

Exhibit R
Visual Impact Assessment
PUBLIC VERSION

VISUAL IMPACT ASSESSMENT

CIRCLEVILLE SOLAR PROJECT
JACKSON & WAYNE TOWNSHIPS
PICKAWAY COUNTY, OH

PUBLIC VERSION

Prepared for:
Circleville Solar

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

Circleville Solar (the “Applicant”) proposes to build, own and operate the Circleville Solar Project; a solar electric generating facility (the “Facility”) in Jackson and Wayne Townships, Pickaway County, Ohio. The Circleville Solar Project (the “Project”) will have a generating capacity of up to 70 megawatts (MW). Facility components include commercial-scale solar arrays, access roads, inverters, fencing, electric collection lines, and substation. A greater than two (2)-mile generation tie-in transmission line required to interconnect the Facility will be the subject of a separate OPSB filing and is not evaluated in this assessment.

Saratoga Associates, Landscape Architects, Architects, Engineers and Planners, P.C. has been retained by the Applicant to prepare this technical report assessing potential changes to the visual landscape resulting from the development of the Facility. This Visual Impact Assessment Report (VIA) supports the Project application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need (Certificate) consistent with Ohio Administrative Code (OAC) Chapter 4906-4-08(D)(4) which states that Applicant shall evaluate the potential visual impacts of proposed facilities within at least a 10-mile radius from the Facility.

Specifically, this VIA:

- > Describes the visibility of the Facility, including a viewshed analysis and corresponding map of the study area;
- > Describes the existing landscape and evaluates its scenic quality;
- > Describes the alterations to the landscape caused by the Facility and evaluates the impact of those alterations to the scenic quality of the landscape;
- > Evaluates the visual impacts to the resources identified in paragraph (D)(I) of Chapter 4906-4-08, and any such resources within 10 miles of the project area that are valued specifically for their scenic quality;
- > Provides photographic simulations or artist's pictorial sketches of the proposed Facility from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area. The VIA explains the selection of vantage points, including any coordination with local public officials and historic preservation groups in selecting these vantage points;
- > Describes measures that will be taken to minimize any adverse visual impacts created by the Facility, including, but not limited to, project area location, lighting, layout, visual screening, and Facility coloration.

This VIA was prepared by landscape architects experienced in the specialized discipline of visual impact assessment in accordance with established visual resources assessment methodologies (refer to Section 6.0 Works Cited).

2.0 FACILITY DESCRIPTION

The Circleville Solar Project is a utility scale solar energy generating facility located in Pickaway County, Ohio with a generating capacity of up to 70 MW. The Facility is located the Townships of Jackson and Wayne, Pickaway County, Ohio. As measured to the nearest solar array, the Facility is approximately 2.8 miles west of the City of Circleville and 4.4 miles northeast of the Village of Williamsport. The Facility is generally bounded by State Route (SR) 56 to the north, SR 104 to the east, United States Route (US) 22 to the south, Smith-Hulse Road to the west.

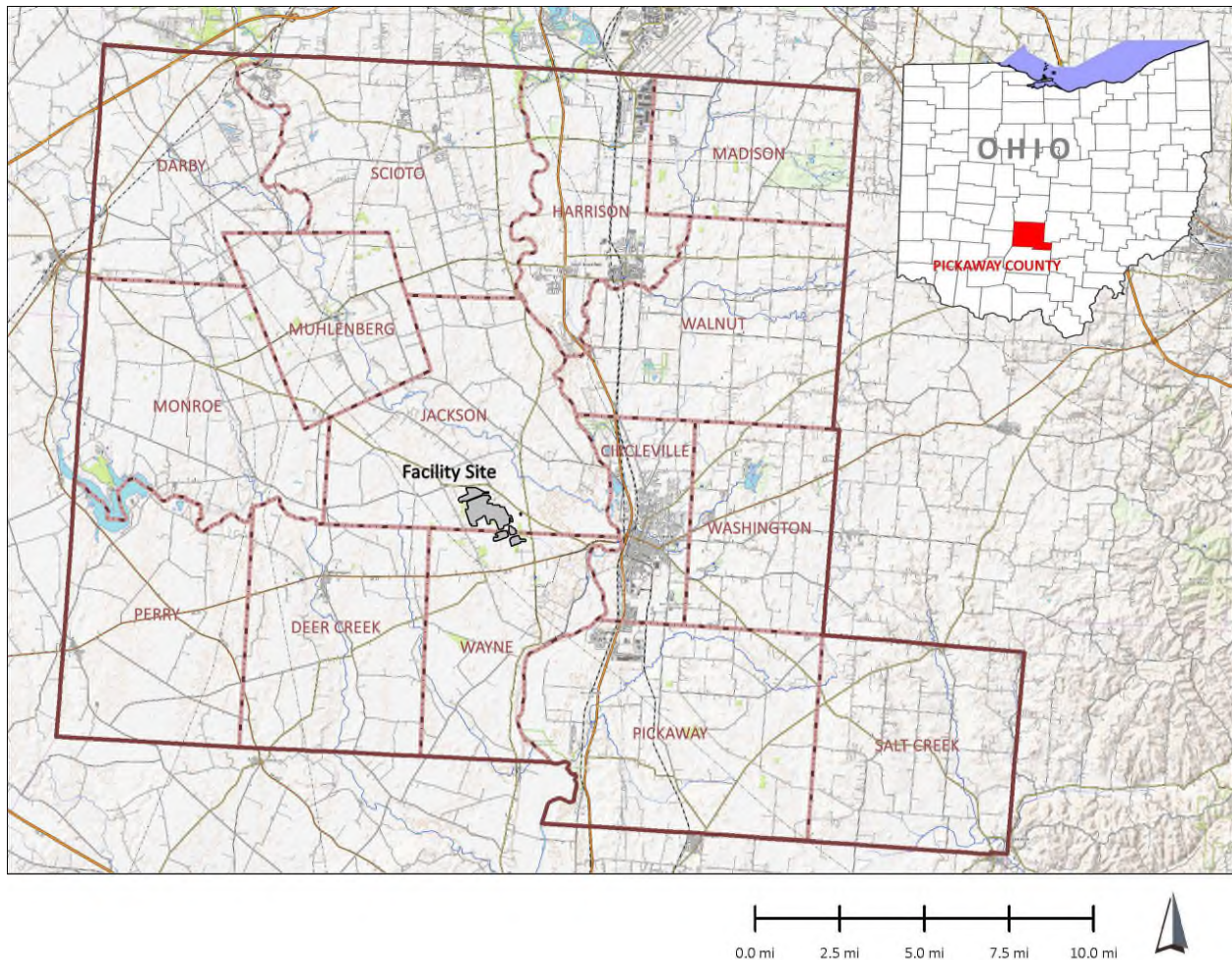


Figure 1 - Project Location Map

Facility will include linear rows of photovoltaic (PV) modules and their racking/support systems, located within fenced PV array areas; direct current (DC) collection lines and communications cables connecting the modules to multiple inverters; alternating current (AC) medium voltage collection lines; security fencing and gates around each PV array grouping; access roads; temporary construction laydown areas.

The Facility evaluated in this VIA includes an “overbuild” design. The overbuild allows for flexibility in the final configuration of Project infrastructure. The final Facility design and footprint will be determined prior to construction through the Application process and detailed engineering. The Facility design will be reduced from the overbuild layout illustrated herein and will encompass a smaller portion of the approximately 756-acre footprint than is evaluated in this VIA.

Because the ultimate Facility design and footprint has not yet been determined, this VIA evaluates the overbuild design as a representative “worst-case” visual condition. The actual built condition and associated visibility will be something less than is presented in this VIA.

2.1 Visual Study Area

Chapter 4906-4-08(D)(4) (d) requires that visual impacts to recreational, scenic, and historic resources be evaluated within a 10-mile radius from the Facility Site. To meet this requirement a “bare earth” viewshed analysis was conducted to define the maximum potential area of Facility visibility assuming the highly conservative condition that no vegetation or structures exist on the landscape to screen distant views. The bare earth viewshed is provided as Figure 3 on page 7 below

Because the proposed solar arrays are very low profile (i.e., 16 feet tall) and intervening vegetation and structures exist to interrupt distant views, actual Facility visibility is limited to a substantially smaller area than is illustrated in the bare earth condition viewshed. To focus the visual impact evaluation on the geographic area where Facility visibility is likely, a “land cover viewshed analysis was conducted to define the more realistic area of visual effect (refer to Section 3.4 for additional detail). Figure 2 illustrates the geographic area where solar arrays are likely to be visible considering the screening effect of existing vegetation and structures. A larger scale version of this land cover viewshed map is provided as Figure 6 on page 18 below.

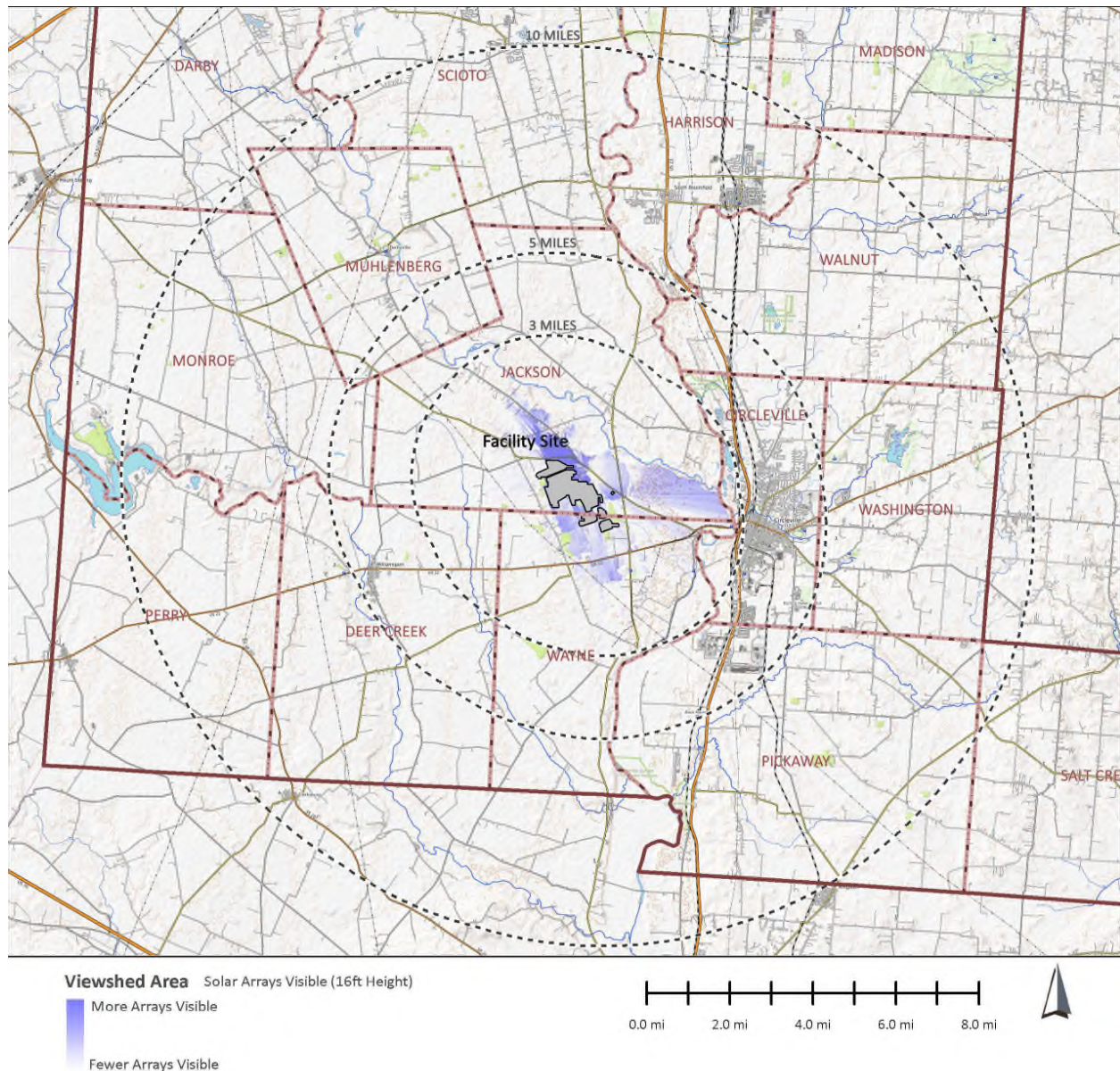


Figure 2 - Land Cover Viewshed Map

Land cover viewshed analysis demonstrates that potential Facility visibility is largely focused within one mile of the Facility Site, although potential visibility is found in limited view corridors as far as 2 ½-3 miles from the Facility. Because the Facility is not likely to be visible beyond this distance the visual study area (VSA) used to inventory and evaluate scenic and cultural resources is focused within a three-mile study radius.

2.2 Facility Components

Solar Arrays – The Facility includes PV modules mounted on racking and arranged in parallel rows (arrays). Arrays are arranged in a north/south orientation and generally follow existing topography.

The PV system will include approximately 277,600 PV modules (solar panels) mounted on a racking system which enables the panels to rotate on an axis to follow the sun’s path throughout the day. The utilize anti-reflective coating to increase panel efficiency and minimize reflected light.

Solar panels will be affixed to a metal racking system mounted on piles that will be driven into the ground. At the maximum tilt angle the top of the solar array will be approximately 16 feet above grade. Arrays will be spaced approximately 25 feet on center, enabling vehicle access between rows for long-term maintenance and vegetation management.

Fencing – Arrays will be grouped in separate, contiguous clusters, each of which will be fenced and gated for equipment security and public safety. Fencing surrounding the solar arrays will be 7-feet tall agricultural type with treated wooden posts and wire mesh fence fabric. Fencing surrounding the collection substation and POI switchyard will be 7-foot tall (with 1-foot barbed wire topping) galvanized chain link.

Access Roads – The Facility includes 16-foot-wide gravel access gravel roads. These roads between rows of solar arrays and around the Facility Site perimeter allow for access for site maintenance vehicles.

Inverters – Electricity generated by the modules is sent to inverters located throughout the array that would convert the electricity from direct current to alternating current. Inverters resemble small shipping containers and will be built on metal skids or concrete foundations. Inverters will be painted a light gray color. Inverters are generally located within or at the edge of the PV arrays and will minimally exceed the height of the surrounding PV modules when modules are rotated at or near horizontal.

Electrical Collection System - A series of medium voltage electric collection lines will collect and transfer the electricity from the inverters to a single Facility substation. All electric collection lines will be underground.

The collection substation will include standard electrical, control, and protective equipment, including collection line feeders and breakers, bus, a main power transformer, a high-voltage breaker, metering/relaying transformers, disconnect switches, and an equipment enclosure containing power control electronics. The substation site will include a concrete foundation for the substation components. Except of lightning masts and dead-end structures, substation equipment will generally not exceed 25 feet in height. Lightning masts are anticipated to be approximately 50 feet tall. The substation yard area will be gravel surface and enclosed within chain-link fencing marked to identify the presence of high-voltage electrical equipment and to

restrict access to the site. The substation is anticipated to occupy approximately two acres and is located on existing agricultural land.

Temporary Equipment Laydown Area - Construction materials will be transported by truck to the Facility Site, stored at a temporary laydown area, assembled, and installed. Laydown areas will be located within the project footprint. Laydown areas are temporary features that include no permanent fencing or lighting and will be restored to preconstruction conditions when construction is complete.

Vegetative Clearing – The Facility requires no significant clearing of mature deciduous or evergreen trees.

The Facility layout is illustrated in Figure 3.



3.0 EXISTING CONDITIONS/VISUAL SETTING

3.1 Landscape Character

The three-mile radius visual study area (VSA) is generally characterized by flat topography. The topographic highpoint is a nondescript rise near the intersection of SR50 and Grice Road at the northwestern edge of the VSA (elevation 783± feet AMSL) in Jackson Township. The topographic low point is along the Scioto River (elevation 634± feet AMSL) which forms the eastern boundary of the Townships of Jackson and Wayne and the western boundary of Circleville Township. The natural ground elevation in the vicinity of the Facility Site is primarily level, ranging from approximately 630 to 660 feet AMSL.

Land cover includes broad tracts of agricultural land, including open crop/pasture and inactive successional old-field/scrubland. Mature second growth deciduous woodland typically covers areas historically unsuitable for agriculture. Other land cover includes hedgerows, yards, farmsteads, low-density residential uses, streams, and small ponds. Built features typically include low-density single-family residential structures and agricultural support buildings.

Water features occupy a relatively small portion of the VSA and are generally not a major component of the visual landscape except when viewed in close proximity. Notable waterbodies include the Scioto River, Big Darby Creek, Lick Run, Yellowbud Creek, Deer Creek and Buskirk Creek. Additional water features include private farm ponds, scattered wetlands, and numerous minor tributaries.

The National Land Cover Database (NLCD) was used to define the character and location land cover types with the 3-mile radius VSA. Land cover is illustrated in Figure 4 and summarized in Table 1 below.

Table 1 – Land Cover Classifications

Classification Description	Acres	Percent
Agriculture	26,678	87.4%
Forest	1,592	5.2%
Developed	863	2.8%
Open/Scrub Land (non-agricultural)	751	2.5%
Open Water	557	1.8%
Emergent Wetland	93	0.3%
Total	30,533	100%

The Facility components are proposed to be built almost entirely within agricultural land, which makes up the vast majority (87.4%) of the VSA. The open character of agricultural land typically offers the greatest potential for long-distance views. However, extended views can be limited during the growing season as crops (e.g., corn) reach maturity and restrict views.

Developed land makes up just 2.8% of the VSA with much of this area found east of the Scioto River within the portion of the City of Circleville which falls within the three mile-radius VSA.

Views from developed areas are typically localized with distant views limited by buildings, site landscaping and other common of the built landscape.

Open/scrub land (undeveloped non-agricultural land) comprises 2.5% of the VSA and typically includes scrub/shrub land, meadows and roadways. These areas are most commonly small open space areas and linear road corridors. Opportunity for distant views is dependent on the character of adjacent land cover (e.g., open views across agricultural land, or limited views with developed or forested areas).

Open water and emergent wetlands comprise approximately 2.1% of the VSA. Open water primarily includes the Scioto River and Big Darby Creek where long distance views are typically limited due to lower elevation and the presence of shoreline vegetation.

Forested land, which makes up 5.20% of the VSA, occurs in small distinct locations, as well as being concentrated along the Scioto River and Big Darby Creek corridors. Views from within forested areas are typically seasonally limited to the immediate foreground by dense foliage. Filtered views through woodland vegetation of varying degree may occur during winter leaf-off season.

Owing to the low profile of Facility components forested land typically obstructs extend views of the Facility from agricultural, open/scrub and developed land beyond substantially limiting Facility views to the immediate foreground area (*refer* to Section 3.2).

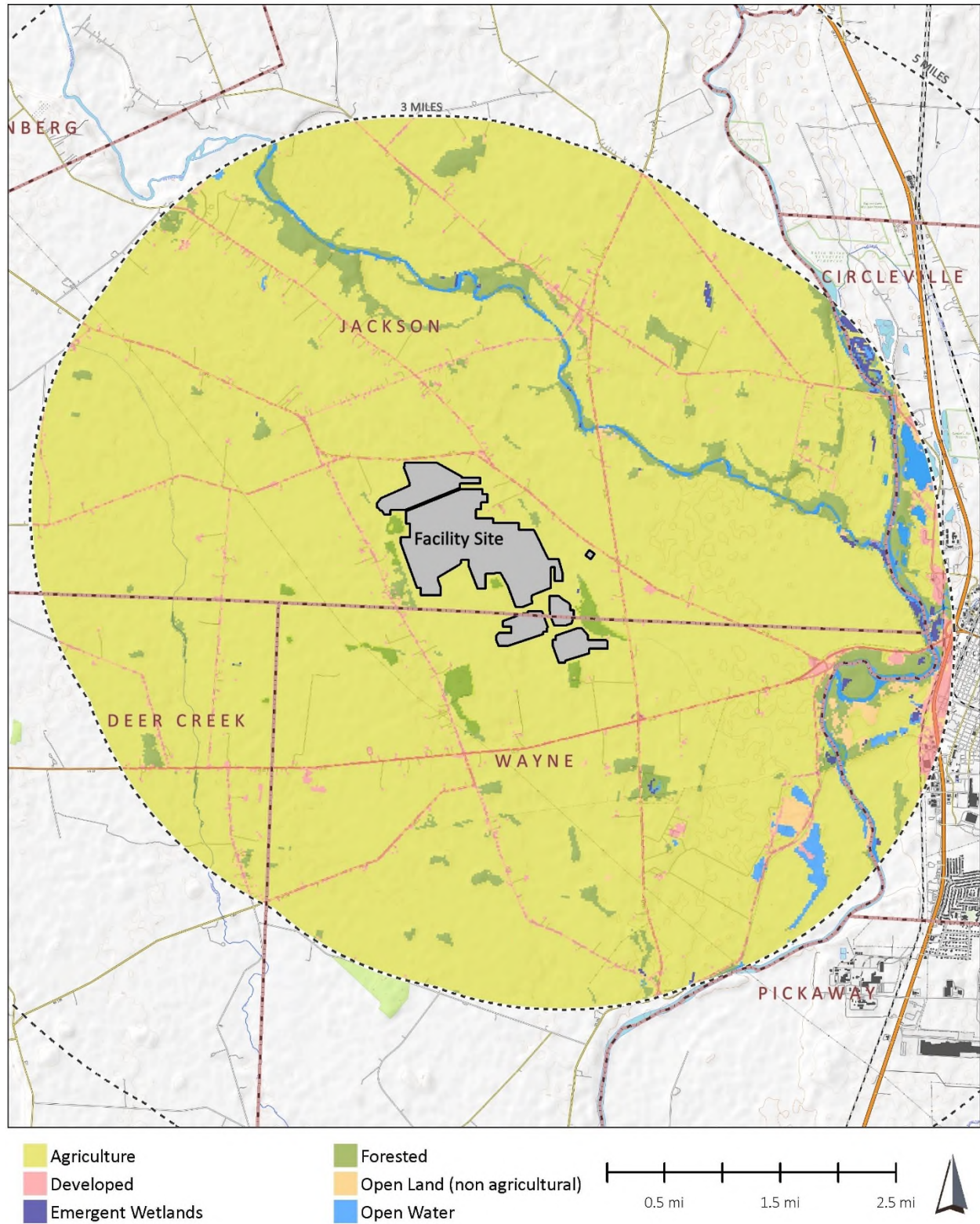


Figure 4 - Land Cover Map

3.1.1 Travel Corridors

US 22 south of the Facility Site is the most heavily travelled road within the VSA. This east/west regional transportation corridor, with an average annual daily traffic (AADT) volume of approximately 5,560 vehicles, connects the City of Circleville with the Village of Williamsport. SR 56 north of the project site and SR 104 east of the Project Site have an AADT of 2,370 and 2,090 vehicles per day respectively. (MORPC, n.d.)

A number of local roads traverse the VSA providing access to rural properties and farms. Local and county roads in the vicinity of the Facility Site include Smith-Hulse Road, McLean Mill Road, Yankeetown Pike, Stonerock Road, London Road, Alkire Road (CR 110), SR 138, Sisk Road, Florence Chapel Pike, Anderson Road, Fox Road, Commercial Plant Road, River Road, Canal Road, Kinderhook Road, and Keys Road. All roads are two lanes and paved.

3.1.2 Development Patterns

The Facility is located in Pickaway County, Ohio in the townships of Jackson (population 1,098) and Wayne (population 427). (United States Census Bureau, 2020).

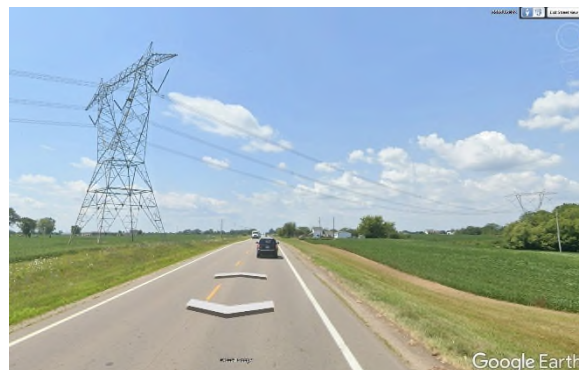
Land use within the 3-mile radius VSR is decidedly rural. Built structures are generally limited to very low-density residential structures, farmsteads, and agricultural support buildings.

Residences (a mix of old and new) and accessory structures (e.g., barns and garages) are often found in roadside locations; however, many are located on isolated lots out of view from local roads. Rural homes range in quality from well-maintained single-family frame construction to older housing stock.

Small commercial businesses including gas stations/convenience stores and agricultural support services are found at several highway intersections and roadside locations, however such businesses are not prevalent.

3.1.3 Existing Energy Infrastructure

An existing transmission line bisects the VSA from northwest to southeast approximately 3,500 feet southwest of the Facility Site near Smith-Hulse Road. The existing regional transmission line carries three sets of four conductors supported by lattice frame towers plus shield wires.



A newly constructed transmission line traverses the VSA from the north to south between Circleville and a new substation northwest of Chillicothe. This transmission line generally parallels US 22 approximately 1.2 miles southeast of the Project Site. This existing regional transmission facility carries three primary conductors, several local distribution wires and shield wire supported on steel monopole arms.



3.2 Viewer Distance Zones

Viewer distance from an area is a key factor in determining the level of visual impact, with perceived impact generally diminishing as distance between the viewer and the affected area increases. The distance between the viewer and the viewed object affects the apparent size of the object. While all views are perceived as including foreground, middleground, and background, for this report, these distinctions have been defined for a specific range of visibility for all views evaluated as part of this analysis.

Distance is considered in terms of pre-defined distance zones: immediate foreground, foreground, mid-ground, and background. Each zone represents a set of visual conditions that are predictive of how an object will appear to change from zone to zone. The following descriptions of each distance zone are provided to assist in understanding the effect of distance on potential visual impacts (USFS, 1995, pp. 4-12) (FHA, 2015, pp. 6-4).

Immediate Foreground (0 to 0.1 miles)¹ - At an immediate foreground distance, a viewer is able to perceive specific details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects. Within this distance zone, Facility components may be recognizable in great detail and may appear to be of a size that may occupy most of the viewer's field of view and setting. Visual impact is likely to be considered the greatest within the immediate foreground distance zone.

Excluding land within the Facility Site itself, the immediate foreground distance zone represents 2.1% of the 3-mile radius VSA. Approximately 9.6% of the affected land cover viewshed falls within the Immediate foreground distance zone.

Foreground (0.1 to 0.5 miles) - At a foreground distance, viewers typically recognize a very high level of detail. Contrast and color intensity are at their greatest, and human scale is an important cognitive factor in judging spatial relationships and the relative size of objects. Visual impact is likely to be considered high at a foreground distance.

¹ The U.S. Forest Service (USFS, 1995) defines the immediate foreground distance zone as 0-300 feet. For the purpose of this visual assessment this distance is extended to 0.1 mile (528 feet) to conservatively describe close-in views. The delineation of distance zones is not intended to be a rigid demarcation, but rather is used as a guideline to express a gradual reduction in the apparent size and perceptible detail as distance increases.

The foreground distance zone represents 7.4% of the 3-mile radius VSA. Approximately 26.9% of the affected land cover viewshed falls within the foreground distance zone.

Middleground (0.5 to 4 miles) - At this is the distance, elements begin to visually merge or join. Colors, intensity, and textures become muted by distance but are still identifiable. Visual detail is reduced, although distinct patterns may still be evident. Viewers at middleground distances typically recognize surface features such as tree stands, building clusters, and small landforms. Scale is perceived in terms of identifiable features of development patterns. From this distance, the contrast between color and texture is identified in terms of their regional context rather than their immediate surroundings. With increasing distance, atmospheric hazing will subdue visibility and cast a soft bluish tone over the distant landscape.

The middleground distance zone represents 90.5% of the 3-mile radius VSA. Approximately 63.45% of the affected land cover viewshed falls within the middleground distance zone.

Background (4 miles and beyond) - At this distance, landscape elements lose detail and become less distinct. Even on the clearest of days, the sky is not entirely transparent because of the presence of atmospheric particulate matter. As the distance between an observer and a visible object increases the light scattering effect of particulate matter causes a reduction in color intensity and contrast between light and dark. Contrast depends upon the position of the sun and the reflectance of the object among other conditions. The net effect is that objects appear "washed out" over great distances; referred to as atmospheric perspective, this phenomena changes colors to blue-grays, while surface texture characteristics are lost, and only broad landforms are discernible.

As the background distance zone begins four miles from the Facility Site, no portion of the 3-mile radius VSA falls within the background distance zone.

3.3 Viewer Groups

Viewers engaged in different activities are likely to perceive their surroundings differently. The description of viewer groups is provided to assist in understanding the sensitivity and probable reaction of potential observers to visual change resulting from the proposed Facility (FHA, 2015, pp. 5-8).

Local Residents

Local residents live and work in the VSA. They generally view the landscape from their yards, homes, local roads, and places of employment. The highest population of local residents is in and around town center areas, but many live in more rural portions of the VSA.

Local residents are likely to have the best understanding of the aesthetic character and existing conditions of the local landscape. Except when involved in local travel, these viewers are likely to be stationary and may have frequent and/or prolonged views of the Facility. They know the landscape and may be sensitive to changes, particularly in views that are important to them.

Residents' sensitivity to visual quality varies and may be affected by the aesthetic setting of their neighborhood or place of employment. Those residing or working in population centers with views focused on the developed landscape may be less sensitive to landscape changes than those with views of a more natural landscape. However, all local residents are familiar with the regional landscape and may be sensitive to aesthetic changes to varying degrees. Conversely, the sensitivity of an individual observer to a specific view may be diminished over time due to repeated exposure.

Through Travelers

Through travelers are typically moving, have a relatively narrow field of view oriented along the axis of the roadway, and are destination oriented. Travelers include driver and passenger automobile users. Drivers will generally be focused on the road and traffic conditions, but do have the opportunity to observe roadside scenery. Passengers in moving vehicles will have greater opportunities for prolonged off-road views than will drivers and, therefore, may be more aware of the quality of surrounding scenery.

Through-traveler views of the Facility may be peripheral, intermittent, and/or of relatively brief duration. Given a general unfamiliarity or infrequent exposure to the regional or local landscape, through travelers may have a lower degree of sensitivity to visual change than would local residents.

Recreational Users and Tourists

This group generally includes local residents involved in outdoor recreational activities, as well as visitors who come to the area specifically to enjoy the cultural, recreational, and scenic resources and open spaces of the region. Typical activities include hunting, fishing, bicycling, jogging, walking, and participating in sports activities at local courts and fields.

The sensitivity of recreational users to visual quality is variable; but to many, visual quality is an important and integral part of the recreational experience. Participants in passive recreation (e.g., picnicking, walking, bicycling, hunting, and fishing) may have a higher sensitivity to the visual landscape. Participants in active recreation requiring focused attention on the activity itself (e.g., individual or team sports) may be less concerned with the aesthetic setting.

3.4 Project Visibility

3.4.1 Viewshed Methodology

Viewshed analysis is a geographic information system (GIS) based tool that identifies the geographic area within which there is a relatively high probability that some portion of a facility will be visible. Viewshed mapping accounts for the screening effect of existing landform and vegetation and is the first step in determining whether the Facility will be visible from VSRs and other places of local interest.

One viewshed overlay was prepared defining the area within a 10-mile radius where there will be no visibility of the Facility due to the screening effect of intervening topography only. This

“bare earth” condition analysis identifies the maximum potential geographic area within which Project could conceivably be visible. Figure 5 illustrates the 10-mile radius Bare Earth Viewshed area.

It is noteworthy that untrained reviewers often misinterpret “bare earth” condition viewshed maps to represent wintertime or leafless condition visibility. In fact, deciduous provides a substantial visual buffer in all seasons. Bare earth viewshed maps are generally not appropriate for interpretation by untrained reviewers and must only be considered within the context of this VIA in total.

A second viewshed overlay was prepared illustrating the screening effect of existing mature vegetation. This more realistic “land cover” condition identifies the geographic area where one would expect to be substantially screened by intervening forest vegetation.

Because the proposed solar arrays are very low profile (i.e., 16 feet tall) and vegetation and structures exist the landscape to interrupt distant views, actual Facility visibility is limited to a substantially smaller area than is illustrated in the bare earth condition viewshed. To focus the visual impact evaluation on the geographic area where Facility visibility is likely, the land cover viewshed analysis is limited to a 3-mile radius from the Facility Site. Figure 6 illustrates the 3-mile radius land cover viewshed area.

Viewshed calculations were conducted using a digital surface model derived from 2006 LiDAR data acquired from the Ohio Geographically Referenced Information Program (OGRIP). (OGRIP, n.d.) The land cover overlay is based on a digital surface model (DSM) derived from the 2006 LiDAR data. The DSM is an elevation model that captures both the environment's natural and artificial features, including the tops of buildings, trees, powerlines, and any other objects that rise above bare earth elevation.

The DSM was modified to remove all LiDAR points above bare earth elevation within the solar array areas. The DSM has also been modified to remove all LiDAR points above bare earth elevation within transmission corridors to eliminate LiDAR points representing overhead utility wires that can be misrepresented in the DSM as opaque screening features.

Viewshed overlays representing the visible area of the proposed solar arrays were calculated using study points arranged in a 400- by 400-foot grid pattern applied within the fence line of each solar array area. The height of the panels used for viewshed calculation is set at 16 feet above existing grade and a conservative offset of six feet was applied to account for the observer's eye level. The resulting viewshed identifies grid cells with a theoretical line-of-sight to one or more of the study points.

A secondary viewshed overlay was prepared to represent the visible area of the project substation/switchyard. The analysis was run based on the assumed 25-foot height of the primary substation structures. The height of the lightning masts was not considered because these are typically narrow profile structures. The substation viewshed is presented in Figure 5 and Figure 6.

Viewshed Summary

Land cover viewshed analysis demonstrates that potential Facility visibility is largely focused within one mile of the Facility Site, although potential visibility is found in limited view corridors as far as 2 ½-3 miles from the Facility.

Potential visibility of the proposed solar panels is illustrated in Figure 6 and summarized in Table 2.

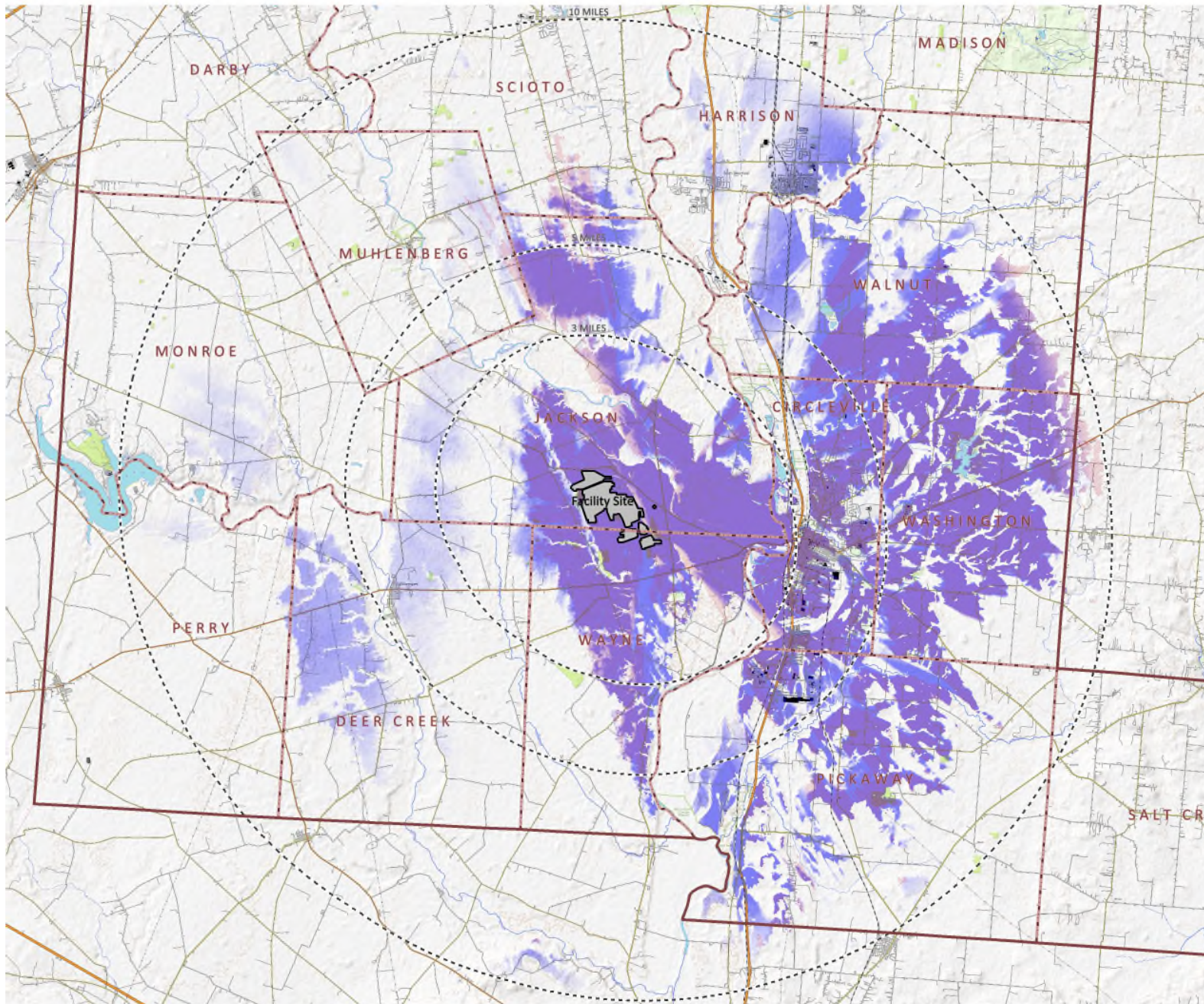
Table 2 – Viewshed Analysis Summary

	VSA Total	Immediate Foreground	Visibility by Distance Zone		
			Foreground	Middleground	Background
Total Area (acres excl. Facility Site)	29,743	615	2,203	26,924	NA
Land Cover Viewshed (acres)	7,348	502	1,604	5,243	NA
Land Cover Viewshed (% of total VSA)	25%	2%	5%	17%	NA
Land Cover Viewshed (% of Dist. Zone)	-	82%	73%	19%	NA

PV Array Visibility - Woodlots and hedgerows substantially limit PV panel visibility to the immediate foreground as viewed from vantage points to the west and south of the Facility Site along Smith-Hulse Road and US 22. Facility views extend into the foreground distance zone across open agricultural fields as viewed from vantage points to the northwest and east of the Facility site in the vicinity of SR 52, McLean Mill Road and London Road. Views extend into the more distant middleground distance zone open agricultural field to the northeast.

Viewshed analysis treats all structures and vegetation as if they were opaque, and therefore, small woodlots and hedgerows are assumed to fully block views of the Facility. In leaf-on conditions, this likely will be the case. During leaf-off conditions, narrow or sparsely vegetated hedgerows and woodlots permit filtered views through deciduous branches and stems.

Project Substation Visibility - Potential visibility of the Facility substation will be screened from approximately 90% of the VSA by intervening landforms, vegetation, and structures. Potential substation visibility is indicated in areas similar to what was described for the PV panels with additional areas of visibility, due to taller components, found to the southeast of the Facility site in the vicinity of US 22 and SR104 south. South of SR 52 substation visibility is concentrated into narrow bands with visibility extending out to 2.5 miles southwest of the Facility site. It is important to keep in mind that the substation viewshed analysis presents theoretical visibility. It ignores the narrow profile and neutral color of the masts. These features will likely make these structures difficult to discern at distances beyond the foreground.



CIRCLEVILLE SOLAR PROJECT

Jackson & Wayne Townships
Pickaway County, OH

Visual Impact Assessment Figure 5: Bare Earth Viewshed Map (10mi radius)

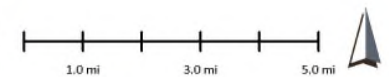
Legend

- Facility Site
- Substation Visibility (25ft Height)

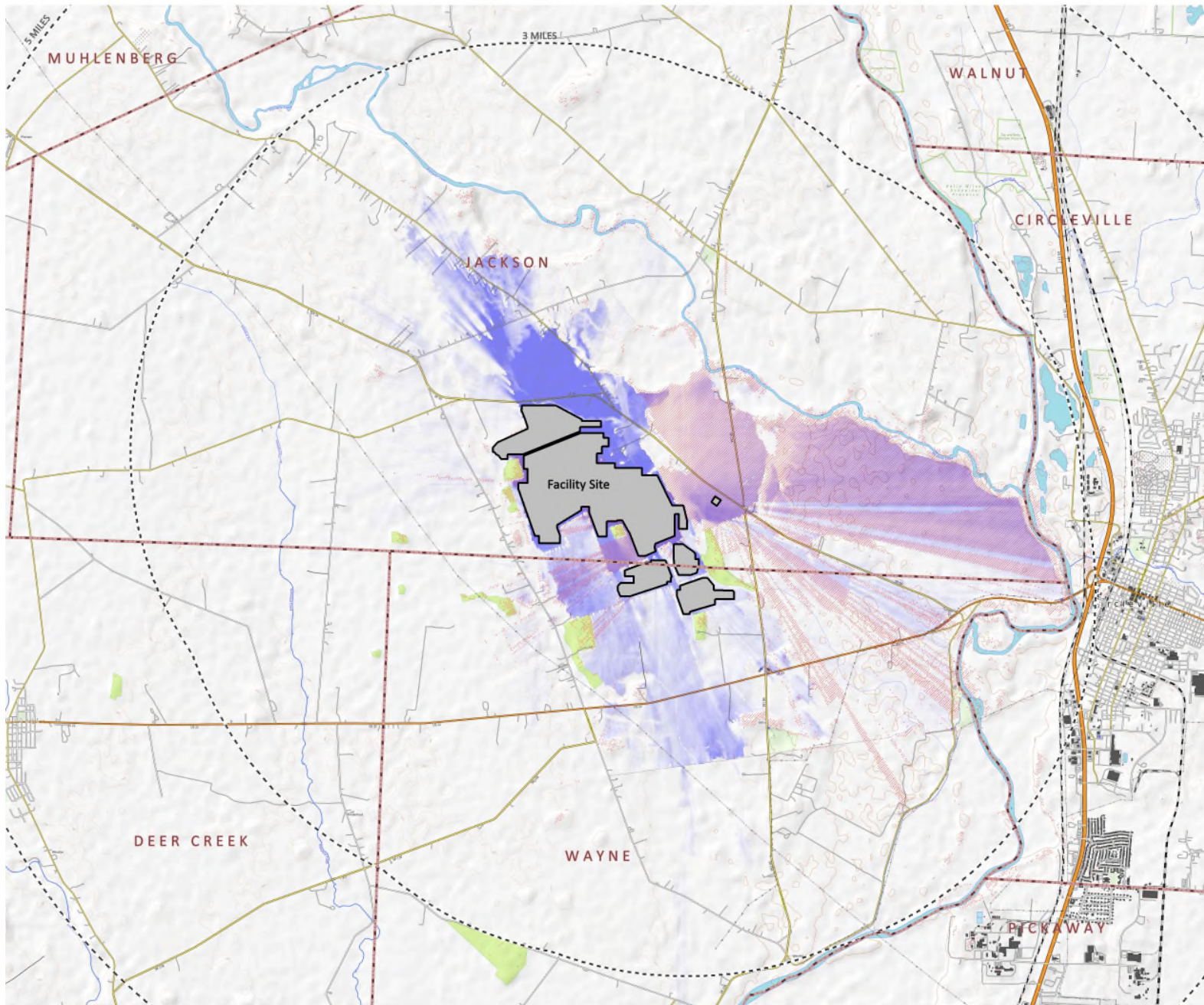
Solar Array Visibility (16ft Height)

(Excluding the screening value of existing vegetation and structures)

More Arrays Visible
Fewer Arrays Visible



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Jackson & Wayne Townships
Pickaway County, OH

Visual Impact Assessment Figure 6: Land Cover Viewshed Map (3 mi radius)

Legend

- Facility Site
- Substation Visibility (25 ft Height)

Solar Array Visibility (16ft Height)

(Including the screening value of existing vegetation and structures)

- More Arrays Visible
- Fewer Arrays Visible



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3.5 Visually Sensitive Resources

Chapter 4906-4-08(D) requires the viewpoint selection to include identification of Visually Sensitive Resources (VSRs), including, but not limited to any formally adopted land and water recreation areas, recreational trails, scenic rivers, scenic routes or byways, and registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance within ten miles of the project area. Landmarks to be considered for purposes of paragraph (D) of this rule are those districts, sites, buildings, structures, and objects that are recognized by, registered with, or identified as eligible for registration by the national registry of natural landmarks, the state historical preservation office, or the Ohio department of natural resources.

As discussed in Section 2.1 above, because the proposed solar arrays are very low profile (i.e., 16 feet tall) and vegetation and structures exist the landscape to interrupt distant views, actual Project visibility is be limited to a substantially smaller area than is illustrated in the bare earth condition viewshed (*refer* to Figure 5). To focus the visual impact evaluation on the geographic area where Project visibility is likely, a land cover viewshed analysis was conducted to define a more realistic area of visual effect (*refer* to Figure 6).

Land Cover viewshed analysis demonstrates that potential Project visibility is largely focused within one mile of the Project Site, although potential visibility is found in limited view corridors as far as 2 ½-3 miles from the Project Site. Because the project is not likely to be visible beyond this distance the visual study area (VSA) used to inventory and evaluate scenic and cultural resources is focused within a three-mile study radius.

Table 3 summarizes the VSR types found within the 3-mile radius VSA.

Table 3 – Visually Sensitive Resources Summary

Visually Sensitive Resources	Total VSRs
Properties of Historic Significance	Total 25
National Historic Landmarks (NHL)	0
Properties/Districts Listed on National or State Registers of Historic Places	3
OHI Historic Structures	9
Historic Bridges	1
OGS Cemeteries	12
Designated Scenic Areas	Total 0
Rivers Designated as National or State Wild, Scenic or Recreational	0
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for	0
Designation as Scenic	0
Designated Scenic Resources (Easements, Roads, Districts, and Overlooks)	0
Public Lands and Recreational Resources	Total 9
National Parks, Recreation Areas, Seashores, and/or Forests	0
National Natural Landmarks	0
National Wildlife Refuges	0
Heritage Areas	0
State Parks	0
State Nature Preserves	0
State Forest Preserve	0
Wildlife Areas	2
State Forests	0
State Boat Launches/Waterway Access Sites	1
Designated Trails	1
Designated Bike Route	1
Local Parks and Recreation Areas	4
Publicly Accessible Conservation Lands/Easements	0
Rivers and Streams with public fishing rights easements	0
Named Lakes, Ponds, and Reservoirs	0
Total Number of VSRs in the VSA	Total 34

Thirty-four (34) VSRs were found within the 3-mile radius VSA and are listed in Table 4. The locations of these VSRs are mapped on Figure 7 and are keyed to this table by the Map ID.

Table 4 – Visually Sensitive Resources

Map ID	Resource Name	Municipality	Distance to Nearest Fence Line (mi)	Distance Zone	PV Array Potential Visibility*	Expected Visibility*
A	Clemmons, W.C., Mound			Middleground	NO	NO
B	Horsey-Barthelmas Farm	Wayne	3.0	Middleground	YES	NO
C	Ohio and Erie Canal Southern Descent Historic District	Jackson	2.8	Middleground	NO	NO
D	Col & South OH Substation	Circleville	3.0	Middleground	NO	NO
E	Farm at 24100 SR 104	Wayne	2.3	Middleground	YES	NO
F	Farm at 24666 SR 104	Wayne	1.9	Middleground	NO	NO
G	House at 24529 SR 104	Wayne	1.8	Middleground	NO	NO
H	Swearigen House	Jackson	1.9	Middleground	YES	NO
I	Unnamed Structure	Wayne	2.3	Middleground	NO	NO
J	Circleville-Williamsport Bridge Abutment	Wayne	2.8	Middleground	YES	NO
K	Farm at 1800 US 22	Wayne	1.1	Middleground	YES	NO
L	Old Circleville Waterworks	Wayne	2.4	Middleground	YES	NO
M	Historic Bridge 6530389	Jackson	1.4	Middleground	NO	NO
N	Pickaway County Wildlife Production Area 1	Jackson	1.0	Middleground	YES	NO
O	Pickaway County Wildlife Production Area 65-2	Wayne	1.5	Middleground	YES	NO
P	Elmon Richards Scioto River Fishing	Wayne	2.6	Middleground	YES	NO
Q	Pickaway Trail	Wayne	1.2	Middleground	YES	NO
R	Calamus Swamp	Wayne	1.1	Middleground	NO	NO
S	Canal Park	Wayne	2.0	Middleground	YES	NO
T	Jackson Twp Park	Jackson	1.6	Middleground	YES	NO
U	Smith Memorial Park	Jackson	2.9	Middleground	NO	NO
V	Big Darby Creek Scenic River	Jackson	1.0	Middleground	YES	NO
W	OGS Cemetery	Jackson	1.8	Middleground	YES	NO
X	OGS Cemetery	Jackson	2.1	Middleground	YES	NO
Y	OGS Cemetery	Jackson	2.4	Middleground	YES	NO
Z	OGS Cemetery	Circleville	2.8	Middleground	YES	NO
AA	OGS Cemetery	Wayne	1.7	Middleground	YES	NO
BB	OGS Cemetery	Jackson	0.3	Middleground	YES	NO
CC	OGS Cemetery	Jackson	0.3	Middleground	YES	YES
DD	OGS Cemetery	Jackson	1.7	Middleground	YES	NO
EE	OGS Cemetery	Jackson	1.6	Middleground	YES	NO
FF	OGS Cemetery	Jackson	2.2	Middleground	NO	NO
GG	OGS Cemetery	Jackson	2.0	Middleground	NO	NO
HH	OGS Cemetery	Jackson	0.6	Middleground	YES	NO
II	State Bike Route 47	Jackson/Wayne	1.8	Middleground	YES	NO

* "Potential Visibility" is based on Bare Earth Viewshed Analysis (see Figure 5).

**"Expected Visibility" is based on Land Cover Viewshed Analysis (see Figure 6).

Visually Sensitive Resource Visibility Summary

Based on bare earth viewshed analysis some portion of the Project would be visible above intervening landform from 24 of the 34 identified VSR's.

Based on more realistic land cover viewshed analysis, the Project is expected to be visible above intervening vegetation or structures just one (1) of the 33 identified VSRs; an OGS Cemetery (Map ID CC) located on the north side of SR56 approximately 1,770 feet northeast of the Facility.

This VSR appears to be a small (< ½ acre) infrequently visited burial ground. Views in the direction of the Facility from the cemetery property are partially filtered through existing on-site landscape vegetation and include an existing farmstead residence with metal barns and silos visible. The nearest Facility fence line is approximately 1,800 feet to the southwest. A shallow upward sloping hill crest and small wood lot also obscure a portion of the Facility from view.

This property appears to be infrequently visited. The presence of the Facility in the viewshed is unlikely to interfere with or reduce the public's enjoyment or appreciation of this resource.

A photo simulation illustrating the degree and character of Facility visibility from a roadside vantage point near this VSR is provided as Figure 10 in Appendix B.

CIRCLEVILLE SOLAR PROJECT

Jackson & Wayne Townships
Pickaway County, OH

Visual Impact Assessment

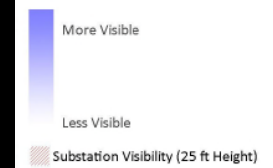
Figure 7: Visually Sensitive Resource Map

Legend

- Distance Zone Transitions
- Townships
- Visual Study Area
- Photo Locations (see Appendix A - Photo Log)
- Photo Simulation (see Appendix B - Photo Simulations)

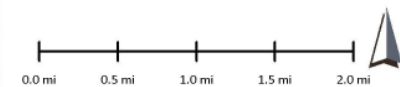
Solar Array Visibility (16ft Height)

(Including the screening value of existing vegetation and structures)



Visually Sensitive Resources

- Community Parks
- NRHP Districts
- State Fishing/Waterway Access
- Wildlife Areas
- Distance Zone Transitions
- Scenic River
- State Bike Route
- Townships
- Trail (Developed)
- Trail (Proposed)
- NRHP Structure
- OGS Cemetery
- OHI Historic Structure



SARATOGA
ASSOCIATES

3.6 Field Observation and Photography

On November 2, 2021, a visual analyst drove public roads and photographed views from representative locations where viewshed mapping identified potential Project visibility. Photographs were taken with a using a Canon EOS Rebel T7 digital single lens reflex (“DSLR”) 24 mega pixel camera. All photographs were taken at a lens setting of 50 millimeters (mm)² to approximate normal human perception of spatial relationships and scale in the landscape (CEIWEF, 2007, p. 353).

At each viewpoint, a series of overlapping photos were taken to cover the full field of view toward the Facility Site. Viewpoint locations were recorded using hand-held global positioning system (GPS) unit. GPS points, focal length parameters, times, and dates were documented electronically. A photographic log, including a representative photograph of the dominant view toward the Facility Site from each viewpoint, is included in Appendix A.

Table 5 summarizes 28 photographed locations. Photo locations are mapped on Figure 7 and are keyed to this table by a Photo identification number.

Table 5 – Photo Locations

Photo	Location	Township	Distance Zone	Viewer Group	Distance to Nearest Fence Line (Ft)	PV Array Potential Visibility*	PV Array Expected Visibility**	Photo Simulation (Appendix B)
01	London Road	Jackson	Middleground	LR	3,160	YES	YES	Figure B1 (a-b)
02	McLean Mill Road	Jackson	Middleground	LR	3,700	YES	YES	Figure B2 (a-b)
03	Smith-Hulse Road	Jackson	Foreground	LR	2,480	YES	PARTIAL	Figure B3 (a-b)
04	Smith-Hulse Road	Jackson	Foreground	LR	1,500	YES	PARTIAL	
05	Smith-Hulse Road	Jackson	Foreground	LR	1,330	YES	NO	
06	Smith-Hulse Road	Jackson	Foreground	LR	1,270	YES	NO	
07	Smith-Hulse Road	Wayne	Foreground	LR	2,180	YES	PARTIAL	
08	Smith-Hulse Road	Wayne	Middleground	LR	3,140	YES	PARTIAL	
09	Smith-Hulse Road	Wayne	Middleground	LR	4,560	YES	NO	
10	US 22	Wayne	Middleground	LR/TT	4,216	YES	PARTIAL	Figure B4 (a-b)
11	US 22	Wayne	Middleground	LR/TT	3,488	YES	PARTIAL	Figure B5 (a-b)
12	SR 104	Wayne	Middleground	LR	12,300	NO	NO	
13	Canal Road	Wayne	Middleground	LR	12,060	NO	NO	
14	US 22	Wayne	Middleground	LR/TT	4,340	YES	NO	
15	US 22	Wayne	Middleground	LR/TT	7,250	YES	NO	
16	SR 104	Wayne	Foreground	LR/TT	1,050	YES	YES	Figure B6 (a-b)
17	SR 56	Jackson	Middleground	LR/TT	4,150	YES	PARTIAL	
18	SR 104	Jackson	Foreground	LR/TT	2,250	YES	PARTIAL	
19	SR 56	Jackson	Foreground	LR/TT	2,760	YES	PARTIAL	
20	SR 56 at SR104	Jackson	Foreground	LR/TT	LR/TT	LR/TT	LR/TT	Figure B7 (a-b)

² A Canon EOS Rebel T7 digital SLR with an 18-55millimeter (mm) zoom lens was used for all Project photography. This digital camera, similar to many digital SLR cameras, has a “cropped frame” sensor that is approximately 1.5 times smaller than a comparable full frame 35mm film camera. Recognizing this differential, the zoom lens used was set to approximately 32-35mm to achieve a field-of-view comparable to a 50mm lens on a full frame 35mm camera.

Table 5 – Photo Locations

Photo	Location	Township	Distance Zone	Viewer Group	Distance to Nearest Fence Line (Ft)	PV Array Potential Visibility*	PV Array Expected Visibility**	Photo Simulation (Appendix B)
21	SR 56	Jackson	Immediate Foreground	LR/TT	50	YES	YES	Figure B8 (a-b)
22	SR 56	Jackson	Foreground	LR/TT	1,410	YES	YES	Figure B9 (a-b)
23	SR 56	Jackson	Foreground	LR/TT	1,480	YES	NO	
24	SR 56 (near OCS cemetery)	Jackson	Foreground	LR/TT	1,240	YES	YES	Figure B10 (a-b)
25	SR 56	Jackson	Foreground	LR/TT	780	YES	YES	Figure B11 (a-b)
26	McLean Mill Road	Jackson	Middleground	LR	8,400	YES	NO	
27	Florence Chapel Pike	Jackson	Middleground	LR	9,450	YES	NO	
28	Island Road	Jackson	Middleground	LR	15,310	YES	NO	

* "Potential Visibility" is based on Bare Earth Viewshed Analysis (see Figure 5Error! Reference source not found.).

**"Expected Visibility" is based on Land Cover Viewshed Analysis (see Figure 6).

LR = Local Residents

TT – Through Travelers

3.8 Photo Simulations

Viewpoint Selection - To illustrate how the Project will appear, photo simulations were prepared from 11 affected photo locations. To the degree such conditions exist in the Facility viewshed, simulated viewpoints were selected based upon the following criteria:

- > Representative of open vistas;
- > Representative of common screening effects of existing vegetation, topography, or structures;
- > Representative views from affected VSRs;
- > Representative of different landscape use;
- > Representative of views experienced by different viewer groups; and
- > Representative of different viewer distances.

Photo Simulation Methodology - Photo simulations were developed by superimposing a rendering of a three-dimensional (3D) computer model of the proposed Facility into the base photograph taken from each corresponding location. The 3D computer model for the simulations was developed using *Autodesk Civil 3D®* and *3D Studio Max Design®* software.

Simulated perspectives (camera views) were matched to the corresponding base photograph for each simulated view by replicating the precise coordinates of the field camera position (as recorded by handheld GPS) and the focal length of the camera lens used (e.g., 50mm). Precisely matching these parameters ensures scale accuracy between the base photograph and the subsequent simulated view. The camera's target position was set to match the bearing of the corresponding existing condition photograph. With the existing conditions photograph displayed as a "viewport background," and the viewpoint properties set to match the photograph pixel dimensions, minor camera adjustments were made (horizontal and vertical

positioning, and camera roll) to align the horizon in the background photograph with the corresponding features of the 3D model.

To verify the camera alignment, visible elements (e.g., structures, utility poles, distinctive trees, and topography) within the photograph are identified and digitized from digital orthophotos. Each element is assigned a Z value (elevation) based on Digital Elevation Model (DEM) data and then imported to 3D Studio Max. A 3D terrain model was also created (using DEM data) to replicate the existing site topography. The digitized elements are then aligned with corresponding elements in the photograph by adjusting the camera target.

In addition, a digital surface model (DSM) of the local landscape was generated using from 2006 LiDAR data acquired from OGRIP (OGRIP, n.d.) The DSM captures the natural and built features of the earth's surface that, when displayed within the 3D model, accurately depict the horizontal and vertical massing of existing landscape elements (e.g., tree massing) further assist in accurate camera alignment.

Once the camera alignment was verified, a to-scale 3D model of the proposed Project was merged into the model space. The 3D model of the Project is intended to accurately convey the current design intent. To the extent practicable, and to the extent necessary to reveal impacts, design details of the proposed Facility were built into the 3D model and incorporated into the photo simulation. Consequently, the scale, alignment, elevations, and location of the visible elements of proposed Project components are true to the conceptual design.

The rendered view was then imported into Adobe Photoshop software for post-production editing (i.e., the portion of the Project that falls behind foreground topography and vegetation was airbrushed out). Photo simulations are provided in Appendix B.

Photo Simulation Viewing Instructions

Arm's Length Rule –The single-frame photo simulations in Appendix B have been formatted to be printed on an 11- by 17-inch page. At this image size, the page should be held at approximately arm's length so that the scene appears at the correct scale.³ Viewing the image closer will make the scene appear too large, and viewing the image from a greater distance will make the scene appear too small compared to what an observer will actually see in the field.

For viewing photo simulations at other page sizes (i.e., computer monitor, projected image, or other hard copy output) the viewing distance/page width ratio is approximately 1.5 to 1. For example, if the simulation were viewed on a 42-inch-wide poster size enlargement, the correct viewing distance will be approximately 63 inches (5.25 feet).

Field Viewing – The photo simulations present an accurate depiction of the appearance of the Facility that are suitable for general understanding of the degree and character of the Facility's visibility. However, these images are a two-dimensional (2D) representation of a 3D landscape.

³ Viewing distance is calculated based a 39.6-degree field-of-view for the 50 mm camera lens used, and the 15.5-inch-wide image presented in Appendix B. "Arm's length" is assumed to be approximately 22.5 inches from the eye. Arm lengths vary for individual viewers.

The human eye is capable of recognizing a greater level of detail than can be illustrated in a 2D image. Decision makers and interested parties may benefit from viewing the photo simulations in the field from any or all of the simulated locations. In this manner, observers can directly compare the level of detail visible in the base photograph with actual field observed conditions.

4.0 VISUAL IMPACTS MINIMIZATION

The following measures to avoid, minimize or mitigate visual impact have been considered in the design of the Facility.

Facility Design and Siting - The Facility has been sited in a sparsely populated rural area, in part to avoid visibility from population centers and clusters of VSRs. The Facility's location in open agricultural lands minimizes the need for tree clearing and associated visual impacts. A patchwork of existing woodlots and hedgerows to remain around the Facility perimeter to help minimize Facility visibility. Project development requires no substantive removal of existing mature vegetation.

The electrical collection system is placed underground to avoid introduction of overhead utility lines.

Relocation - Due to the geographic extent of the Facility and the variety of viewpoints from which the Facility can be seen within the VSA, the relocation of PV panels will not appreciably reduce off-site visibility of Facility components. Moving individual solar arrays to different sites will not necessarily reduce impacts, but rather simply relocate them. Additionally, because the Facility layout is restricted to participating parcels and has been designed to accommodate various set-backs from roads and residences, options for relocation of individual Facility components are limited.

A number of siting alternatives have been considered for the substation. However, given the need for the substation to be in proximity to the existing regional transmission lines and other terrain and environmental considerations, options to relocate the substation to a less visible location are limited. Because the substation is not in close proximity to any any VSR, relocation would not serve to further avoid or minimize impact on public enjoyment of any high-value VSR.

Camouflage/Disguise - Due to necessary PV properties, PV panels cannot be painted or covered with any material. No measures are available to disguise the visual appearance of the Facility in a manner that will reduce visual contrast.

Facility Component Profiles - The PV panels are 16 feet above ground at maximum tilt. There is no feasible alternative that would reduce the visual profile of the solar arrays.

Except of lightning masts and dead-end structures, substation equipment will generally not exceed 25 feet in height. Lightning masts are anticipated to be approximately 50 feet tall. The height of these structures is necessary to meet electrical and safety requirements and cannot be reduced.

Maintenance - How a landscape and structures in the landscape are maintained has aesthetic implications to the long-term visual character of a project. The Applicant places a high priority on Facility maintenance, not only for operational purposes, but for aesthetic appearance as

well. The Applicant will implement a strict policy of maintenance, including materials and practices that ensure a clean and well-maintained appearance over the full life of the Facility.

Lighting - No nighttime lighting is proposed in the fenced solar array fields. Limited exterior lighting is required for health, safety, security, emergency and operational purpose in outdoor areas around the substation.

To minimize potential impact of night lighting on nearby properties the frequency and duration of lighting will be kept to a minimum and with the lowest intensity necessary for safety and security. Task lighting will be mounted at the lowest allowed and practical heights and will be directed toward the ground/work areas to avoid being cast skyward or across long distances. Manual activation will be installed as practical instead of motion detection sensors. All lighting is directed downward to minimize the effects of light pollution.

Alternative Technology - PV panel technology and equipment is standard and does not offer alternatives that will significantly decrease visual impact.

5.0 FINDINGS AND CONCLUSIONS

The Facility evaluated in this VIA includes an “overbuild” design. The overbuild allows for flexibility in the final configuration of Project infrastructure. The final Facility design and footprint will be determined prior to construction through the Application process and detailed engineering. The Facility design will be reduced from the overbuild layout illustrated herein and will encompass a smaller portion of the approximately 751-acre footprint than is evaluated in this VIA.

Because the ultimate Facility design and footprint has not yet been determined, this VIA evaluates the overbuild design as a representative “worst-case” visual condition. The actual built condition and associated visibility will be something less than is presented in this VIA.

The 3-mile-radius VSA is decidedly rural with a very low population density. The vast majority of the affected viewshed area falls within unoccupied agricultural lands and other undeveloped places where few people are likely to visit. Affected local roads are moderate to lightly traveled and generally serve local residences and farmsteads. The Facility will not be visible from the residential or business core of the City of Circleville or the Village of Williamsport.

When visible, the solar arrays will appear very low to the ground. Although the solar arrays are most commonly sited in open fields, views of the low-profile PV panels are often quickly obscured in areas where existing woodland vegetation and hedgerows prevent extended distance views. At 16 feet tall (at the maximum tilt angle), when visible, the solar arrays will appear very low to the ground.

Residential Views - Approximately 28 non-participating residential structures fall within the land cover viewshed area. No non-participating residential homes are located within the immediate foreground distance zone (<0.1 mile) where visual impact is likely to be highest. Approximately seven (7) residential structures are located within the foreground distance zone (0.1 – 0.5 mile), and approximately 21 residential homes are located within the middleground zone (0.5-4 miles) where visual impact is likely to be considered relatively low.

Local residents generally view the landscape from their yards, homes and local roads. Local residents are likely to have the best understanding of the aesthetic character and existing conditions of the local landscape and may be sensitive to aesthetic changes to varying degrees. Residents’ sensitivity to visual quality varies and may be influenced by the aesthetic quality of their individual property or neighborhood. The sensitivity of an individual observer to a specific view may be diminished over time due to repeated exposure.

Road Views - Approximately 0.6 miles of affected roadway falls within the immediate foreground distance zone. Approximately 2.9 miles of affected roads are within the foreground distance zone, and approximately 3.7 miles of affected roads are within the middleground

distance zone. SR 56 is most proximate to the Facility. SR 56 has an AADT of approximately 2,370 vehicles per day.

Through-traveler views of the Facility may be peripheral, intermittent, and/or of relatively brief duration. Given a general unfamiliarity or infrequent exposure to the regional or local landscape, through travelers may have a lower degree of sensitivity to visual change than local residents who travel local roads on a regular basis.

Visually Sensitive Resources - Chapter 4906-4-08(D) requires the viewpoint selection to include identification of Visually Sensitive Resources (VSRs), including, but not limited to any formally adopted land and water recreation areas, recreational trails, scenic rivers, scenic routes or byways, and registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance.

Thirty-four (34) VSRs were found within the 3-mile radius VSA. Based on bare earth viewshed analysis some portion of the Project would be visible above intervening landform from 24 of the 34 identified VSR's.

Based on more realistic land cover viewshed analysis, the Project is expected to be visible above intervening vegetation or structures just one (1) of the 34 identified VSRs; an OGS Cemetery (Map ID CC) located on the north side of SR56 approximately 1,770 feet northeast of the Facility.

This VSR appears to be a small (< ½ acre) infrequently visited burial ground. Views in the direction of the Facility from the cemetery property are partially filtered through existing on-site landscape vegetation and include an existing farmstead residence with metal barns and silos visible. The nearest Facility fence line is approximately 1,800 feet to the southwest. A shallow upward sloping hill crest and small wood lot also obscure a portion of the Facility from view.

This property appears to be infrequently visited. The presence of the Facility in the viewshed is unlikely to interfere with or reduce the public's enjoyment or appreciation of this resource.

A photo simulation illustrating the degree and character of Facility visibility from a roadside vantage point near this VSR is provided as Figure 10 in Appendix B.

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Attachment A
VIEWPOINT PHOTO LOG



London Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
01	Jackson	Middleground	3,160 feet	YES	YES



McLean Hill Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
02	Jackson	Middleground	3,700 feet	YES	YES



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
03	Jackson	Foreground	2,480 feet	YES	PARTIAL



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
04	Jackson	Middleground	1,500 feet	YES	PARTIAL



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
05	Jackson	Foreground	1,330 feet	YES	NO



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
06	Jackson	Foreground	1,270 feet	YES	NO



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
07	Wayne	Foreground	2,180 feet	YES	PARTIAL



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
08	Wayne	Middleground	3,140 feet	YES	PARTIAL



Smith-Hulse Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
09	Wayne	Middleground	4,560 feet	YES	NO



US Rte 22

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
10	Wayne	Middleground	4,216 feet	YES	PARTIAL

Figure A-5

PHOTO LOG

Visual Impact Assessment

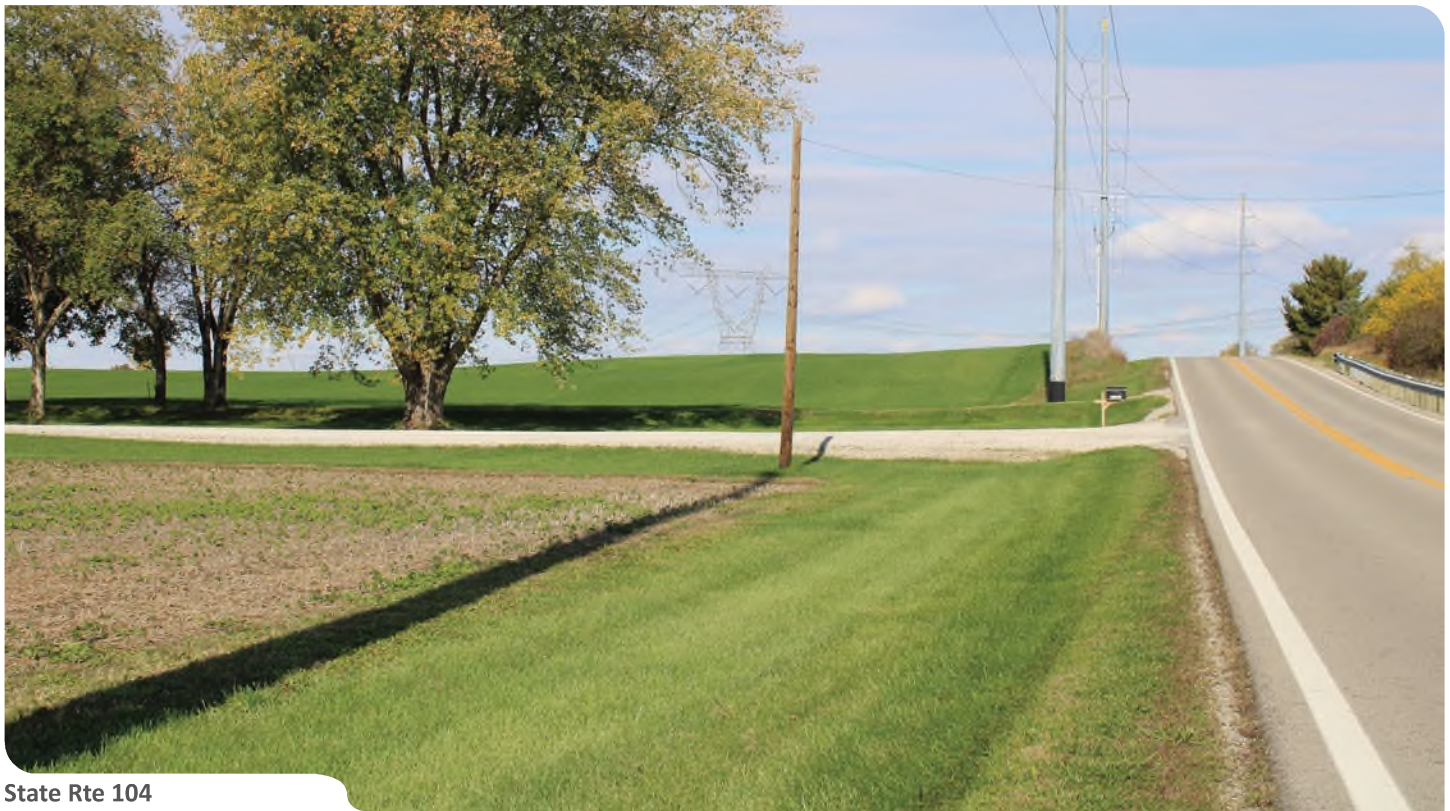
CIRCLEVILLE SOLAR PROJECT

Townships of Jackson & Wayne, Pickaway County, OH



US Rte 22

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
11	Wayne	Middleground	3,488 feet	YES	PARTIAL



State Rte 104

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
12	Wayne	Middleground	12,300 feet	NO	NO



SR 104

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
13	Wayne	Middleground	12,060 feet	NO	NO



US Rte 22

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
14	Wayne	Middleground	4,340 feet	YES	NO



US Rte 22

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
15	Wayne	Middleground	7,250 feet	YES	NO



State Rte 104

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
16	Wayne	Foreground	1,050 feet	YES	YES

Figure A-8
PHOTO LOG

Visual Impact Assessment

CIRCLEVILLE SOLAR PROJECT

Townships of Jackson & Wayne, Pickaway County, OH



State Route 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
17	Jackson	Middleground	4,150 feet	YES	PARTIAL



State Rte 104

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
18	Jackson	Foreground	2,250 feet	YES	PARTIAL



State Rte 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
19	Jackson	Foreground	2,760 feet	YES	PARTIAL



State Rte 56 at State Rte 104

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
20	Jackson	Foreground	1,300 feet	YES	YES



State Route 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
21	Jackson	Near Foreground	50 feet	YES	YES



State Rte 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
22	Jackson	Foreground	1,410 feet	YES	YES

Figure A-11

PHOTO LOG

Visual Impact Assessment

CIRCLEVILLE SOLAR PROJECT

Townships of Jackson & Wayne, Pickaway County, OH



State Route 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
23	Jackson	Foreground	1,480 feet	YES	PARTIAL



State Rte 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
24	Jackson	Foreground	1,240 feet	YES	YES



State Rte 56

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
25	Jackson	Foreground	780 feet	YES	YES



McLean Mill Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
26	Jackson	Middleground	8,400 feet	YES	NO



Florence Chapel Pike

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
27	Jackson	Middleground	9,450 feet	YES	NO



Island Road

Photo	Township	Distance Zone	Distance to Nearest Fence Line	Potential Visibility	Expected Visibility
28	Jackson	Middleground	15,310 feet	YES	NO

Attachment B

PHOTO SIMULATIONS

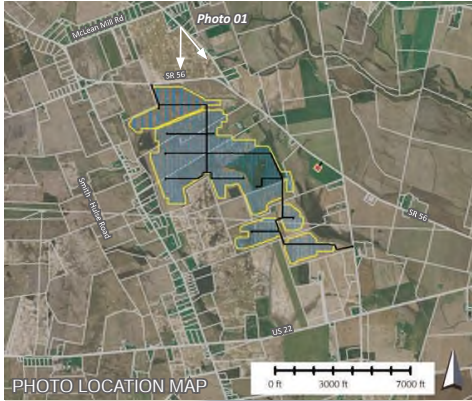


Photo 01- London Road
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:10 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 57.8563" N,
83° 02' 09.7484" W
Distance to Fence: 3,160 feet

Figure B1a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

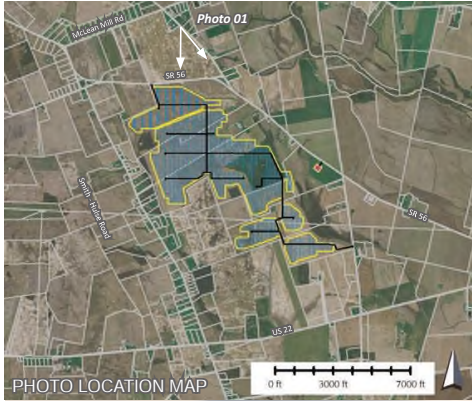


Photo 01- London Road
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:10 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 57.8563" N,
83° 02' 09.7484" W
Distance to Fence: 3,160 feet

Figure B1b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

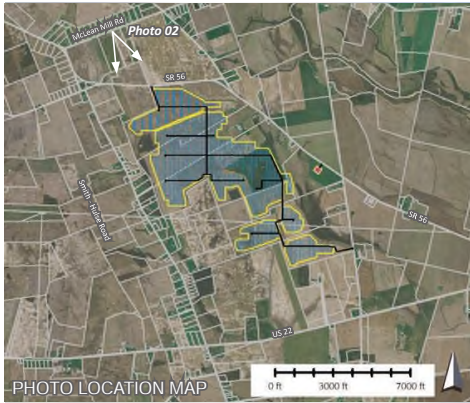


Photo 02- McLean Mill Road
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:07 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 55.9556" N,
83° 02' 55.0693" W
Distance to Fence: 3,690 feet

Figure B2a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

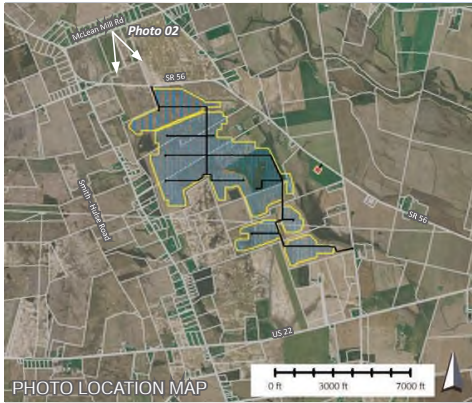


Photo 02- McLean Mill Road
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:07 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 55.9556" N,
83° 02' 55.0693" W
Distance to Fence: 3,690 feet

Figure B2b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 03 - Smith-Hulse Road
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:42 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 20.9284" N,
83° 03' 09.1510" W
Distance to Fence: 2,890 feet



Photo 03 - Smith-Hulse Road
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:42 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 20.9284" N,
83° 03' 09.1510" W
Distance to Fence: 2,890 feet

Figure B3b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

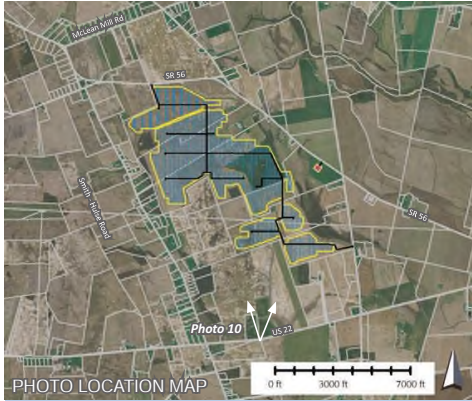


Photo 10- US 22
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:12 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 35' 18.1630" N,
83° 01' 16.2600" W
Distance to Fence: 4,215 feet

Figure B4a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

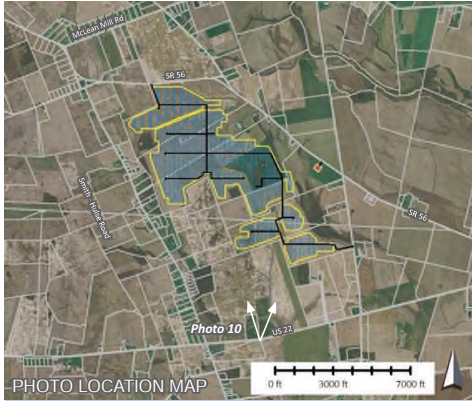


Photo 10- US 22
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:12 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 35' 18.1630" N,
83° 01' 16.2600" W
Distance to Fence: 4,215 feet

Figure B4b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 11- US 22
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:09 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 35' 26.6276" N
83° 00' 31.8833" W
Distance to Fence: 3,473 feet

Figure B5a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 11- US 22
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:09 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 35' 26.6276" N
83° 00' 31.8833" W
Distance to Fence: 3,473 feet

Figure B5b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 16 - State Route 56
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 10:50 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 04.9907" N,
83° 00' 14.1500" W
Distance to Fence: 1,010 feet

Figure B6a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

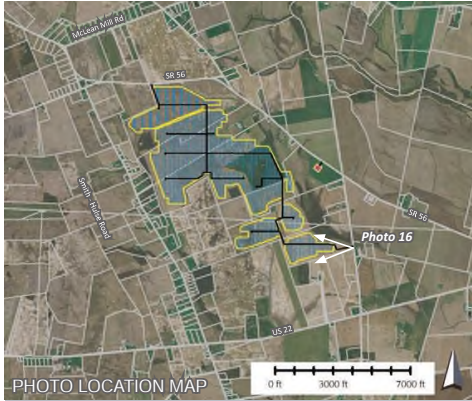


Photo 16 - State Route 56
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 10:50 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 04.9907" N,
83° 00' 14.1500" W
Distance to Fence: 1,010 feet

Figure B6b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 20 - State Route 56 at State Route 104
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:01 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 36.4138" N,
83° 00' 21.4242" W
Distance to Fence: 3,060 feet

Figure B7a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

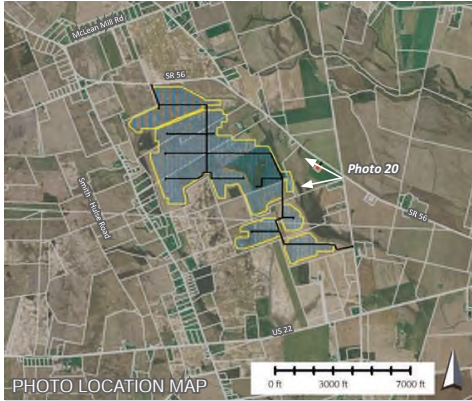


Photo 20 - State Route 56 at State Route 104
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 11:01 am
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 36.4138" N,
83° 00' 21.4242" W
Distance to Fence: 3,060 feet

Figure B7b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

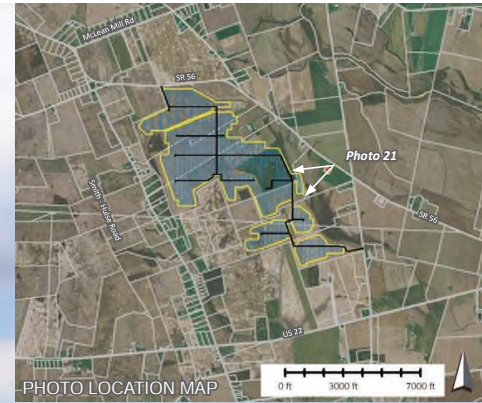


Photo 21- State Route 56
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information			
Date:	November 2, 2021	Photo Location:	39° 36' 48.1119" N,
Time:	12:47 pm		83° 00' 33.9319" W
Focal Length:	55mm	Distance to Fence:	2,280 feet
Camera:	Canon EOS Rebel T7		



Photo 21- State Route 56
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 12:47 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 48.1119" N,
83° 00' 33.9319" W
Distance to Fence: 2,280 feet

Figure B8b
PHOTO SIMULATIONS
CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

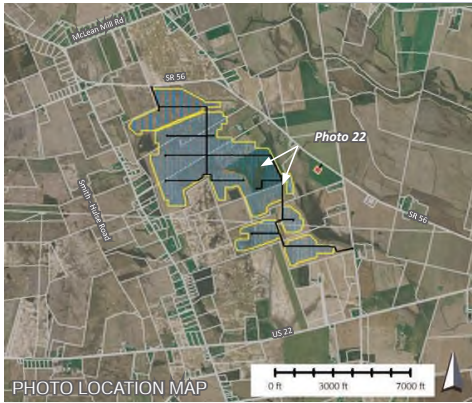


Photo 22- State Route 56
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 12:51 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 58.7369" N,
83° 00' 52.2861" W
Distance to Fence: 1,500 feet

Figure B9a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 22- State Route 56
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 12:51 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 36' 58.7369" N,
83° 00' 52.2861" W
Distance to Fence: 1,500 feet

Figure B9b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 24 - State Route 56 (near OCS Cemetery)
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 2:25 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 18.9481" N,
83° 01' 24.6142" W
Distance to Fence: 1,500 feet

Figure B10a
PHOTO SIMULATIONS
CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio



Photo 24 - State Route 56 (near OCS Cemetery)
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 2:25 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 18.9481" N,
83° 01' 24.6142" W
Distance to Fence: 1,500 feet

Figure B10b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

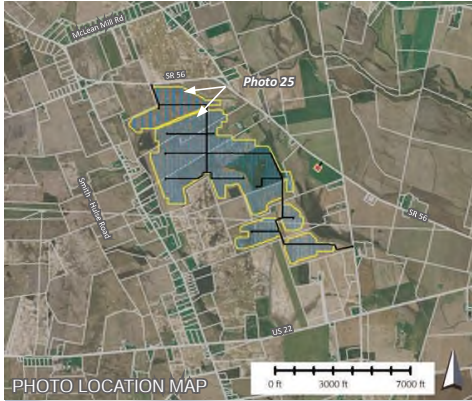


Photo 25 - State Route 56
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:01 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 27.2885" N,
83° 01' 39.3362" W
Distance to Fence: 1,400 feet

Figure B11a

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

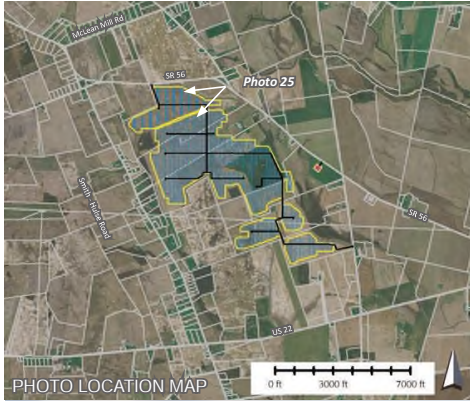


Photo 25 - State Route 56
SIMULATED CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: November 2, 2021
Time: 1:01 pm
Focal Length: 55mm
Camera: Canon EOS Rebel T7

Photo Location: 39° 37' 27.2885" N,
83° 01' 39.3362" W
Distance to Fence: 1,400 feet

Figure B11b

PHOTO SIMULATIONS

CIRCLEVILLE SOLAR PROJECT
Jackson & Wayne Townships
Pickaway County, Ohio

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

12/30/2021 4:18:40 PM

in

Case No(s). 21-1090-EL-BGN

Summary: Application Exhibit R – Visual Impact Assessment PUBLIC VERSION
electronically filed by Teresa Orahoad on behalf of Dylan F. Borchers