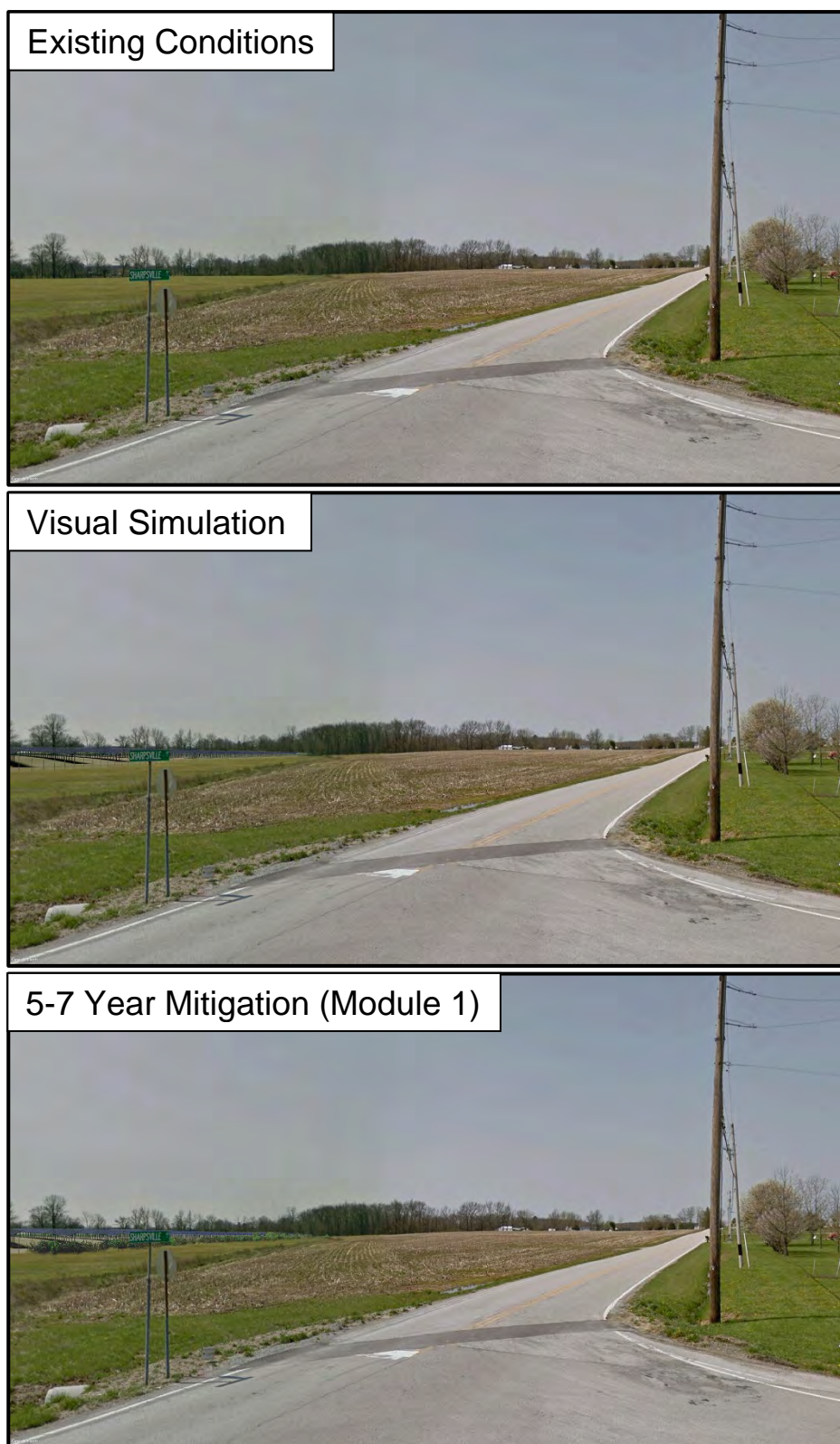
3.2.1.2 Viewpoint 4 Proposed Project

With the addition of the proposed Project, solar panel arrays and the associated fence line can be viewed within the field from the middle ground to the background of the visual. These solar panel arrays are located approximately 335 feet from the viewpoint (Figure 3-5, Visual Simulation).

3.2.1.3 Viewpoint 4 Proposed Project with Mitigation

With proposed mitigation vegetation plantings placed and established five to seven years following installation, the area comprising the proposed solar panel arrays is surrounded by a variety of herbaceous vegetation. Although views of the solar panel arrays remain available, the duration of these views will be limited for drivers passing along CR 11. For this reason, the vegetation plantings are intended to interrupt the horizontal lines of the Project components, allowing them to blend into the vegetated background (Figure 3-5, Five- to Seven-Year Mitigation).

Figure 3-5 Viewpoint 4 - Existing Conditions, Visual Simulation, and Five- to Seven-Year Mitigation



3.2.1.4 Viewpoint 10 Existing Conditions

Viewpoint 10 is situated along County Road 8 (Panhandle Rd), facing east/northeast towards an open agricultural field. The existing conditions in this view show the rural field that extends from the foreground to the background of the visual. The forested woodlot and residences viewed in the background of the image are located approximately 1,250 and 2,350 feet from the viewpoint, respectively (Figure 3-6, Existing Conditions).

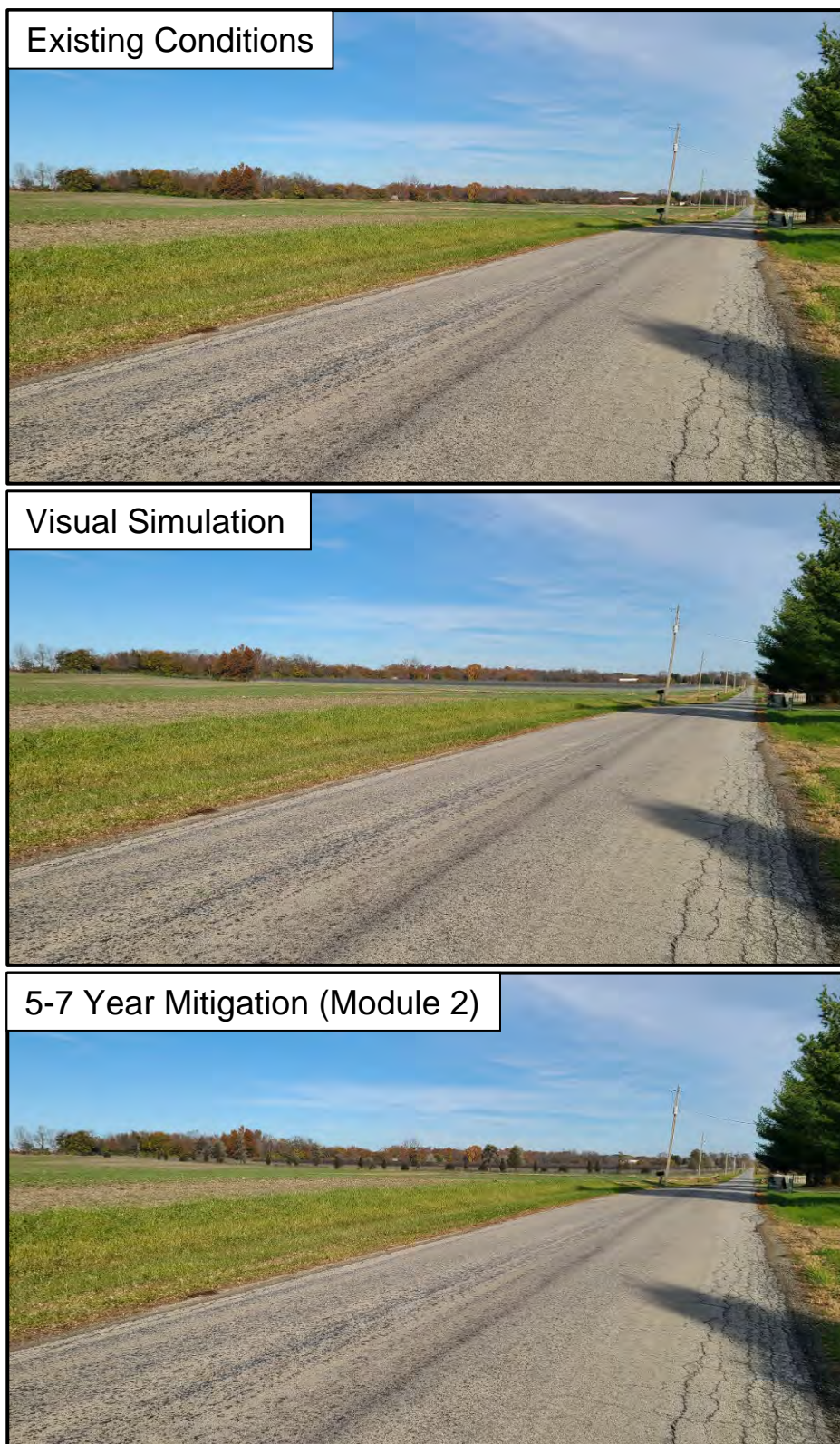
3.2.1.5 Viewpoint 10 Proposed Project

With the addition of the proposed Project, solar panel arrays and the associated fence line can be viewed within the field in the background of the visual. These solar panel arrays are located approximately 850 feet from the viewpoint (Figure 3-6, Visual Simulation).

3.2.1.6 Viewpoint 10 Proposed Project with Mitigation

With proposed mitigation vegetation plantings placed and established five to seven years following installation, the area comprising the proposed solar panel arrays is surrounded by a medium density of large deciduous and evergreen trees, large shrubbery, and herbaceous vegetation. Although views of the solar panel arrays remain available through gaps in the vegetation, the duration of these views will be limited for drivers passing the Project along County Road 8 (Figure 3-6, Five- to Seven-Year Mitigation).

Figure 3-6 Viewpoint 10 - Existing Conditions, Visual Simulation, and Five- to Seven-Year Mitigation



4 Conclusions

4.1 Visual Resource Assessment Summary

The viewshed analysis indicated that the proposed solar panel arrays associated with the Project will be screened from view in approximately 69.2 percent of the five-mile-radius VSA. Visibility is concentrated within the Project Area itself and in adjacent open fields. The viewshed analysis also suggests that solar panel array visibility substantially diminishes beyond the foreground distance zone (1.5 mile).

Solar panel array viewshed analysis of the 137 identified VSRs within the VSA indicates that 54 (39 percent) have potential Project visibility. Viewshed results suggest that views from VSRs will generally be small and/or include only a limited number of Project components.

Field visits generally confirmed the results of the viewshed analysis. Beyond 1.5 miles, Project visibility will be reduced due to screening provided by topography and hedgerows in combination with the low height of the solar panel arrays.

Additionally, the discernibility of panels that are visible in the outer extent of the 0.5-mile range will be diminished due to visual blending with the background at these distances.

The Project will result in varying levels of visual impact when viewed from its surrounding vicinity. The Project will install structures that will alter the scenic quality and/or existing agricultural character of the landscape. However, as illustrated in the visual simulations, Project visibility and potential visual impact will diminish rapidly at greater distances. For this reason, it is anticipated that the impacts will be localized to a limited number of areas adjacent to the Project. Additionally, these impacts will likely be mitigated to some degree by the presence of seasonal crops in actively farmed fields.

4.2 Mitigation

Palomino proposes to plant vegetation along the perimeter of the Project to reduce or screen views of constructed solar panel arrays. The conceptual plan developed for this Project is based on the assumptions that 100 percent screening is not necessary in Module 1 and Module 2 areas and that the introduction of native vegetation in clumps and hedgerows will adequately mimic the existing plant materials observed in the vicinity of the Project Area. Consistent with the requirements of OAC 4906-4-08(D), the visual simulations illustrate how the proposed planting modules will minimize potential visual impacts created by the installation of the solar panel arrays. Although the mitigation represented in the visual simulations is conceptual at this time, and the planting composition may be adjusted, the design goals and approach will not change. Additional details can be found in the separate Landscape Plan for the Project (Exhibit J to Certificate Application).

5 References

- Multi-Resolution Land Characteristics Consortium (MRLC). 2016. National Land Cover Database. Available at: <https://www.mrlc.gov/data/nlcd-2011-land-cover-conus-0>. Accessed July 2021.
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Visual Resource Assessment and
Mitigation Plan - Updated
Palomino Solar Energy Project

APPENDIX


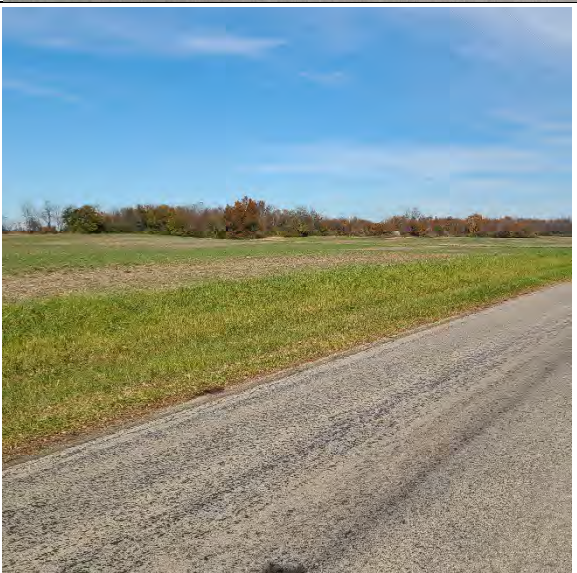
A

VIEWPOINT LOCATION MAP AND
PHOTOLOG

Palomino Solar Viewpoint Photolog

	<p>Viewpoint 1b</p> <p><u>Direction Facing</u> East</p> <p><u>Location</u> 39.285062, -83.696764</p> <p><u>Caption/Description</u> View from CR 7 (Mad River Rd) in the township of Union, Highland County. 1,059 feet from the nearest proposed PV panel, in the Near-Foreground distance zone.</p>
	<p>Viewpoint 2</p> <p><u>Direction Facing</u> Southeast</p> <p><u>Location</u> 39.2778832500, -83.6952496110</p> <p><u>Caption/Description</u> View from CR 7 (Mad River Rd) in the township of Union, Highland County. 1,203 feet from the nearest proposed PV panel, in the Near-Foreground distance zone.</p>
	<p>Viewpoint 3</p> <p><u>Direction Facing</u> North</p> <p><u>Location</u> 39.2612421667, -83.7164156389</p> <p><u>Caption/Description</u> View from CR 66 (Dade Rd) in the township of Union, Highland County. 289 feet from the nearest proposed PV panel, in the Near-Foreground distance zone.</p>

Palomino Solar Viewpoint Photolog

			<p>Viewpoint 4</p> <p><u>Direction Facing</u> West</p> <p><u>Location</u> 39.257803, -83.712570</p> <p><u>Caption/Description</u> View from the intersection of SR124 and CR 11 (Sharpsville Rd) in the township of Union, Highland County. 175 feet from the nearest proposed PV panel, in the Near-Foreground distance zone</p>
			<p>Viewpoint 10</p> <p><u>Direction Facing</u> East/Northeast</p> <p><u>Location</u> 39.275731, -83.693668</p> <p><u>Caption/Description</u> View from CR 8 (Panhandle Rd) in the township of Union, Highland County. 898 feet from the nearest proposed PV panel, in the Near-Foreground distance zone.</p>

Visual Resource Assessment and
Mitigation Plan - Updated
Palomino Solar Energy Project

APPENDIX

B

VISUAL SIMULATIONS

Viewpoint 1b | Union

Viewpoint Information

Viewpoint ID: 1b

County: Highland

Township: Union

Location: CR 7

Coordinates: 39.285062, -83.696764

Direction of View: East-Southeast

Distance to Panels: 0.19 mile

Distance Zone: Near-Foreground

Visual Resources

Landscape Type: Farmland

User Group: Resident

Photograph Information

Date Taken: March 30, 2021

Time: 4:44 PM

Camera: SM-G930V

Resolution: 1440 x 2560 pixels

Lens Focal Length: 4.2 mm 1.7

Camera Elevation: 5.6 feet

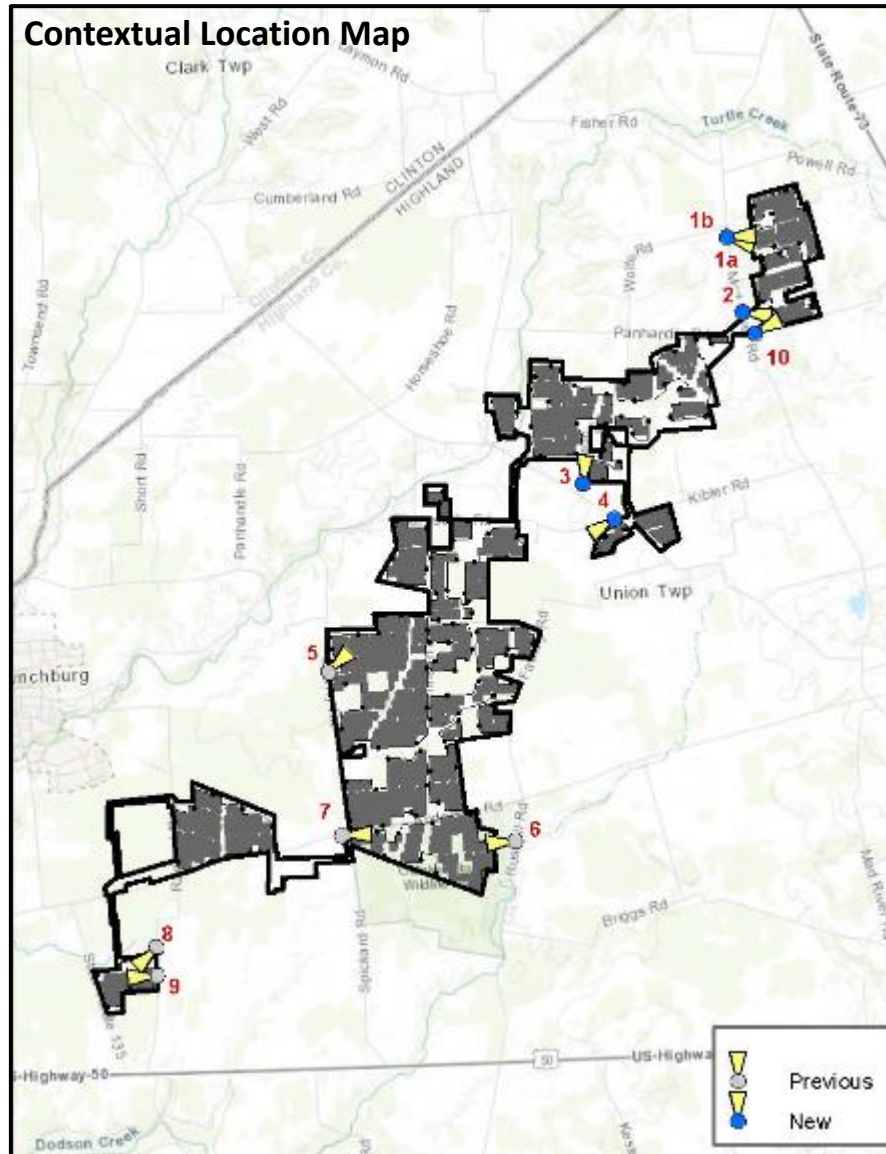
Project Information

Racking Type: Single Axis Tracker

Max Panel Height: 15 feet

Total Buildable Area: 1,407 acres

Contextual Location Map



Detailed Location Map



Palomino Solar Energy Project

Union Township

Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Context Sheet

Page B-1



Viewpoint 1b: Existing Conditions



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Existing Conditions

Page B-2



Viewpoint 1b: Visual Simulation – September Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Visual Simulation

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Viewpoint 1b: Visual Simulation – December Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Visual Simulation

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Viewpoint 2 | Union

Viewpoint Information

Viewpoint ID: 2

County: Highland

Township: Union

Location: CR 7

Coordinates: 39.277883, -83.695249

Direction of View: Southeast

Distance to Panels: 0.23 mile

Distance Zone: Near-Foreground

Visual Resources

Landscape Type: Farmland

User Group: Resident

Photograph Information

Date Taken: April 01, 2021

Time: 4:35 PM

Camera: SM-G930V

Resolution: 1440 x 2560 pixels

Lens Focal Length: 4.2 mm 1.7

Camera Elevation: 5.6 feet

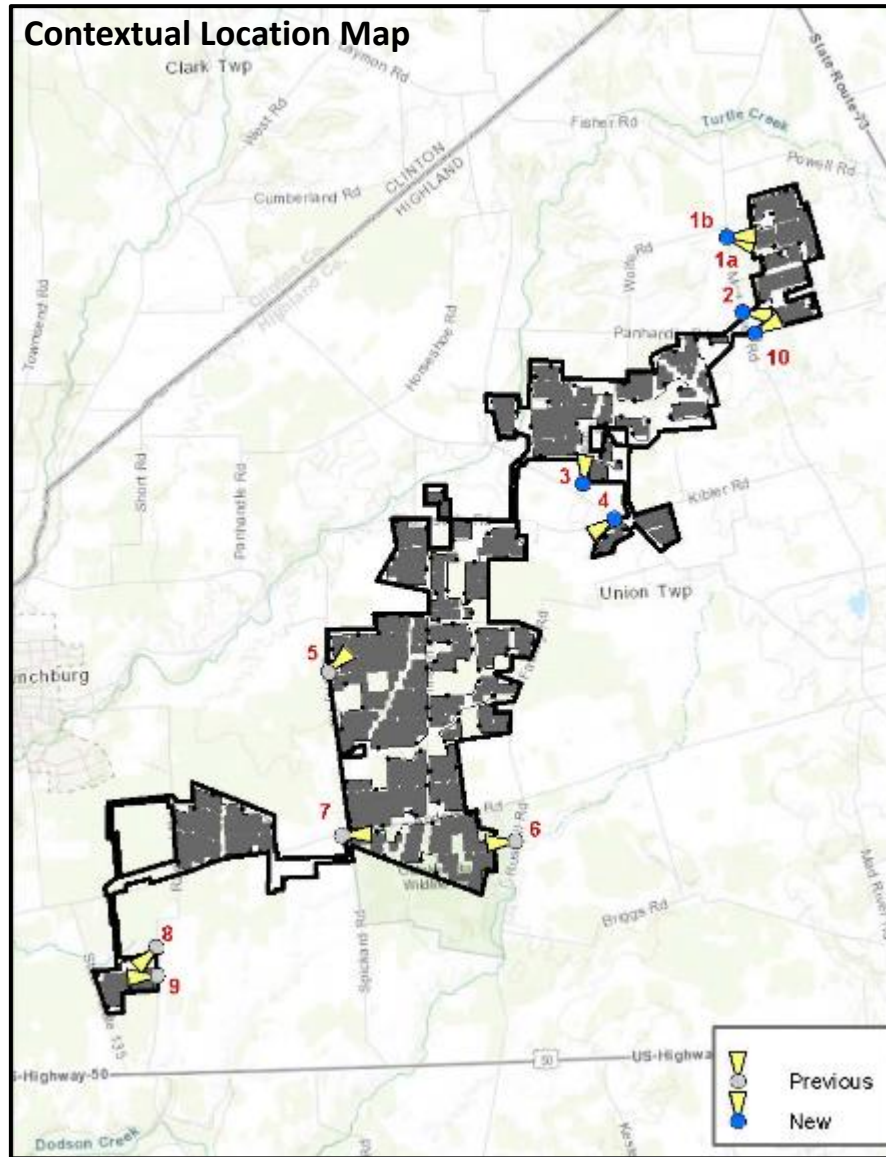
Project Information

Racking Type: Single Axis Tracker

Max Panel Height: 15 feet

Total Buildable Area: 1,407 acres

Contextual Location Map



Detailed Location Map



Palomino Solar Energy Project

Union Township

Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Context Sheet

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Viewpoint 2: Existing Conditions



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Existing Conditions

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Viewpoint 2: Visual Simulation – September Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Visual Simulation

Page B-7



Viewpoint 2: Visual Simulation – December Layout – Panels No Longer Visible



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 7 - Visual Simulation

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Viewpoint 3 | Union

Viewpoint Information

Viewpoint ID: 3

County: Highland

Township: Union

Location: CR 66

Coordinates: 39.261242, -83.716415

Direction of View: North

Distance to Panels: 0.06 mile

Distance Zone: Near-Foreground

Visual Resources

Landscape Type: Farmland

User Group: Resident

Photograph Information

Date Taken: February 26, 2021

Time: 9:18 AM

Camera: SM-G930V

Resolution: 1440 x 2560 pixels

Lens Focal Length: 4.2 mm 1.7

Camera Elevation: 5.6 feet

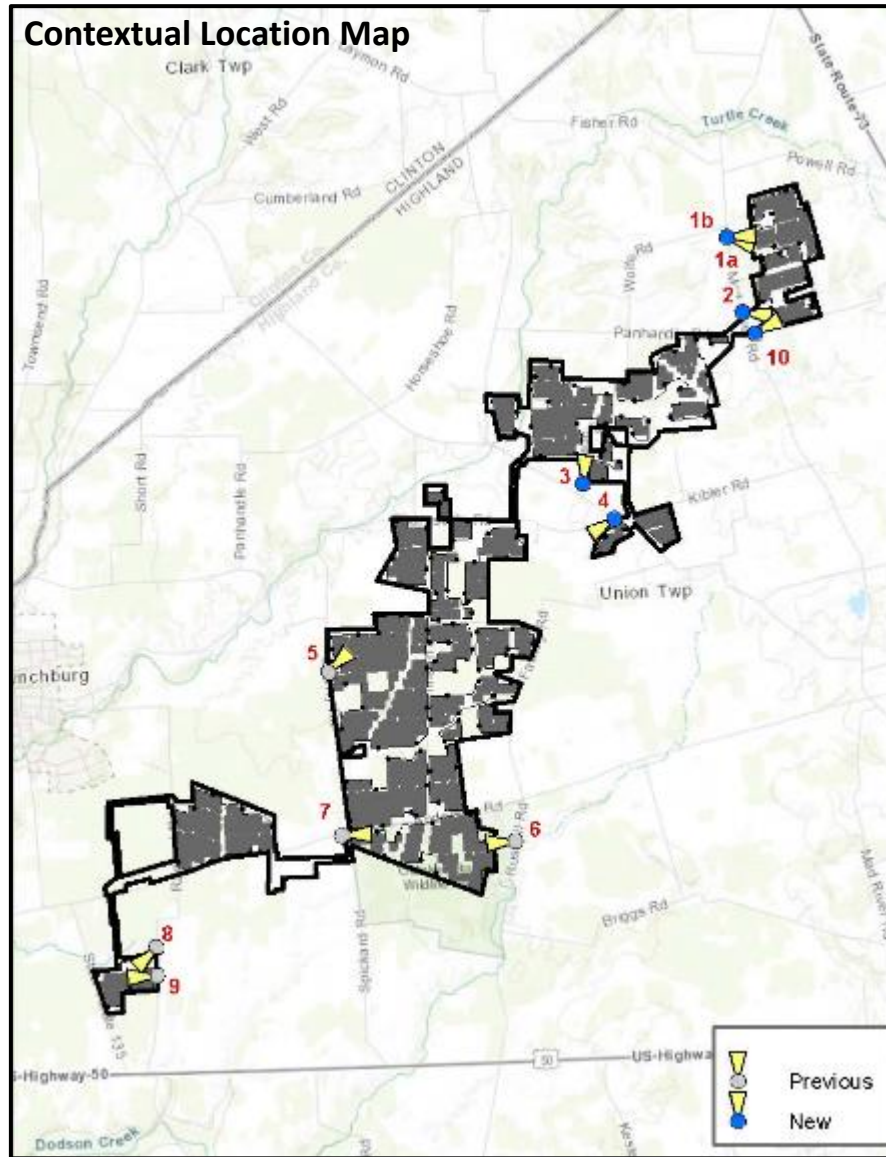
Project Information

Racking Type: Single Axis Tracker

Max Panel Height: 15 feet

Total Buildable Area: 1,407 acres

Contextual Location Map



Detailed Location Map



Palomino Solar Energy Project

Union Township

Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 66 - Context Sheet

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Viewpoint 3: Existing Conditions



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 66 - Existing Conditions

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Viewpoint 3: Visual Simulation – September Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 66 - Visual Simulation

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Viewpoint 3: Visual Simulation – December Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 66 - Visual Simulation

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Viewpoint 3: Visual Simulation – December Layout - 5-7 Year Mitigation



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 66 - Visual Simulation – 5-7 Year Mitigation

Page B-13



Viewpoint 4 | Union

Viewpoint Information

Viewpoint ID: 4

County: Highland

Township: Union

Location: CR 11

Coordinates: 39.257803, -83.712570

Direction of View: West

Distance to Panels: 0.14 mile

Distance Zone: Near-Foreground

Visual Resources

Landscape Type: Farmland

User Group: Resident

Photograph Information

Date Taken: February 26, 2021

Time: 8:35 AM

Camera: SM-G930V

Resolution: 1440 x 2560 pixels

Lens Focal Length: 4.2 mm 1.7

Camera Elevation: 5.6 feet

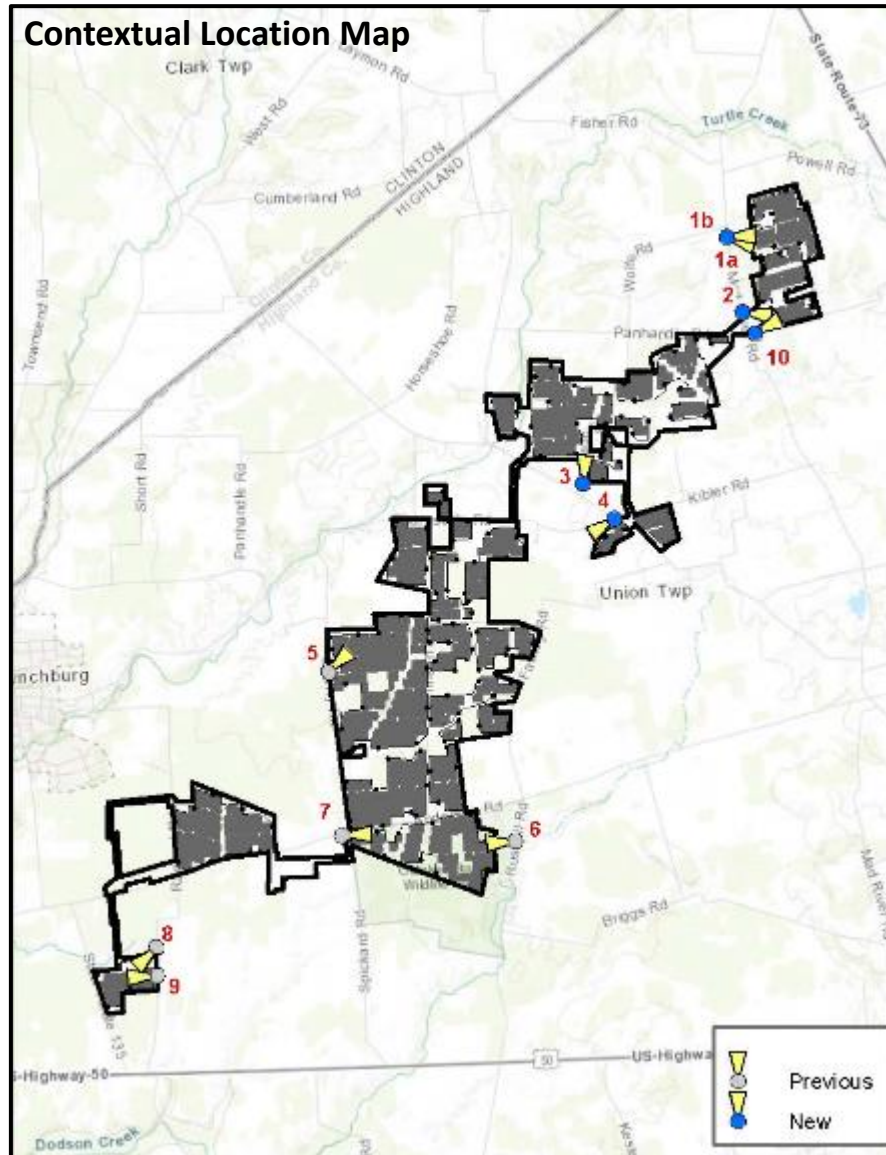
Project Information

Racking Type: Single Axis Tracker

Max Panel Height: 15 feet

Total Buildable Area: 1,407 acres

Contextual Location Map



Detailed Location Map



Palomino Solar Energy Project

Union Township

Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 11 - Context Sheet

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Viewpoint 4: Existing Conditions



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 11 - Existing Conditions

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Viewpoint 4: Visual Simulation – September Layout – No Screening



Palomino Solar Energy Project

Union Township
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Viewpoint 4: Visual Simulation – December Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 11 - Visual Simulation

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Viewpoint 4: Visual Simulation – December Layout - 5-7 Year Mitigation



Palomino Solar Energy Project

Union Township
Highland County, Ohio

[Visual Resource Assessment](#) | Appendix B, County Road 11 - Visual Simulation – 5-7 Year Mitigation

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Viewpoint 10 | Dodson

Viewpoint Information

Viewpoint ID: 10

County: Highland

Township: Union

Location: CR 8

Coordinates: 39.275731, -83.693668

Direction of View: East

Distance to Panels: 0.16 mile

Distance Zone: Near-Foreground

Visual Resources

Landscape Type: Farmland

User Group: Resident

Photograph Information

Date Taken: March 30, 2021

Time: 4:46 PM

Camera: SM-G930V

Resolution: 4032 x 2268 pixels

Lens Focal Length: 4 mm

Camera Elevation: 5.6 feet

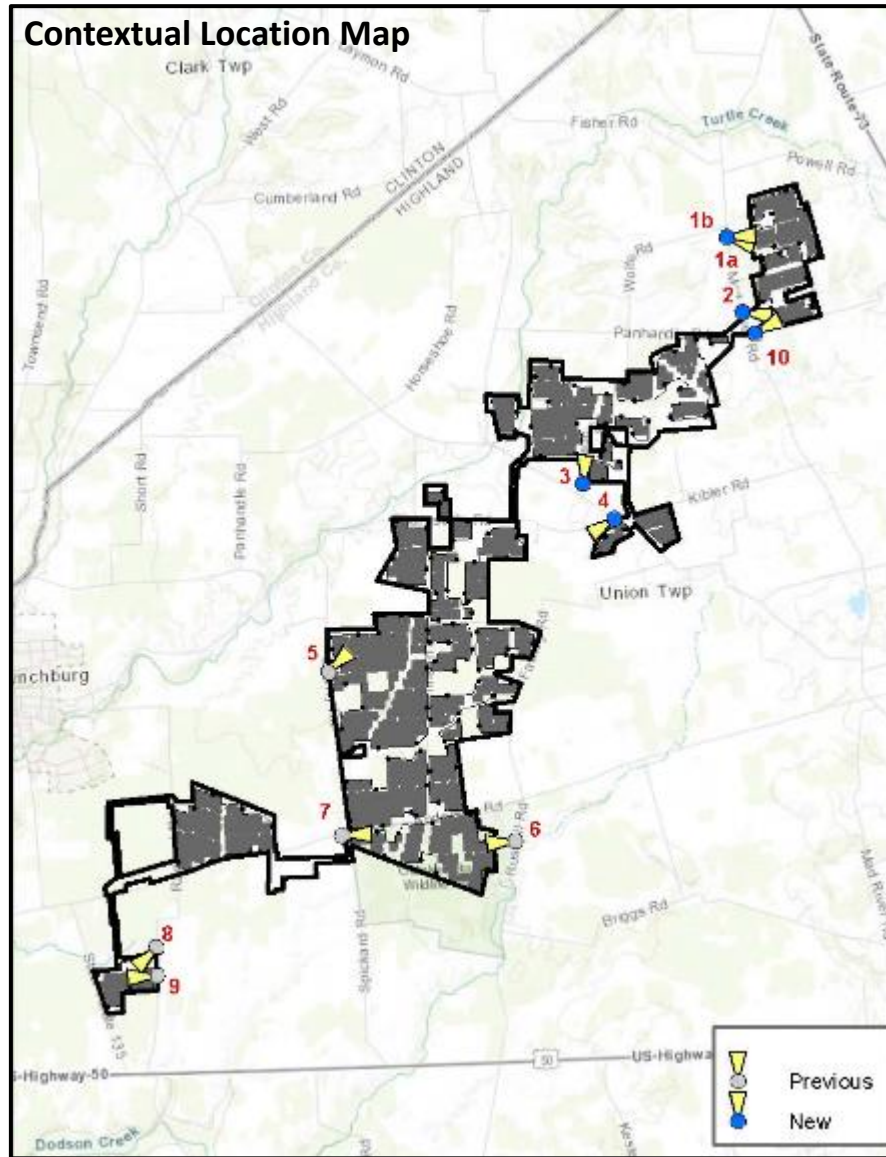
Project Information

Racking Type: Single Axis Tracker

Max Panel Height: 15 feet

Total Buildable Area: 1,407 acres

Contextual Location Map



Detailed Location Map



Palomino Solar Energy Project

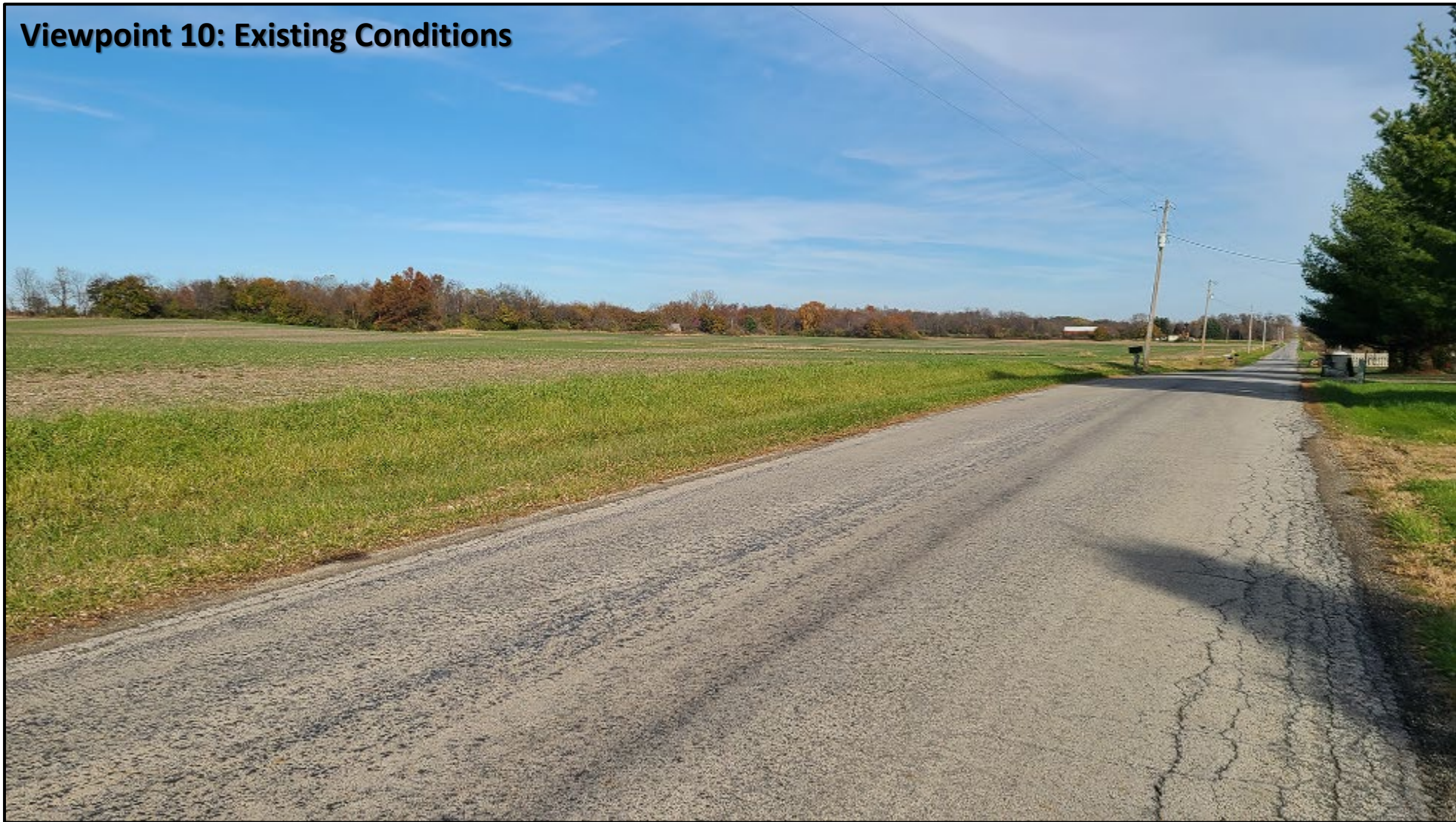
Union Township

Highland County, Ohio

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Viewpoint 10: Existing Conditions



Palomino Solar Energy Project

Union Township
Highland County, Ohio

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Viewpoint 10: Visual Simulation – September Layout – No Screening



Palomino Solar Energy Project

Union Township
Highland County, Ohio

Visual Resource Assessment | Appendix B, County Road 8 - Visual Simulation

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Viewpoint 10: Visual Simulation – December Layout – No Screening



Palomino Solar Energy Project

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Viewpoint 10: Visual Simulation – December Layout - 5-7 Year Mitigation



Palomino Solar Energy Project

Union Township
Highland County, Ohio

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Visual Resource Assessment and
Mitigation Plan - Updated
Palomino Solar Energy Project

APPENDIX

C

VISUALLY SENSITIVE RESOURCE
ANALYSIS

Visually Sensitive Resources	Location		Miles from Nearest PV Array	Project Visibility (Viewshed Results)	
	Township	County		+ Visible - Not Visible +/- Partially Visible	
				DSM Viewshed (Topography, Structures, Vegetation)	
Properties of Historic Significance					
National Historic LandMarks (NHL)					
None within VSA.					
Sites Listed on National or State Registers of Historic Places (NRHP/SRHP)					
Lynchburg Covered Bridge	Dodson	Clinton	1.65		+
Trop Farm	New Market	Highland	4.08		-
Sites Eligible for Listing on NRHP or SRHP					
American Foursquare Farmhouse (2577 Laymond Rd)	Green	Clinton			+
Gabled Ell/Gothic Revival Farmstead (4760 Panhandle Rd)	Union	Highland			+
Granger Hall, Union Township (4980 SR 124)	Union	Highland			+
Brick I-House (5051 SR 124)	Union	Highland			+
Oldaker Farmstead (3540 Anderson Rd)	Union	Highland			+
American Foursqaure Farmhouse (7570 Rammel Rd)	Dodson	Highland			+
Bobbitt House & Cemetery (311 South Main St)	Dodson	Highland			-
I-House and English Barn (2730 US 50)	Dodson	Highland			-
National/State Historic Sites					
None within VSA.					
Ohio Historic Structures					
Arlene Larrick House (339 Bernard Rd (E Main))	Green	Clinton	2.74		-
Asa Nordyke House (Nordyke Rd)	Green	Clinton	3.06		+
B Smallridge House (46 Church St)	Green	Clinton	2.40		-
Bill Cluxton House (120 Church St)	Green	Clinton	2.33		-
Bill Flint House (303 Bernard Rd (E Main))	Green	Clinton	2.72		-
Blackburn House (11385 Gist Settlement Rd)	Penn	Highland	2.87		+
Boldon House; Fenner House (6690 SR 124)	Liberty	Highland	4.46		-
Charles Clark House (270 E Main St)	Green	Clinton	2.67		-
Clear Creek Quaker Meeting House (JCT Jones Rd & High Top Rd)	Penn	Highland	4.40		-
Commercial Block (100 block Main St E side)	Green	Clinton	2.35		+
Corner Chapel (SEC Main St & 2nd St)	Green	Clinton	2.47		-
Cowman Lowell Farm (10293 SR 134)	Clark	Clinton	4.50		+
Cummins House (off Church St (Railroad access))	Green	Clinton	2.23		-
Doak Ralph Farm (190 Townsend Rd)	Clark	Clinton	4.22		+
Dr AW Hause, DDS (125 W Main St)	Green	Clinton	2.38		-
Faris House (317 Bernard Rd (E Main))	Green	Clinton	2.73		-
Friends Meeting House (Church St (NEC 3rd St))	Green	Clinton	2.36		-
Harry Allen House (College St)	Green	Clinton	2.41		-
Henderson House (12901 SR 73)	Green	Clinton	2.93		-
House (South St (S of 103))	Green	Clinton	2.15		-
House (South St (S of 103))	Green	Clinton	2.36		-
House (South St (S of 103))	Green	Clinton	2.24		-
Junior Day House (Church St (W of 202))	Green	Clinton	2.27		-
Kay's (132 Main St (at West St))	Green	Clinton	2.39		-
Larkin House (7991 Larkin Rd)	Penn	Highland	4.93		-
Mahanes Property (69 Bernard Rd)	Green	Clinton	2.54		-
Mathias Coffman Log House (269 N Main St)	Dodson	Highland	1.57		-
Mitchell House (2467 Wise Rd)	Clark	Clinton	2.56		-
Pirman House (252 N South St)	Green	Clinton	2.50		-
Primitive Cupboard (9985 US 62)	Penn	Highland	5.01		-
Roberts House (7538 High Top Rd)	Penn	Highland	3.96		-
Schnecker House (NEC College St & 2nd St)	Green	Clinton	2.38		-
Snow Hill Country Club (jct SR 350 & SR 73)	Green	Clinton	4.46		+
The Flats (120-126 Main St)	Green	Clinton	2.39		-
Thornburg House (N Careytown Rd)	Fairfield	Highland	4.85		-
Timberlake House (Hilltop Rd)	Penn	Highland	4.08		-
United Methodist Church (SWC Church St & 2nd St)	Green	Clinton	2.41		-
Vacant (121 Church St)	Green	Clinton	2.32		-
Vacant (Church St)	Green	Clinton	2.38		-
Vance House (7521 New Vienna Rd)	Penn	Highland	4.35		+
William Jones House (Jones Rd 1/4 mi N of High Top)	Penn	Highland	4.49		-
Williams House (311 S Main St)	Dodson	Highland	1.38		-
Zindorf House (insurance) (Main St (SEC 2nd St))	Green	Clinton	2.45		-
Historic Bridges					
See NRHP					
OGS Cemeteries					
Achor Cemetery	Green	Clinton	2.34		-
Ambrose Cemetery	New Market	Highland	4.44		-
Anthony Cemetery	Green	Clinton	3.04		-
Auburn Cemetery	Penn	Highland	2.91		-
Ayres Cemetery	Union	Highland	1.36		+
Baptist-Connell-Hundlev-Masonic-Methodist-Murrell- Cemetery	Dodson	Highland	1.65		-

Visually Sensitive Resources	Location		Miles from Nearest PV Array	Project Visibility (Viewshed Results)
	Township	County		+ Visible - Not Visible +/- Partially Visible
				DSM Viewshed (Topography, Structures, Vegetation)
Baptist-Dunns Chapel Cemetery	Union	Highland	1.54	-
Barker Cemetery	New Market	Highland	4.07	-
Barker-Salem Township Cemetery	Salem	Highland	4.97	-
Barnes Cemetery	Union	Highland	1.26	+/-
Barr Cemetery	Hamer	Highland	4.01	+
Betterton Farm-Walt Betterton Cemetery	Clark	Clinton	2.92	+/-
Bobbitt-Morrow Cemetery	Dodson	Highland	1.42	-
Britton-Fetterling Cemetery	Union	Highland	1.04	+
Burley-Clark Cemetery	Union	Highland	0.07	+
Burnett Cemetery	Penn	Highland	3.12	-
Charles Cemetery	New Market	Highland	4.16	-
Dodsonville-Lutheran Cemetery	Dodson	Highland	1.99	-
Duckwall Cemetery	New Market	Highland	2.62	-
Ellis Cemetery	Union	Highland	0.72	-
Fenner #1-Pike Chapel Cemetery	Liberty	Highland	4.38	-
Fenner #2 Cemetery	Liberty	Highland	3.31	-
Fenner #3 Cemetery	Liberty	Highland	3.84	-
Gibler Cemetery	Hamer	Highland	1.71	+
Gist Cemetery	Penn	Highland	2.66	-
Henderson Cemetery	Dodson	Highland	0.90	-
Johnson Cemetery	Clark	Clinton	3.18	-
Lutheran-Troutwine/Trautwein Cemetery	Dodson	Highland	3.14	+/-
Lynchburg Masonic-Masonic Cemetery	Dodson	Highland	1.50	-
Mccoy Cemetery	Union	Highland	0.21	+
Mitchell Cemetery	Liberty	Highland	4.90	-
Morgantown-Methodist Episcopal Swingley-Swingley Farm	Green	Clinton	4.10	-
Mount Olive Cemetery	Union	Highland	0.22	+
Mount Zion Cemetery	New Market	Highland	4.25	-
New Vienna Friends-East Fork Quaker Cemetery	Green	Clinton	2.93	+
New Vienna I.O.O.F. Cemetery	Green	Clinton	2.63	-
Ockerman Cemetery	Penn	Highland	2.50	+
Old Dutch Cemetery	New Market	Highland	3.64	+
Polk Cemetery	Penn	Highland	3.46	-
Quaker Hill Cemetery	Penn	Highland		-
Resthaven Memory Gardens Cemetery	Liberty	Franklin	4.85	-
Ross-Shockley Cemetery	Union	Highland	1.82	+/-
Runk Cemetery	Union	Highland	0.92	+
South Liberty-Strange-Swamp College Cemetery	Hamer	Highland	2.04	+
Spickard Cemetery	Dodson	Highland	1.21	+
Strain Cemetery	Liberty	Highland	3.73	-
Stroup Cemetery	Dodson	Highland	1.22	-
Swadley Cemetery	Penn	Highland	4.67	+
Thompson Cemetery	Union	Highland	0.10	+
Troutwine Cemetery	Dodson	Clinton	3.13	+
Underwood Cemetery	Penn	Highland	0.93	+
Unnamed #2 Cemetery	Salem	Highland	3.32	-
West Chapel Cemetery	Clark	Clinton	2.40	+/-
Zink Cemetery	Liberty	Highland	2.90	-
Ohio Historic State Markers				
None within VSA.				
Designated Scenic Resources				
Rivers Designated as National or State Wild, Scenic or Recreational				
None within VSA.				
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for Designation as Scenic ([ECL Article 49 Title 1] or equivalent)				
None within VSA.				
Scenic Areas of Statewide Significance [Article 42 of Executive Law]				
None within VSA.				
Other Designated Scenic Resources (Easements, Roads, Districts, and Overlooks)				
None within VSA.				
Public Lands and Recreational Resources				
National Parks, Recreation Areas, Seashores, and/or Forests [16U.S.C. 1c]				
None within VSA.				
National Natural LandMarks [36 CFR Part 62]				
None within VSA.				
National Wildlife Refuges [16 U.S.C. 668dd]				
None within VSA.				
Heritage Areas [Parks, Recreation and Historic Preservation Law Section 35.15]				
None within VSA.				

Visually Sensitive Resources	Location		Miles from Nearest PV Array	Project Visibility (Viewshed Results)
	Township	County		+ Visible - Not Visible +/- Partially Visible
				DSM Viewshed (Topography, Structures, Vegetation)
State Parks [Parks, Recreation and Historic Preservation Law Section 3.09]				
None within VSA.				
State Nature and Historic Preserve Areas [Section 4 of Article XIV of the State Constitution]				
None within VSA.				
Wildlife Areas				
Oldaker State Wildlife Area	Union	Highland	0.03	+/-
Fallsville Wildlife Area	Penn, Liberty	Highland	0.64	+/-
State Forest				
None within VSA.				
Other State Lands				
None within VSA.				
Designated Trails				
None within VSA.				
Local Parks and Recreation Areas				
Hillsboro Recreation Park	Liberty	Highland		-
Ruth Crampton Memorial Community Park	Clark, Dodson	Clinton, Highland		-
Lynchburg Park	Dodson	Highland		-
Publicly Accessible Conservation Lands/Easements				
Agricultural Conservation Easement Program (1)	Clark, Green	Clinton	3.66	+/-
Agricultural Conservation Easement Program (2)	Penn	Highland	3.30	+/-
East Fork Riparian Reserve	Clark, Dodson	Clinton, Highland		+/-
Clinton County Open Lands Easement	Clark	Clinton	4.33	+/-
Named Lakes, Ponds, and Reservoirs				
Kornvold Farms Pond	Liberty	Highland	3.88	-
Hillsboro Reservoir	Liberty	Highland	4.80	-
High-Use Public Areas				
State, US, and Interstate Highways				
State Route 124	Clark, Union, Liberty	Clinton, Highland	0.01	+/-
State Route 131	Hamer, Salem	Clinton, Highland	4.74	-
State Route 134	Clark, Union, Salem, Dodson	Clinton, Highland	1.26	+/-
State Route 135	Dodson	Clinton, Highland	0.02	+/-
State Route 28	Clark, Green, Fairfield, Penn	Clinton, Highland	2.36	+/-
State Route 350	Clark, Green	Clinton	2.38	+/-
State Route 729	Green	Clinton	4.29	-
State Route 73	Green, Union, Penn, Liberty	Clinton, Highland	2.04	+/-
State Route 138	New Market, Hamer	Clinton, Highland	4.21	+/-
U.S. Route 50	Union, Liberty, New Market, Dodson	Clinton, Highland	0.47	+/-
U.S. Route 62	Penn, Liberty	Clinton, Highland	4.77	-
Cities, Villages,				
New Vienna (Village)	Green	Clinton, Highland	1.77	+/-
Lynchburg (Village)	Clark	Clinton, Highland	0.48	+/-
Hillsboro (City)	Liberty	Highland	4.46	-
Schools				
Salem School	Salem	Clinton	4.79	-
Lynchburg-Clay High School	Dodson	Clinton	1.69	-
Lynchburg-Clay Elementary School	Dodson	Clinton	1.36	-
New Vienna Elementary School	Green	Clinton	2.34	+/-
Airports				
Terrell Airport	Green	Highland	3.39	-

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

1/14/2022 10:00:28 AM

in

Case No(s). 21-0041-EL-BGN

Summary: Exhibit First Supplement to the Application – Revised Exhibit K (Visual Resource Assessment and Mitigation Plan) electronically filed by Ina Avalon on behalf of PALOMINO SOLAR LLC, C/O INNERGEX RENEWABLE DEVELOPMENT USA LLC