Appendix 8-1

Visual Impact Assessment

Visual Impact Assessment

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BROOKSIDE SOLAR PROJECT

Towns of Burke and Chateaugay, New York

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1.0 INTRODUCTION

Brookside Solar, LLC (Applicant) is proposing to construct, operate, and maintain the Brookside Solar Project (Facility), an approximate 100-megawatt (MW) photovoltaic (PV) solar energy generation facility in the Towns of Burke and Chateaugay, Franklin County, New York (Site Plan in Attachment 1 and Figure 1, Attachment 2). The Applicant is submitting an application with the Office of Renewable Energy Siting (ORES) for a Permit for a Major Renewable Energy Facility pursuant to Section 94-c of the New York State Executive Law (the Application). As required for Exhibit 8 of the Application, a Visual Impact Assessment (VIA) must be provided to determine the extent and assess the significance of Facility visibility. This VIA tracks the requirements of 19 New York Codes, Rules and Regulations (NYCRR) §900.2.9.

1.1 Regulatory Requirement and Methodology

This VIA has been prepared to comply with Exhibit 8 of 19 NYCRR §900.2.9 so that the extent and significance of the Facility's visibility can be determined. This VIA will include the identification of visually sensitive resources, visibility viewshed mapping, photographic simulations, and proposed visual mitigation. Within the framework of the Exhibit 8 requirements, this VIA will address the following:

- The character and visual quality of the existing landscape,
- The visibility of the Facility (aboveground elements),
- The appearance of the Facility (photographic simulations) from key locations,
- The nature and degree of visual change resulting from construction and operation of the Facility,
- Identification of those visual resources that will have visibility of the Facility, and
- Consistency review in the assessment of visual impacts pursuant to the requirements of adopted local laws or ordinances.

By addressing the stated requirements, this VIA will include both a quantitative and qualitative assessment that will allow reviewing agencies and the public to understand the anticipated visibility of the Facility, and potential visual impacts and their significance. The study area (referred to as the visual study area (VSA) for this VIA will extend 2 miles around the fence line of the proposed Facility.

1.2 Consistency Review for the Assessment of Visual Impacts Pursuant to the Requirements of Adopted Local Laws or Ordinances

The Applicant consulted with the local municipalities regarding the local requirements applicable to the Facility. In February 2021, the Applicant sent letters to the Towns of Burke and Chateaugay to consult with the local municipalities providing them with the information required by §900-1.3 of the 94-c Regulations. Following the meeting, the Applicant provided each Town with a list of the applicable local ordinances, laws, resolutions, regulations, standards, and other requirements of a substantive nature required for the construction and operation of the Facility. The Towns have not indicated to the Applicant that there are any other applicable laws or substantive requirements other than those identified below.

The Towns of Burke and Chateaugay have identical Solar Energy Laws, which define solar energy systems into three tiers; Tier 1 includes roof-mounted solar energy systems on residential or farm structures and building-integrated solar energy systems. Tier 2 include ground-mounted solar energy systems with system capacity up to 25 kilowatts (kW). Tier 3 Solar Energy Systems are systems that are not included in the list for Tier 1 or Tier 2 Solar Energy Systems. Therefore, since the proposed Facility will generate 100 MW of energy and the energy will be distributed throughout New York State (NYS), the proposed Facility is defined as a Tier 3 Solar Energy Facility (Town of Chateaugay, 2018; Town of Burke, 2019).

The Town of Chateaugay does not have a Zoning Law, but under §7(b) of the Towns of Burke's and Chateaugay's Solar Energy Laws, Tier 3 Solar Energy Systems are an allowable use anywhere in the Town, and therefore, the Facility is a permissible use in all zoning districts (Town of Chateaugay, 2018; Town of Burke, 2019).

<u>The Town of Chateaugay Solar Energy Law as provided by Local Law #3 of 2018, and Town of Burke Solar Energy Law as provided by Local Law #1 of 2019</u>

Language or requirements specific to analyses or assessments for visual impacts includes:

- A visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of-sight profile analysis shall be provided. Depending upon the scope and potential significance of the visual impacts, additional impact analyses, including, for example, a digital viewshed report, shall be required to submitted by the applicant. The Board may impose requirements to ameliorate any issues if it is determined that the Solar Energy System adversely affects a significant viewshed.

However, not specific to assessing visual impacts but other guidelines and requirements related to the construction of solar systems to avoid or minimize impacts include:

- Glare. All Solar Panels shall have anti-reflective characteristics;

- Lighting. Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties; and

- Tier 3 Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. To the extent practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

While the local laws and codes provide some requirements for visual analyses/assessments, it is concluded that the 94-c regulations will satisfy the requirements for a facility visual impact assessment for the Facility. The 94-c regulations will exceed what the local codes require.

2.0 THE FACILITY

The Facility will have a generating capacity of 100 MW alternating current (AC) and will be located on land leased from owners of private property in the Towns of Burke and Chateaugay. Proposed Facility components include commercial-scale solar PV arrays, haul roads, inverters, fencing, buried electric collection lines, and electrical interconnection facilities. The Applicant intends to construct, own, operate, and maintain all components of the Facility. The solar module specification is included as Appendix 2-1 in Exhibit 2 and the solar array locations and related infrastructure are included as Appendix 5-1 within Exhibit 5 (Design Drawings). The collection substation will collect the power generated from the solar modules via collection lines located throughout the Facility. A new proposed interconnection line will originate from the collection substation and extend from the Facility Site to the existing New York State Electric and Gas (NYSEG) Line 911 Willis Road to Chateaugay 115-kilovolt (kV) transmission line.

Additional details regarding the proposed Facility components to be installed are included below.

Solar Arrays and Racking System: The Applicant intends to use a solar module similar to the Jinko Solar JKM530M-7TL4-V Module. The Facility proposes to install solar modules on a tracker racking system similar to the ArrayTech DuraTrack® HZ v3 system. A specification sheet for these module and racking systems is included as Appendices 2-1 and 2-2 in Exhibit 2. The maximum height of the solar array panels is anticipated to be 8 feet, 11 inches from finished grade, inclusive of the racking system.

Collection Lines: The 34.5-kV collection lines will connect the solar arrays with the Facility collection substation. The total length of collection line being included as a part of the Facility is approximately 54,287 feet, or 10.3 miles. Collection lines will be installed underground at a depth of approximately 3 to 5 feet below ground surface (bgs). Specific installation methods, as well as collection line arrangements, are shown on the Design Drawings (Appendix 5-1 of Exhibit 5).

Inverters: Inverters will be located within the Facility Site, interspersed throughout the solar arrays. Their purpose is to convert direct current (DC) electricity generated by the solar modules into AC electricity. Cables from the solar modules are run to the inverters using a CAB© cabling system or underground lines. From the inverters, underground collection lines convey electricity to the Facility collection substation and ultimately to the existing electric transmission system. The Applicant intends to use a Sungrow SG3600UD-MV inverter, or a similar inverter.

Collection Substation: The 34.5-kV collection lines within the Facility Site will gather power from the solar arrays and transport it to a new collection substation that will step up the voltage to 115 kV. The collection substation is approximately 2.3 acres in size and will be located adjacent to solar panels in the southeastern central portion of the Facility Site. Access to the collection substation will be via a new haul road from County Route 23.

Interconnection Facilities: Power from the collection substation will be connected to the existing NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line via a new interconnection line. This interconnection line will consist of two adjacent overhead 115-kV lines spanning 173 and 210 linear feet and will be within the boundaries of the Facility Site.

Haul Roads: New permanent haul roads are proposed within the Facility Site to access Facility components. These haul roads will be gravel-surfaced and 20 feet wide. The total length of haul roads to be installed for the Facility is approximately 5.0 miles.

Fencing: Security fencing will be placed around the perimeter of Facility components, inclusive of the collection substation. Fencing will be chain-link and will be 7 feet in height, as required by National Electrical Code (NEC), and in compliance with the Town of Burke Zoning Law, Town of Burke Solar Energy Law, and the Town of Chateaugay Solar Energy Law. The fence will be topped with barbed wire only around the perimeter of the new collection substation.

The definitions and descriptions noted above will be used throughout the Exhibits, Appendices, and Figures that make up the Section 94-c Application for the Facility. The following subsections include a material facts analysis, which summarizes relevant sections of the Application and specific findings. This summary is intended to provide a clear, concise analysis of the potential impacts of the Facility to be considered by ORES when evaluating the suitability of issuing a siting permit for the Facility.

The following definitions will be used to describe various areas or boundaries of the Facility:

Facility: The proposed components to be constructed for the collection and distribution of energy for the Brookside Solar Project, which includes solar arrays, inverters, electric collection lines, and the collection substation.

Facility Site: The parcels encompassing Facility components, which totals 1,471 acres in the Towns of Burke and Chateaugay, Franklin County, New York. The Facility Site consists of land

that currently is leased from owners of private land and therefore, be defined as properties belonging to participating landowners.

Component: An individual piece, or collection of equipment or improvement of the Facility, including a solar array, haul road, fencing, inverters, energy storage systems, buried electric collection lines, electrical interconnection facilities, and laydown areas.

Visual Study Area (VSA): A 2-mile radius around the fence line of the Facility specifically designated for the study of visual impacts.

3.0 CHARACTER OF THE EXISTING LANDSCAPE

The Facility is in the Towns of Burke and Chateaugay, New York, in the northeast section of Franklin County approximately 3.8 miles south of the Canadian border and 4 miles north of the Adirondack Park boundary at Belmont. The nearest larger town to the Facility is Malone, the county seat, approximately 8 miles to the southwest. The VSA is rural and primarily consists of open, agricultural lands with discrete locations of large mixed forest groups, as well as rural residential land that is located along roadways. Agricultural District #1 is prevalent within the VSA. Agricultural land consists of hay and alfalfa along with row crops of corn and soybean fields. Wooded riparian zones parallel each side of the Chateaugay River that is approximately 0.25 miles wide total or more.

3.1 Community/Residential

As noted, solar panels are proposed in the Towns of Burke and Chateaugay, New York. The definition of the VSA is a 2-mile radius around the fence line of the proposed solar arrays.

Overall, the VSA contains a limited number of residents. The communities within the VSA along with population estimates sourced from The U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates are provided below in Table 1:

Table 1. Population of VSA Communities

Town/Village	Population (2019 Estimates)
Burke	1,413
Chateaugay	1,595
Village of Burke	262
Village of Chateaugay	745

Other non-incorporated recognized populated places and minor civil divisions within the VSA, as recognized by the United States Geological Survey (USGS) Geographic Names Information System (GNIS) database include Thayer Corners, Brayton Hollow, Burke Center, and Cooks Mill.

- *Communities that fall within 0.5 miles*: Towns of Burke and Chateaugay, minor civil divisions of Thayer Corners and Brayton Hollow.
- *Communities that fall between 0.5 and 2.0 miles*: Towns of Burke and Chateaugay, Villages of Burke and Chateaugay, and minor civil divisions of Burke Center and Cooks Mill.

Various views of the rural character and the nature of the area within the VSA can be obtained in the Facility Photolog in Attachment 3. Much of the residential development in the VSA consists of rural residential houses along roadways. Higher density of development occurs in the Villages of Chateaugay and Burke. Representative photos of the villages and the minor civil divisions can be found in the Facility Photolog.

3.2 Physiography and Land Use

The Facility is in the Towns of Burke and Chateaugay, New York, in the northeast section of Franklin County approximately 3.8 miles south of the Canadian border and 4 miles north of the Adirondack Park boundary at Belmont. The nearest larger town to the Facility is Malone, the county seat, approximately 8 miles to the southwest. The VSA is rural and primarily consists of open and agricultural lands with discrete locations of large mixed forest groups, as well as rural residential land that is located along roadways. Agricultural District #1 is prevalent within the VSA. Agricultural land consists of hay and alfalfa along with row crops of corn and soybean fields. Wooded riparian zones parallel each side of the Chateaugay River that is approximately 0.25 miles wide total or more. As noted in Table 1, the population is relatively low in number.

Physiographically, the northern two-thirds of the Facility lies within the St. Lawrence Lowlands physiographic province while the southern one-third of the Facility lies within the Adirondack Mountains physiographic province. The St. Lawrence Lowlands is characterized as a smooth glacial plain where maximum elevation of the province is about 1,300 feet. Within the 2 miles VSA, topography trends from low, in the north section of the VSA within the St. Lawrence Lowlands to higher as one proceeds south toward the Adirondack Mountains. Within the 2-mile VSA, there is a topographic difference of 839 feet, ranging from 404 feet to the north near Cooks Mill to 1,243 feet to the south in the Adirondack Mountain Province near Mary Carey Road. Specifically within a half-mile of the Facility, there is an elevation difference of 577 feet, ranging from 516 feet near Lewis Road (north) to 1,093 feet near Jerdon Road (south), with a difference of 577 feet. Local relief consists of low hills with gentle slopes.

3.3 Water

The principal streams are the Chateaugay River and its branches. The Chateaugay River runs north-south on the eastern side of the VSA and has a substantial wooded riparian zone. A segment of the Chateaugay River that runs through the VSA also has a Nationwide Rivers Inventory (NRI) designation, both as scenic and with geologic value due to a 100-foot gorge between Chateaugay Lake and north to Brayton Hollow. NRI rivers are potential candidates for inclusion in the National Wild and Scenic River System. The Marble River is located in the very northeastern portion of the VSA and generally runs parallel to County Road 35. Each of these rivers have NYS-designated fishing rights easements. Other smaller perennial streams in the VSA include Allen Brook, which wraps around the western side of the Facility, Alder Brook 1.8 miles to the west, and Bailey Brook 0.8 miles to the east (a portion of which runs through the Village of Chateaugay).

Various views of the rural character and the nature of the area within the VSA can be obtained in the Facility Photolog in Attachment 3. Much of the residential development in the VSA consists of rural residential houses along roadways. VP20 shows a photo of High Falls in High Falls Park located in Chateaugay.

3.4 Transportation

Roadways in the vicinity are important to understand since they are one of several viewer groups that may receive Facility visibility. This viewer group could consist of local community, commuter, or tourist constituency on a daily or infrequent basis. To help describe the rural nature of the area and thus provide an understanding of the quantity of viewers by road travel, annual average daily traffic (AADT) counts are provided, as available, in the Table 2 listing of roadways in the area. AADT is a measure used primarily in transportation planning and transportation engineering. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. For perspective, I-87 the nearest interstate 30 miles east of the VSA has an AADT of 6,938 to 9,845.

Table 2. Available Traffic Data within the VSA

Route/ Road Name	From	To	Town	AADT	Functional Class
US 11	Route 122 Hawks Hollow Rd	Route 374 Chateaugay	Burke	4,918	Principal Arterial Other
CR 23 (Malone–Chateaugay Road)	Burke E V/L	CR 33	Burke	718	Minor Collector
CR 29 (Jamison Line Road)	US 11	Canadian Border	Burke	254	Minor Collector

Route/ Road Name	From	To	Town	AADT	Functional Class
Route 374 (River Street)	US 11 (Main St)	NY 190 Brainardsville	Chateaugay	1,103	Major Collector

Existing roadways fall into functional classifications as defined by the New York State Department of Transportation (NYSDOT) Office of Technical Services. These classifications with roadway identification are useful for understanding the character of the VSA. Photographs used in this analysis are taken from places accessible to the public and include roadway rights-of-way. Several of these photographs are in the vicinity of residential areas where functional classes of roads assist in understanding the density or frequency of travel in these areas.

Arterial Roads: Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control.

Under this category, US Route 11 with an AADT of 4,918 is classed as Principal Arterial Other. Principal Arterials Other is a non-interstate that consist of a connected rural network of continuous routes that serve corridor movement having trip length and travel density characteristics indicative of substantial statewide or interstate travel and provide an integrated network without stub connections except where unusual geographic or traffic flow conditions dictate otherwise.

Collector Roads: Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.

- Under this category, CR 52 is classed as a Major Collector with an AADT of 1,103. Major Collectors generally have few driveways and also allow for minimal disruption to the through traveling vehicles.

- Minor Collectors generally are spaced at intervals to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road, while providing service to the remaining smaller communities and linking the locally important traffic generators with their rural areas. The Minor Collector roadways within the VSA are CR 23 and CR 29 with an AADT of 718 and 254 respectively.

Local Roads: Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement. Local roads that run adjacent to the Facility include Lewis, Stuart, Martin, and East Roads that lie north of US Route 11. Local roads adjacent to the Facility that are south of US Route 11 are Ketchum, Cemetery, and Jerdon Roads.

In addition to the classifications, the roadways in the Facility Area are generally rural in nature and generally provide one travel lane in each direction with limited shoulder and roadside treatments.

3.5 Existing Energy Infrastructure

Aboveground infrastructure of varying heights, materials, and configurations may be seen within the VSA. As noted in Section 2.0, the Facility will interconnect to the existing NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line. This transmission line runs from the existing Chateaugay Substation located on U.S. Route 11 south to the Willis Substation off of County Route 33 where transmission lines diverge to the east, west, and south.

Within the VSA, the Jericho Rise Project, a 37-turbine, 77.7-MW wind farm is in the Towns of Chateaugay and Belmont and is located south of US Route 11. Sixteen turbines fall within the VSA. The wind farm went online in 2016. The turbines are approximately 492 feet tall (150 meters). The Facility Photolog in Attachment 3 representing the character of the area in the VSA show several Jericho Rise turbines in the existing view.

Adjacent to the VSA (and east of the Village of Chateaugay) is the existing Noble-Chateaugay Wind Farm, a 106.5-MW capacity wind farm with 71 turbines approximately 389 feet tall (119 meters). Three turbines fall within the VSA, approximately 450 feet and less from the boundary of the outer eastern extent.

Adjacent to the Willis Substation on County Route 33, approximately 1.5 miles south of the Facility, is the 20-MW capacity North Country Energy Storage facility, a battery storage project that began construction in August of 2020 and has an anticipated completion date of 2022.

3.6 Publicly Known Proposed Land Uses

The Applicant has reviewed publicly available information, including town documents, public notices, and town board meeting minutes and has determined that there are four known proposed land uses.

- a 5 MW solar facility by Nexamp Solar located south of US Route 11 off of Ketchum Road in Burke.
- Glengarry Solar Project, an AES solar facility located south of US Route 11 on Glengarry Farms property in Burke
- A 15 MW solar facility on US Route 11 in Chateaugay, approximately 3.8 miles east of the Brookside Solar Project and 1.7 miles outside of the study area.
- Terra-Gen is proposing to construct the North Country Wind Project, a 298-MW 60-turbine wind farm in Burke and Chateaugay, which is proposed to be online in 2023 or 2024. Location details are unknown at this time.

4.0 DISTANCE ZONES

Establishment of Distance Zones are required as cited in §900-2.9 (b)(1) of the 94-c regulations and are based on Facility distances to an observer. Each of these areas will determine the level of detail and acuity of objects. Historically, these zones have been defined in documents produced by the U.S. Forest Service or the Bureau of Land Management and refined to those jurisdictional lands that are prevalent in the western part of the country. Those western applications are often not as relevant to land in the northeast. The effects of distance highly depend on the characteristics of the landscape. However, size, level of visibility perceived for this particular type of project (solar panels), and panel position in the landscape should also be considered in determining zones. Solar panels are not wind turbines or tall buildings. They are of a different character with a low vertical height profile in comparison to other larger objects found in the landscape such as houses, barns, and trees, in addition to the rolling topography in the area that could easily visually obstruct farther locations. Solar projects typically have lateral breadth but the visibility of solar projects in the northeast, because of frequent and highly vegetated narrow ridges and valleys and dense forest areas surrounding agricultural lands, often do not offer substantial far-reaching vistas of many miles. Distance zones for this Facility have been reasonably modified from the US Forest Service Handbook to accommodate the VSA radius, limitations of human vision and perceptible detail of the low profile of the Facility components, and how much of the Facility can actually be seen. Two distance zones for this Facility are applicable in relation to the 94-c 2-mile VSA:

- Distance Zone 1: Foreground (up to 0.5 miles from the viewer). This is the closest distance at which details of the landscape and the solar panels can be seen. Individual landscape forms are typically dominant and individual panel strings and racking system detail may be seen. The concentration of predicted visible areas typically lies within this zone.

- Distance Zone 2: Middleground to Background (0.5 to 2 miles from the viewer). At this distance, individual tree forms and building detail can still be distinguished at, for example, 1 mile. The outer boundary of this distance zone, however, is defined as the point where the texture and form of individual plants are no longer visibly acute in the landscape. In some areas, atmospheric conditions can reduce visibility and shorten the distance normally covered by each zone. Solar panels lose their level of detail and are seen as a continuous mass of form and/or color. Typically, the concentration of predicted visibility decreases in this zone due to the more abundant screening effects of trees, buildings, and topography that lies between a viewer and the Facility.

It should be noted that although limits of the 2-mile VSA is presumed, §900-2.9 (b)(1) also states that any potential visibility from specific significant visual resources beyond the specified study area should also be examined. There are no such resources beyond 2 miles and is not applicable.

Further discussion on the percentages of visibility for each Distance Zone can be found in Section 10.1.6 and Table 6.

5.0 LANDSCAPE SIMILARITY ZONES

Landscape Similarity Zones (LSZs) are areas of similar landscape and aesthetic character based on patterns of landform, vegetation, water resources, land use, and user activity. These zones provide additional context for evaluating viewer circumstances where relationships between viewer groups and visual experience can be made, as well as understanding the influence that the LSZ has on visibility. For example, a viewer's experience will be different in a forested area vs. open water vs. open land vs. urban areas. Viewer groups, as well as potential viewer frequency and duration of view, can also be estimated as they relate to LSZ.

Land cover classification datasets from the 2016 USGS National Land Cover Dataset (NLCD) are available for GIS analysis and were used for an initial establishment of LSZs as they provide distinct and usable landscape categories. These NLCD land cover groupings were then refined based on aerial photo interpretation and general field review into land category characteristics that have the ability to influence or be influenced by visibility of the Facility. This effort resulted in the definition of five LSZs within the VSA, including the following:

- Zone 1: Agricultural – This LSZ is characteristic of open land, including that which is used for row crops, hay, or pasture, or left fallow. These lands are relatively flat to rolling and may contain small, wooded areas, and hedgerows. Development would be limited and sparsely located; single family homes and farmsteads (including barns and silos) make up the majority of built structures and are likely found along the County Routes or local roads that bisect this LSZ. Where available, structures, hedgerows, vegetated-lined waterways/ravines, and woodlots can screen views, whether short or long distant, toward to the proposed Facility. Agricultural lands are most often privately owned and while they may be abundant in a particular area, the numbers of the viewing public, as well as the frequency and duration of viewers, is likely low.

- Zone 2: Forested – This zone includes mature deciduous and coniferous tree groups either in uplands or wetlands. Forested areas can be a large, isolated grouping of trees or large contiguous tracts likely owned by private entities or the State. Those forested lands owned by public entities (e.g., New York State Department of Environmental Conservation [NYSDEC]) may offer the public with recreational activities such as hunting, nature viewing, hiking, camping, etc. Views may be very limited as opportunities for outward viewing of the surrounding landscape will be minimized by the tree canopy It should be noted that views through the vegetation may be available during leaf-off conditions but is likely to be confined to along the edge of a forested area.

- Zone 3: Developed – This zone includes villages, towns, cities, minor civil divisions, rural residential abutting roadways, and transportation corridors. Thus, this zone includes those areas that are expected to have the highest number of observers

whether rural, urban, static, or transient. Typically, villages and towns may not have prevalent views of other development at distance since more densely spaced building structures or existing streetside trees can preclude many views. Privately owned rural residential dwellings, if in close proximity to the Facility, have a higher likelihood of receiving views of a nearby project. Roadways absent of roadside vegetation can also potentially afford many transient and intermittent views of short duration to numbers of the viewing public.

- Zone 4: Open – This zone includes miscellaneous other open land that may have minor development with less visually obstructive features such as minor expanses of barren land, land with short scrub-shrub vegetation, cemeteries, golf courses, paved lots, playgrounds, or small emergent wetlands. This zone, often in public or semi-public locations, has a higher potential of experiencing views of a nearby project because of limited low profile features.

- Zone 5: Open Water – There are no large major lakes or ponds within the VSA. However, this zone has been included to recognize the Chateaugay River, a Nationwide Rivers Inventory (NRI) river. Other waterbodies within the VSA include the Marble River and Allen Brook.

Table 3 summarizes the percentage of LSZs in the VSA.

Table 3. Percentage of LSZs within 2-Mile VSA

	Foreground Distance Zone 1		Middleground to Background Distance Zone 2			
LSZ	Square Miles	Percent of LSZ within the VSA	Square Miles	Percent of LSZ within the VSA	Total Square Miles of LSZ	Total Percent of LSZ in VSA
Zone 1 – Agricultural	3.51	13.01%	8.25	30.60%	11.75	**43.61%**
Zone 2 – Forested	2.12	7.85%	10.77	39.97%	12.89	**47.82%**
Zone 3 – Developed	0.34	1.26%	1.23	4.55%	1.57	**5.81%**
Zone 4 – Open	0.08	0.28%	0.63	2.33%	0.70	**2.61%**
Zone 5 – Open Water	0.01	0.04%	0.03	0.11%	0.04	**0.15%**
Totals	**6.05**	**22.44%**	**20.91**	**77.56%**	**26.95**	**100.00%**

LSZ 1 Agricultural and LSZ 2 Forested are fairly co-dominant and occupy 43.61% and 47.82% of the 2-mile VSA, respectively. These two zones also occur in relatively similar percentages to each other throughout each Distance Zone as well. The occurrence of LSZ Developed drops significantly and comprises 5.81% of the land area in the VSA. Zone 4 Open is land with few

visual obstructions such as minor expanses of barren land, land with short scrub-shrub vegetation, and emergent wetlands, and occurs in the least amount and comprises 2.61% of the VSA. Zone 5 Water includes very small ponds or open water emergent wetlands at less than 0.2%.

While the Chateaugay and Marble Rivers are recognized, water body area calculations have not been made. However, approximately 7.7 linear miles of the Chateaugay River and 3.9 miles of the Marble River flow through the VSA.

6.0 SCENIC RESOURCE INVENTORY

An inventory of publicly available and accessible local, county, state, and federally recognized visual resources out to the 2-mile VSA was compiled according to §900-2.9 (b)(4)(ii). GIS data, town, county, and agency reports, topographic data, and site visits along with photographic documentation were used as source data. Also, on June 22, 2021, an information request was sent out to stakeholders per §900-2.9 (b)(4). In this request, preliminary visual data was provided, indicating the extent and findings of visibility studies at that point in time, which included identified visual resources and a Facility Photolog. Opportunity was provided for stakeholders to append additional visual resources of concern to the inventory and/or choose or add photographs for Facility visual simulations. Correspondence is available in Attachment 5. Visual resources within 2 miles of the Facility are listed in Table 4.

Per §900-2.9 (b)(4)(ii), the following have been reviewed for their appearance within the VSA:

- Landmark landscapes;
- Wild, scenic, or recreational rivers administered by NYSDEC, Adirondack Park Agency, or Department of the Interior;
- Forest preserve lands;
- Scenic vistas specifically identified in the Adirondack Park State Land Master Plan;
- Conservation easement lands;
- Scenic byways designated by the federal or state governments;
- Scenic districts and scenic roads, designated by the Commissioner of Environmental Conservation;
- Scenic Areas of Statewide Significance;
- State parks;

- Historic sites listed or eligible on the National/State Registers of Historic Places (NRHP);
- Areas covered by scenic easements, public parks, or recreation areas;
- Locally designated historic or scenic districts and scenic overlooks; and
- High-use public areas.

6.1 94-c Aesthetic Resources Inventory

Table 4 shows results of the investigatory findings of municipal village/town, or agency listed and recognized scenic resources that are required by the regulations set forth for 94-c (Section 6.0) Figures 3, 4, and 5 in Attachment 2 show resulting resource locations.

Table 4. Inventory of Visual Resources within the 2-Mile VSA

Map ID	Resource Name	Town/Village	Approximate Distance to Fence Line	LSZ	Federal (F), State (S), or Local (L) Resource	Potential Visibility[1]
Recreation						
1	High Falls Park & Campground	Chateaugay	0.8 miles	2, 3	L	No
2	Chateaugay Central School & Playing Fields	Village of Chateaugay	1.5 miles	3, 4	L	No
3	Chateaugay Town Recreation Park	Chateaugay	1.5 miles	3, 4	L	No
4	Sellers Field	Burke	1.8 miles	2, 4	L	No
N/A	NYS Snowmobile Trail C8C	Burke, Chateaugay	642 feet	1, 2	S	Yes
NYS Scenic Byways						
N/A	Military Trail NYS Scenic Byway (also designated as NYS Bike Route 11)	Burke, Chateaugay	360 feet	1, 3	S	Yes
Nationwide Rivers Inventory						
N/A	Chateaugay River	Chateaugay	424 feet	5	F	No
NYS Public Fishing Rights						
N/A	Various locations Chateaugay River	Chateaugay	0.8 miles	5	S	No
N/A	Various locations Marble River	Chateaugay	1.5 miles	5	S	No

Map ID	USN	Resource Name	Distance (Miles)	Address	Town/Village	Potential Visibility
NRHP Eligible Historic District [2,3]						
	03345.000065	Chateaugay Village Historic District	1.4 miles		Village of Chateaugay	No
NRHP Eligible Historic Site [2,3]						
A	03307.000043	Ridgeway Cemetery	1.7	Cook Road	Burke	No
B	03307.000045	Bova House	0.2	5717 Rt 11	Burke	Not Likely
C	03307.000046	Thayer Corners Cemetery	0.7	Route 11	Burke	No
D	03307.000047	Mitchell Cemetery	1.4	Montgomery Road	Burke	No
E	03307.000051	Burke Center Presbyterian Church	2.0	263 route 34	Burke	No
F	03307.000052	St. George's Cemetery	2.1	3CR 23 at Pikeville Rd	Burke	No
G	03307.000055	474 Jamison Line Road	1.8	474 Jamison Line Road	Burke	Not Likely
H	03308.000001	Chateaugay River Tunnel	0.8	Cemetery Road	Chateaugay	No
I	03308.000017	Farm complex	0.5	162 Cemetery Road	Chateaugay	No
J	03308.000068	165 Cemetery Road	0.5	165 Cemetery Road	Chateaugay	No
K	03308.000070	St. Patrick's Cemetery	0.6	294 Cemetery Road	Chateaugay	Yes
L	03308.000072	528 Hartnett Rd	1.2	528 Hartnett Road	Chateaugay	No
M	03308.000075	Eastside Cemetery	2.1	7780 Route 11	Chateaugay	No
N	03308.000079	Atwater Cemetery	376 feet	Martin Road	Chateaugay	No
O	03308.000081	Brayton Hollow Cemetery	0.5	CR 35	Chateaugay	No
VB	03344.000001	Bungalow	1.6	29 Mill Street	Village of Burke	No
VB	03344.000002	Queen Anne w/ tower residence	1.6	26 Mill Street	Village of Burke	No
VB	03344.000003	Queen Anne residence	1.6	9 Mill Street	Village of Burke	No
VB	03344.000004	Brick Italianate residence	1.7	1031 West Main Street	Village of Burke	No
VB	03344.000005	Burke United Methodist Church	1.7	1027 West Main Street	Village of Burke	No

Map ID	USN	Resource Name	Distance (Miles)	Address	Town/Village	Potential Visibility
VB	03344.000007	Burke Town Hall / I. O. O. F.	1.6	842 Depot Street	Village of Burke	No
VB	03344.000008	1046 East Main Street	1.6	1046 East Main Street	Village of Burke	No
VB	03344.000009	1052 East Main Street	1.6	1052 East Main Street	Village of Burke	No
VB	03344.000011	1033 West Main Street	1.7	1033 West Main Street	Village of Burke	No
VB	03344.000012	1035 West Main Street	1.7	1035 West Main Street	Village of Burke	No
VC	03345.000002	Rutland Railroad Depot	1.5	45 Depot Street	Village of Chateaugay	No
VC	03345.000004	Chateaugay Town Hall and Library	1.6	191 East Main Street	Village of Chateaugay	No
VC	03345.000066	St. Patrick's Church	1.4	130 West Main Street	Village of Chateaugay	No
VC	03345.000067	St. Patrick's Church Rectory	1.4	132 West Main Street	Village of Chateaugay	No
VC	03345.000068	Key Bank	1.5	151 West Main Street	Village of Chateaugay	No
VC	03345.000069	Jackson Building	1.5	160 East Main Street	Village of Chateaugay	No
VC	03345.000070	Beeman Block	1.5	161 East Main Street	Village of Chateaugay	No
VC	03345.000071	163 East Main Street	1.5	163 East Main Street	Village of Chateaugay	No
VC	03345.000072	165 East Main Street	1.5	165 East Main Street	Village of Chateaugay	No
VC	03345.000073	167 East Main Street	1.5	167 East Main Street	Village of Chateaugay	No
VC	03345.000074	169 East Main Street	1.5	169 East Main Street	Village of Chateaugay	No
VC	03345.000075	171 East Main Street	1.5	171 East Main Street	Village of Chateaugay	No
VC	03345.000076	173 East Main Street	1.5	173 East Main Street	Village of Chateaugay	No
VC	03345.000077	181 East Main Street	1.6	181 East Main Street	Village of Chateaugay	No
VC	03345.000078	183 East Main Street	1.6	183 East Main Street	Village of Chateaugay	No
VC	03345.000079	Chateaugay Hotel	1.5	2 Depot Street	Village of Chateaugay	No
VC	03345.000080	Johnson Brothers Building	1.6	194 East Main Street	Village of Chateaugay	No

Map ID	USN	Resource Name	Distance (Miles)	Address	Town/Village	Potential Visibility
VC	03345.000081	196 East Main Street	1.6	196 East Main Street	Village of Chateaugay	No
VC	03345.000082	McCoy Building	1.5	3 River Street	Village of Chateaugay	No
VC	03345.000083	14 Lake Street	1.5	14 Lake Street	Village of Chateaugay	No
VC	03345.000084	16 Church Street	1.6	16 Church Street	Village of Chateaugay	No
VC	03345.000085	20 Church Street	1.7	20 Church Street	Village of Chateaugay	No
VC	03345.000086	23 Depot Street	1.5	23 Depot Street	Village of Chateaugay	No
VC	03345.000087	36 Depot Street	1.5	36 Depot Street	Village of Chateaugay	No
VC	03345.000088	43 Depot Street	1.5	43 Depot Street	Village of Chateaugay	No
VC	03345.000089	5 Franklin Street	1.7	5 Franklin Street	Village of Chateaugay	No
VC	03345.000090	6 Franklin Street	1.7	6 Franklin Street	Village of Chateaugay	No
VC	03345.000091	94 West Main Street	1.3	94 West Main Street	Village of Chateaugay	No
VC	03345.000092	First Presbyterian Church	1.7	214 East Main Street	Village of Chateaugay	No
VC	03345.000093	Smith Green Cemetery	2.0	299 East Main Street	Village of Chateaugay	No
VC	03345.000094	United Methodist Church	1.6	5 Church Street	Village of Chateaugay	No
July 2021 Historic Architectural Survey Additional Recommended NRHP Eligible Sites[4]						
P	N/A	1207 County Route 23	0.9	1207 County Route 23	Burke	Not Likely
Q	3307.000044	15 East Road	0.27	15 East Road	Burke	Likely

[1] Potential visibility is obtained from the viewshed analysis using topography, trees, and buildings only, per §900.2.9(b)(1).

[2] There are no listed NRHP or NYS historic sites based on a February 2021 New York's State Historic Preservation Office (SHPO) request for information.

[3] All historic sites in the study area have been assigned a (national) eligibility status for the NRHP.

[4] Based on the Facility historic architectural survey conducted within the Area of Potential Effects, which was determined to be 2 miles. Survey was conducted in July 2021. Refer to Exhibit 9 for full details.

Information for historic sites and districts, NRHP, and eligible historic properties was obtained by accessing the NY Cultural Resources Information System website and by direct contact with the New York's State Historic Preservation Office (SHPO) as part of a specific Applicant request made in February 2021. In July 2021, a historic architectural survey was conducted by TRC on behalf of the Applicant. The purpose of the survey was to identify the presence of historic architectural properties aged 50 years or older within the Area of Potential Effects (APE), evaluate these architectural resources for their eligibility for listing in the NRHP, and provide an assessment of potential effects of the Facility on those resources that are listed in, previously determined eligible for listing in, or recommended eligible for listing in the NRHP.

The results of that survey as well as the SHPO request, indicate there are currently no NRHP listed sites within the VSA and thus no visual impacts to listed historic sites to assess. There are however, NRHP eligible historic sites as outlined in Table 4 and consists of those sites currently listed as a federally NRHP eligible historic site as well as those newly identified or recommended historic resources as a result of the historic architectural survey.

TRC Architectural Historians ultimately recommends two new historic sites as NRHP eligible. One previous determined not eligible at 15 East Road is now recommended as NRHP eligible. And one newly identified architectural resource is recommended as NRHP eligible at 1207 County Road 23.

While the inventory indicates potential visibility with several historic locations, SHPO concludes in a letter dated January 11, 2022, that the Facility will have No Adverse Impact to historic and cultural resources (Attachment 5). Please refer to Exhibit 9 of the Application as well as the Historic Architectural Resources Survey and Effects Report for greater detail on the cultural resources investigations and results.

In summary, the following may have the potential to view the proposed Facility. Further details regarding Facility visibility are discussed in Sections 10.1. 3. The listed resources include:

<u>Federal NRHP Historic</u>

- 15 East Road, Thayer Corners, Burke;
- Bova House, 5717 US Route 11, Thayer Corners, Burke;
- St. Patrick's Cemetery, Cemetery Road, Chateaugay;
- 474 Jamison Line Road, Burke; and
- 1207 County Route 23, Burke.

State Resources

- Military Trail NYS Scenic Byway (includes NYS Bike Route 11); and
- NYS Snowmobile Trail C8C.

However, not classed specifically as officially listed agency scenic resources, it is recognized that local town residents and local roadway traffic will experience views of the Facility in varying locations. Discussion of these visual impacts can be found in Section 10.1.4.

7.0 GIS AND 3D ANALYSIS FOR VISUAL IMPACT EVALUATION - METHODOLOGY

7.1 Viewshed Analysis

A viewshed analysis is a computerized GIS analytical technique that illustrates the predicted visibility that may potentially be expected for a project. It allows one to determine if and where an object, such as a solar facility, can geographically be seen within a larger regional area. The viewshed model accounts for topography, vegetation, and the height of the solar panels. The results of the viewshed analysis, typically displayed over a USGS topographic map or aerial photo, are combined with other sensitive location information such as historic places, national forests, or state parks, etc. Incorporating GIS-integrated data along with a viewshed analysis assists in understanding the potential for facility visibility at sensitive receptors.

7.1.1 Methodology

The viewshed analysis results (Figures 3, 4, and 5, Attachment 2) show areas of expected visibility. For the analysis, Light Detection and Ranging (LiDAR) point cloud data from the 2017 NYS Federal Emergency Management Agency (FEMA) Franklin – St. Lawrence counties LiDAR dataset and obtained from the NYS GIS Program website was used. LiDAR data is the best available elevation data as it includes high resolution accurate ground elevations in addition to building heights and individual tree heights that offer realistic physical visual impediments as they occur in the landscape.

The proposed panels for this Facility will have a tracker racking system with solar array panel heights anticipated to be 8 feet, 11 inches from finished grade. A height of 9 feet was used for the viewshed analysis.

The viewshed analysis accounts for proposed grading and tree clearing. The model was further developed by establishing an observer height of 6 feet and the assumption that the Facility would not be visible to a viewer who is standing amongst trees in a forested area for the viewshed analysis that incorporated trees. The final resulting output identified those areas from which

viewers would potentially see all or some part of the proposed solar panels. ESRI Spatial and 3D Analyst GIS software were used to develop the viewshed model.

Two viewshed analyses for the solar arrays have been produced to illustrate predicted visibility within the VSA:

1. Screened Viewshed With Vegetation and Buildings: This viewshed analyses for the solar arrays incorporates topography, buildings, and trees and has been produced to illustrate predicted visibility within the VSA per §900.2.9(b)(1), as it gives the most reasonable and realistic depiction of the surrounding Facility landscape. The results of this analysis provide the focus of visibility discussion in visual impact assessments because of the inherent aspects of reproducing realistic conditions when LiDAR datasets are used.

2. Topography-Only Viewshed: A second topography-only viewshed analysis was also performed. The viewshed analysis with only bare earth topography is not recognized as being a realistic representation of potential visibility, as it is not truly reflective of the environment due to the absence of all trees. Despite this limitation of the topography-only analysis, it can be a useful tool in allowing an understanding of how much of the Facility is blocked by terrain alone. Another caveat is that the topography-only results must not be interpreted as representing visibility during leaf-off conditions, since even leaf-off bare branched tree groups act as a solid mass where lines of sight to objects can be screened. Several photos in the Attachment 3 Facility Photolog shows how visibility can be impeded even during leaf-off conditions, and thus serve to act more like the analysis using trees than topography alone. Under certain circumstances, there may possibly be visibility through bare-branched trees only if the trees are sparse, if this sparse tree row is the only existing vegetation between the viewer and the site, and if the viewer is in fairly close proximity to the Facility.

   The bare earth topography-only analysis is also typically performed to assist with a separate historic architectural survey investigation (Survey), which is led by other cultural resource experts for Exhibit 9. The topography-only methodology and results pertaining to visibility of historic resources from the Survey is specific to the guidance, performance standards, and agreements with the New York Office of Parks, Recreation, and Historic Preservation (OPRHP) that is not inclusive for Exhibit 8. Details of bare earth topography visibility results pertaining to the SHPO policy is addressed and discussed further in Exhibit 9 along with the Historic Architectural Resources Survey and Effects Report. Any additional architectural survey properties discovered as a result of the Survey that is above and beyond the data that was provided by SHPO in February 2021 and included herein, can be found in Table 4 and Attachment 2 mapping.

3. Collection Substation: One viewshed analyses was produced using the same LiDAR data and the same methodology as that of the solar arrays using trees and buildings only and with proposed grading and tree clearing addressed. This analysis accounted for the tallest

components of the collection substation, which include two tap structures that are 65 feet and 70 feet tall, 52.5-foot tall dead end A-frame structures (a total of 63 feet with an additional 10.5-foot lightning mast), 52,5-foot tall H-frame structures (a total of 64.5 feet tall with an additional 12-foot lightning mast), and one standalone 45-foot-tall lightning mast within the fence line. Lower height components are 27-foot-tall breakers or those other components shorter than 27 feet such as a capacitor bank, circuit breakers, transformers, and bus support structures. There also is one 12-foot control building.

Assumptions and Limitations of the Viewshed Model

The viewshed analysis identifies cells (image pixels) that contain elevation information and computes the differences along the terrain surface between an observer in the landscape and a target (e.g., a solar panel). The analysis is a clear line of sight. Therefore, certain factors in the interpretation of results need to be considered:

1. The model, because of its computerized aspect, assumes the observer to have perfect vision at all distances. Therefore, a certain amount of reasonable interpretation needs to be considered because of the limitations of human vision at greater distances or those atmospheric/meteorological conditions that may cause imperfect vision, such as haze or inclement weather. Additionally, an object is naturally smaller and shows much less detail at distances and will have less visual impact. These aspects cannot be conveyed with this analysis.

2. Because an area may show visibility, it does not mean the entirety of the Facility will be seen. The viewshed analysis depicts areas of visibility over a regional area. It can only predict geographically on a map, areas where some part of the solar panels might be seen. It does not and cannot determine if it is seeing a full-on view or a partial view. Additionally, if visibility is occurring in an area, it may sometimes only be a result of glimpsing a portion of the Facility over undulating treetops between gaps of trees, or visibility of the tops of panels and not a full-on view. Likewise, there may be understory tree gaps where there may be visibility of the Facility.

3. The model was developed with the assumption that a viewer would not see the panels if standing among trees in forested areas as it is assumed the tree canopy would preclude outward-looking views.

7.2 Line of Sight Analysis

Line of Sight (LOS) profiles were performed for five state visual resources as noted in Table 4.

LOS elevation profiles were completed to address state aesthetic resources, fulfilling §900.2.9 (b)(1). This regulation states specifically that LOS only be completed for statewide resources of concern. For this Project and as noted in Table 4, there are five state resources within the VSA.

These include NYS Snowmobile Trail C8C, the Military Trail NYS Scenic Byway (also designated as NYS Bikeway 11), and two NYS Public Fishing Rights Easements (one at Chateaugay River and one at Marble River). LOS analyses are able to provide the viewer with information that assists in examining the reasons why objects such as solar panels or collection substation components may have impeded views or no views. The underlying topography of a sight line, in addition to vegetative obstructions, can be produced, as can an estimated amount of visibility of the upper portion of an object if it is visible.

Elevation data obtained for the Facility noted in Section 7.1.1 was used for the data source. ArcGIS ESRI 3D Analyst was used to produce linear elevation profiles sampled across select sight lines for bare earth topography and for vegetation. Section 10.2.2 provides a discussion of results and Attachment 4 contains the profiles.

7.3 Photographic Simulations

Photosimulations depicting existing conditions and what the Facility will look like are proposed. A Facility Photolog showing the photos acquired during site visits in October 2020 and March 2021 is presented in Attachment 3, accompanied by large-scale aerial maps showing each location. The field photo-effort attempted to provide the most unobstructed views as possible at north, south, east, and west positions and/or in areas where the viewshed maps represent potential visibility. Simulations are presented in Attachment 4.

7.3.1 Methodology

To create visual simulations, Autodesk 3DS MAX 2020 (MAX) visualization software was used to correctly dimension the Facility 3D models onto the digital photographic image from each viewpoint location. A 3D model of the solar layout was created by using engineering specifications obtained from TRC, the design engineers for the Facility. The terrain elevation data (z value) needed to place the panels correctly on the surface of the earth was derived from the LiDAR sources noted in Section 7.1.1. Proposed grading elevations were incorporated into the model. Using the engineering site plan and LiDAR terrain surface data in GIS, each x, y, z coordinate location of each proposed solar array was obtained and imported into Autodesk 3DS MAX visualization software including the terrain surface itself. A 3D model of every proposed individual solar array was then physically constructed according to the proposed panel specifications and tilt angle along with the proposed racking system. The proposed arrays were built as bifacial single-portrait trackers with a height of 8 feet, 11 inches above finished grade with the array axis oriented north-south. The simulation model was further developed to position the viewer at the selected vantage point. For a given vantage point, the visualization software is capable of providing and adjusting a camera view that matches that of the actual photograph. From the field effort, the documented camera coordinate (x, y, z) positions were entered into the model along with other camera information. The arrays were further refined within the simulation photograph by referencing point cloud LiDAR data against the landscape features seen within the photo.

For the landscaping simulations, a CAD version of the proposed landscaping plan obtained directly from the Facility Landscape Architect was imported into the MAX modeling environment where, subsequently, each proposed tree and shrub species was then translated and built into 3D, and growth heights set and placed in with the Facility along the fence line according to the landscape plan. The day and time of the photographs were also recorded and typically exist as electronic information embedded in the respective digital photograph files. This information was used to adjust for the sun angle in the simulation software in order to represent lighting conditions for the time of day and year and that which is seen in the photo.

7.3.2 Viewpoint Selection for Photosimulations

Integrating the results of the GIS aesthetic inventory data along with the viewshed analysis results provided desktop reconnaissance for recognizing areas with potential visibility and identifying candidate locations for photosimulations. While focusing on inventoried locations as listed in Section 6.0, an additional objective in the viewpoint selection process is to also choose locations for simulations that represent the various LSZs as well as Distance Zones. Further, site field visits are also necessary for ground-truthing and increasing the understanding of the visual environment.

Potential visibility, as noted by the viewshed results in the Attachment 2 viewshed mapping, guided the candidate locations for simulation viewpoints per §900.2.9(b)(3). Results of the viewshed analysis shows the most prominent visibility is within Distance Zone 1 (0.5 miles) of the Facility, with minimal to no predicted visibility in Distance Zone 2. The majority of areas with visibility occur within the Facility Site, which is defined as parcels belonging to participating landowners. It is often difficult to obtain representative simulation photos at distance because there are often minimal locations with far reaching views of solar facilities in the northeast. Several simulations include those from aesthetic resources listed in Table 4 that have predicted visibility as a result of the viewshed analysis. As well, much of the focus for viewpoint locations are closer to the Facility where visibility is predicted near residences and segments of roadway among areas of non-participating landowners. Cardinal compass directions around the Facility were considered as well as ensuring some representative views included the existing Jericho Rise wind turbines to assess cumulative effects.

Section §900.2.9(b)(4) requires consultations with affected agencies and municipalities. Please also refer to Exhibit 2 for a description of local engagement and outreach. As well, the Facility-specific webpage (https://www.aes.com/brookside-solar-project) contains public outreach materials in addition to the Brookside Solar Document Matter Manager (DMM) public domain website.

The Applicant held online information sessions with community members to discuss the Facility (when under the Article 10 permitting process) on May 18 and 19, 2020. The sessions were originally intended to be in person open house events; however, with the implementation of an

Executive Order in New York State due to COVID-19 in March 2020, it was transitioned to a virtual setting.

The meeting provided information about the Facility to stakeholders, discussed the impacts the Facility will have on the community, discussed the 94-c process, and gave members of the community an opportunity to voice their opinions and concerns about the Facility beyond the initial input assembled with the PIP Plan. Presentation materials and a summary of meeting logs and presentation questions raised during pre-application meetings are provided as Appendices 2-2, through 2-5 of this Application.

On February 17, 2021, the Applicant submitted written notice to the Secretary to the Commission of the NYSDPS indicating that the Applicant was electing to proceed with development under the 94-c process, and on April 26, 2021, the Applicant filed Notice of Intent to File an Application, and was assigned Matter No. 21-00917 under Section 94-c.

Local agencies were invited to attend a pre-application meeting for the Facility. The meeting was held on Friday, March 12, 2021. The following agencies and organizations were invited to attend: Towns officials, Franklin County officials, State of New York officials, Chateaugay School District, Malone Central School District, local first responders and fire departments, adjacent municipalities, utility providers, and local interest groups. Community members were invited to attend the virtual community meeting for the Facility on Tuesday, March 16, 2021.

On June 22, 2021, an information request was sent out to visual stakeholders. In this request, preliminary visual information was provided, indicating the extent and findings of visibility studies at that point in time, which consisted of identified visual resources as well as the result of the trees-only viewshed analysis, Facility mapping, and the Facility Photolog. Opportunity was provided for visual stakeholders, including local municipalities, to suggest additional and reasonable candidate locations for photosimulations or to append additional visual resources of concern to the inventory. This request to stakeholders was specific to locations that were publicly accessible.

SHPO responded by not requesting any simulations for the time being but was very interested in assessing visual impacts on NRHP eligible historic sites. The Towns of Burke and Chateaugay did not respond formally in writing to the outreach. However, several in-person meetings between the Applicant and the Towns were conducted, with simulation viewpoint selection as a topic of discussion.

The Applicant continues to engage with stakeholders, including groups and individuals with a potential interest in the Facility.

In conclusion, the Applicant has provided 10 simulations for the Facility, 5 in Burke and 5 in Chateaugay. The simulation selection is representative of the Facility with respect to LSZs and inventoried visual resources with predicted visibility, different distance zones as best as Facility

views allowed, and views that offered as much of a clear, unobstructed sightline as possible in joint consideration of the Towns of Burke and Chateaugay discussed viewpoints. In addition to Appendices 2-2 through 2-5 and Facility website meeting materials, additional correspondence can be found in Attachment 5.

8.0 ADDITIONAL APPLICABLE VISUAL CONCEPTS TO CONSIDER: VIEWER CHARACTERISTICS

Sensitivity levels are a measure of public concern for scenic quality. Visual sensitivity is dependent upon user or viewer attitudes, the amount of use, and the types of activities in which people are engaged when viewing an object. Overall, higher degrees of visual sensitivity are correlated with areas where people live and with people who are engaged in recreational outdoor pursuits or participate in scenic driving. Conversely areas of industrial or commercial use are considered to have low to moderate visual sensitivity because the activities conducted are not significantly affected by the quality of the environment. Views and viewer groups are discussed throughout the VIA in the context of aesthetic resources, viewshed visibility results and Facility simulations.

These concepts are applied when evaluating the visual landscape and assessing the importance of a viewpoint location if it falls in an area of visibility. Viewer groups and associated responses to visual changes are analyzed from a variety of factors including:

Viewer group – Types of viewers will vary by geographic region, as well as by travel route or use areas, such as a developed recreation site, urban area, or back yard. Viewer groups include:

- *Local Constituency*: People living in the local area and/or surrounding communities who interpret the significance of where they live and interact with others. These people may include local residents and members of groups to which the local area is important in different ways.

- *Commuter Constituency*: People who use or are generally restricted to travel corridors that are destination oriented toward places of employment. These people generally have transient short duration views.

- *Visitor or Recreational Constituency*: Individuals who visit the area to experience its natural appearance, cultural landscape qualities, or recreational opportunities. Visitors may be of local, regional, or national origin.

Context of viewer – The viewer group and associated viewer sensitivity are distinguished among viewers in residential, recreational/open space, tourist commercial establishments, and workplace areas, with the first two having relative high sensitivity.

Number of viewers – The number of viewers is established by the amount of people estimated to be exposed to the view. In comparing viewing locations to each other, one can consider if the area is a high public use area or if it is a location that is less frequently visited or more inaccessible where the public is not expected to be present (such as marshes or swamps).

Duration of view – Duration of view is the amount of time a viewer would actually be looking at a particular site. Use areas are locations that receive concentrated public-use viewing with views of long duration such as residential back yards. Recreational long duration views include picnic areas, favorite fishing spots, campsites, or day use in smaller local parks. Comparatively, drivers, hikers, snowmobilers, or canoeists will likely encounter a shorter, more rapid transient experience as a person transitions from one linear segment to the next but will encounter more visually varied experiences.

Viewer activities – Activities can either encourage a viewer to observe the surrounding area more closely (hiking) or discourage close observation (commuting in traffic).

9.0 VISUAL IMPACT RATING

TRC has developed a visual impact rating form for use in comparing facility photosimulations as required by 94-c. This form is a simplified version of various federal agency visual impact rating systems. It includes concepts and applications sourced from:

- U.S. Bureau of Land Management (BLM), Handbook H-8431: Visual Contrast Rating, January 1986 (USDOI, 1986).
- Visual Resources Assessment Procedure for U.S. Army Corps of Engineers, March 1988 (Smardon, et al., 1988).
- National Park Service Visual Resources Inventory View Importance Rating Guide, 2016 (NPS, 2016c).
- United States Department of Agriculture (USDA) Forest Service, Landscape Aesthetics: A Handbook for Scenery Management. USDA Forest Service Agriculture Handbook No. 701, 1995 (USDA, 1995).

Depending on the facility location, a variety of VIA guidance and established procedures exist, as noted above, that apply to management of federal lands that fall under a specific agency such as the U.S. Forest Service or Bureau of Land Management. These guidance documents vary in regard to agency-specific rating systems or procedures and often begin with the evaluation of existing conditions, such as scenic quality or presence of sensitive resource locations.

TRC has developed this form for efficient and streamlined use with projects that undergo state environmental permitting processes. It is assumed that visual resource inventories, terrain

analyses, development of LSZs or viewshed analyses have already been performed in the Facility VIA according to state regulatory requirements or other visual policy. This form was developed to be used as a numerical rating system for the comparison of Existing Conditions (before) vs. With Facility (after) photosimulations of final selected viewpoint locations and is meant to accompany the Facility VIA.

To evaluate visual change, there are two parts to the form. Part 1 is the *Visual Contrast Rating,* which rates the Facility as it contrasts against compositional visual elements of the viewpoint scene. This includes compositional contrasts against the existing and natural environment such as vegetation, water, sky, landform, or structures. The higher the rating total, the higher the contrast. Part 2 is the *Viewpoint Sensitivity Rating*. This section rates the sensitivity of the viewpoint location, which inherently considers the importance of the viewpoint (if it falls within a visual resource area), viewer groups, duration of view, if it is a high use area, or if there is the presence of water. The higher the rating total, the more sensitive the viewpoint is. Part 3 does not rate change but is an overall *General Scenic Quality of the View*, which rates the view of existing conditions only, without the influence of the Facility.

Please refer to Attachment 6 for more comprehensive guidelines on how the contrast ratings were assessed and applied within each category.

The rating scale is as follows:

Rating Scale	
0	None
0.5	
1	Weak
1.5	
2	Moderate
2.5	
3	Strong

Degree of Contrast Criteria

None The element contrast is not visible or perceived.

Weak The element contrast can be seen but does not attract attention.

Moderate The element contrast begins to attract attention and begins to dominate the characteristic landscape.

Strong The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

10.0 VISUAL IMPACT ANALYSIS RESULTS

10.1 Viewshed Results and Discussion

The viewshed analysis showing areas of potential visibility can be found in Figures 3, 4, and 5 in Attachment 2. As noted in Section 7.1.1, three viewshed analyses were performed. Two analyses were completed for solar arrays: one with topography only and one with vegetation included. The panel heights are proposed to be 8 feet, 11 inches above grade. A height for this analysis was set at 9 feet above the ground surface. One analysis was performed regarding the collection substation. This analysis considered the tallest station elements (45 to 70 feet tall) such as tap structures, A and H-frame support structures, and lightning masts as well as the shorter utility components such as transformers, bus equipment, and breakers (less than 27 feet tall).

10.1.1 Viewshed Results for Arrays – Trees and Buildings Included

This analysis, per §900.2.9 (b)(1), incorporates trees and buildings in the study area in addition to topography and gives the most reasonable and realistic depiction of the surrounding landscape. The results of this analysis provide the focus of visibility discussion in the VIA because of the inherent aspects of reproducing realistic conditions when LiDAR datasets are used. When vegetation is included to present a more realistic depiction of the landscape, the viewshed analysis results in the Attachment 2 maps show limited visibility within the VSA is expected. The general vicinity surrounding the Facility is a mosaic of well-forested and open land, as illustrated in Figure 1 Site Location and Figure 2 Landscape Similarity Zone maps in Attachment 2. While terrain and local relief is fairly level and does not provide much elevation change, these forested areas provide much screening and preclude many views. The majority of visibility that is expected occurs mostly in a focused location inside of the 0.5-mile Distance Zone 1, within the Facility parcels themselves, along segments of several roadways, open fields, and nearby properties within and outside the Facility Site. As seen in Figure 4 of Attachment 2 and further described in Section 10.1.6, much of the visibility occurs on properties belonging to participating landowners on parcels within the Facility Site. Because of the maximum panel height in relation to the mature vegetation, there are minimal far-reaching views outside the general array locations. Outside Distance Zone 1, visibility is expected to be minimal to non-existent.

The Facility has been strategically sited away from population centers and other sensitive visual receptors. The effect that this siting strategy has on potential visibility for visual resources is apparent in Table 4. Few visual changes are expected to occur to the visual resources listed in Table 4. Three state-listed resources, the combined Military Trail Scenic Byway/NYS Bikeway 11 and State Snowmobile Trail C8C will have views. Two federal NRHP-eligible historic sites, one at St. Patrick's Cemetery and another at a recommended site on East Road are also predicted to have views.

Refer to Section 10.1.5 and 10.1.6 for tables and a more detailed discussion of the percentages of land area that may experience visual change as a result of the viewshed visibility analysis. In

summary, the viewshed analysis results show that 12.39% of the land area within the 2-mile VSA will have either a full or partial view of the Facility. Visibility results also indicate that 6.6% of the total 12.39% visibility within the VSA occurs on land within the Facility Site, and thus, on participating landowner properties.

10.1.2 Viewshed Results for Arrays – Topography Only

As described in Section 7.1.1, viewshed analysis with bare earth topography without trees is not recognized as being a realistic representation of potential visibility, because it is not truly reflective of the environment due to the absence of all trees. Another caveat is that the topography-only results must not be interpreted as representing visibility during leaf-off conditions, since even leaf-off bare-branched tree groups act as a solid mass where lines of sight to objects can be screened, as noted in the majority of forested area depicted in the Facility Photolog (Attachment 3). Despite the limitations of a topography-only analysis, it is a useful tool in understanding the influence that terrain has on blocking views to the Facility.

The bare earth topography-only viewshed analysis results show that without the presence of existing vegetation, the Facility is predominantly visible in much of the VSA within 2 miles. However unrealistic this result may be, it indicates that topography is fairly level within the majority of land within 2 miles where the terrain is not high enough to block views. The areas with no bare-earth visibility are generally associated with small river valleys of the Chateaugay and Marble Rivers and their associated tributaries or small adjacent isolated land areas that are contiguous to those streams.

10.1.3 Visibility of Solar Arrays at Identified Resources with Predicted Visibility

The screened viewshed presented in Figure 4 of Attachment 2 indicates that the resources listed in Table 4, per the 94-c guidelines, which have predicted visibility of the Facility include:

<u>Military Trail NYS Scenic Byway (includes NYS Bikeway 11)</u>

The Military Trail NYS Scenic Byway is an 84-mile roadway consisting of US Route 11 and connects Rouses Point and Massena. Historically, it was used by the military to transport troops and equipment between the Saint Lawrence Seaway and Lake Champlain. The trail now offers multi-use recreation and scenic views. US Route 11 and the Military Trail is also recreational NYS Bikeway 11.

The Military Trail is a main east-to-west thoroughfare running through the center of the Facility This route passes by several array groups in Chateaugay and Burke. Approximately 5.6 miles of US Route 11/Military Trail runs through the VSA. However, approximately 1 mile of US Route will experience visibility in Chateaugay and 0.5 miles in Burke. Several various views along this trail can be found in the Facility Photolog in Attachment 3. VP4 and VP33 from the Facility Photolog

have been developed as simulations to represent proposed views from this road and are described in Section 10.2.1.

NYS Snowmobile Trail C8C

NYS Snowmobile Trail C8C, maintained by the Franklin Snowmobilers Club, runs in a general east-west orientation south of the arrays in the vicinity of the Distance Zone 1 0.5-mile extent. The trail runs near Jerdon Road over to Selkirk Road and then continues westerly to the Village of Burke as it parallels County Route 23 on the southern side. The majority of the snowmobile trail do not have views. However, several views that will occur will be transient, intermittent, and of short duration. VP39 in the Facility Photolog, located in an area of potential visibility as noted in Attachment 2 maps, shows the nature of the snowmobile trail at the intersection of Jerdon Road and County Route 33 in Chateaugay. VP23 on Selkirk Road in Burke is also in an area of predicted visibility and was selected as a representative view toward the Facility at a location from the snowmobile trail. VP23 simulation is approximately 0.4 miles from arrays and shows how the Facility appears at distance with a Jericho Rise wind turbine in the view.

Historic

There are no listed NRHP sites in the VSA. However, there are several NRHP eligible historic sites. The following describes potential views from those NRHP eligible historic sites located in areas of predicted visibility:

- 15 East Road, Thayer Corners, Burke

  This is a circa-1856, two-story, Greek Revival-style home with noteworthy style and features that sandstone exterior cladding on every elevation exception for the north elevation, which has aluminum siding. The resource was previously determined not eligible for NRHP listing. However, the resource is now recommended eligible for NRHP listing under Criterion C. Criterion C is where a property must embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

  The resource employs notable features of Greek Revival-style architecture, including gable-end returns. The house also retains its sandstone exterior cladding. The main block retains a high degree of integrity in materials, workmanship, and design. The side addition does not compromise the integrity of the original house. No evidence points to any resident of this house being noteworthy in local, state, or national events. The setting is not a contributing feature to the property nor does the property contribute to any nearby historic district.

  Partial views may be experienced within the property boundary from the arrays located at the northern section of the Facility. VP44 in the Attachment 3 Facility Photolog was chosen as a

representative view looking toward the Facility from East Road in the vicinity of the house. Discussion of this simulation can be found in Section 10.2.1.9.

- Bova House, 5717 US Route 11, Thayer Corners, Burke

  This is a circa-1856, two-story Greek Revival-style home with noteworthy style and features that include stone exterior walls. The resource was previously determined eligible for NRHP listing under Criterion C. Investigation of the site suggests this determination should remain intact. While there is predicted visibility at this location as a result of the viewshed analysis, site visits and VP45 in the Attachment 3 Facility Photolog suggests that the Facility will not be seen from this location.

- St. Patrick's Cemetery, Cemetery Road, Chateaugay

  Established in 1844, Saint Patrick's Cemetery has noteworthy historical associations. The resource was previously determined eligible for NRHP listing under criteria A and C. Investigation of the site suggests this determination should remain intact. Criterion A is where a property must be associated with events that have made a significant contribution to the broad patterns of our history. Criterion C definition is mentioned previously.

  Predicted visibility results suggests that the property will likely have a partial view of the Facility. VP5 from the Facility Photolog was chosen for a representative view of the Facility from this cemetery location. Discussion of this simulation can be found in Section 10.2.1.2.

- 474 Jamison Line Road, Burke

  This is a farm that consists of a circa-1850, one-and-a-half-story, vernacular-style farmhouse and a three-gable ground barn. It is noteworthy as intact example of a nineteenth-century farm. The resource was previously determined eligible for NRHP listing under Criterion C. Investigation of the site suggests this determination should remain intact.

  Visibility analysis results suggests that the property may have views of the Facility. However, because the property is approximately 1.8 miles northwest of the northwesternmost portion of the Facility Site, the introduction of Facility elements will be indistinct, if visible at all, from the property itself. Based on field observations, views from the resource toward the Facility are obscured (screened) by intervening vegetation between the Facility and this historic property. The Facility will have no visual impact on the property's historic setting or features that would diminish the property's NRHP qualifying characteristics. A similar vantage point, landscape position and zone, and distance to arrays can be obtained from VP42, which is in the vicinity at East Road.

- 1207 County Route 23, Burke

  This location is identified as a newly identified historic resource resulting from the architectural survey conducted by the Applicant that is recommended eligible for NRHP. It is composed of a one-and-a-half-story, front-gable main block and a one-story, side-gable, side (southwest) addition. The main block features exposed sandstone walls. The addition rests on a stone foundation and is clad with vinyl siding. The roofs of both masses are covered with standing-seam metal. The main block features gable-end returns, a signature feature of Greek Revival-style architecture. The resource employs notable features of Greek Revival architecture, include gable-end returns, as well as sandstone exterior walls. The house retains a high degree of integrity in materials, workmanship, and design. No evidence points to any resident of this house being noteworthy in local, state, or national events. The property does not contribute to any nearby historic district. The resource is recommended eligible for NRHP listing under Criterion C.

  While there is predicted visibility at this location as a result of the viewshed analysis, site visits and VP53 in the Attachment 3 Facility Photolog suggests that the Facility will not be seen from this location, as proposed arrays are located beyond the wooded area seen in the very distant background. It is assumed only a glimpse of the panels might be possible from the site distance of 0.86 miles and would likely blend in amongst the intervening trees.

10.1.4 Visibility of Solar Arrays at Local High Use Resources

Local scenic resources are those locations that are officially listed or designated in an adopted comprehensive or master plan. Those local resources that have been recognized by document research and/or were received as a response from the outreach program described in Section 7.3.2 are listed in Table 4. There are no designated local scenic resources listed in Table 4 that will have views of the Facility.

However, not classed specifically as officially listed agency scenic resources, it is recognized that local town residents and local roadway traffic will experience views of the Facility in varying locations.

As well as Figure 4 viewshed results in Attachment 2, additionally, an aerial photo map series in Attachment 3 Facility Photolog provides large-scale zoomed in predicted visibility at all photolog viewpoints. Photos in the Photolog depict many views. Many of the viewpoint locations are along roadways at nearby residences. Several segments of local roadways running through the interior of the Facility as well as perimeter roads may experience transient views from vehicular traffic. Most of this visibility along intermittent road segments are within 0.5 miles in Distance Zone 1.

Roads Within Distance Zone 1 of 0.5 Miles

US Route 11 – US Route 11 is a main east-to-west thoroughfare running through the center of the Facility and is classed as Principal Arterial Other. These types of roads are non-interstate and consist of a connected rural network of continuous routes. It is also designated as the Military Trail NYS Scenic Byway and NYS Bikeway 11. This route passes by several array groups in Chateaugay and Burke. Approximately 1 mile of US Route will experience visibility in Chateaugay and 0.5 miles in Burke. VP4 and VP33 from the Facility Photolog in Attachment 3 have been developed as simulations to represent proposed views from this road.

County Route 23 – County Route 23 runs east to west through both Chateaugay and Burke near the southern portion of the Facility. It departs from US Route 11 near the Chateaugay River and leads to the Village of Burke. Approximately 1.6 miles of the road will have visibility of arrays in Chateaugay and 1.1 miles in Burke. VP38 and VP46 along this road have been developed for Facility simulations.

County Route 33 – County Road 33 is located at the southeast portion of the Facility in Chateaugay and runs in north-south fashion, diverging from County Road 23. Approximately 0.25 miles of this road is predicted to experience visibility of the Facility in the area at the intersection with County Road 23. VP7 located at the junction with County Route 23 has been developed as a Facility simulation.

Cemetery Road – Cemetery Road runs north to south at the eastern side of the Facility in Chateaugay. Two sections of the road are predicted to have views of the Facility consisting each of 700-foot and 1,300-foot linear segments. VP5 at St. Patrick's cemetery, an NRHP eligible historic site located at the northern part of this road has been developed as a Facility simulation.

East Road – This road runs in a north-south direction in Burke and lies near the northwestern portion but west of the Facility. Two intermittent road segments of approximately 1,000 feet and 0.5 miles may experience partial visibility between Lewis Road and US Route 11. VP44 in the vicinity of an eligible historic site in the Thayer Corners area has been developed as a Facility simulation. VP9 a little further north has also been developed as a simulation.

Ketchum Road – Ketchum Road is located west of the southwestern section of the Facility in Burke. Approximately 0.35 miles of the roadway between US Route 11 and County Route 23 may have partial views of the Facility. VP8 in the Facility Photolog is a representative view from Ketchum Road.

Lewis Road – Lewis Road is located in Burke and Chateaugay and lies between East Road and US Route 11. The road in Burke branches off East Road north of the Facility running east into Chateaugay where it meets with the Chateaugay River and then curves south to US Route 11. Approximately 0.25 miles of road segment in Chateaugay may likely see the Facility where the

road passes by arrays close to and at the intersection with US Route 11. VP13 along this road segment has been developed into a Facility simulation.

Martin Road – Martin Road in Chateaugay passes by arrays in the northeast section of the Facility. It lies between Lewis Road and the town boundary with Burke. Two road segments consisting of several hundred feet are predicted to have views of arrays. VP15 in Burke can be considered similar and a representative view from this road.

Selkirk Road – Selkirk Road runs north-south and is an extension of Ketchum Road when it is south of County Route 23. The road is to the southwest of the Facility adjacent to open farmland where approximately 0.35 miles of road segment may experience views of arrays. VP23 is a representative view from this road and has been developed into a Facility simulation.

Stuart Road – Stuart Road is in Burke and runs diagonally between East Road and the town boundary with Chateaugay. This road passes by open fields with arrays where approximately 0.70 miles of road segment will have views of the Facility. VP14 and VP15 are representative views from the road.

Roads Between Distance Zone 1 (0.5 Miles) and Distance Zone 2 (2.0 Miles)

Cook Road – Cook Road is in Burke approximately 1.4 miles south of the Facility. A 400 foot road segment may have partial visibility of the Facility at a portion of road near the town boundary with Chateaugay. Coveytown Road at the intersection with County Route 29 in this area may also have views. VP22 is a representative view from this road.

County Route 29 – County Route 29 runs in a north-south orientation and is located west of the Facility in Burke. A discrete area of farmland including approximately 0.4 miles of road segment may have visibility of the Facility. This farmland and road segment is near the extents of the VSA, approximately 1.75 miles northwest of the northernmost arrays.

Montgomery Road – This road extends in a north-south direction from County Route 29. It is in Burke west of the Facility, approximately 1.2 miles from the westernmost arrays. Approximately 500 feet of road segment may have a view through open ag lands.

Sargent Road – Sargent Road is a short dead end road off of Selkirk Road that runs through open farmland. The road is 0.7 miles south of the southwestern arrays where approximately 0.25 miles of road may have a view of the Facility.

Mentioned above, the majority of Facility visibility along East Road, County Route 23, and Selkirk Road occurs within Distance Zone 1 of 0.5 miles. However, segments of County Route 23 and Selkirk Road have areas of visibility of 1.2 miles and 0.2 miles respectively, that contiguously extend beyond 0.5 miles into Distance Zone 2. VP24 is a representative view outside of 0.5 miles. While East Road has most visibility within 0.5 miles there is an additional road segment consisting

of 0.5 miles at the northern extents of the VSA that may have visibility of the Facility. VP42 in the Facility Photolog is a representative view from this area.

Populated Areas

As noted in Section 3.1, higher density of development occurs in the Villages of Chateaugay and Burke. Predicted visibility mapping indicates that these two populated areas are not expected to see the Facility. VP16, 17, and 18 in the Facility Photolog in Attachment 3 are representative views from the Village of Chateaugay, while VP25 is a representative view within the Village of Burke.

Other minor civil divisions include Thayer Corners, Brayton Hollow, Burke Center, and Cooks Mill. Thayer Corners is a neighborhood along U.S. Route 11 and East Road/Ketchum Road where partial and variable visibility may result. For example, VP45 within the Facility Photolog in Attachment 3 indicates no visibility.

There is no predicted visibility at Brayton Hollow, Burke Center (north of the Village of Burke), or Cooks Mill. VPs 11, 26, and 49 in the Facility Photolog provide representative views of these areas, respectively.

10.1.5 Visibility of Arrays Within LSZ

For reference, a reiteration of the total percentage of each LSZ within 2 miles outlined in Table 3 of Section 5.0 is reiterated as follows:

- LSZ Percent Within 2 Miles:
    - Zone 1 Agricultural: 43.61%
    - Zone 2 Forested: 47.82%
    - Zone 3 Developed: 5.81%
    - Zone 4 Open: 2.61%
    - Zone 5 Open Water: 0.15%
- Table 5 shows the percentages of visibility as it occurs within each LSZ.

Table 5. Percent Visibility of Arrays within LSZ Within 2-Mile VSA

LSZ	Total LSZ Square Miles Within 5 Miles	LSZ Square Miles of Visibility	% Visibility within LSZ	% Visibility within VSA
Zone 1 Agricultural	11.75	2.77	23.56%	**10.27%**
Zone 2 Forested	12.89	0.33	2.58%	**1.24%**
Zone 3 Developed	1.57	0.18	11.67%	**0.68%**
Zone 4 Open	0.7	0.06	7.94%	**0.21%**
Zone 5 Open Water	0.04	0.00	0.00%	**0.00%**
Total	**26.95**	**3.34**	**12.39%**	**12.39%**

One can use the visibility results in a variety of ways. For example, when using Table 5, one can begin to distinguish or make assumptions about which viewer types may be impacted visually. For example, Table 3 and the list above states that 5.81% of the land area within 2 miles falls in the Developed Zone, which is fairly low. Section 5.0 describes this zone as villages, towns, cities, rural residential abutting roadways, and transportation corridors.

Note that calculated percentages do not indicate the percentage or number of viewers that would be impacted. The percentage numbers indicate how much physical area within a designated LSZ would have a visual change. Table 2 provides the types of roads and traffic counts within the Facility Site and indicates most roads are generally rural low traffic types of roads where vehicles would have short duration views. One may assume then, that based upon land area relative to viewer types (inferred by LSZ category) along with the inclusion of low-density scattered rural residential dwellings that may see some portion of the Facility, that viewer numbers would be relatively low compared to suburban or urban areas. As Table 5 notes, there will be 11.67% visibility within all of Developed LSZ itself (all developed areas) but it accounts for less than 0.7% of visibility within the entire VSA.

Comparing the Agricultural category is a similar exercise. The Agricultural LSZ comprises about 43.61% of the 2-mile VSA. However, only 10.27% of that LSZ land area within 2 miles may experience visibility of the Facility. As described in Section 5.0, this LSZ predominantly consists of land consisting of cultivated crops, hay, or pasture. Frequently, there are hedgerows or small tree groups that provide intermittent screening. One can infer which viewer type might be affected (refer to Section 8.0 for discussion of viewer groups and other factors that assist in evaluating visual change). Much of this land is farmland infrequently visited and not accessible to the public. It belongs to private landowners or rather, the local constituency viewer type who themselves may

not access parts of their properties at all times. Although the amount of land area that receives visibility is comparatively higher than that of Developed areas, the number of viewers is likely lower. However intermittent or low the exposure is or where the constituency is from, visibility may diminish the viewer experience depending on viewer expectations or reactions to solar development.

In using the 2-mile VSA again, Table 3 shows that approximately 47.82% of the land area belongs to the Forested LSZ. Although this is just under half of the 2-mile VSA, Table 5 shows that 1.24% of the 2-mile land area will have visibility from forested areas. This low number, in part, is due to the fact that the viewshed model assumes that viewers in the interior of tree groups will not have outward views through the density of tree trunks and branches or through the canopy above.

The Zone 4 Open category includes miscellaneous other open parcels that may have minimal development as well as other open lands that have few visual obstructions such as minor expanses of open water, barren land, land with short scrub shrub vegetation, and emergent wetlands. Areas of visibility in Zone 4 comprise 0.21% of the entire VSA. Similarly, Zone 5 Open Water locations have no predicted views with 0% visibility. Additionally, approximately 7.7 linear miles of the Chateaugay River and 3.9 miles of the Marble River flow through the VSA. Visibility results show that these rivers are not expected to have views of the Facility either due to distance or the densely vegetated riparian environment associated with them.

10.1.6 Visibility of Arrays Within Distance Zones

Table 6 shows that when considering visibility between Distance Zones, the highest amount of visibility occurs within the 0.5-mile radius of Zone 1, comprising 10.38% of just this Zone 1 land area. This is because there is a concentrated amount of visibility in proximity to the Facility within the 0.5-mile radius, much of it within the solar array parcels themselves in open land as well as open adjacent parcels to the Facility and several roadways. There is an abrupt difference once outside of the 0.5-mile radius. Visibility within Distance Zones 2 drops to 2%. There is approximately 3.34 square miles of total visibility within the entire 26.05 square miles that comprises the VSA. Therefore, only 12.39% of the VSA is predicted to experience partial, close, intermittent, or distant views of the Facility.

Furthermore, the Facility Site itself consists of 1,471 acres or 2.3 square miles and falls entirely within the 0.5-mile radius of Zone 1. The Facility Site is described as acreage area encompassing all Facility parcels located within the Towns of Chateaugay and Burke and can therefore be defined as properties belonging to participating landowners. Visibility results also indicate that 6.6% of the total 12.39% visibility (53.26%) within the VSA occurs on land within the Facility Site, and thus, on participating landowner properties. The remaining 5.79% of Facility visibility (46.73%) will occur on non-participating landowner parcels.

Table 6. Percent Visibility within Distance Zones

Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	% Visibility Within Distance Zone	% Visibility Within Full VSA	% VSA Visibility on Participating Landowner Property	% VSA Visibility on Non-Participating Landowner Property
Zone 1 0-0.5 Miles	6.05	2.80	46.24%	**10.38%**	-	-
Zone 2 0.5-2.0 Miles	20.91	0.54	2.60%	**2.01%**	-	-
Total	**26.95**	**3.34**	**12.39%**	**12.39%**	**6.6%[1]**	**5.79%[1]**

[1] *6.6% of the 12.39% total visibility in the VSA occurs on lands belonging to participating landowners while 5.8% of total visibility in the VSA fall within land belonging to non-participating landowners.*

10.1.7 Visibility Results for Collection Substation

Figure 5 in Attachment 2 shows visibility based on the electrical components of the collection substation and Point of Interconnection (POI) tap structures. The taller components include two tap structures that are 65 feet and 70 feet tall, 52.5-foot-tall dead-end A-frame structures (a total of 63 feet with an additional 10.5- foot lightning mast), 52.5-foot-tall H-frame structures (a total of 64.5 feet tall with an additional 12-foot lightning mast), and one standalone 45-foot tall lightning mast within the fence line. Lower height components are 27-foot-tall breakers or those other components shorter than 27 feet such as a capacitor bank, circuit breakers, transformers and bus support structures. There will also be one 12-foot tall control building. Results show in Table 7 that most visibility occurs within 0.5 miles in land within the Facility Site that is already occupied by the arrays. The collection substation is sited near tree groups and is offset approximately 0.25 miles from the nearest road (County Route 23), which assists in limiting or moderation visibility despite some proposed site tree clearing. Because of various tree rows and small forested groups in the VSA, partial views of the upper portions of the substation are expected in most areas. The substation does have an open field to the south, east, and southwest where there will be more pronounced views from County Route 23. There are also a group of non-participating residences along the road in the vicinity to the south. However, proposed solar arrays are located between the substation and the residences as well as the road, which will block views to the lower portions of the substation. Furthermore, the entire fence line at the southerly extent of the arrays, also between the substation and the residences will have proposed vegetative mitigation. This mitigation will not only screen views to the collection substation but also to the solar arrays.

There are expected views directly north of the collection substation but these are land in fields adjacent to US Route 11 (also the Military Trail Scenic Byway) that are otherwise infrequently occupied. Minimal to no views will be experienced along US Route 11 itself. Minimal and scattered

views are expected to the northwest along Stuart Road and East Road. Please also refer to Figure 5 in Attachment 2.

The Facility Site is defined as all Facility parcels that are either owned or leased by the Applicant. Since the majority of views will occur within the Facility Site, the majority of visibility from collection substation components is falling on land already belonging to participating landowners. Moreover, Table 7 shows that 1.78% of the 2.78%, or more than half at 64%, of visibility coming from the collection substation is on participating landowner properties. And, despite the tall structures at the substation, far reaching views are not obtained and there are minimal to no distant views outside of 0.5 miles.

Table 7. Percent Visibility of the Collection Substation within Distance Zones

Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	% Visibility Within Distance Zone	% Visibility Within Full VSA	% VSA Visibility on Participating Landowner Property	% VSA Visibility on Non-Participating Landowner Property
Zone 1 0-0.5 Miles	4.26	0.60	9.94%	2.23%	-	-
Zone 2 0.5-2.0 Miles	19.26	0.15	0.71%	0.55%	-	-
Total	**23.53**	**0.75**	**2.78%**	**2.78%**	**1.78%[1]**	**1.0%[1]**

[1] *1.78% of the 2.78% total substation visibility in the VSA occurs on lands belonging to participating landowners while 1.0% of total substation visibility in the VSA falls within land belonging to non-participating landowners.*

10.2 Photosimulation and LOS Results and Discussion

The discussion of predicted visibility in Section 10.1 focuses on relative quantities of visibility (how much is seen and where) under various conditions such as within LSZs and Distance Zones, all in an effort to understand and objectively assess the amount of visual change in the landscape.

Photosimulations from representative vantage points at varying distances and cardinal directions around the Facility have been developed to provide the quality of the view that will be obtained as a result of the Facility (what does it look like). Per §900.2.9 (b)(4)(i), simulation locations are based on representative or typical views showing proposed site conditions from areas predicted to have direct line-of-sight visibility of Facility components

Another objective is to provide views from some of the visual resources within the Study Area. There are few views at sensitive receptor locations listed in Table 4 in 6.0. However, simulations

VP4 and VP33 address the combined NYS Military Trail and Bikeway 11 resources. Simulation VP23 addresses NYS Snowmobile Trail C8C that runs through the area and VP5 and VP44 address nearby NRHP eligible historic sites. The remaining representative simulations depict what the immediate community would experience such as travelers on local roads. Attention to residents and residential groupings with expected views located near the Facility was given high priority. As part of the stakeholder outreach, the Towns of Burke and Chateaugay viewpoint requests were also considered.

Per §900.2.9 (b)(1), LOS analyses were performed for five state resources with discussion in Section 10.2.2. Table 8 summarizes information for each simulation viewpoint. Please refer to Attachment 4 to view the simulations and LOS profiles.

Table 8. Summary Table of Simulation and LOS Viewpoints

Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Camera Orientation	Comment
4	US Route 11	Chateaugay	508 feet	1,3	NNW	Photo taken to represent aesthetic resource Military Trail NYS Scenic Byway – NYS Bikeway 11
5	St. Patrick's Cemetery, Cemetery Road	Chateaugay	0.70 mile (3,696 feet)	1,4	WNW	Photo taken to represent aesthetic resource NRHP eligible historic site, cumulative effects with Jericho Rise wind turbine, and a view east of Facility
7	Intersection County Route 33 and County Route 23	Chateaugay	308 feet	1	NNW	View from well-traveled county roads.
9	East Road	Burke	620 feet	1,3	SE	View showing cumulative effects with Jericho Rise wind turbines, located on northwestern side of Facility in vicinity of residences
13	Lewis Road	Chateaugay	265 feet	1,3	ENE	View from northeastern portion of Facility near residence
23	Selkirk Road	Burke	0.38 mile (2,006 feet)	1,2	NNE	View taken to represent aesthetic

Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Camera Orientation	Comment
						resource NYS Snowmobile Trail C8C, cumulative effects, and a view from southwestern portion of Facility
33	US Route 11	Burke	421 feet	1,3	S	Photo taken to represent aesthetic resource Military Trail NYS Scenic Byway – NYS Bikeway 11 in vicinity of residences
38	County Route 23	Chateaugay	554 feet	1,3	WNW	View showing cumulative effects, located on well-traveled road in vicinity of residences
44	East Road, Thayer Corners	Burke	0.22 mile (1,162 feet)	1,3	NE	Photo taken to represent aesthetic resource NRHP eligible historic site, and a view from populated neighborhood at Thayer Corners
46	County Rout 23	Burke	0.21 mile (1,109 feet)	1,3	NNW	View from the south near residences on well-traveled road
L1*	NYS Snowmobile Trail C8C	Chateaugay	0.26 mile (1,371 feet)	1	NW	LOS from state scenic resource snowmobile trail.
L2*	NYS Public Fishing Rights Easement Chateaugay River at High Falls Campground	Chateaugay	0.87 mile (4,605 feet)	2	SW	LOS from state scenic resource. NYS Public Fishing Rights Easement on Chateaugay River
L3*	NYS Public Fishing Rights Easement Marble River	Chateaugay	1.6 miles (8,539 feet)	2	S	LOS from state scenic resource. NYS Public Fishing Rights Easement on Marble River
L4*	Military Trail NYS Scenic	Chateaugay	743 feet	1,3	S	LOS from state scenic resource.

Viewpoint ID	Location	Town	Approximate Distance to Facility	LSZ	Camera Orientation	Comment
	Byway-NYS Bikeway 11					Combined Military Trail NYS Scenic Byway and NYS Bikeway 11

** LOS viewpoint*

10.2.1 Discussion of Simulations

The following discusses the visibility of the Facility to viewers at or in the immediate vicinity of the Facility simulation viewpoint. Simulations are presented as sets of Existing and Proposed Conditions based on VP number and can be found in Attachment 4. Proposed mitigation vegetation at 10 years is anticipated to range between 5 to 23 feet in height and is depicted in the simulations where vegetative landscaping is proposed. According to the Landscape Plan presented in Appendix 5-1 and Attachment 7A, fully mature heights of the year-round coniferous species could possibly reach heights up to 40 feet in future years. There are two Mitigation Planting Template Types Type 1 planting scheme provides a density of plantings that will be considered a typical visual screening effort for this Facility. Approximately 28 evergreens per 300 feet of linear planting are proposed among the deciduous species. The Type 2 planting scheme provides a density that is considered an alternative screening effort with a greater density of evergreen species with different growth habits than that in Type 1. Approximately 35 evergreens per 300 feet of linear planting are proposed among the deciduous species. Both leaf-on and leaf-off mitigation is shown at a 10 year time frame.

10.2.1.1 VP4 US Route 11, Military Trail NYS Scenic Byway/NYS Bikeway 11, View Northwest – Chateaugay (LSZ 1,3; Distance 508 feet)

This viewpoint represents a view along US Route 11 at the eastern side of the Facility approximately 508 feet away. This highway is also an aesthetic resource, designated as both the Military Trail NYS Scenic Byway and NYS Bikeway 11. The photo viewpoint is at a location that has a direct and proximal view to the most eastern arrays as one travels west from the Village of Chateaugay. The area is open farmland north and south of the road with no interfering vegetation between the viewer and the Facility. A commercial garden center is on the south side of the road out of the photo extents but behind the viewer. Residences are nearby approximately 260 feet to the east and 975 feet to the west. The Chateaugay Substation is along the north side of this road 760 feet to the east. Existing views show an open field of light ochres and yellows with a narrow band of leaf-off trees crossing the photo from left to right in the background.

From this viewpoint location, the sight lines in the Proposed Conditions Simulation with only the security fence show clear views of solar panels in the open field. The overall form and line of the arrays is seen as a very narrow horizontal shape sweeping across the view in a similar pattern to the far distant ridge and background trees. New form, line, and color contrasts are introduced and

have contiguous lateral breadth. The low profile nature of the arrays do not vertically interrupt the horizon line. Features such as the fence, panels, and racking system have some discernible detail and combined with a repetitive pattern, provide some texture contrast. However, Facility siting employed here consists of a 508' offset from the road. This offset distance assists in moderating the size and scale of the arrays. Overall Project contrast is rated as weakly moderate for this simulation.

As noted, there is no existing vegetation that is purposely being used to screen views. There is a clear view to the field with no intervening trees or shrubs. As depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A, the proposed Type 1 Facility mitigation is intended to provide screening to the non-participating residents in the vicinity as well as for travelers along US Route 11 which is a designated scenic byway. Accordingly, it is expected that the majority of the Facility will be screened as the proposed landscaping grows to maturity, as demonstrated in the simulations with mitigation at 10 years. With the inclusion of vegetative mitigation, views are softened and moderated as the trees and shrubs are more congruous with the existing environment and the Facility color and value contrasts are reduced. Views of the mitigation for motorists will be intermittent and of short duration while longer duration views of the vegetative buffer will be obtained by residences.

10.2.1.2 VP5 Cemetery Road, NRHP eligible St. Patrick's Cemetery, View West – Chateaugay (LSZ 1,4; Distance 0.70 mile)

This viewpoint is located at St. Patrick's Cemetery on Cemetery Road in Chateaugay approximately 0.7 miles (3,696 feet) east of the Facility. VP5 was chosen to represent a view from the eastern side of the Facility as well as at an aesthetic resource. As noted in Table 4, St. Patrick's Cemetery is an NRHP eligible historic site in close proximity to the Facility. Existing conditions show a view from the cemetery looking westerly across open field with a residence and large red hanger structure in the middleground. In the far background is US Route 11, a designated scenic byway. Several large commercial buildings, distribution utility lines, and some residences can be seen along the side of the highway in the farther background. The Chateaugay Substation, also on US Route 11. can be seen in the distance in the left part of the photo. One Jericho Rise wind turbine is in view as well.

Proposed Conditions without mitigation shows very minor visual change. All foreground and middleground views remain intact. There are arrays sited at the left side of the simulation (in the direction of the existing wind turbine) but they are well behind the far tree row and will not be seen. A crest of a small intervening hill also blocks those views in the left of photo. However, a partial view of the Facility exists in the far background on the right side of the photo north of US Route 11 where the arrays can be seen directly behind the Chateaugay Substation. The Facility is not very discernible and provides minor contrast. The in-kind utility of the existing substation helps visually absorb Facility color and texture contrasts. This viewpoint resulted in the lowest Project contrast of the simulations, with a very weak average rating of 2.0. Also noted in the simulation view is some distant tree clearing.

There is no existing vegetation that is purposely being used to screen views and any intervening trees that block views is incidental. As depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A, there is proposed Type 1 Facility mitigation at the fence line facing the road and the viewer. At the viewpoint distance, the Facility appears fully screened by the vegetative landscaping. With the inclusion of the mitigation, views are softened and moderated as the trees and shrubs appear to be a natural occurrence or extension of coniferous trees already seen along the highway corridor. Views of the mitigation at the cemetery will generally be of short duration, or as long as the intended visit.

This simulation set shows the cumulative effects of an added solar Facility against an existing wind farm. One wind turbine is seen in the view. Cumulative effects appear minimal due to limited visibility of the solar arrays from this viewpoint. Cumulative effects that could be introduced by the Facility are minimized by the siting of arrays such that they appear, from this vantage point, hidden by incidental tree groups in the vicinity. Cumulative effects have also been reduced by the added proposed vegetative screening at the arrays located along US Route 11 and behind Chateaugay Substation.

10.2.1.3 VP7 County Route 33 View Northwest – Chateaugay (LSZ 1; Distance 308 feet)

This viewpoint represents a view at the southern portion of the Facility. VP7 is approximately 308 feet south of the Facility located at the intersection of County Route 33 and County Route 23. The vantage point represents a view for travelers along County Route 23 and those driving north on County Route 33 as they approach a T intersection. There are no residents at the photo location but the nearest houses encountered are approximately 420 feet south on County Route 33 and 750 feet to the west. Existing conditions show an open field transitioning to a forested area. In the middleground, NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line can be seen traversing across the landscape. The photo location appears at a slightly elevation location since there is a view looking down on other areas of Chateaugay that can be seen above and beyond the swath of deciduous forest where the horizon is not screened by trees. Horizontal bands of road, ochre field, brown forest and a large shape of blue sky comprise the view.

The Proposed Conditions simulation with only the security fence shows panels in close proximity to the road and the viewer where array size and scale is dominant in the view. New form is introduced into the existing field that provides contrast, but the array mass is geometrically similar to horizontal shapes of light brown open field and the narrow band of trees in the background. The Facility profile at this location is still low enough to not interfere with the horizon line. The color of the arrays is fairly compatible with the distant mass at the horizon and the large blue sky under the cloudless sunny day present in the simulation. The Facility introduces new lines and shape that have high discernible detail because of the close proximity to the road and viewer. Viewer groups affected are local motorists and few residences. There is estimated to be a moderate number of viewers because of the county roadway travel. Average Project contrast for this simulation was rated as weakly moderate with a value of 13.0.

There is no existing vegetation that is purposely being used to screen views. There are clear views to the field with no intervening trees or shrubs. As depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A, there is proposed Type 1 Facility mitigation at this location. As seen in the Proposed Conditions simulations, the vegetative landscaping screens and moderates the view of the arrays.

10.2.1.4 VP9 East Road, View Southeast – Burke (LSZ 1,3; Distance 620 feet)

VP9 is located on East Road in Burke, approximately 620 feet west of the Facility in the vicinity of several residences; one located to the right and several behind the viewer out of the photo extents. Existing conditions gives a southeasterly view and shows an open field with building structures, varying tree rows scattered in the middleground and a more pronounced forested area in the distance background. Ten existing Jericho Rise wind turbines at varying distances can be also seen in the view. Overall, the view consists of 2 large basic shapes; the light yellow farm field and the blue sky, with a narrow band of middle and background trees traversing across the image. This VP was chosen because it represents unobstructed Facility views that may be experienced by residences and roadway travelers at the northwestern portion of the Facility Site. This VP was also chosen to show the cumulative effects of the proposed solar arrays and the existing Jericho Rise wind farm that is in the area.

The Facility siting and road offset of approximately 620’ reduces the contrast and size and scale of arrays as seen in the Proposed Conditions without mitigation. Also, the low profile of the panels are below the horizon line and appear directly in line with the background trees. This juxtaposition allows the panels to be visually absorbed by the narrow band of background trees due to their similar color. The fencing and panels are still visible but subordinate in the view. Average Project contrast was rated as weakly moderate with a value of 11.2.

There is no existing vegetation that is purposely being used to screen views. In fact, some tree clearing in the middleground is proposed. As a result, there are clear views to the field with no intervening trees or shrubs. As depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A, the proposed Type 2 mitigation for this location is intended to provide screening for residences on East Road as well as roadway travelers. Accordingly, it is expected that most of the Facility will not be visible in this view as the proposed landscaping grows to maturity, as demonstrated in the simulations with mitigation at 10 years. With the inclusion of vegetative mitigation, views of arrays are moderated as the trees and shrubs are more congruous with a natural environment. Views of the mitigation for motorists will be intermittent and of short duration while longer duration views of the vegetative buffer will be obtained by residences.

This simulation set shows the cumulative effects of an added solar Facility against an existing wind farm. Several wind turbines can be seen the background where distance relationships keep the turbines approximately as high as the surrounding trees, except for two closer taller turbines seen to the right behind the white barn. Cumulative effects are moderate when looking at the simulation with no mitigation, as the arrays themselves already have fairly low visual contrast.

However, cumulative effects introduced by the Facility are minimized by the large road offset and by the added proposed vegetative screening that reduces the visibility of solar panels as seen under Proposed Conditions with mitigation.

10.2.1.5 VP13 Lewis Road, View East – Chateaugay (LSZ 1,3; Distance 265 feet)

This viewpoint generally represents a view at the eastern side of the Facility north of US Route 11. VP13 is on Lewis Road approximately 265 feet west of an array group. Existing conditions show open field sloping slightly upwards with forested areas at the field edge. VP13 vantage point was chosen to show contextual landscape conditions along Lewis Road at eastern arrays as well as in the vicinity of a residence. Existing conditions show two large horizontal shapes consisting of browns and ochres of field and blue sky. A narrow band of trees running left to right in the middle of the photograph splits the two larger shapes.

Proposed Conditions with only the security fence in the simulation show a portion of the Facility arrays and a haul road in the field that follow minor terrain. Some discernible detail is obtained at this viewing distance and the horizon line is not interrupted. Although the arrays occupy much of the view, they basically appear co-dominant against the size and scale of the expansive landscape shape around it. Some tree clearing in the background is noted in the view as well. The arrays en masse are perceived as a larger geometric shape overall, that appear similar to the horizontal geometric pattern seen in the view. The color of the arrays and fence creates a new contrast against the leaf-off colors of early spring. This simulation resulted in one of the highest Project contrasts, rated as moderate with an average contrast rating of 17.5.

There is no existing vegetation that is purposely being used to screen views. There are clear views to the field with no intervening trees or shrubs. As noted in the Landscape Plan drawings Appendix 5-1 and Attachment 7A, there is proposed Type 1 Facility mitigation that is intended to provide screening to a nearby non-participating residence as well as at the roadway. As observed in the simulations with mitigation, the proposed landscape plantings occur along the fence line facing the viewer. It is expected that this vegetative mitigation will provide screening and soften and moderate the views as observed in the Proposed Conditions simulations with mitigation. Views of the mitigation for motorists will be intermittent and of short duration while longer duration views of the vegetative buffer will be obtained by the residence.

10.2.1.6 VP23 Selkirk Road, NYS Snowmobile Trail C8C, View Northeast – Burke (LSZ 1,2; Distance 0.38 miles)

VP23 at the southwestern portion of the Facility where the C8C state recreational snowmobile trail runs parallel to Selkirk Road in this area. The Facility is approximately 0.38 miles (2,006 feet) away from the viewpoint where the view overlooks a large agricultural field with a residence in the middleground. There is also one existing Jericho Rise wind turbine in view. Existing conditions show field and sky as large dominant horizontal shapes in the view. Trees present in the view act as a visual perimeter around the field and also presents as a small darker horizontal band in the

distant background. A larger forested area is present to the left on the western side of the road and out of the photo extents. This VP was chosen to represent views from the snowmobile trail which is a listed aesthetic resource in Table 4. It was also chosen to represent a view from the southwestern portion of the Facility as well as providing a cumulative effects view of the proposed solar arrays and the existing Jericho Rise wind farm that is in the area.

The Proposed Conditions simulation without mitigation shows very minor visual change. All foreground and middleground views remain intact. Tree clearing is observed in this view however the absence of trees still leaves a random mosaic pattern between field and forest that is similar to the existing view. The arrays are in the distance approximately 0.38 miles away near where the visible wind turbine is located. Due to distance, the arrays have a small profile height with little discernible detail. The visual change observed is more of a color change in the environment as the panel colors appear darker against the yellow ochre fields. Long east to west horizontal field and forest shapes occur in the view as a natural appearance of the landscape. The Facility has lateral breadth in the view but the overall appearance is compatible in both scale and shape and seemingly fits into the environment. There is no interruption of the horizon line. The Project contrast for this simulation is rated as weak with an average value of 7.8.

Both leaf-off and leaf-on mitigation at 10 years is also provided as Proposed Conditions simulations. There is no existing vegetation that is purposely being used to screen views. The arrays were sited to accommodate the MWs required on an available participating landowner parcel and any existing vegetation with mitigative effects is incidental. Type 1 mitigation is shown in the Proposed Conditions view with mitigation, as depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A. Although Facility with mitigation is seen in the view from this viewpoint, the landscape plantings are also intended to screen other areas that are not in the view of the photograph. Type 1 landscape planting is seen behind the middleground house in view and goes to the left, intended to screen views to nearby residences that are closer to the Facility near the corner of Selkirk Road and Ketchum Road in the distance. At this viewpoint, the inclusion of vegetative mitigation softens and moderates the effects of the security fence where proposed. Views of the Facility for motorists and snowmobilers along the trail will be intermittent and of short duration while longer duration partial views may be obtained by residences.

This simulation set shows the cumulative effects of an added solar facility against an existing wind farm. Cumulative effects offered by the proposed solar arrays appear minimal. In this view, the proposed solar arrays are dwarfed in scale by the existing wind turbine and are subordinate in the view. The eyes are generally drawn to the large vertical existing wind turbine that is present. Cumulative effects that could be introduced by the Facility are minimized by the siting of arrays such that they appear, from this vantage point, in a mosaic fashion in and around field and forest. Cumulative effects have also been reduced by a large road offset north of County Route 23 where distance assists in moderating the view such that size and scale is diminished.

10.2.1.7 VP33 US Route 11, Military Trail NYS Scenic Byway/NYS Bikeway 11, View South – Burke (LSZ 1,3; Distance 421 feet)

This viewpoint represents a view along US Route 11 at the western side of the Facility at the Burke-Chateaugay town line. This highway is also designated as both the Military Trail NYS Scenic Byway and NYS Bikeway 11. This VP was chosen for a Facility simulation because it is view from a listed Table 4 aesthetic resource and is also a representative view in the vicinity of nearby residences located south of the highway. The view is looking south approximately 421 feet from the Facility. The existing conditions photo shows agricultural land during early springtime conditions, interspersed with sparse small tree groups. The land slopes upwards toward more open land with several building structures visible as well as additional forested areas.

The Facility provides new shapes of color and pattern and can be seen on the sloped hillside down to within 421 feet of the viewer and is overall dominant in the view. There is minor tree clearing observed. While there are some aspects of the arrays that share a similar color to the terrestrial surroundings, there are other portions that do not but more closely match a sky color on the cloudless sunny day. New line and form are introduced into the existing open field and due to proximity allow for moderate to strong discernible detail. While the panels are seen on the hillslope, there is no vertical interruption of the horizon. Project contrast in this simulation was given one of the highest ratings. It was rated as moderate with an average contrast value of 17.5.

As depicted on the Landscape Plan drawings included in Appendix 5-1, and Attachment 7A, there is Type 1 proposed mitigation at the portion of the Facility facing the viewer that is intended to provide screening to US Route 11, a scenic byway, and also to residences on the south side of the road located to the right and out of the view. The landscape plantings will serve to moderate and soften the view as the proposed landscaping grows to maturity as demonstrated in the simulations with mitigation at 10 years. Views of the mitigation for motorists will be intermittent and of short duration while longer duration views will be obtained by the residences.

10.2.1.8 VP38 County Route 23, View Northwest – Chateaugay (LSZ 1,3; Distance 554 feet)

This viewpoint generally represents a view at the southeastern portion of the Facility. VP38 on County Route is located approximately 554 feet southeast from the fence line in the view. VP38 was chosen to represent one of the most open direct views of the proposed collection substation that can be obtained within the VSA. These direct views can be found along a segment of open roadway along County Route 23. There are several residences along this same road segment as well. The existing conditions photo shows open field with a dense forested area at the far edge of the field in the middleground. The view shows large horizontal shapes of ochre field and blue sky divided by a narrow band on trees that are darker brown. Two of the existing Jericho Rise wind turbines can be seen as well as the existing NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line that traverses through the area. The transmission structures slightly exceed the trees in height. This photo was also chosen to show the cumulative effects of other utility-based infrastructure that is in the region.

The simulation with no mitigation shows a clear line of sight across the field to the proposed arrays. The large road offset distance of 554 feet moderates the size and scale of the solar arrays and reduces discernible detail while also keeping them below the tops of trees seen in the background despite observed tree clearing. The arrays themselves offer a color contrast and new visual elements in the view against the existing open field. However, this view also shows the collection substation. A textured pattern is created by the rows and the angles of the solar panels that is not otherwise there. While most of the lower portion of the substation is blocked by the solar panels in front of them, including the control building, upper parts of the taller vertical components such as the A-frame, H-frame, and tap structures are visible above the arrays and interrupt the horizon line of the treetops. Average Project contrast is rated as moderate with a value of 14.3. Overall, and with the addition of the collection substation however, the Facility appears dominant in the view.

There is no existing vegetation that is purposely being used to screen views. Any existing vegetation seen in the simulation that has the ability to block views is incidental. As depicted on the Landscape Plan drawings included Appendix 5-1 and Attachment 7A, Type 1 mitigation will serve to screen some views along the open roadway of County Route 23 as well as nearby residences. This simulation with mitigation shows the landscape plantings effectively softening and moderating the view by screening the arrays and the collection substation. Following mitigation at 10 years, only partial views of the upper parts of the substation is expected. Views of the Facility for motorists will be intermittent and of short duration while longer duration partial views will be obtained by residences.

This simulation set shows the cumulative effects of an added solar Facility against an existing wind farm and an existing transmission line that occurs in the view. The existing NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line can be seen at the far edge of the field near the field-forest interface. Included in the view are two existing wind turbines set farther in the background Cumulative effects are additive and distinct when looking at the simulation with no mitigation, although the eye is immediately drawn to the tall wind turbines. These cumulative effects are made more so by the inclusion of the taller substation components. However, these cumulative effects introduced by the Facility are minimized by the effective proposed vegetative screening that reduces the visibility of solar panels and the substation.

10.2.1.9 VP44 East Road Thayer Corners, View Northwest – Burke (LSZ 1,3; Distance 0.22 miles)

This viewpoint is at the northwestern portion of the Facility in the neighborhood of Thayer Corners in Burke. VP44 is located on East Road at a section of the neighborhood where there is an open gap between houses that affords a view of arrays proposed in a far background field. This photo was chosen to show a view from this neighborhood but also to represent a view in the vicinity of an NRHP eligible historic site located at 15 East Road behind the viewer. The Facility is approximately 0.22 miles (1,162 feet) from the viewpoint. The existing conditions photo shows an existing fence in the foreground and an open field that stretches to a horizontal band of low-

growing vegetation at the middleground mixed with a few sparse trees. Beyond the low-growing shrubbery lies a slightly elevated field in the background.

The Proposed Conditions simulation show the Facility in the slightly elevated background field beyond the low-growing middleground shrubbery. The arrays occupy the far field but because of a distance of 0.22 miles they are diminished in size and discernible detail, especially compared to larger foreground shapes and color. While there's new visual elements in the view the scale of the objects is subordinate in the view and merely a slight color change can be detected. A very narrow dark band can be seen, a portion of which minorly interrupts the horizon line on the background hill on the left. Overall average Project contrast in this simulation is weakly moderate with a value of 9.2.

There is no existing vegetation that is purposely intended to screen views, such as the low growing middleground vegetation and scattered trees seen in the simulation. The arrays were sited to accommodate the MWs required on an available participating landowner parcel and any existing vegetation with mitigative effects are incidental. Despite existing trees and shrubs in the view, there is Type 2 vegetative mitigation proposed along the fence line of the Facility itself as seen in the Proposed Conditions with mitigation, depicted on the Landscape Plan drawings included in Appendix 5-1 and Attachment 7A. The mitigation is intended to provide screening for non-participating residences at Thayer Corners, but also serves to block some views of this array group to US Route 11, which is southeast of the viewpoint location. Views of the mitigation for motorists will be intermittent and of short duration, while longer duration partial views will be obtained by residences.

10.2.1.10 VP46 County Route 23, View Northwest – Burke (LSZ 1,3; Distance 0.21 miles)

This viewpoint is a representative view from County Route 23 at the south-southwestern portion of the Facility. VP46 is located approximately 0.21 miles (1,109 feet) southeast from the Facility fence line. There is a residence behind the viewer. The existing conditions photo shows an expansive cultivated field leading to a more densely forested area in the middleground. The land slopes down where an extended view of the Burke and Chateaugay to the north can be seen farther to the horizon. Distant buildings, forested area and some open land is apparent in the far background. Colors consist of light ochre cornstalks in the open field and muted browns in the middle-background. A large blue shape of sky is also prevalent.

The Proposed Conditions simulation shows minor visual change in the landscape with minimal to no views of solar panels. Essentially, the far-reaching vista is maintained. The land slopes downward and the crest of the small hill in the middleground is responsible for blocking most of the arrays that are to the left and center. Slight terrain shifts expose the upper portions of a few arrays seen to the right of the distant white residence seen in the photo center. These arrays are also diminished due to the large road offset distance of 0.21 miles. Average Project contrast in this simulation is rated as weak with a value of 4.8.

There is no existing vegetation that is purposely being used to screen views and any existing vegetation seen in the simulation that has the ability to block views is incidental.

10.2.2 Discussion – Line of Sight Results

Line of Sight (LOS) elevation profiles were completed to address state aesthetic resources, fulfilling §900.2.9 (b)(1). This regulation states specifically that LOS only be completed for statewide resources of concern. For this Project and as noted in Table 4, there are five state resources within the VSA. These include NYS Snowmobile Trail C8C, the Military Trail State Scenic Byway (also designated as NYS Bikeway 11), and two NYS Public Fishing Rights Easements (one at Chateaugay River and one at Marble River). LOS analyses are able to provide the viewer with information that assists in examining the reasons why objects such as solar panels or collection station components may have impeded views or no views. The underlying topography of a sight line, in addition to vegetative obstructions, can be produced, as can an estimated amount of visibility of the upper portion of an object if it is visible.

LOS profiles can be found in Attachment 4.

10.2.2.1 L1 – NYS Snowmobile Trail C8C, View Northwest (LSZ 1; Distance 0.26 miles)

LOS L1 is located on NYS Snowmobile Trail C8C and is a state scenic resource in Table 4. In addition to this LOS, further attention has been given to snowmobile aesthetic resources: the Applicant has provided a simulation on Selkirk Road facing northeasterly toward solar arrays (VP23).

The LOS profile and viewpoint are along an open field on private land, approximately 0.26 miles (1,371 feet) from the Facility fence line. It is to the southeast of an array grouping at one of the closest points to the Facility from the trail. Near the trail viewpoint about 340 feet to the north is an existing Jericho Rise wind turbine but does not appear along the direct terrain profile. The profile also shows an unobstructed open view across the field where solar arrays are predicted to be visible. Viewer groups are minimal and not part of the greater general public, as only seasonal winter snowmobilers would be experiencing views along this segment of trail, as permissions and agreements allow use for members of the NYS Snowmobile Association. The Franklin Snowmobilers Club maintain this trail.

10.2.2.2 L2 – NYS Public Fishing Rights Easement at Chateaugay River, View Southwest (LSZ 2; Distance 0.87 miles)

This LOS profile is taken from the Chateaugay River within High Falls Campground where there is a NYS Fishing Rights Easement. The profile location is taken from the shoreline to represent fishing, picnicking, or walking. The LOS is directed southwesterly toward an array group approximately 0.87 miles (4,605 feet) to the Facility fence line. The profile shows there will be no views of arrays as both intervening vegetation and topography will serve to block views.

10.2.2.3 L3 – NYS Public Fishing Rights Easement at Marble River, View South (LSZ 2; Distance 1.6 miles)

This LOS profile is taken from the Marble River where there is a NYS Fishing Rights Easement. The profile location is taken from the shoreline to represent fishing, picnicking, or walking. The LOS is directed southerly toward one of the nearest array groups, approximately 1.6 miles (8,539 feet) to the Facility fence line. The profile shows there will be no views of arrays as both intervening vegetation and topography will serve to block views.

10.2.2.4 L4 – Military Trail NYS Scenic Byway-NYS Bikeway 11, View South (LSZ 1,3; Distance 743 feet)

LOS L4 is located on US Route 11, which is also designated as the Military Trail NYS Scenic Byway and NYS Bikeway 11. As Table 2 traffic data notes, L4 is also located on one of the most well-traveled roads passing by the Facility and is subject to a greater frequency and number of viewers. The highway functional class is rated as a Principal Arterial (Other). This class is described as a non-interstate that consist of a connected rural network of continuous routes that serve corridor movement having trip length and travel density characteristics indicative of substantial statewide or interstate travel.

In addition to this LOS, further attention has been given to US Route 11: The Applicant has provided two simulations from representative viewpoints along the highway where there is predicted visibility. VP4 is located in Burke and faces toward arrays north of the road. VP33 is also in Burke faces south toward both arrays and the proposed collection substation.

There are few expected views of the collection substation from US Route 11. LOS L4 is near the eastern portion of the Facility at a point along the highway where there is predicted views of the proposed substation as well as arrays. In the vicinity is the existing Chateaugay Substation 463 feet to the east and a commercial garden center 275 feet south of the road. However, the viewpoint location of this LOS is in front of one of the few residences in the vicinity and 522 feet west of the existing NYSEG Line 911 Willis Road to Chateaugay 115-kV transmission line.

The profile direction is south and ultimately targets one of the taller station components, an A-frame support structure that is 53 feet tall. The profile shows an unobstructed open view from the road to the panels and then farther south to the substation. Tree clearing will occur on the north side of the substation as indicated on the LOS aerial, which will allow views to the station.

10.3 Visual Impact Rating Results

Section 9.0 briefly describes the concepts and methodology applied to rating visual change incurred by the proposed Facility by evaluating the Facility photosimulations. Simulations illustrating representative views of the Facility, without mitigation, were rated to evaluate contrasts under worse-case conditions. In doing so, it is understood that proposed vegetative mitigation will

moderate or minimize perceived visual impacts. For further information regarding the effects of mitigation please refer to Section 10.2.1, and the simulations illustrating post-construction mitigation presented in Attachment 4.

In completing this effort, three panelists evaluated and rated the simulations; Panelists 1 and 2 have been trained in the field of landscape architecture (one which is licensed), and Panelist 3 is a landscape designer. All three individuals have successfully completed ratings on previous solar project applications. A description of the methodology used in the rating process is contained in Attachment 6, as well as panelist qualifications, and the completed evaluation forms for each simulated viewpoint.

Initial training on how to use the visual forms and the intention of each category was explained to each panelist. Subsequently along with the simulations, to complete Part 2, Project location information such as a Google Earth kmz file was provided as well to allow the panelist to better understand and visualize the environment around the viewpoint that otherwise might not have been captured in the photo itself. Using the terrain features as well as streetview provided the reviewer with the ability to discern if there were other residences or vegetation behind the viewer or in the vicinity while also offering the reviewer to the view the camera location from different angles. The reviewers then applied the contrast ratings singularly and independently without consultation with any other party.

Table 9 below summarizes the final scores and averages for Part 1 Visual Contrast, Part 2 Viewpoint Sensitivity and Part 3 Existing Scenic Quality. Here, trends of contrast ratings where those VP locations that are considered to have the highest or lowest visual change in relation to each other can be obtained. Mean deviations are also calculated to gauge the variation between each of the panelists.

10.3.1 Part 1 Contrast Rating

Part 1 Contrast is fully described in Attachment 6 and rates proposed visual change against existing conditions with respect to compositional elements such as newly introduced lines, shapes, colors, facility scale, and broken horizon lines. Under Part 1, there are nine categories to rate, where the total rating ranges from 0 to 27. When the rating contrast scale outlined in Section 9.0 is rescaled to account for the averages found in Table 9 with respect to the nine categories, the scale is as follows:

Contrast Rating Scale	
0	None
0 - 4.5	Very Weak
4.5 - 9	Weak
9 - 13.5	Weakly Moderate
13.5 - 18	Moderate
18 - 22.5	Moderately Strong
22.5 - 27	Strong

The viewpoints with the highest Part 1 Contrast are VP13 on Lewis Road and VP33 on US Route 11, each with an average contrast rating of 17.5. These two simulations also show the Facility in fairly close proximity to the viewer at 265 feet and 421 feet away, respectively, and generally dominating the view. The Facility will not be seen in its entirety at these locations because only a portion of the arrays are visible from these locations. However, the proposed view results in a moderate contrast rating due to new form, color, line, and texture contrasts of discernible detail compared to what is currently there. There is mitigation proposed at each of these viewpoints that will provide a vegetative buffer to provide year-round screening. VP38 is also rated as moderate but with an average rating a little lower at 14.3. Distance to this VP is farther away at 554 feet from the viewer.

The next highest contrast groupings, which are rated as weakly moderate, are VP4 on US Route 11 (508 feet from the Facility, average rating of 13.2), VP7 on County Route 33 (308 feet away, average rating of 13.0), VP9 on East Road (620 feet from Facility, average rating of 11.2) and VP44 on East Road at Thayer Corners (0.22 miles away, average rating of 9.2). The Facility as seen in each of these simulation viewpoints has vegetative mitigation proposed.

Two viewpoints are assigned a Part 1 contrast rating of weak. They are VP23 on Selkirk Road (0.38 miles feet away) and VP46 on County Route 23 (0.21 miles away away) where average ratings are 7.8 and 4.8, respectively. Each of these views are distant. VP23 is nestled in a field within trees rows and forest, while VP46 has the crest of a hill blocking a substantial portion of the arrays. There is vegetative mitigation proposed for these two viewpoints.

Lastly, one VP5 at Cemetery Road has an average contrast rating of 2.0. The Facility simulation is the farthest away from the viewer at 0.70 miles and nestled within a forested area north of US Route 11. With the angle of view, any part of the arrays that can be seen are primarily behind the in-kind infrastructure of Chateaugay Substation.

Table 9. Visual Impact Rating Results

VP	Location	Contrast Rating Panelist 1			Contrast Rating Panelist 2			Contrast Rating Panelist 3			Avg Part 1	Mean Dev* Part 1	Avg Part 2	Mean Dev* Part 2	Avg Part3	Mean Dev* Part 3
		Part 1	Part 2	Part 3	Part 1	Part 2	Part 3	Part 1	Part 2	Part 3						
4	US Route 11, Military Trail State Scenic Byway, NYS Bikeway 11	12	9.5	1	15	9	1.5	12.5	8	1	**13.2 WM**	1.2	**8.8 WM**	0.6	**1.2 WM**	0.2
5	Cemetery Road, St. Patrick's Cemetery NRHP-eligible historic	5	11.5	1	1	1	1.5	0	9.5	0.5	**2 VW**	2.0	**7.3 W**	4.2	**1.0 W**	0.3
7	County Route 33	13.5	6.5	1	17	6.5	2	8.5	7	1.5	**13 WM**	3.0	**6.7 W**	0.2	**1.5 WM**	0.3
9	East Road	14	6.5	1	11	5.5	1.5	8.5	6	1.5	**11.2 WM**	1.9	**6 W**	0.3	**1.3 WM**	0.2
13	Lewis Road	17.5	6.5	1	18	5.5	1.5	17	5	1.5	**17.5 M**	0.3	**5.7 W**	0.6	**1.3 WM**	0.2
23	Selkirk Road, NYS Snowmobile Trail	10	9.5	1	8	8.5	1.5	5.5	9	1.5	**7.8 W**	1.6	**9 WM**	0.3	**1.3 WM**	0.2
33	US Route 11, Military Trail State Scenic Byway, NYS Bikeway 11	17.5	8.5	1	18	9	1.5	17	8.5	1.5	**17.5 M**	0.3	**8.7 WM**	0.2	**1.3 WM**	0.2
38	County Route 23	15	5.5	1	16	4.5	1	12	6	1.5	**14.3 M**	1.6	**5.3 W**	0.6	**1.2 WM**	0.2
44	East Road, Thayer Corners, NRHP Eligible historic	9	8.5	1	8.5	8.5	1.5	10	9.5	1.5	**9.2 WM**	0.6	**8.8 WM**	0.4	**1.3 WM**	0.2
46	County Route 23	6	4	1	4.4	5.5	1.5	4	6	1.5	**4.8 W**	0.8	**5.2 W**	0.8	**1.3 WM**	0.2

*Mean Dev = mean deviation

VW-very weak, W=weak, WM= weakly moderate, M=moderate, MS=moderately strong, S=strong

Mean deviations were calculated to observe the level of variance between the panelists within each simulation evaluation. Mean deviations ranged between 0.3 and 3.0. It appears panelist opinion varied the most regarding contrasts when assessing VP7. VP7 has a mean deviation of 3.0. While all acknowledged new line, form, and color are incongruous, one panelist rated contrast consistently higher and the other rated consistently lower while a third was in the middle. Some felt the color of the panels were compatible with the sky color but also thought contrast was reduced because of the ability to see the distant landscape horizon.

Lowest mean deviations occurred with VP13 and VP33, which incidentally have the highest contrast ratings. It appears that panelists were in firm agreement about the level of contrast would be experienced at these two viewpoints where the assessment of visual change appeared more straightforward.

10.3.2 Part 2 Viewer Sensitivity

There are eight categories under Part 2 to rate where the total rating ranges from 0 to 24. When the rating contrast scale outlined in Section 9.0 is rescaled to account for the averages found in Table 9 with respect to the eight categories, the scale is as follows:

Contrast Rating Scale	
0	None
0 - 4	Very Weak
4 - 8	Weak
8 - 12	Weakly Moderate
12 - 16	Moderate
16 - 20	Moderately Strong
20 - 24	Strong

Part 2 takes into account viewer sensitivity, in particular if the VP falls within or has a view of an existing visual receptor as well as the character of viewer groups such as number of viewers, duration of view, presence of existing development, etc.

All Part 2 Viewer Sensitivity ratings were assigned a weak or weakly moderate rating, ranging from 5.2 to 9.0. The highest regarded viewpoints rated as weakly moderate are VP4 at US Route 11, VP23 at Selkirk Road, VP33 at US Route 11, and VP44 at East Road at Thayer Corners. This grouping of four appear as the most sensitive sites mainly because they are viewpoints at aesthetic resources. However, they remain with a weakly moderate rating because panelists evaluated these locations as being in a rural location with relatively few residences in the near vicinity as well as having mostly views that are transient and of short duration. VP5, the recommended NRHP eligible historic cemetery is recognized as an aesthetic resource but has a sensitivity rating of weak. This resource was dropped to a lower rating than the other resources because panelists felt by nature, a cemetery generally has a very low number of viewers of short duration as compared to the other resource locations.

The remaining viewpoints were rated as weak because by comparison to the group they are not an aesthetic resource. Again, panelists felt the area of these viewpoints were rural with relatively fewer residences in the area.

Mean deviations for Part 2 Viewer Sensitivity show variance ranging between 0.2 and 4.2. Generally, Part 2 is less subjective. VP5 at St. Patrick's has the biggest difference of opinion with a mean deviation of 4.2. Here the difference is explained because of direct views of US Route 11 from the cemetery. Panelists had varying opinions on how much emphasis was given to the various utility and commercial development seen from the cemetery. The remaining nine viewpoints had good agreement on viewer sensitivity levels as mean deviations were 0.8 or less.

10.3.3 Part 3 Scenic Quality

Part 3 Scenic Quality is a standalone single rating that assesses the overall scenic quality of the VP's existing conditions (see also Attachment 6). For this rating, there is no evaluation of visual change, only a simple appraisal of the scenic quality of the view. A rating of 1 is weak, 2 is moderate, and 3 is strong.

Scenic quality of nine of the viewpoints have a rating of weakly moderate while one viewpoint, VP5 was rated as weak. VP7 at County Road 33 was rated the highest of the group with a scenic quality value of 1.5, generally due to open field with far-reaching landscape views to the horizon that can be seen in the view.

Scenic quality for eight of the simulations were weakly moderate and given a scenic quality rating of 1.2 or 1.3. However, this is not to imply that views are not pretty, restful, or important to the community. Although there are restful views of open fields, panelists also felt that the particular viewpoint views were average and typical of the area and that views did not offer a high degree of landscape diversity, show distinct aesthetic focal points that enhance scenic quality, or offer other types of outstanding views according to criteria in Attachment 6. Most views have a similar large horizontal shape in the photo consisting of foreground-midground fields in the bottom half of the photo and several with a band of background trees in the middle and the upper half of the photo showing sky. However, the intent was to provide simulations of the Facility from visual resources and representative views of what the community would experience from nearby residences and roadways.

VP5 at St. Patrick's Cemetery was the only view rated as weak due to the existing utility and commercial development that can be seen from the cemetery as compared to the other locations.

Mean deviations for Part 3 are comparatively very low, ranging either a 0.2 or 0.3 rating. This suggests the panelist's opinions on scenic quality regarding each viewpoint are very similar.

11.0 VISUAL IMPACT MINIMIZATION AND MITIGATION PLAN

Part §900.2.9 (d) requires a visual impacts Minimization and Mitigation Plan (MMP) that includes proposed minimization and mitigation alternatives to avoid and minimize visual impacts to the maximum extent practicable. Appropriate and practicable measures to reduce visibility of solar development include approaches such as screening (landscaping), architectural design, visual offsets, relocation or rearranging Facility components, reduction of Facility component profiles, alternative technologies, facility color and design lighting options for work areas and safety requirements.

A full Visual Impacts MMP is provided as Attachment 7.

11.1 Siting and Design

Siting layout and design considerations that offer mitigation, are summarized as follows:

- Minimized vegetation clearing outside of the arrays to preserve existing trees and other vegetation to the best extent possible.
- Panels proposed against background trees to reduce visual contrasts, as color contrasts can be visually absorbed and moderated by the background trees.
- Setbacks and offsets: The Facility alignment has been designed to incorporate and abide by and/or exceed the minimum property and building setback distance requirements for 94-c (see Exhibit 5 for more detail). The Applicant used minimum setbacks of 500 feet from non-participating occupied residences, 100 feet from non-participating residential property lines, and 50 feet from the center line of public roads and non-residential, non-participating property lines.
- The Facility has been designed to comply with local laws related to visual impact minimization (See Exhibit 24 for further details on compliance with local laws).
- General site location placed far from sensitive agency recognized and listed visual receptors.as best as practicable.
- The Facility has been sited away from larger population centers to minimize potential visibility by a relatively larger number of viewers.
- The collection substation and switchyard are located proximal to the existing transmission right-of-way for minimally distant new interconnects.
- The collection substation is located close to wooded areas with a large setback distance from nearby roads.

- Collection lines have been placed underground to decrease additional aboveground Facility visibility. This configuration allows continued use of the land within the Facility Site.

- Use of antireflective coatings on solar panels. Solar photovoltaic panels are also designed to absorb light and minimize reflected light and therefore, produce minimal, if any, glare.

- Racking systems consist of non-reflective metallic materials.

11.2 Downsizing and Low Profile

The size and profile of the Facility in terms of dimensions is necessary to achieve Facility purpose and MW capacity. Panels are anticipated to have a maximum height of 8 feet, 11 inches from finished grade, inclusive of the racking system which is low-profile as compared to the typical existing trees and buildings. The Facility is also using tracker and bi-facial panel technology. The maximum height of a tracker system, however, is only sustained for a short period during daylight hours as the racking makes continuous angle adjustments to follow the sun. For example, tracker systems lay flat near mid-day when the sun is directly overhead resulting in a panel height considerably lower than the maximum height. If needed, tracker arrays allow for the ability to directly program and adjust panel tilt in certain areas at certain times of day to minimize and eradicate glare in problem areas.

11.3 Alternate Technologies

Alternate technologies generally do not exist that would substantially reduce the visibility and visual impact of the proposed Project. However, some newer technology that solar facilities are using more frequently, including the Brookside Solar Project, are bifacial solar panels. Bifacial solar panels allow for light sensitivity on both sides. By constructing the arrays with the bifacial solar panel presentation, the Applicant is able to minimize the overall Facility footprint and still meet the MW capacity.

11.4 Facility Color

Generally, parts of the facility such as racking systems and collection substation (gray) and their color and form cannot easily be changed as materials are standardized. Racking systems will consist of non-reflective metallic materials.

Current technology of PV solar panels must be manufactured to certain specifications to function as intended. Solar panels, however, are consistent in color and designed to reflect the least possible light. Since the solar panels are manufactured to absorb light and minimize reflected light, they therefore, produce minimal, if any, glare. Additionally, the Facility will use antireflective coatings on solar panels.

11.5 Relocation and Rearranging Facility Components

The Applicant has undergone several iterations of the facility alignment prior to final design drawings mainly due to new or updated landowner agreements and boundary setback adjustments, as well as shifts in stormwater design at the collection substation. However, most changes and shifts of Facility components were due to avoidance of wetlands impacts. The Applicant carefully designed the Facility to avoid state jurisdictional wetlands and the adjacent areas. Through minimization efforts including a thorough design process and multiple drafts and revisions of the Facility, the Applicant ensures that wetland impacts were avoided and/or minimized to the maximum extent practicable.

11.6 Advertisements, Conspicuous Lettering, or Logos

Other than warning and safety signs, no advertisements, conspicuous lettering, or logos will be permitted on Facility components.

11.7 Electrical Collection System

The collection system will be placed underground. However, should subsequent unforeseen engineering, construction, or environmental constraints dictate the need for overhead infrastructure, such apparatus will be utilized for the shortest distance possible.

11.8 Electrical Collection and Transmission Facilities

Electric collection and transmission structures shall have a non-glare finish. Use of a dark brown or green weathered steel dead-end structure shall be considered in the development of final engineered design.

11.9 Non-Specular Conductors

Non-specular conductors shall be used for any portion of the transmission line and electric collection system.

11.10 Glare for Solar Facilities

The Applicant prepared a Glint and Glare Analysis, included as Plan 7C in Attachment 7, to identify any potential glint/glare impacts on nearby residences at first and second-story viewing heights, as well as roadways at car and truck viewing heights. The analysis was prepared by Capitol Airspace Group using the Solar Glare Hazard Analysis Tool (SGHAT).

The results of the analysis indicate that there are no predicted glare occurrences for nearby residences or roadways as a result of the proposed single-axis tracking arrays. The results are based on the application of Federal Aviation Administration (FAA) glint and glare standards in the absence of non-aviation regulatory guidelines. Panels are designed to absorb sunlight and will be

treated with anti-reflective coatings that will absorb and transmit light rather than reflect it. In general, solar panels are less reflective than window glass or water surfaces (NYSERDA, 2019) and any reflected light from solar panels will have a significantly lower intensity than glare from direct sunlight (Massachusetts Department of Energy Resources, 2015).

In cooperation with the Department of Energy (DOE), the FAA developed and validated the Sandia National Laboratories SGHAT, now licensed through ForgeSolar. ForgeSolar has enhanced the SGHAT for glare hazard analysis beyond the aviation environment. These enhancements include a route module for analyzing roadways as well as an observation point module for analyzing residences. SGHAT is a very conservative tool in that:

- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover, and geographic obstructions.

- The glare analysis assumes clear, sunny skies for 365 days of the year and does not take into account meteorological conditions that would nullify predicted glare such as clouds, rain, or snow.

- Although only a portion of a modeled array may have the potential to produce glare, the results are provided as if the receptor has visibility of the entire array. SGHAT does not account for the mutual screening of panels, i.e., front panels that screen the view of other rear panels.

11.11 Planting Plan

Vegetative landscape plantings are proposed to minimize visual impacts to the maximum extent practicable under §900.2.9 (d). The regulations do not state that 100% screening must be achieved. There may be areas where views are not entirely blocked.

An abbreviated version of the Landscaping Plan for vegetative mitigation can be found as Plan 7A in Attachment 7. The full plan can be found in Appendix 5-1 of Exhibit 5 engineering drawings.

Vegetative mitigation, or screening, can be effective in further minimizing views. To provide additional screening, a landscape plan was developed that contains sustainable, hearty and resilient plantings that primarily consist of native/indigenous species. The planting scheme has an emphasis on evergreens which will help minimize year-round views into the Facility Site. Additionally, ornamental, pollinator-friendly, small trees and shrubs have been incorporated into the plan to provide a more natural look, as well as being more aesthetically pleasing and complimentary to the surrounding area. The following items and concepts were applied to the plan:

- Native/indigenous evergreen trees and pollinator-friendly deciduous shrubs and small ornamental tree species were selected for the vegetative buffer. The species chosen will

need to reach an adequate height and width to provide the appropriate visual screening required while also maintaining minimum mature heights that will not produce shade over the Facility in later years. Deciduous and evergreen tree species include balsam fir (*Abies balsamea*), northern white cedar (*Thuja occidentalis*), white spruce (*Picea glauca*), eastern red cedar (*Juniperus virginiana*), flowering dogwood (*Cornius florida*), and downy shadbush (*Amelanchier arborea*). Shrub species include red chokeberry (*Aronia arbutifolia*), red twig dogwood (*Cornus sericea*), common witch hazel (*Hamamelis virginiana*), common winterberry (*Ilex verticillata*), and highbush blueberry (*Vaccinium corymbosum*).

- The plantings are proposed along the outside fence line or at property boundaries in locations noted on the Landscaping Plan. Two planting types are proposed for an approximate total of 26,145 linear feet of vegetative mitigation around the arrays:

    - Mitigation Planting Template Type 1: This planting scheme provides a density of plantings that will be considered a typical visual screening effort for this Facility. Approximately 28 evergreens per 300 feet of linear planting are proposed among the deciduous species. Type 1 plantings will be utilized/implemented along 18,730 linear feet (72%) of the Facility.

    - Mitigation Planting Template Type 2: This planting scheme provides a density that is considered an alternative screening effort with a greater density of evergreens. Approximately 35 evergreens per 300 feet of linear planting are proposed among the deciduous species. Approximately 7,415 linear feet (28%) of Type 2 plantings are proposed to be used within the Facility site.

- A northeast native wildflower and grass seed mix using native/indigenous warm and cool season grasses was developed especially for the areas under and around the solar array fields. Native pollinator seed mixes are intended to provide excellent wildlife food and shelter that will attract a variety of pollinators and songbirds. Pollinator seed mixes are intended to provide nectar and food sources for a variety of pollinators and larva. and is considered favorable for wildlife habitat and sustainable growth. The native wildflowers and grasses in this mix provide an attractive display of color from spring to fall. The seed mix will provide a groundcover that minimizes erosion concerns, does not pose any shading issues, and is manageable year-round. Appendix 5-1 of Exhibit 5 identifies the species that are included in the grass seed mix.

- Expected growth heights (depending on the specific tree or shrub species) are expected to be between 5 to 23 feet at 10 years. However, fully mature heights of the year-round coniferous species may reach up to 40 feet high.

It is important to note that an annual Operation and Maintenance (O&M) effort will be provided to ensure that proper care and attention is given to the proposed plantings once they have been installed. Annual O&M efforts will include, but not be limited to, selective pruning, mowing, and monitoring of invasive species. Additionally, landscaping notes in the Landscaping Plan will provide further direction, recommendations, insight, and guidelines to ensure a healthy, viable, and sustainable landscape throughout the life-cycle of the Facility to the maximum extent practicable.

11.12 Lighting Plan

Lighting is proposed only at the Facility substation, and is only intended for security, safety, and maintenance purposes. The Facility's Lighting Plan along with the collection substation plan and profile drawing is included as Plan 7B in Attachment 7. The Lighting Plan was developed to minimize fugitive light while meeting lighting standards established by the National Electrical Safety Code (NESC). The proposed lighting also complies with Occupational Safety and Health Administration (OSHA) requirements, as proper illumination will be provided for all working spaces around the electrical equipment. All of which has been designed so that control points or persons making repairs will not be endangered by "live parts" or other equipment.

Lighting has been designed to provide an average of 2 foot-candles, to eliminate unnecessary light trespass beyond the substation. Light fixtures will be mounted at a height not to exceed 15 feet and will not be illuminated during unoccupied periods. Full cut-off fixtures and task lighting will be used wherever feasible, as specified in the Lighting Plan. The lighting plan addresses the following, as applicable:

- Security lighting needs at the substation. Lights are located on such structures as the takeoff, control house, CT metering, and three pole-mounted locations – two of which are located near entries to the substation.

- All lighting will be activated manually and installed facing downward to minimize potential impacts to the surrounding public.

- Plan and profile figures to demonstrate the lighting area needs and proposed lighting arrangement and illumination levels to provide safe working conditions at the collection substation site;

- Exterior lighting design will be limited to lighting required for health, safety, security, emergencies, and operational purposes and will be specified to avoid off-site lighting effects as follows:

    - Using task lighting as appropriate to perform specific tasks; limiting the maximum total outdoor lighting output; task lighting fixtures will be designed to be placed at the lowest practical height and directed to the ground and/or work areas to avoid

being cast skyward or over long distances, incorporate shields and/or louvers where practicable, and capable of manual or auto-shut off switch activation rather than motion detection; and

- Requiring full cutoff fixtures, with no drop-down optical elements (that can spread illumination and create glare) for permanent exterior lighting. Manufacturer's cutsheets of proposed lighting fixtures are provided.

12.0 VISIBILITY DURING CONSTRUCTION

Potential visibility of construction activities is anticipated to be temporary in nature. Construction of a typical facility normally involves the following major undertakings: building/upgrading roads; constructing laydown areas; removing necessary vegetation from areas of construction; transporting components and other materials and equipment to the Facility Site; assembling the solar panels; constructing other Facility components (e.g., collection substation, fences); and installing power-conducting cables (typically buried). During this time, there will be an increase in vehicular traffic, equipment, and workers seen within the Facility Site and the immediate surrounding area; construction may result in the temporary increase of dust and emissions.

Construction visual contrasts would vary in frequency and duration throughout the course of construction. There may be periods of intense activity followed by periods with less activity and associated visibility would vary in accordance with construction activity levels.

The peak construction workforce for this Facility is expected to be approximately between 78 and 117 workers which will be distributed to/from the Facility Site, conservatively assuming one worker per vehicle per day. In addition to construction workforce trips for each type of construction and grading equipment and material delivery trips for the construction period estimated to be 69 trips. Discussion on construction vehicle types, number of trips, and construction activities is outlined in greater detail in Exhibit 16.

Earthwork activity, construction of haul roads, and fencing installation will not occur at the same time as the peak workforce and equipment installation construction period. Added trips for these activities are expected to be approximately 15 trips per day during the first 3 months and 18 trips per day during the final 2 months.

Construction hours are to be limited to 7 a.m. to 8 p.m., Monday through Saturday, and 8:00 a.m. to 8 p.m. on Sunday and national holidays, with the exception of construction and delivery activities, which may occur during extended hours beyond this schedule on an as-needed basis. The actual time of day and day of the week for the delivery/removal of any cut and fill as will the delineation of approach and departure routes will be determined when the construction schedule is finalized.

There will also be temporary stockpiles, and stormwater management, and erosion control measures in place during construction activities. Further detail on expected number of trip and specific construction activity and equipment can be found in Exhibit 16.

13.0 CUMULATIVE EFFECTS

Per §900.2.9 (a) a cumulative visual impact analysis should be performed but it is not specific. Cumulative effects are discussed in this section based on available data, related to recent and proposed development in the Towns. Please refer to Figure 6 for project locations. Aside from the proposed Facility there are seven other renewable energy projects in the area that are either existing or have been proposed.

Section 3.6 lists publicly known proposed land uses in the area. They are:

- a 5 MW solar facility by Nexamp Solar located south of US Route 11 off of Ketchum Road in Burke.
- Glengarry Solar Project, an AES solar facility located south of US Route 11 on Glengarry Farms property in Burke
- A 15 MW solar facility on US Route 11 by Norbut in Chateaugay is approximately 3.8 miles east of the Brookside Solar Project and 1.7 miles outside of the study area.
- Terra-Gen is proposing to construct the North Country Wind Project, a 298-MW 60-turbine wind farm in Burke and Chateaugay, which is proposed to be online in 2023 or 2024. Location details are unknown. This project may or may not fall within the VSA.

These four projects are proposed, and specific equipment and alignment details are uncertain at this time.

Section 3.5 states the North Country Energy Storage Facility is adjacent to the existing Willis substation located on County Route 33, approximately 1.5 miles south of the Brookside Solar Project. Views of the Facility are not predicted from this location. Direct cumulative effects, or rather, views of both projects at the same time is not anticipated.

Two existing projects have publicly available detail and location data, obtainable from the United States Wind Turbine Database. As noted in Section 3.5, the existing Jericho Rise Project, a 37-turbine, 77.7-MW wind farm is in the Towns of Chateaugay and Belmont and is located south of US Route 11. The turbines are generally 492 feet tall (150 meters). Sixteen turbines fall within the VSA. The Facility Photolog in Attachment 3 representing the character of the area in the VSA show several Jericho Rise turbines in the existing view. Just east of the VSA (and east of the Village of Chateaugay) is the existing Noble-Chateaugay Wind Farm, a 106.5-MW capacity wind farm with 71 turbines generally 389 feet tall. Three turbines from the Noble-Chateaugay Wind Farm fall within the VSA approximately 450 feet and less from the outer eastern extent.

While some specific location data is unknown, cumulative effects from a spatial and regional perspective, or that of one traveling through the area, could be experienced. While there is a number of proposed projects in the vicinity, the Nexamp and Glengarry are small solar projects in nearby locations to the Facility. Due to proximity, these projects are likely to be viewed as part of a larger whole following post-construction of all projects, instead of as distinct projects scattered across the landscape. Similarly, the Norbut project in Chateaugay would be embedded generally within the existing Noble-Chateaugay wind farm.

The proposed Brookside Solar Project will also be embedded within the existing Jericho Rise wind farm. Due to the geographically condensed nature of these multiple facilities, there would not be repeated exposure to installations in a large spatially temporal fashion as they are either embedded or contiguous. As seen in Figure 6, if one were traveling along US Route 11 for example, regional drivers would potentially pass by the nearly contiguous geographical locations of six out of the eight projects over approximately 6 miles of highway between the proposed Norbut to the east and the Glengarry site to the west.

Assessment of cumulative effects has been further investigated for the existing Jericho Rise and Noble-Chateaugay wind farms because of the reliable and public data that is available. In this instance, spatial-temporal-distance relationships was not the focus but rather, simultaneous viewing. These cumulative effects were not necessarily evaluated by considering the entirety of the proposed Facility but only where there would be visibility of an existing wind turbine and a proposed Facility solar array at the same time. Therefore, cumulative effects would not distributed equally, nor might they be prominent. Populated areas including the Villages of Chateaugay and Burke as well as Burke Center will not experience any cumulative effects from the proposed Facility as seen against the existing nearby wind farms, simply because these areas are not predicted to see the solar arrays. To understand what areas will not encounter this type of cumulative effect is to review the visibility results in Figure 6 in Attachment 2. If there is no visibility predicted for arrays, then the possibility is only there for those areas to see just the existing wind turbines.

The Noble-Chateaugay wind turbines are farther from the Facility and east of the Village of Chateaugay and would be diminished in size and scale with potentially more screening from existing forested areas. The existing Jericho Rise project is the more prominent facility that can be seen from many areas within the VSA.

Viewshed analyses for each of the two nearby wind facilities were performed separately using information from the United States Wind Turbine Database (v4.3, January 14, 2022). Cumulative effects were determined by overlapping those visible areas resulting from the turbines with the Brookside Solar Project visibility, thus representing areas where views of both projects might potentially be obtained. The entirety of each wind farm was analyzed against the proposed Facility. However, visibility results are only shown for those areas within the VSA. Table 10

summarizes the results. Figures 7A and 7B in Attachment 2 shows the cumulative effects viewshed maps.

Table 10. Cumulative Effects – Percentage of Overlapping Visibility of Nearby Wind Projects With the Proposed Facility

Project	Total Area Comprising VSA Square Miles	Visibility of Project Square Miles	% Overlapping Visibility Within Full VSA	% Overlapping VSA Visibility on Participating Landowner Property	% Overlapping VSA Visibility on Non-Participating Landowner Property
Proposed Facility Only. No overlap	26.95	3.34	12.39% (no overlap)	6.6% (no overlap)	5.79% (no overlap)
Jericho Rise and Proposed Facility	26.95	3.31	12.27%	6.5%	5.77%
Noble-Chateaugay and Proposed Facility	26.95	1.98	7.33%	3.3%	4.03%

As noted, the Jericho Rise wind turbines are in the immediate vicinity of the Facility Site. As Table 10 indicates, the level of Jericho Rise turbine visibility when viewing solar arrays at the same time is 12.27%, indicating the percentage of overlapping visibility of the turbines with Facility visibility is nearly the same. This does not mean that all of the Jericho Rise turbines are visible. It is assumed that many of the same proximal turbines are being observed but in different locations within the VSA. Table 10 also indicates some Noble-Chateaugay turbines could be seen when viewing solar arrays, with the percentage of overlapping visibility resulting in 7.33%. The Noble-Chateaugay wind farm is farther to the east where these turbines are less visible in the VSA. Noble-Chateaugay turbines would also be distant and more subordinate in the view as opposed to the Jericho Rise turbines.

Several Facility simulations have been chosen with the specific intention of illustrating the cumulative effects and quality of the view at varying distances when turbines and solar arrays are seen together. These include VPs 5, 9, 23, and 38. Refer to Section 10.2.1 that further describes these simulation viewpoints. Overall, the wind turbines visually dwarf the solar panels when viewing the Facility at distance and the contributing cumulative effects of the Facility appear minor, such is at VP23 at Selkirk Road. In some instances when solar arrays are in closer proximity to the viewer against a wind turbine, the Facility can appear to be co-dominant in the view. Simulation VP38 is an example of a co-dominant view when looking at Proposed Conditions showing only the Facility with the fence line, especially because of the taller collection station components in view. However, the Facility components become subordinate in the view and thus

cumulative effects are greatly reduced when viewing the Proposed Conditions simulation with vegetative mitigation added.

As several other simulation views show, while there are arrays that may contribute lateral breadth in the landscape, overall cumulative effects from the Facility vary but overall, do not appear to be prominent due to the natural low profile of the panels. And as noted, landscape screening of the Facility is proposed and will moderate and reduce aspects of the Facility and for nearby residences as well.

14.0 SUMMARY CONCLUSIONS – VISUAL IMPACTS DURING OPERATION

The information in this VIA provides an understanding of the visual relationship between the Facility and its surrounding context. In-depth compilation of computerized analysis results and corresponding discussion is provided in Section 10.0. The following provides a summary of findings and impacts related to the Facility.

1. The viewshed analysis results objectively show that there is minimal expected visibility of solar arrays (12.39%) within the overall VSA and there would be limited areas from which the Facility would be visible but, in contrast, a multitude of areas from which it would not be seen.

    a. The VSA was partitioned into 2 distance zones each offering its own level of visual acuity as described in Section 4.0. These zones include Zone 1 from 0 to 0.5 miles and Zone 2 from 0.5 to 2.0 miles. Zone 1 had the highest percentage of visibility of 10.38%, while there is an abrupt difference once outside the 0.5-mile radius where percent visibility in the VSA drops to 2.01%. This can be expected as there would reasonably be a concentrated amount of visibility in proximity to the Facility. Visible areas include the Facility parcels themselves and at a few roadways, open fields, and nearby properties. Although the panels are sited in open land, the low-profile panels set against existing tree buffers, hedgerows, and tree groups that frame the panel locations is enough to obscure many outward views.

    b. There are five LSZ categories presented in Tables 3 and 5. The presence of the highest LSZ percentages within the VSA are Zone 2 Forested at 47.82% and Zone 1 Agricultural and 43.61%. The actual percentage of visibility in LSZs is highest in Zone 1. Table 5 shows that 10.27% of land area in agricultural areas within 2 miles may experience visibility of the Facility followed by 1.24% from forested areas. Developed areas resulted in 0.68% of the land area that is expected to experience visibility within 2 miles. There is no visibility within the Zone 5 Open Water category.

    c. As seen in Figure 4 of Attachment 2 and further described in Section 10.1.1, the majority of visibility for the arrays occurs on properties belonging to participating landowners. The Facility Site consists of 1,471 acres or 2.3 square miles. The Facility

Site is described as an acreage area encompassing all Facility parcels located within the Towns of Burke and Chateaugay. It is composed of land that currently is either leased or owned by the Applicant and is therefore, defined as properties belonging to participating landowners. Visibility results also indicate that 6.60% of the total 12.39% visibility within the VSA occurs within the Facility Site, and thus, on participating landowner properties. The remaining 5.79% of Facility visibility will occur on non-participating landowner parcels.

2. Due to the placement and surrounding forested areas, visibility analysis shows that the collection substation and switchyard will not be visible from most areas in the vicinity as well as within the overall VSA. Section 10.1.7 discusses visibility solely from collection substation components in the absence of arrays. Highest electrical components are between 45 and 70 feet tall while lower components are 27 feet or less. Substation visibility occurs in 2.78% of the land area within the VSA.

3. Three listed recreational aesthetic resources outlined in Table 4 will have views of the Facility and includes short segments of snowmobile trail designated as C8C and the Military Trail Scenic Byway/NYS Bikeway 11 (US Route 11). Both run through Burke and Chateaugay. These are linear features that by nature will experienced intermittent, transient, and partial views of arrays. Snowmobile travel will be seasonal. Two NRHP eligible historic sites are expected to have partial views. In a letter dated January 11, 2022, SHPO provided a final conclusion stating that the Brookside Facility will have No Adverse Impact to historic and cultural resources (Attachment 5).

4. The local community will experience partial views of the Facility. Several segments of local roadways running through the interior of the Facility as well as perimeter roads may experience transient views from vehicular traffic. Much of this visibility along intermittent road segments are within 0.5 miles in Distance Zone 1 and include those such as US Route 11, County Route 23 ,County Route 33, Cemetery Road, East Road, Ketchum Road, Lewis Road, Martin Road and others noted in Section 10.1.4. Entire roads will not have visibility. Visibility maps in Attachment 2 and 3 further illustrate which segments of road may experience views of the Facility.

   It is expected that the number of static (longer duration) viewers able to see the Facility is low due to the rural nature of the Facility location and lack of high density residential clusters and neighborhoods as compared to a suburban or urban area. Most residences are rural residential located intermittently along roadways, save for Thayer Corners. The Villages of Chateaugay and Burke are not predicted to see the Facility. Also, the presence of mosaicked tree groups along with relatively level terrain in the area assists in screening views. However, there will be house locations with long duration views. The Facility Landscape Plan was designed to screen views of the Facility to the maximum extent practicable for adjacent and nearby residences. Views at several nearby residences along these roads are represented in the Facility photosimulations.

5. Attachment 4 shows four LOS profiles from state aesthetic resource and illustrate how or why the Facility is visible or not visible. Two LOS profiles, L1 and L4 will have views from NYS Snowmobile Trail C8C and the Military Trail NYS Scenic Byway/NYS Bikeway 11, respectively. Two NYS Public Fishing Rights Easement locations, L2 at the Chateaugay River and L3 at Marble River will not have views of the Facility.

6. Photosimulations showing existing and proposed conditions including proposed mitigation at 10 years have been produced. New shapes and colors incongruous to the existing environment are introduced. The general visual appearance of the low-profile panels as a group contribute to a homogenous form, which consists of new horizontal pattern often similar in shape, and size to the landscape features found in many views. Overall Facility contrast and the overall visual effect will vary depending on the extent of panel visibility (partial or full), distance of the arrays from the viewer, and if the panels are seen in the context of other existing noticeable modifications to the local natural landscape**.** In some instances, background vegetation seen behind the Facility moderates visual contrast because the arrays are perceived to be visually absorbed by similar color and color value expressed by the background trees. In other instances, depending on weather and seasonal conditions, contrasts appear greater. It is observed in several of the simulations that offset distances from a viewer or roadway are effective in moderating the effects of the Facility where size and scale as well as discernible detail are diminished. Mitigation of the Facility is emphasized at residential properties.

7. A discussion of Facility visual contrasts in greater detail can be found in Section 10.3. Facility contrast ratings were applied for the unmitigated simulations against existing conditions. Seven simulations had average Part 1 Facility contrast ratings that are weakly moderate to moderate. Three simulations are rated as having weak or very weak contrasts. All Part 2 average viewer sensitivity contrasts are rated as weak or weakly moderate due to the low populated rural nature of the area, despite some simulation viewpoints located at aesthetic resources. Contrasts noted above are averaged within each Part. Please refer to Attachment 6 to see the raw values assigned for each subcategory under each Part.

   Proposed mitigation to screen views can be seen in the simulations and show a 10-year time frame. With the inclusion of the landscape plantings, contrasts are softened and moderated as the trees and shrubs are more congruous with the existing environment and the Facility color and value contrasts are reduced.

8. As noted in finding #6, vegetative mitigation is proposed to screen residence's views of the Facility. Proposed landscaping described in Section 11.11 and Attachment 7 will consist of two planting template schemes, each with a variety of evergreen trees and shrubs that will provide year-round screening. Visual Facility contrast from solar panels is anticipated to be avoided or minimized in areas where landscaping is proposed. The Applicant proposes approximately 26,145 linear feet of vegetative mitigation at or near residential properties.

9. Cumulative effects analysis from a spatial and regional perspective, or that of one traveling through the area is potentially limited. Including the proposed Facility there are eight projects that are either proposed or existing in the area. However, due to the geographically condensed nature of these multiple facilities there would not be repeated exposure to installations in a large spatially temporal fashion as they are either embedded or contiguous.

   Assessment of cumulative effects was further investigated for the more prominent existing Jericho Rise and Noble-Chateaugay wind farms in the area. In this instance, spatial-temporal-distance relationships was not the focus but rather, simultaneous viewing. Results indicate that a Jericho Rise turbine could potentially be seen along with some portion of Facility arrays within 12.3% of land area in the VSA. Simultaneous views of a Noble Chateaugay turbine along with a Facility solar array would occur less at 7.3 % of land area within the VSA.

Other factors assessing the degree of visual change from the Facility can be considered other than percentages of visibility or observations and results obtained from computer-based analyses, and include:

- Arrays are set back from property lines and/or behind forested areas resulting in reduced visibility.
- Because a tracker racking system will be employed, panels will not appear at maximum tilt at all times. During the middle portion of the day the panels will lean towards a shorter more horizontal aspect.
- The Alternating Current (AC) collection lines will be placed underground and installed primarily via direct burial or trenching with some portions to be proposed via horizontal directional drilling (HDD) in order to avoid wetland resources and roadways.
- While the Facility area consists of many pastoral views, landscape features are similar to each other and landscape characteristics are typical of what you would find in a rural area in this part of New York. The Facility will not impair these surrounding regional landscape characteristics.
- The Facility will not always appear as a dominant feature in a view within the VSA.
- There will be no interference with the general enjoyment of recreational resources in the area due to the fact that most visual resources are at a distance from the Facility or they are linear features (roads and snowmobile trails) running through the area and are expected to have intermittent and short-duration views. There is limited to no long-range visibility overall in the VSA.

- The Applicant has employed reasonable mitigation measures to the maximum extent practicable with respect to the overall design and layout of the proposed Facility as well as the proposed vegetative plantings that screens views to nearby residents.

- The vertical scale of solar arrays is typically not an issue in relation to surrounding features such as trees, hills, and barns. Lateral extent may be an issue if the arrays appear to overwhelm a ridgeline, scenic water body, or cultural feature that appears diminished in prominence. The Facility solar arrays, considering their layout, spacing and the topography and resources in the area, do not overwhelm such physical geographic areas.

- Visual clutter often is adversely perceived and commonly results from the combination of human-made elements in close association that are of differing shapes, colors, forms, patterns, or scales. Generally, solar facilities offer simple and uniform or geometrically patterned arrays or groupings that may be more visually consistent than mixed types and sizes of objects. Landscape mitigation also assists in diminishing visual clutter and offering consistency to the view.

- Aside from normal low local road traffic (see also AADTs in Table 2), the public areas in the vicinity to the Facility Site with predicted visibility are not exceedingly high-use destination areas.

- The Facility does not have an adverse effect on a known listed scenic vista.

- The Facility does not damage or degrade existing scenic resources.

- The Facility does not create a new source of substantial light that would adversely affect nighttime views in the area. Potential glare from the solar modules and associated equipment would be negligible because they would consist of a non-reflective coating, when possible.

15.0 REFERENCES

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BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SITE PLAN

ATTACHMENT 1

AES Tilelock 22X34 (4/2019)



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

TRC
249 Western Avenue
Augusta, ME 04330

PE STAMP:

STATE OF NEW YORK · DANIEL T BUTLER · 079800 · LICENSED PROFESSIONAL ENGINEER

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/19/2022	DESIGN DRAWINGS
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

PROJECT TITLE:

BROOKSIDE SOLAR PROJECT

PROJECT LOCATION:

TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

OVERALL SITE LAYOUT & KEY SHEET

Call 811 before you dig

PRELIMINARY
NOT FOR CONSTRUCTION

600 0 600 1200 FT
SCALE: 1" = 600'

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

PROJ NUM:	422299
DES:	C. WINTERMUTE
DWN:	C. WINTERMUTE
CHK:	J. HEIDIG
APV:	-
DATE:	05/21/2021

SCALE AT 22" x 34":

1" = 600'

SHEET NO: PV-G.02.01

REV: 0

PLOTTED: 1/19/2022 3:19 PM
C:\Users\cwintermute\Desktop\422299_DWG-003.dwg
DATA: x:\jobs\4\22\99\04\422299-BASE-ALTA SURVEY.dwg x:\jobs\4\22\99\04\422299-BASE-MATURAL RESOURCES.dwg x:\jobs\4\22\99\04\422299-BASE-PV LAYOUT.dwg x:\jobs\4\22\99\04\422299-BASE-LAYOUT.dwg x:\jobs\4\22\99\04\422299-BASE-AERIAL.dwg

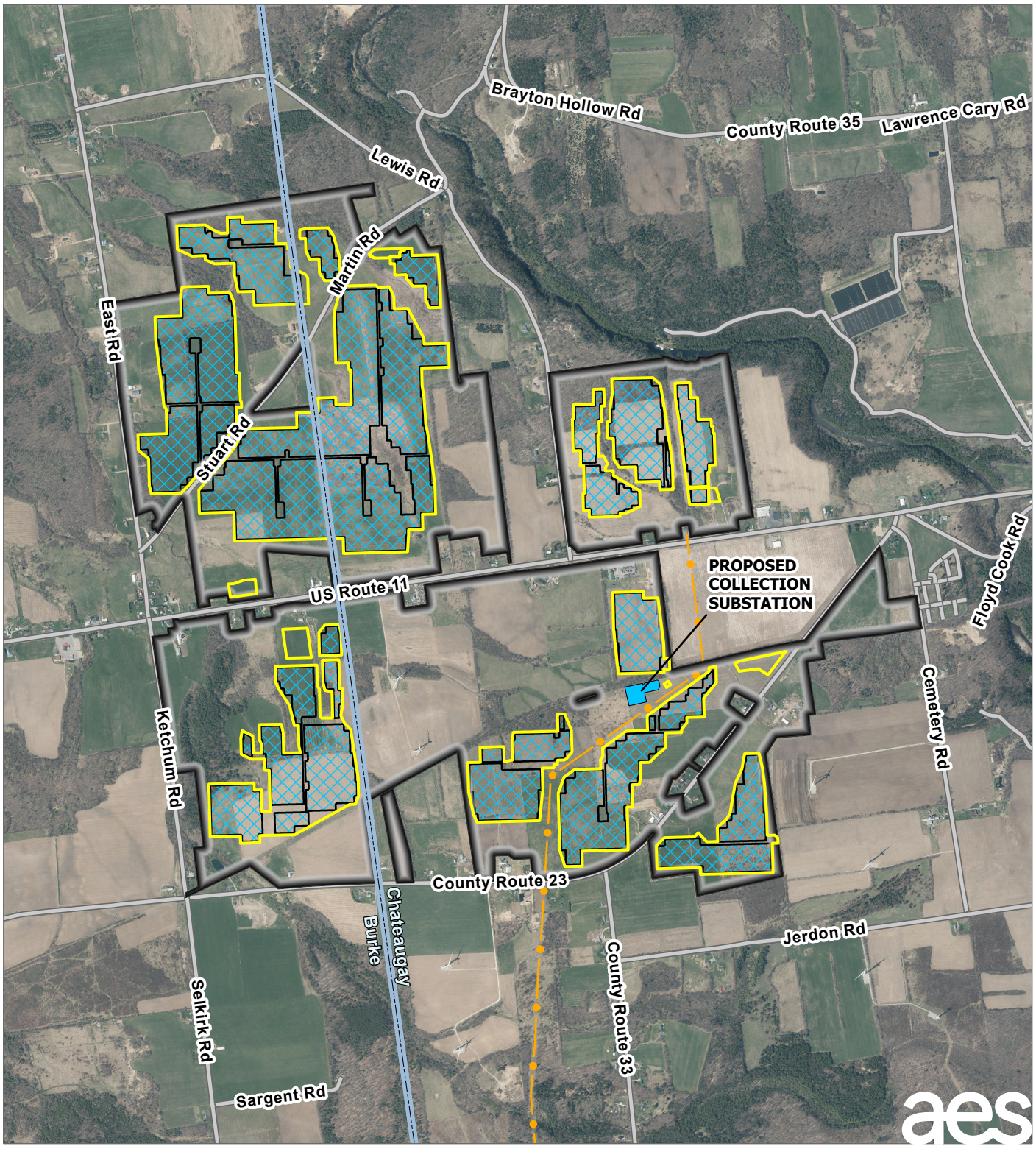
BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

MAPS

ATTACHMENT 2

Part 1 of 2



FACILITY SITE
PROPOSED ARRAY LOCATION
FENCE LINE
PROPOSED COLLECTION SUBSTATION
EXISTING TRANSMISSION

N

0 0.25
MILES



PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY
FRANKLIN COUNTY, NY

TITLE:

FACILITY LOCATION

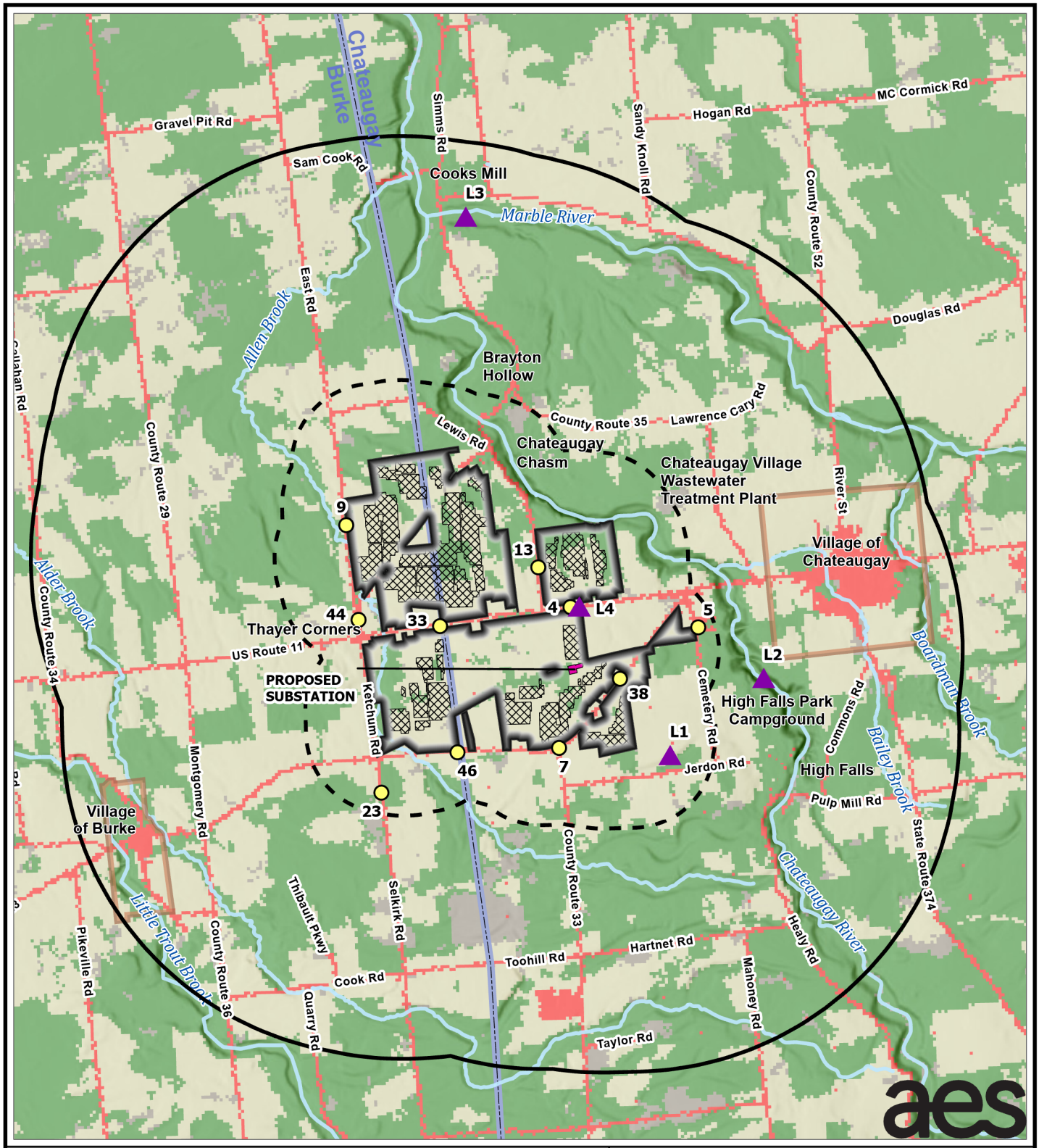
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022

FIGURE 1

TRC

215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



PROPOSED ARRAY LOCATION
COLLECTION SUBSTATION
SIMULATION LOCATION
LINE OF SIGHT LOCATION

LANDSCAPE SIMILARITY ZONES
Zone 1 - Agricultural
Zone 2 - Forested
Zone 3 - Developed
Zone 4 - Open
Zone 5 - Water

DISTANCE ZOME 1 - HALF MILE
DISTANCE ZONE 2 - TWO MILES
FACILITY SITE

N

0 0.5 1
MILES

PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY
FRANKLIN COUNTY, NY

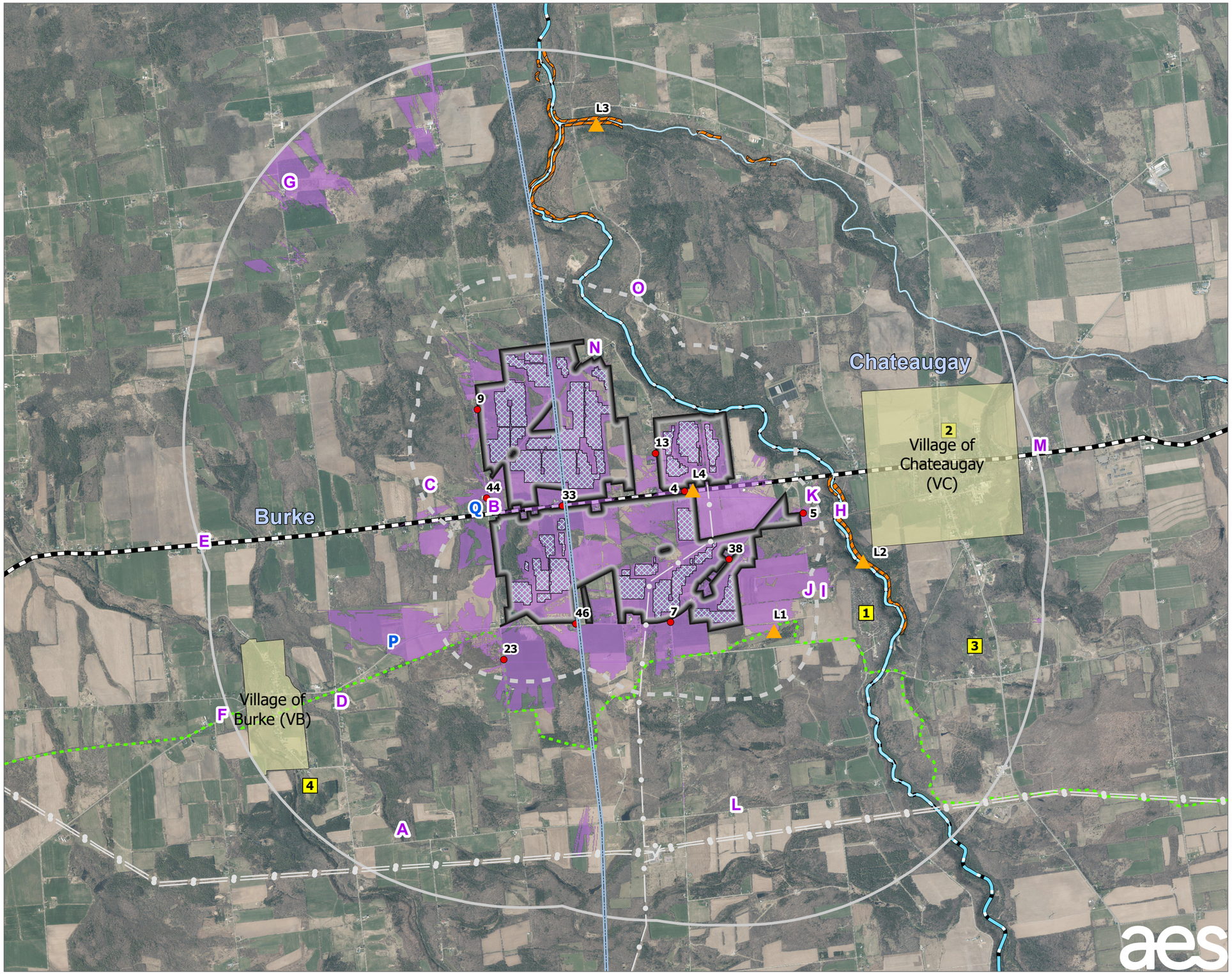
TITLE: **LANDSCAPE SIMILARITY ZONES**

DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022

FIGURE 2

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



POTENTIAL VISIBILITY OF SOLAR ARRAYS (LIDAR TREES & BLDGS)

PROPOSED ARRAY LOCATION

FACILITY SITE

SIMULATION LOCATION

LINE OF SIGHT LOCATION

DISTANCE ZONE 1 - HALF MILE

DISTANCE ZONE 2 - TWO MILES

1 LOCAL PARK/RESOURCE*

MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11

NYS PUBLIC FISHING RIGHTS EASEMENT

NATIONWIDE RIVERS INVENTORY- Chateaugay River

NYS SNOWMOBILE TRAIL C8C

EXISTING TRANSMISSION

A NRHP ELIGIBLE HISTORIC SITE*

P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

** Please refer to Table 4 in VIA for corresponding name and ID*

N

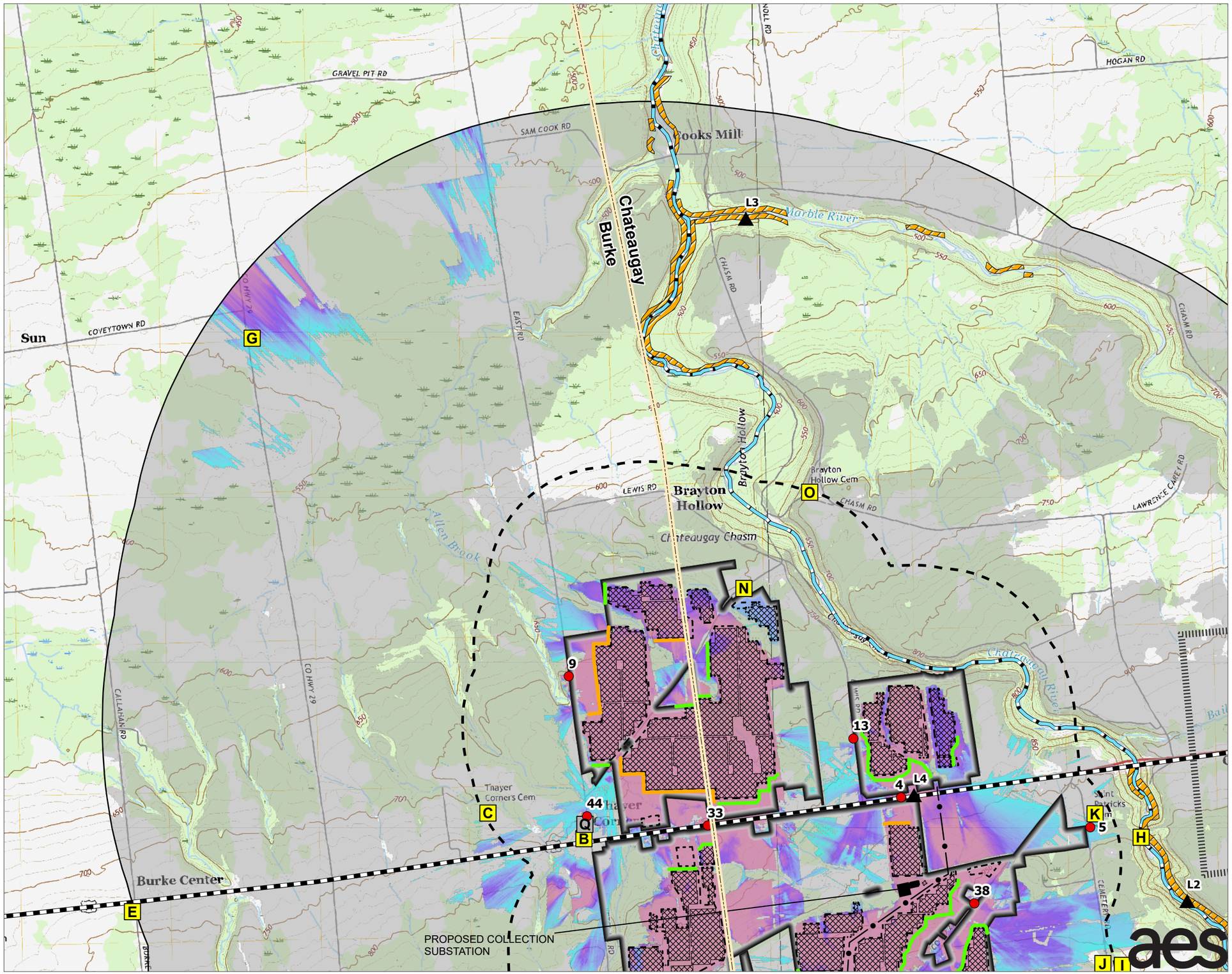
0 0.5 1 MILES

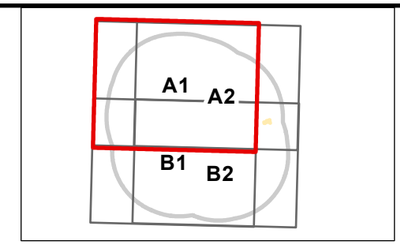
PROJECT:	BROOKSIDE SOLAR LLC TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY
TITLE:	OVERVIEW OF VISUAL RESOURCES AERIAL PHOTO
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022

FIGURE 3

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822





POTENTIAL VISIBILITY SOLAR ARRAYS (LIDAR TREES & BLDGS)

- MORE PANELS VISIBILE
- FEWER PANELS VISIBILE
- POTENTIAL VISIBILITY SOLAR ARRAYS (BARE EARTH TOPOGRAPHY)
- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- FENCE LINE
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

- TYPE 1
- TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

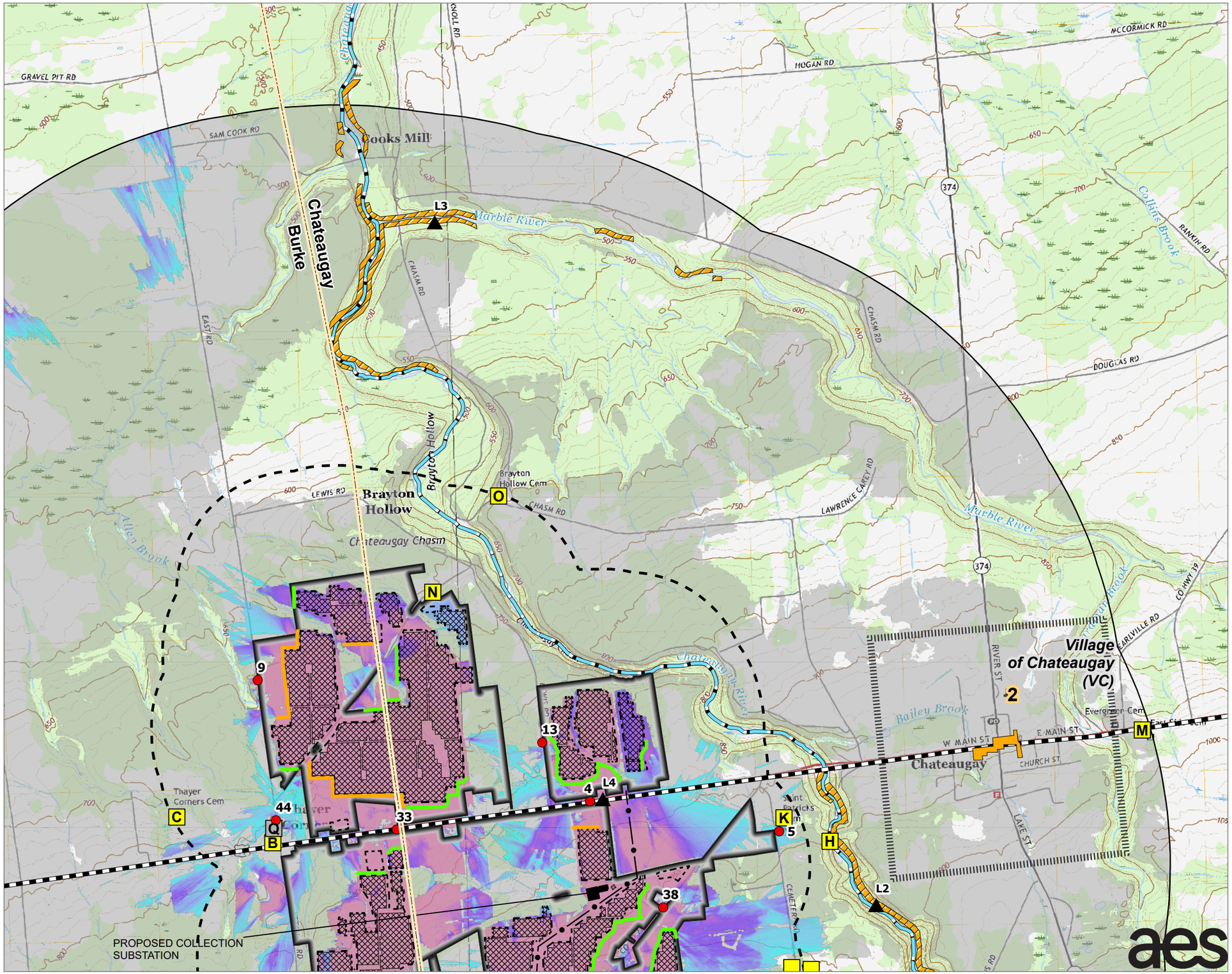
Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

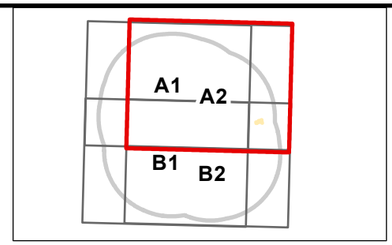
0 0.25 0.5 MILES

PROJECT:	BROOKSIDE SOLAR LLC TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY
TITLE:	POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR ARRAYS
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 4 MAP: A1

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822





POTENTIAL VISIBILITY SOLAR ARRAYS (LIDAR TREES & BLDGS)

- MORE PANELS VISIBILE
- FEWER PANELS VISIBILE
- POTENTIAL VISIBILITY SOLAR ARRAYS (BARE EARTH TOPOGRAPHY)
- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- FENCE LINE
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

- TYPE 1
- TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

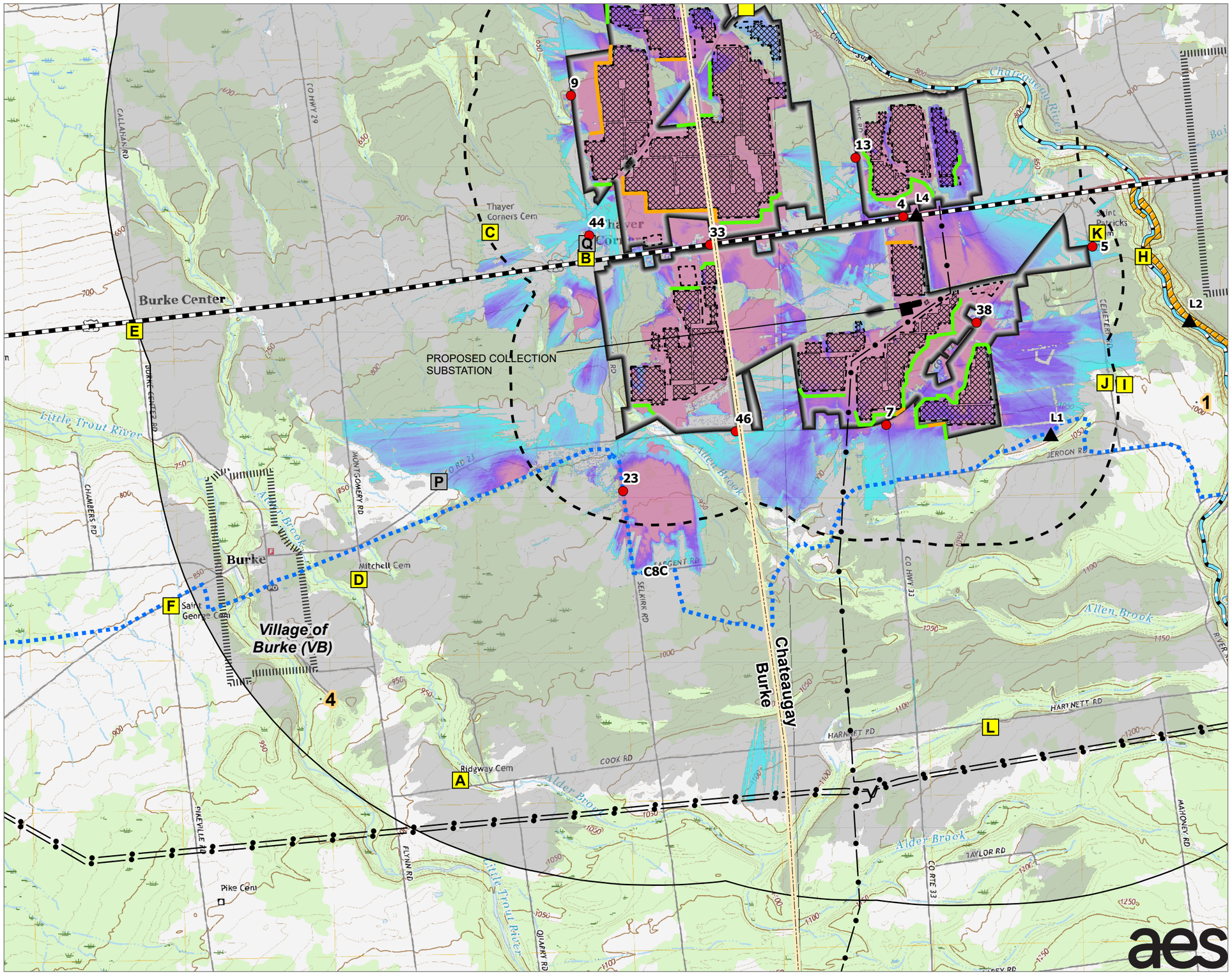
Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

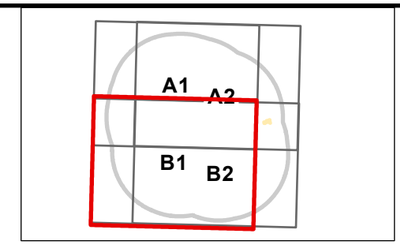
0 0.25 0.5 MILES

PROJECT:	BROOKSIDE SOLAR LLC TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY
TITLE:	POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR ARRAYS
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 4 MAP: A2

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822





POTENTIAL VISIBILITY SOLAR ARRAYS (LIDAR TREES & BLDGS)

- MORE PANELS VISIBILE
- FEWER PANELS VISIBILE
- POTENTIAL VISIBILITY SOLAR ARRAYS (BARE EARTH TOPOGRAPHY)
- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- FENCE LINE
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

- TYPE 1
- TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

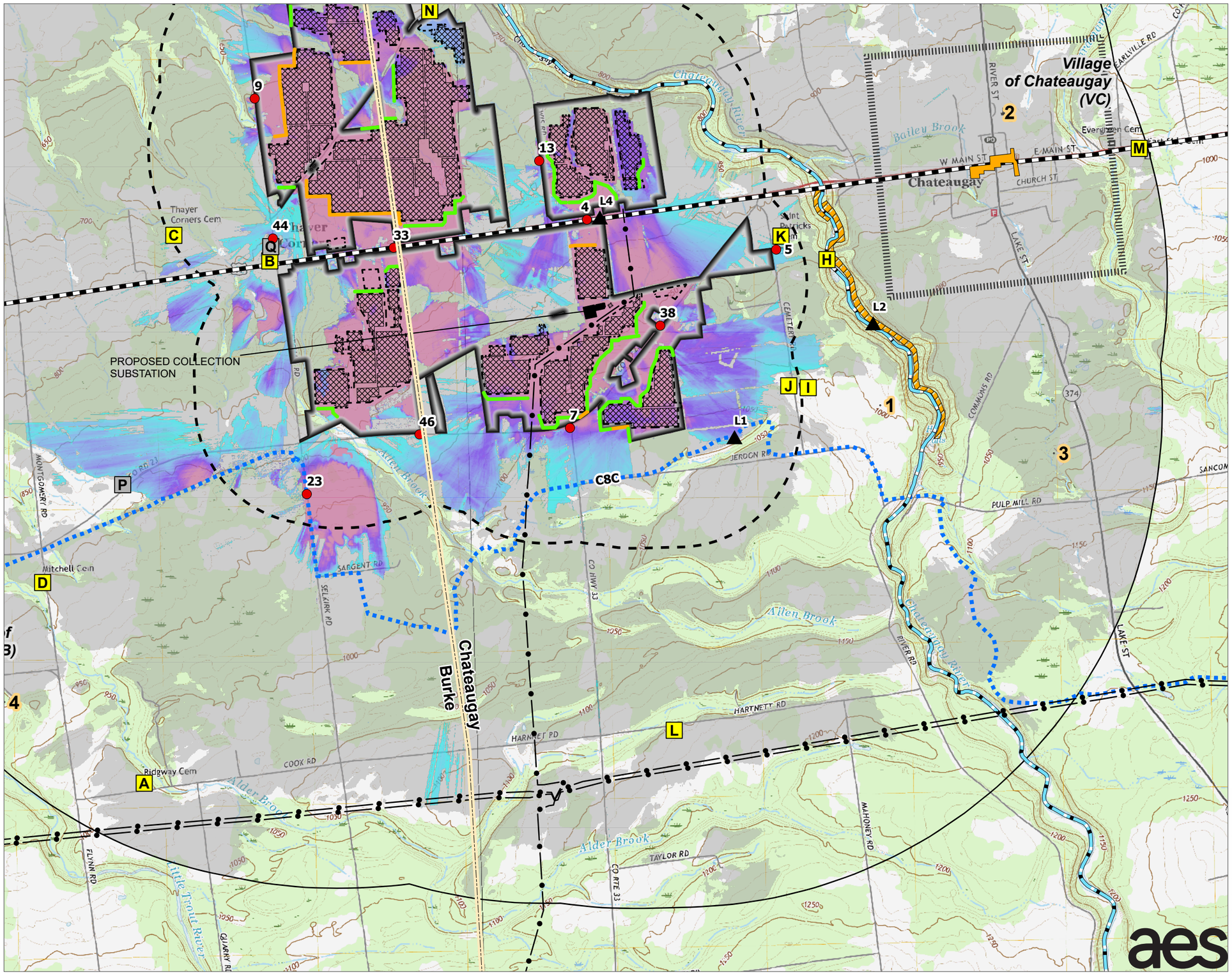
Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

0 0.25 0.5 MILES

PROJECT:	**BROOKSIDE SOLAR LLC** **TOWNS OF BURKE AND CHATEAUGAY** **FRANKLIN COUNTY, NY**
TITLE:	**POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR ARRAYS**
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 4 **MAP: B1**

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



POTENTIAL VISIBILITY SOLAR ARRAYS (LIDAR TREES & BLDGS)

- MORE PANELS VISIBILE
- FEWER PANELS VISIBILE
- POTENTIAL VISIBILITY SOLAR ARRAYS (BARE EARTH TOPOGRAPHY)
- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- FENCE LINE
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

- TYPE 1
- TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

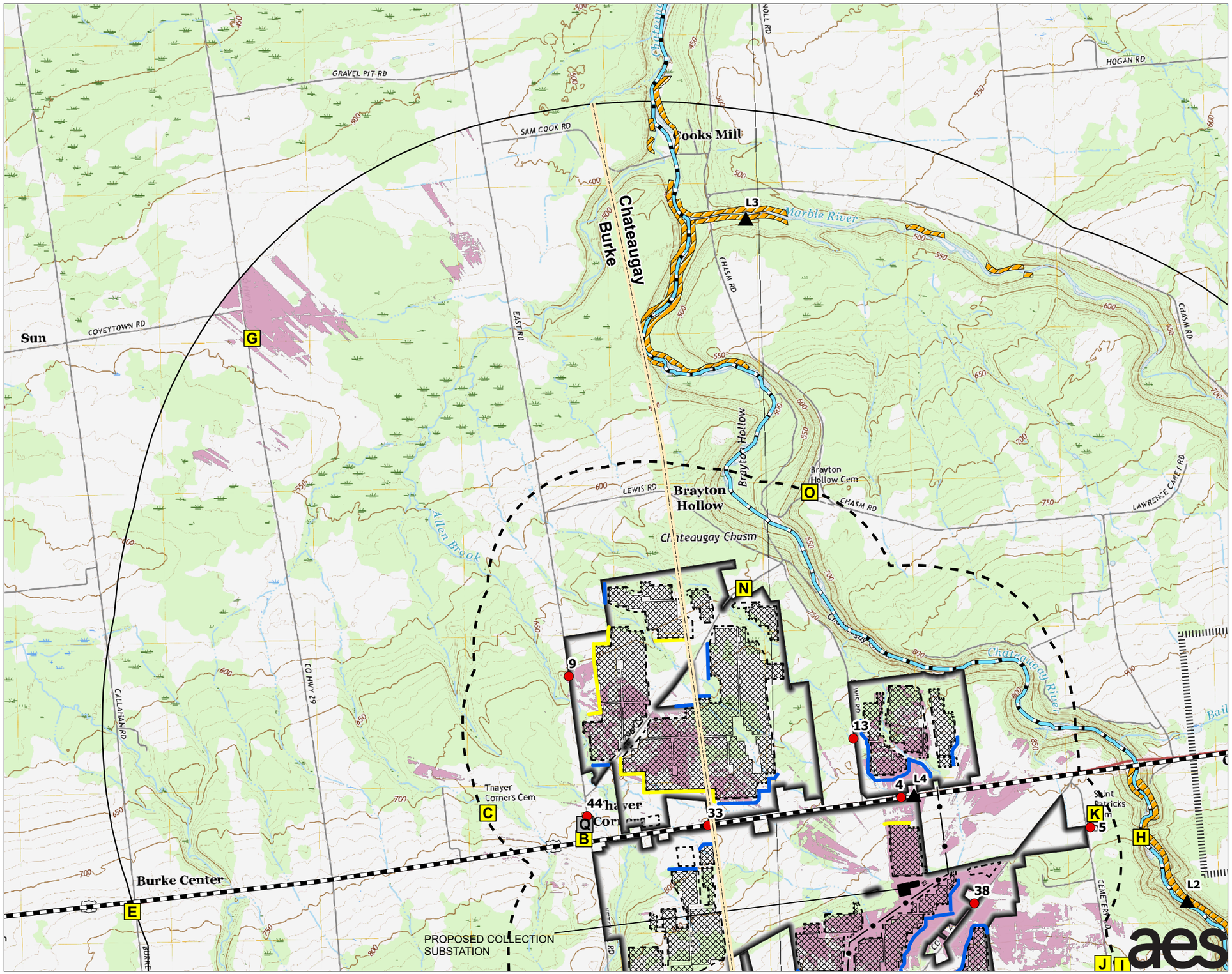
Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

0 0.25 0.5 MILES

PROJECT:	**BROOKSIDE SOLAR LLC** **TOWNS OF BURKE AND CHATEAUGAY** **FRANKLIN COUNTY, NY**
TITLE:	**POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR ARRAYS**
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 4 **MAP: B2**

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY
FRANKLIN COUNTY, NY

TITLE: **POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR COLLECTION SUBSTATION**

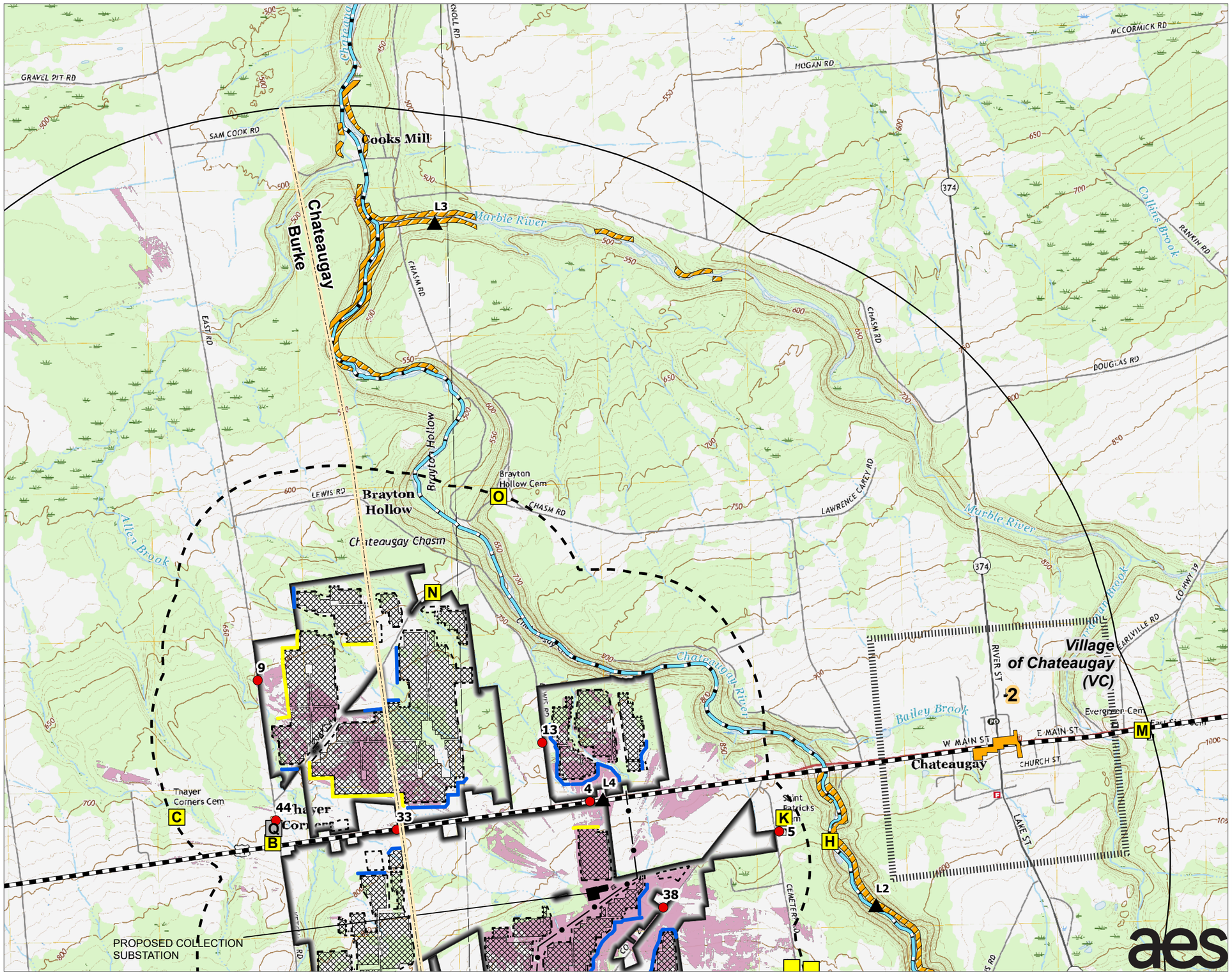
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022

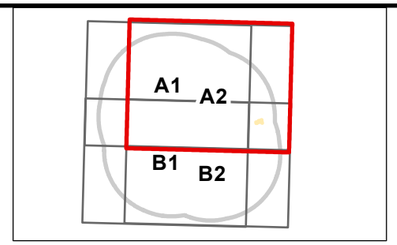
FIGURE 5

MAP: A1

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822





POTENTIAL VISIBILITY COLLECTION SUBSTATION (LIDAR TREES & BLDGS)

SIMULATION LOCATION

LINE OF SIGHT LOCATION

FACILITY SITE

PROPOSED ARRAY LOCATION

FENCE LINE

PROPOSED COLLECTION SUBSTATION

DISTANCE ZONE 1 - HALF MILE

DISTANCE ZONE 2 - TWO MILES

1 LOCAL PARK/RESOURCE*

MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11

NYS PUBLIC FISHING RIGHTS EASEMENT

NATIONWIDE RIVERS INVENTORY- Chateaugay River

NYS SNOWMOBILE TRAIL C8C

EXISTING TRANSMISSION

CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT

A NRHP ELIGIBLE HISTORIC SITE*

P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

TYPE 1

TYPE 2

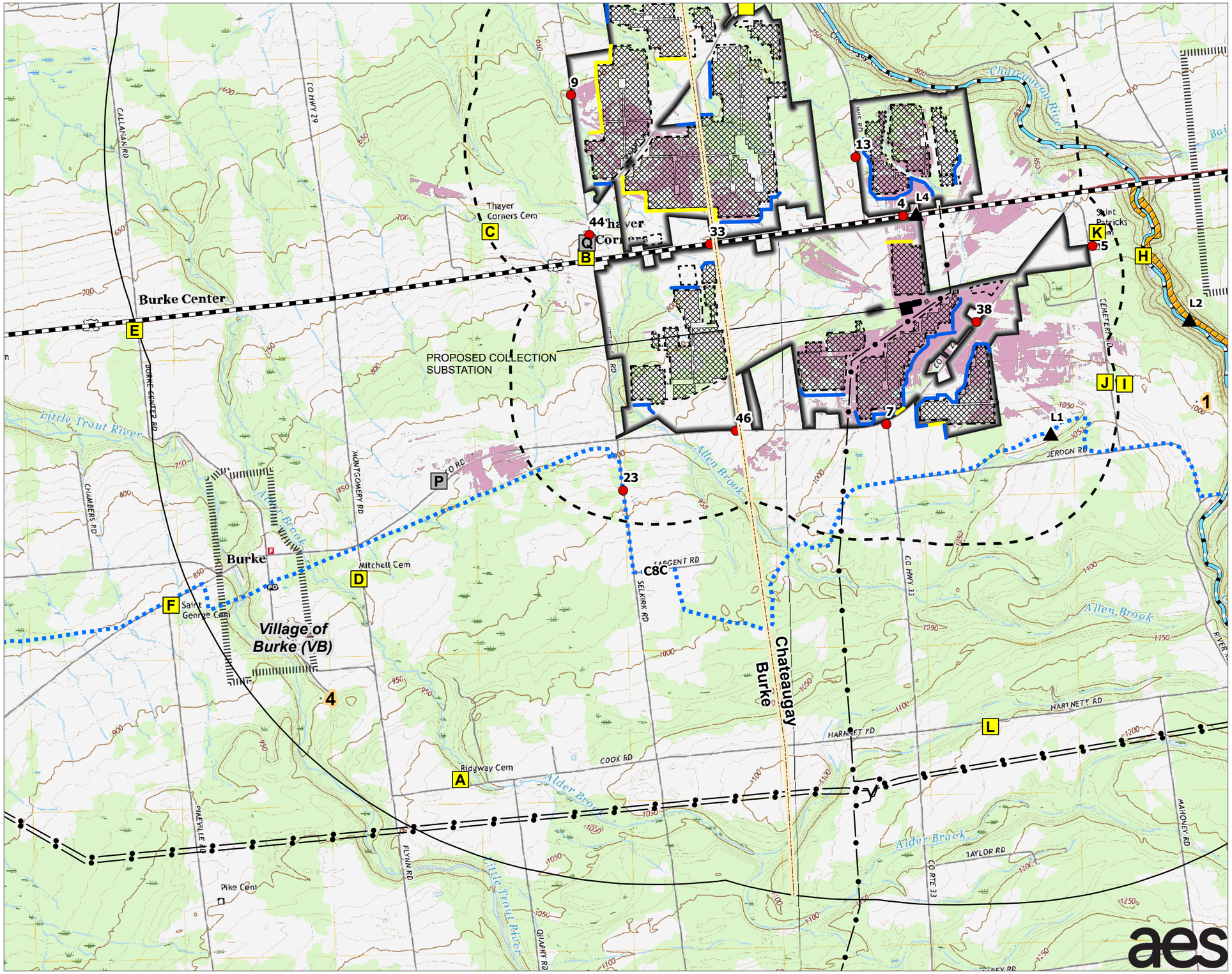
** Please refer to Table 4 in VIA for corresponding name and ID*

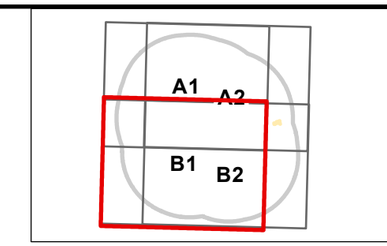
Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

N

0 0.25 0.5 MILES

PROJECT:	**BROOKSIDE SOLAR LLC** **TOWNS OF BURKE AND CHATEAUGAY** **FRANKLIN COUNTY, NY**
TITLE:	**POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR COLLECTION SUBSTATION**
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 5 **MAP: A2**
	215 GREENFIELD PKWY, STE 102 LIVERPOOL, NY 13088
FILE:	BS_VIA_012822





POTENTIAL VISIBILITY COLLECTION SUBSTATION (LIDAR TREES & BLDGS)

SIMULATION LOCATION

LINE OF SIGHT LOCATION

FACILITY SITE

PROPOSED ARRAY LOCATION

FENCE LINE

PROPOSED COLLECTION SUBSTATION

DISTANCE ZONE 1 - HALF MILE

DISTANCE ZONE 2 - TWO MILES

1 LOCAL PARK/RESOURCE*

MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11

NYS PUBLIC FISHING RIGHTS EASEMENT

NATIONWIDE RIVERS INVENTORY- Chateaugay River

NYS SNOWMOBILE TRAIL C8C

EXISTING TRANSMISSION

CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT

A NRHP ELIGIBLE HISTORIC SITE*

P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)

TYPE 1

TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

N

0 0.25 0.5 MILES

PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY

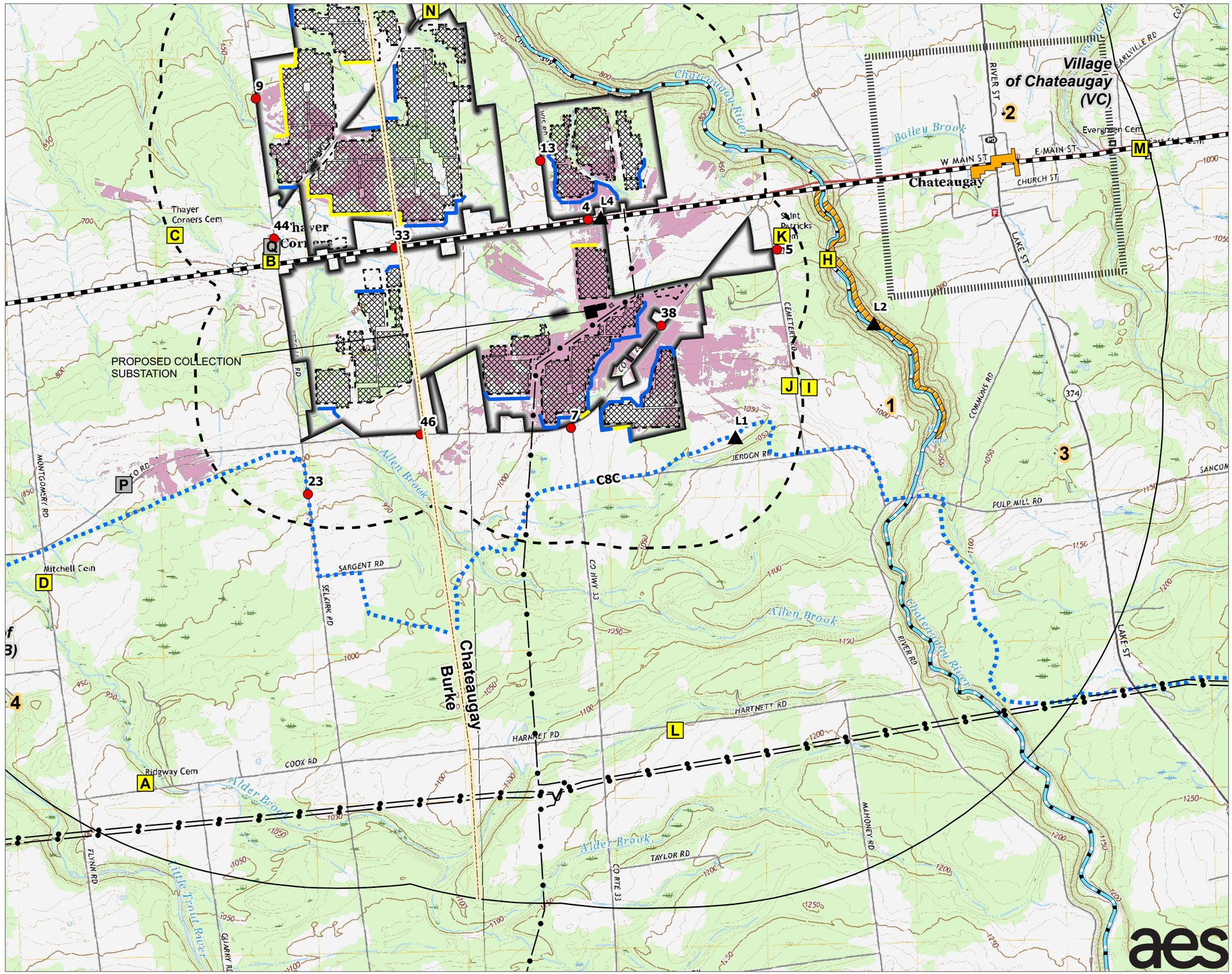
TITLE: **POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR COLLECTION SUBSTATION**

DRAWN BY:	JBARTOS	**FIGURE 5**
PROJ. NO.:	373210	**MAP: B1**
DATE:	JANUARY 2022	

TRC

215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



- POTENTIAL VISIBILITY COLLECTION SUBSTATION (LIDAR TREES & BLDGS)
- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- FENCE LINE
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
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- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibility Results)

- TYPE 1
- TYPE 2

** Please refer to Table 4 in VIA for corresponding name and ID*

Base Map: USGS 2019 GeoTiff acquired at ngmdb.usgs.gov/topoview/viewer

N

0 0.25 0.5 MILES

PROJECT:	**BROOKSIDE SOLAR LLC** **TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY**
TITLE:	**POTENTIAL VISIBILITY AND AESTHETIC RESOURCES FOR COLLECTION SUBSTATION**
DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	JANUARY 2022
	FIGURE 5 **MAP: B2**

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822

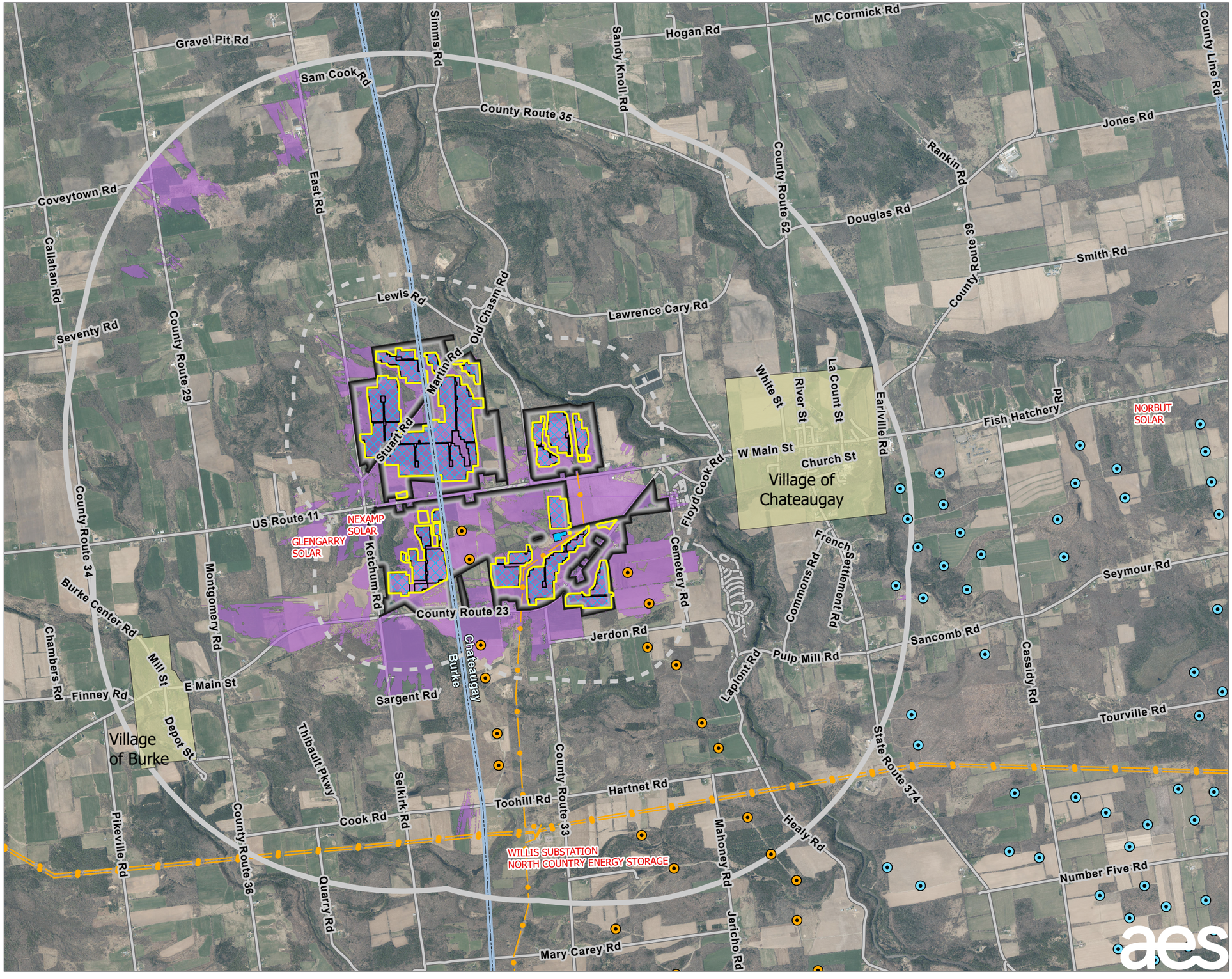
BROOKSIDE SOLAR PROJECT

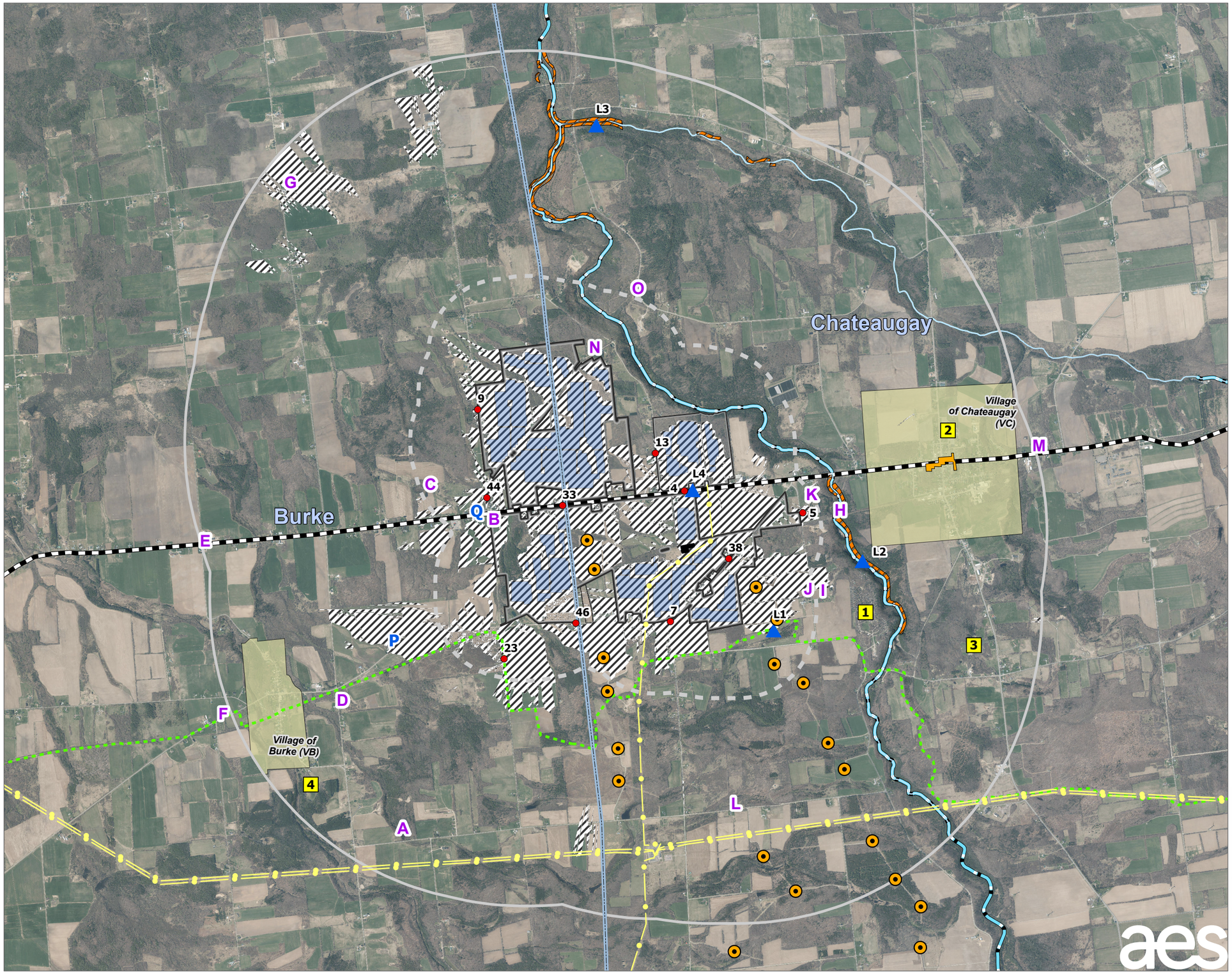
94-C EXHIBIT 8

MAPS

ATTACHMENT 2

Part 2 of 2


Gravel Pit Rd
Sam Cook Rd
Simms Rd
Sandy Knoll Rd
Hogan Rd
MC Cormick Rd
County Line Rd
County Route 35
Jones Rd
Rankin Rd
Coveytown Rd
East Rd
County Route 52
Douglas Rd
Callahan Rd
County Route 39
Smith Rd
Lewis Rd
Old Chasm Rd
Lawrence Cary Rd
Seventy Rd
County Route 29
Martin Rd
White St
River St
La Count St
Earlville Rd
Fish Hatchery Rd
NORBUT SOLAR
Stuart Rd
W Main St
Church St
Floyd Cook Rd
Village of Chateaugay
US Route 11
NEXAMP SOLAR
GLENGARRY SOLAR
Ketchum Rd
Cemetery Rd
French Settlement Rd
Commons Rd
Seymour Rd
County Route 34
Burke Center Rd
Montgomery Rd
County Route 23
Jerdon Rd
Sancomb Rd
Chambers Rd
Mill St
Chateaugay Burke
Laplont Rd
Pulp Mill Rd
Cassidy Rd
Finney Rd
E Main St
Sargent Rd
Tourville Rd
Village of Burke
Depot St
Thibault Pkwy
State Route 374
County Route 33
Selkirk Rd
Hartnet Rd
Toohill Rd
Cook Rd
Pikeville Rd
County Route 36
WILLIS SUBSTATION
NORTH COUNTRY ENERGY STORAGE
Mahoney Rd
Healy Rd
Number Five Rd
Quarry Rd
Jericho Rd
Mary Carey Rd
FACILITY SITE
PROPOSED ARRAY LOCATION
FENCE LINE
PROPOSED COLLECTION SUBSTATION
DISTANCE ZONE 1 - HALF MILE
DISTANCE ZONE 2 - TWO MILES
EXISTING TRANSMISSION
EXISTING JERICHO RISE TURBINE
EXISTING NOBLE-CHATEAUGAY TURBINE
POTENTIAL VISIBILITY OF PROPOSED FACILITY
* North Country Wind Project details unknown at this time
N
0
0.5
1
MILES
PROJECT:
BROOKSIDE SOLAR LLC
TOWNS OF BURKE AND CHATEAUGAY
FRANKLIN COUNTY, NY
TITLE:
PROPOSED AND EXISTING PROJECTS IN THE VICINITY*
DRAWN BY: JBARTOS
PROJ. NO.: 373210
DATE: FEBRUARY 2022
FIGURE 6
TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088
FILE: BS_VIA_012822
aes



- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*
- EXISTING JERICHO RISE TURBINE
- POTENTIAL VISIBILITY OF SOLAR ARRAYS
- POTENTIAL VISIBILITY OF BOTH A SOLAR ARRAY AND A JERICHO RISE WIND TURBINE

** Please refer to Table 4 in VIA for corresponding name and ID*

N

0 0.5 1 MILES

PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY

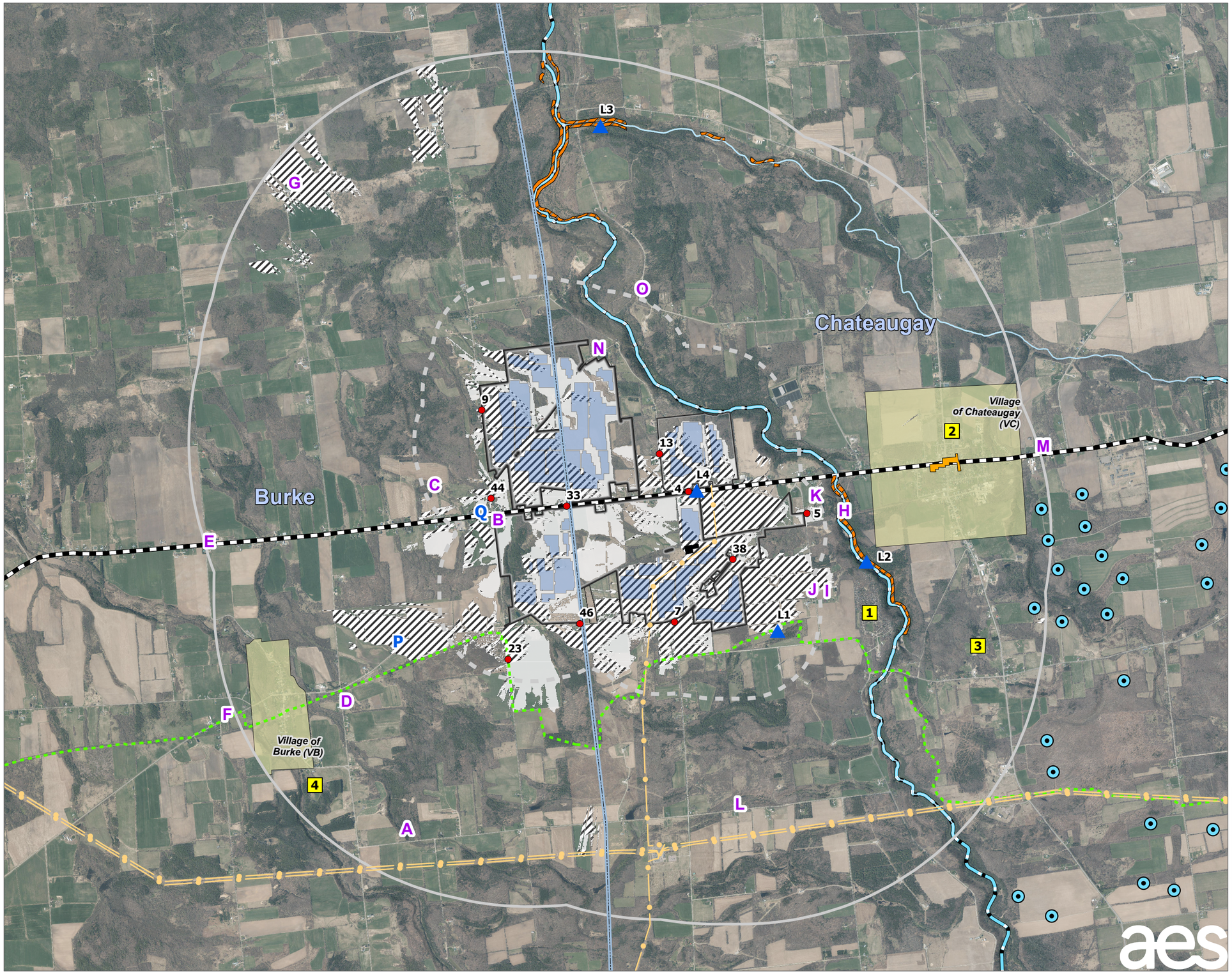
TITLE: **CUMULATIVE EFFECTS OF PROPOSED PROJECT WITH JERICHO WIND TURBINES**

DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	FEBRUARY 2022

FIGURE 7A

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822



- SIMULATION LOCATION
- LINE OF SIGHT LOCATION
- FACILITY SITE
- PROPOSED ARRAY LOCATION
- PROPOSED COLLECTION SUBSTATION
- DISTANCE ZONE 1 - HALF MILE
- DISTANCE ZONE 2 - TWO MILES
- 1 LOCAL PARK/RESOURCE*
- NYS PUBLIC FISHING RIGHTS EASEMENT
- NATIONWIDE RIVERS INVENTORY- Chateaugay River
- NYS SNOWMOBILE TRAIL C8C
- MILITARY TRAIL NYS SCENIC BYWAY/STATE BIKEROUTE 11
- EXISTING TRANSMISSION
- CHATEAUGAY VILLAGE NRHP ELIGIBLE HISTORIC DISTRICT
- A NRHP ELIGIBLE HISTORIC SITE*
- P JULY 2021 ARCHITECTURAL SURVEY RECOMMENDED NRHP ELIGIBLE SITE*
- EXISTING NOBLE-CHATEAUGAY TURBINE
- POTENTIAL VISIBILITY OF SOLAR ARRAYS
- POTENTIAL VISIBILITY OF BOTH A SOLAR ARRAY AND A NOBLE-CHATEAUGAY WIND TURBINE

** Please refer to Table 4 in VIA for corresponding name and ID*

N

0 0.5 1 MILES

PROJECT: **BROOKSIDE SOLAR LLC**

TOWNS OF BURKE AND CHATEAUGAY FRANKLIN COUNTY, NY

TITLE: **CUMULATIVE EFFECTS OF PROPOSED PROJECT WITH NOBLE-CHATEAUGAY WIND TURBINES**

DRAWN BY:	JBARTOS
PROJ. NO.:	373210
DATE:	FEBRUARY 2022

FIGURE 7B

TRC
215 GREENFIELD PKWY, STE 102
LIVERPOOL, NY 13088

FILE: BS_VIA_012822

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

FACILITY PHOTOLOG

ATTACHMENT 3

Part 1 of 2

Summary Table of Photolog Viewpoints

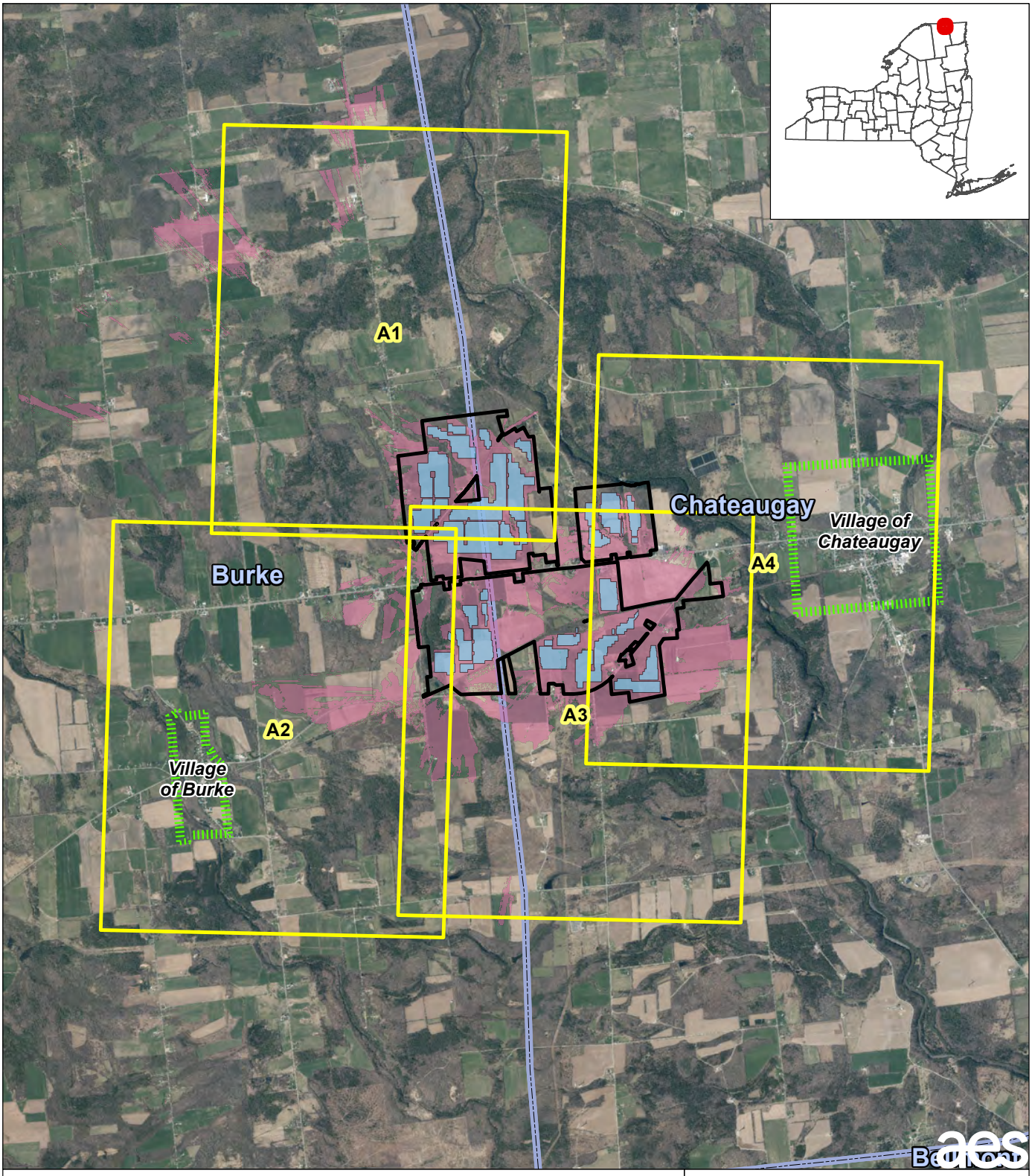
Viewpoint ID	Potential Visibility	Lat	Long	Location	Town	Approximate Distance to Facility Feet	Approximate Distance to Array Miles	Comment
1	Yes	44.92185	-74.13873	US Route 11	Burke	730	0.14	Thayer Corners populated neighborhood, adjacent to project. Military Trail Scenic Byway, State Bikeway 11
2	Yes	44.92226	-74.13434	US Route 11	Burke	508	0.10	Military Trail Scenic Byway, State Bikeway 11, open field
3	Yes	44.92307	-74.12411	US Route 11	Chateaugay	727	0.14	Military Trail Scenic Byway, State Bikeway 11, adjacent residents, open land
4	Yes	44.92385	-74.11436	US Route 11	Chateaugay	508	0.09	Military Trail Scenic Byway, State Bikeway 11, cultivated corn crop
5	Yes	44.92170	-74.09842	Cemetery Road	Chateaugay	3696	0.70	Saint Patrick's Cemetery, NRHP eligible historic site. Existing Jericho Rise wind turbines
6	Yes	44.91488	-74.11124	County Route 23	Chateaugay	568	0.11	CR 23, adjacent residences
7	Yes	44.91135	-74.11633	County Route 33	Chateaugay	308	0.20	CR 23 & 33 well-traveled roads. Existing Jericho Rise wind turbines
8	Yes	44.91560	-74.13977	Ketchum Road	Burke	520	0.10	Local road. Forested and grassland/cultivated corn crop.
9	Yes	44.93174	-74.14218	East Road	Burke	620	0.12	East Rd, Mennonite or Amish residents, various other residents. Existing Jericho Rise wind turbines
10	Yes	44.93617	-74.14288	East Road	Burke	1068	0.20	Rural resident view.
11	No	44.94209	-74.13233	Lewis Road	Chateaugay	1758	0.33	Lewis Rd, heavily screened, rural residents, forested area. Existing Jericho Rise wind turbines
12	No	44.93676	-74.12726	Martin Road	Chateaugay	427	0.08	View along Martin Rd, north part of site
13	Yes	44.92747	-74.11825	Lewis Road	Chateaugay	265	0.05	Lewis road, residence in vicinity
14	Yes	44.92514	-74.14013	Stuart Road	Burke	585	0.11	Stuart Rd, west of project, near rural residents. Existing Jericho Rise wind turbines

Viewpoint ID	Potential Visibility	Lat	Long	Location	Town	Approximate Distance to Facility Feet	Approximate Distance to Array Miles	Comment
15	Yes	44.92973	-74.13471	Stuart Road	Burke	264	0.05	Stuart Rd, center of project, adjacent resident participating landowner
16	No	44.92650	-74.07929	East Main Street	Village of Chateaugay	8077	1.53	Village of Chateaugay, character shot
17	No	44.93140	-74.08006	River Street	Village of Chateaugay	7931	1.50	Chateaugay school, local residents, adjacent to playing field.
18	No	44.92345	-74.07934	Depot Street	Village of Chateaugay	7875	1.49	Depot St, character shot
19	No	44.90940	-74.07246	State Route 374	Chateaugay	9018	1.71	Chateaugay Town Park - closed. Character shot
20	No	44.90963	-74.08578		Chateaugay	5575	1.06	High Falls
21	Possible	44.91446	-74.09750	Cemetery Road	Chateaugay	2590	0.49	Extremely limited visibility. No access to High Falls Park and campsite. This viewpoint better represents views as worst case from campsite. Existing Jericho Rise wind turbines
22	Possible	44.89203	-74.12922	Cook Road	Burke	7709	1.46	Possibly discernible. Existing Jericho Rise wind turbines
23	Yes	44.90785	-74.13877	Selkirk Road	Burke	2006	0.38	Snowmobile trail, local road. Existing Jericho Rise wind turbines
24	Yes	44.91026	-74.14999	County Route 23	Burke	3349	0.63	CR 23, well-traveled road. No nearby residences. Existing Jericho Rise wind turbines
25	No	44.90440	-74.16918	Depot Street	Village of Burke	8758	1.66	Village of Burke character shot
26	No	44.91876	-74.17938	County Route 34	Burke	10439	1.98	Burke Center character shot
27	Yes	44.92122	-74.14616	US Route 11	Burke	2388	0.45	Not likely. Military Trail Scenic Byway and State Bikeway 11.Small area of residences
28	Yes	44.92065	-74.10458	County Route 23	Chateaugay	1491	0.28	CR33 by resident, rural
29	Yes	44.91114	-74.11950	County Route 23	Chateaugay	1002	0.19	CR23, rural resident Existing Jericho Rise wind turbines

Viewpoint ID	Potential Visibility	Lat	Long	Location	Town	Approximate Distance to Facility Feet	Approximate Distance to Array Miles	Comment
30	No	44.92926	-74.09341	County Route 35	Village of Chateaugay	4414	0.84	CR35, east side of Chateaugay River. Existing Jericho Rise wind turbines
31	No	44.94127	-74.12501	Unnamed Street	Chateaugay	2008	0.38	Brayton Hollow inaccessible - private property. Character shot of stream at fenced entryway. East side of Chateaugay River
32	Yes	44.92209	-74.13623	US Route 11	Burke	393	0.07	Representative resident photo from Military Trail Scenic Byway and State Bikeway 11
33	Yes	44.92251	-74.13079	US Route 11	Burke	421	0.12	Representative residential grouping adjacent to project. Military Trail Scenic Byway and State Bikeway 11
34	Yes	44.92348	-74.11860	US Route 11	Chateaugay	776	0.15	Representative groupings of residences adjacent to project. Military Trail Scenic Byway and State Bikeway 11. Existing Jericho Rise wind turbines
35	Yes	44.92429	-74.10869	US Route 11	Chateaugay	832	0.16	Representative rural residents located adjacent to project. Military Trail Scenic Byway and State Bikeway 11. Existing Jericho Rise wind turbines
36	No	44.92501	-74.09930	US Route 11	Chateaugay	3041	0.58	Representative rural residential groupings. Military Trail Scenic Byway and State Bikeway 11.
37	No	44.92392	-74.10064	County Route 23	Chateaugay	2800	0.53	Representative photo of rural residents adjacent to project. Existing Jericho Rise wind turbines
38	Yes	44.91734	-74.10843	County Route 23	Chateaugay	554	0.11	Representative photo from rural residential adjacent to project. Proposed collection station likely in view. Existing Jericho Rise wind turbines

Viewpoint ID	Potential Visibility	Lat	Long	Location	Town	Approximate Distance to Facility Feet	Approximate Distance to Array Miles	Comment
39	Yes	44.90811	-74.11591	Jerdon Road	Chateaugay	1586	0.30	Representative photo from rural residents. State snowmobile trail. Existing Jericho Rise wind turbines
40	No	44.94049	-74.11395	County Route 35	Chateaugay	3290	0.62	Rural residents - documenting lack of project perceived
41	No	44.94248	-74.12131	Brayton Hollow Cemetery	Chateaugay	2673	0.51	Brayton Hollow Cemetery - elevated, historicl. No visibility of project
42	Yes	44.96186	-74.14784	East Road	Burke	9292	1.76	Rural resident distant view of existing wind turbines with active corn row crop agricultural land - visibility of project likely not very discernible
43	No	44.94496	-74.14454	East Road	Burke	3208	0.61	Documenting lack of visibility
44	Yes	44.92328	-74.14099	East Road, Thayer Corners	Burke	1162	0.22	Representative Thayer Corners
45	Potential	44.92187	-74.14087	East Road, Thayer Corners	Burke	1073	0.20	Thayer Corners near Bova House historic property. Existing Jericho Rise wind turbines
46	Yes	44.91123	-74.12908	County Route 23	Burke	1371	0.21	Rural residential/agricultural possible visibility. Existing Jericho Rise wind turbines
47	No	44.90859	-74.07626	Town of Chateaugay Recreational Park	Chateaugay	8068	1.53	Chateaugay Town Recreational Park
48	No	44.89327	-74.10858	Harnet Road	Chateaugay	6393	1.21	Documenting lack of visibility
49	No	44.96295	-74.13164	Sam Cook Road, Chateaugay River	Chateaugay	9341	1.77	Cooks Mill & Chateaugay River, wooded rural residential
50	No	44.89033	-74.15376	Cook Road	Chateaugay	9341	1.77	Ridgeway Cemetery. NRHP eligible historic site
51	No	44.89667	-74.16489	Sellers Field Road	Burke	9280	1.76	Sellers Field resource - no visibility. Existing Jericho Rise wind turbines
52	No	44.93843	-74.16582	County Route 29	Burke	6832	1.29	Documenting lack of visibility

Viewpoint ID	Potential Visibility	Lat	Long	Location	Town	Approximate Distance to Facility Feet	Approximate Distance to Array Miles	Comment
53	Unlikely	44.90861	-74.15410	County Route 23	Burke	4547	0.86	NRHP eligible historic site. Likely no views confirmed by site visit due to distance and intervening trees.
54	No	44.93717	-74.12563	Martin Road	Chateaugay	486	0.1	NRHP eligible historic site – Atwater Cemetery.



PROPOSED ARRAY LOCATIONS
FACILITY SITE
POTENTIAL VISIBILITY (LIDAR TREES & BLDGS)
VILLAGE
MAP INDEX

N

0 0.5 1 Miles

BROOKSIDE SOLAR LLC
TOWNS OF BURKE & CHATEAUGAY
FRANKLIN COUNTY, NY

BROOKSIDE SOLAR PROJECT
OVERVIEW MAP

Date : 1/7/2022

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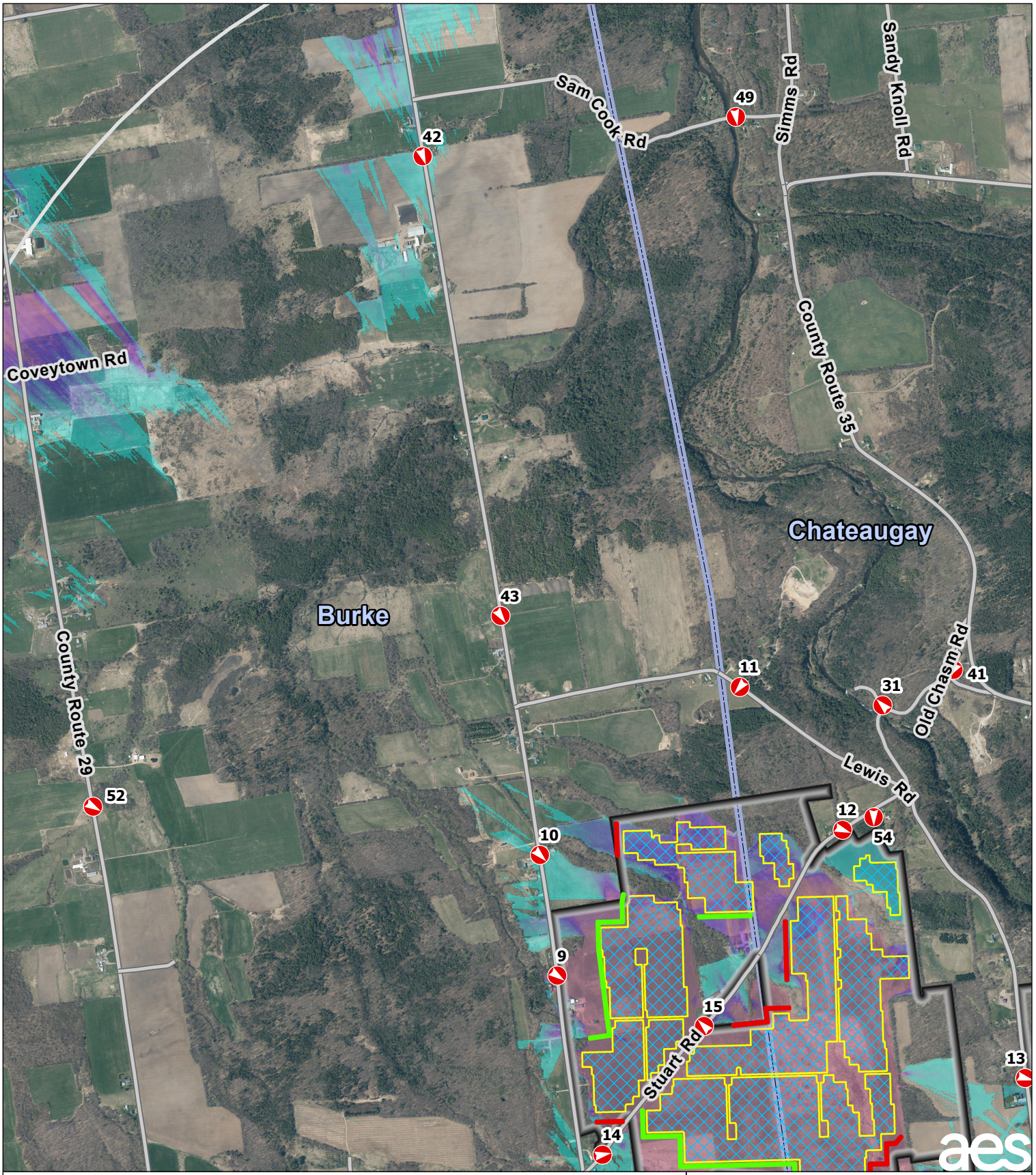

PHOTO VIEWPOINT LOCATION
PROPOSED ARRAY LOCATIONS
FACILITY SITE
EXISTING TRANSMISSION
PROPOSED COLLECTION SUBSTATION
VILLAGE

POTENTIAL VISIBILITY (LIDAR TREES & BLDGS)
MORE PANELS VISIBLE
LESS PANELS VISIBLE
PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)
TYPE 1
TYPE 2

N

0 0.25 0.5 Miles

BROOKSIDE SOLAR LLC
TOWNS OF BURKE & CHATEAUGAY
FRANKLIN COUNTY, NY

BROOKSIDE SOLAR PROJECT
PHOTO VIEWPOINTS

MAP A1

Date : 1/28/2022

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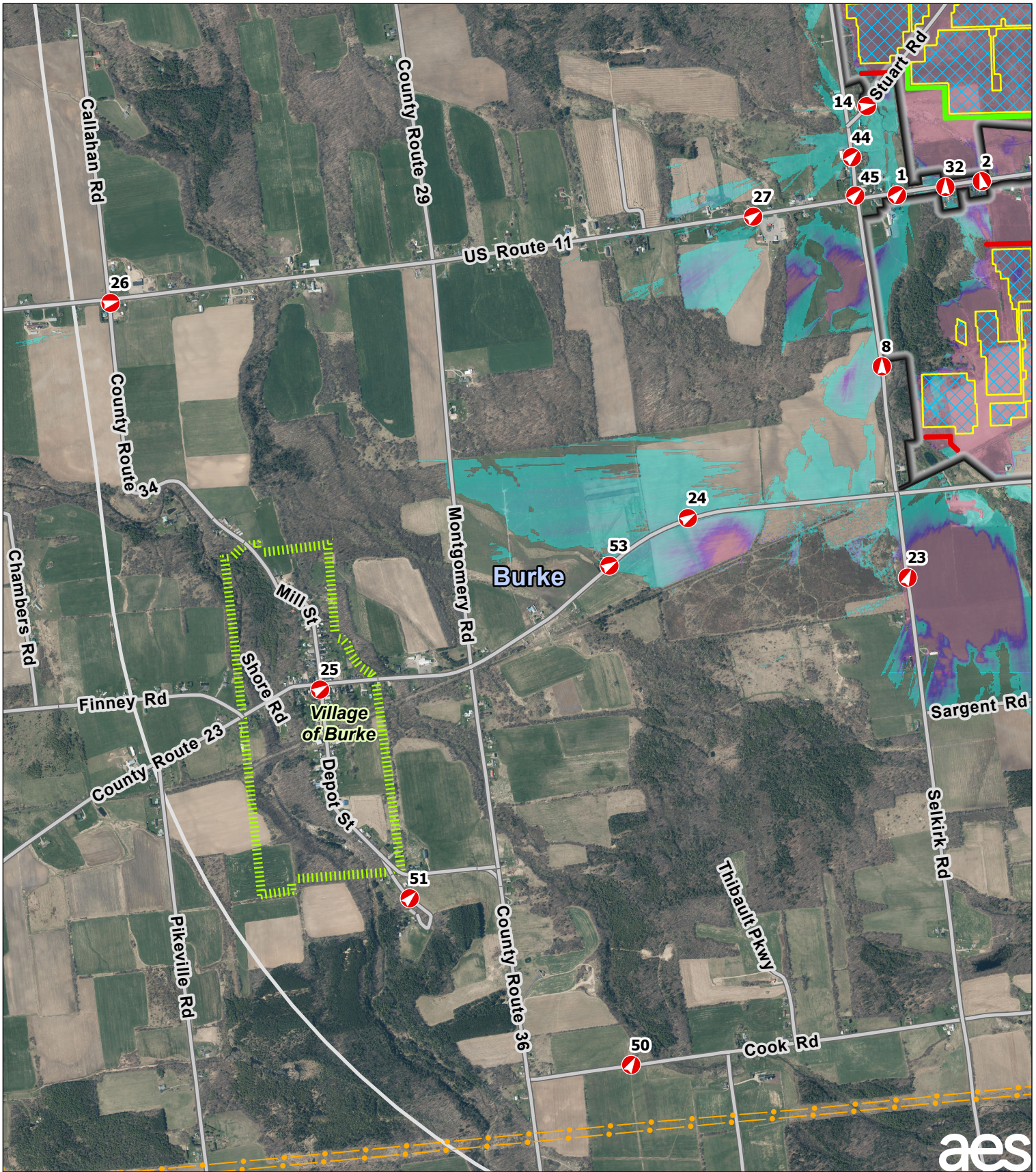

PHOTO VIEWPOINT LOCATION
PROPOSED ARRAY LOCATIONS
FACILITY SITE
EXISTING TRANSMISSION
PROPOSED COLLECTION SUBSTATION
VILLAGE

POTENTIAL VISIBILITY (LIDAR TREES & BLDGS)
MORE PANELS VISIBLE
LESS PANELS VISIBLE

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibility Results)
TYPE 1
TYPE 2

N

0 0.25 0.5 Miles

BROOKSIDE SOLAR LLC
TOWNS OF BURKE & CHATEAUGAY
FRANKLIN COUNTY, NY

BROOKSIDE SOLAR PROJECT
PHOTO VIEWPOINTS

MAP A2

Date : 1/28/2022

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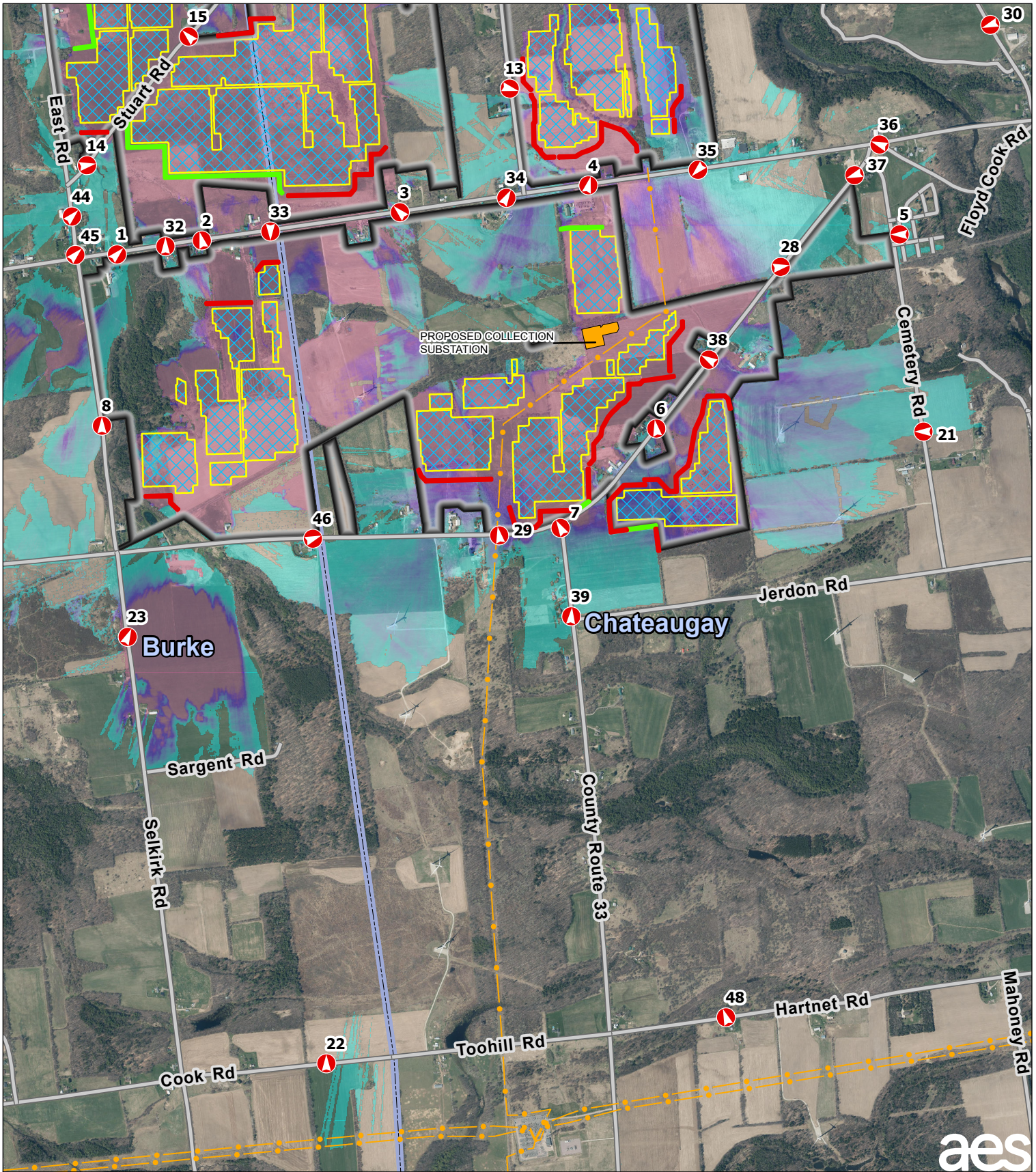

PHOTO VIEWPOINT LOCATION
PROPOSED ARRAY LOCATIONS
FACILITY SITE
EXISTING TRANSMISSION
PROPOSED COLLECTION SUBSTATION
VILLAGE

POTENTIAL VISIBILITY (LIDAR TREES & BLDGS)
MORE PANELS VISIBLE
LESS PANELS VISIBLE

PROPOSED LANDSCAPE MITIGATION (Placed Following Visibillity Results)
TYPE 1
TYPE 2

N

0 0.25 0.5 Miles

BROOKSIDE SOLAR LLC
TOWNS OF BURKE & CHATEAUGAY
FRANKLIN COUNTY, NY

BROOKSIDE SOLAR PROJECT
PHOTO VIEWPOINTS

MAP A3

Date : 1/28/2022

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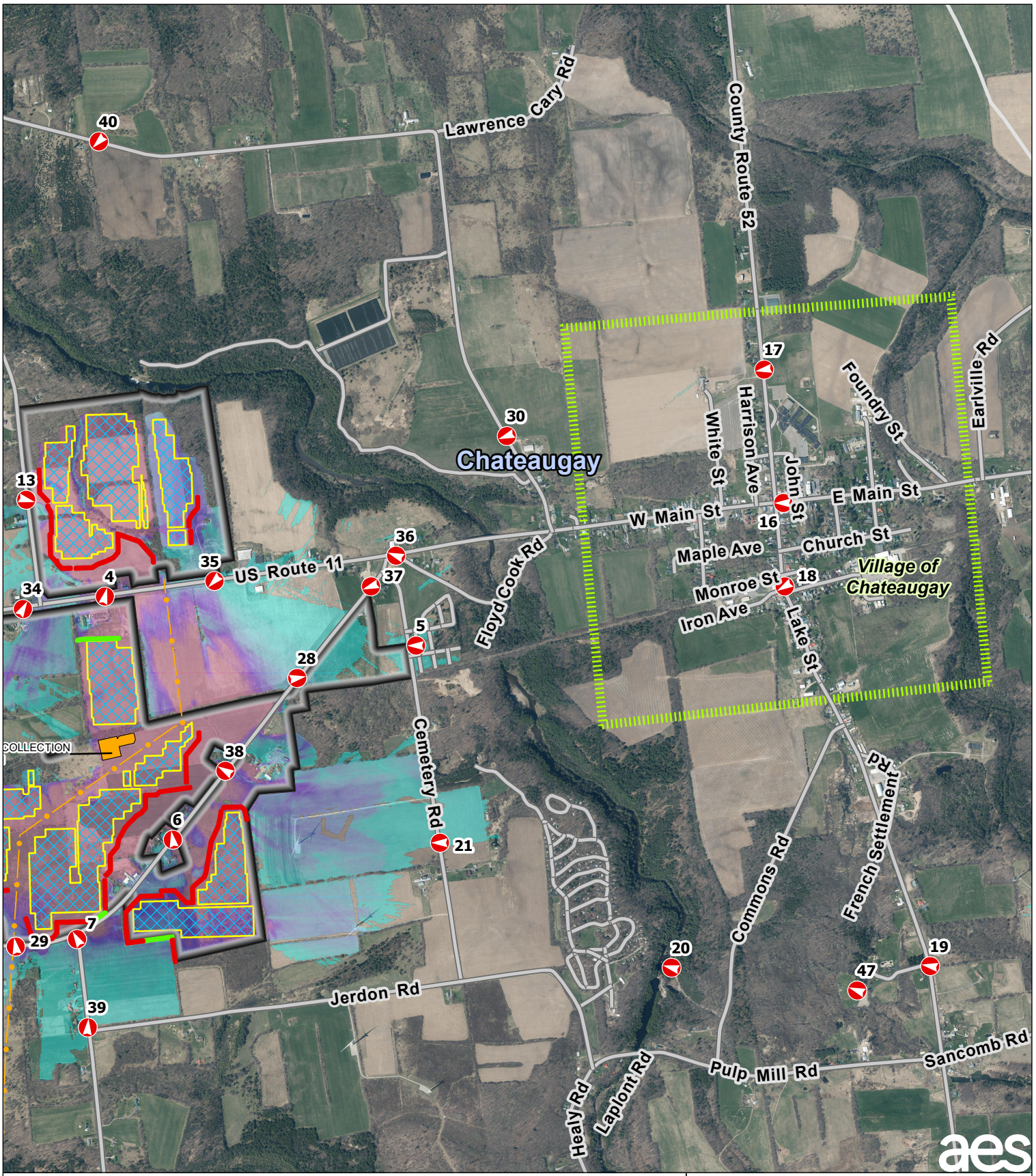

PHOTO VIEWPOINT LOCATION
PROPOSED ARRAY LOCATIONS
FACILITY SITE
EXISTING TRANSMISSION
PROPOSED COLLECTION SUBSTATION
VILLAGE

POTENTIAL VISIBILITY (LIDAR TREES & BLDGS)
MORE PANELS VISIBLE
LESS PANELS VISIBLE
PROPOSED LANDSCAPE MITIGATION (Placed Following Visibility Results)
TYPE 1
TYPE 2

N

0 0.25 0.5 Miles

BROOKSIDE SOLAR LLC
TOWNS OF BURKE & CHATEAUGAY
FRANKLIN COUNTY, NY

BROOKSIDE SOLAR PROJECT
PHOTO VIEWPOINTS

MAP A4

Date : 1/28/2022

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BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

FACILITY PHOTOLOG

ATTACHMENT 3

Part 2 of 2

VIEWPOINT 1


N


NE


ENE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11,Thayer Corners	Town of Burke	1,3	3/22/21	44.92184 -74.13872	Franklin

VIEWPOINT 2


W


NW


N

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Burke	1,3	3/22/21	44.92226 -74.13434	Franklin

VIEWPOINT 3


WNW


NW


NNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Chateaugay	1,3	3/22/21	44.92307 -74.12410	Franklin

VIEWPOINT 4


WNW


NNW


N

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Chateaugay	1,3	3/22/21	44.92385 -74.11435	Franklin

VIEWPOINT 5


WSW


W


NNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Cemetery Road, Saint Patricks Cemetery	Town of Chateaugay	1,4	3/22/21	44.92169 -74.09841	Franklin

VIEWPOINT 6


NW


N


NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Chateaugay	1,3	3/22/21	44.91487 -74.11124	Franklin

VIEWPOINT 7



NW



NNW



NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 33	Town of Chateaugay	1	3/22/21	44.91134 -74.11632	Franklin

VIEWPOINT 8



NNW



N



NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Ketchum Road, Thayers Corners Water District LRMA	Town of Burke	1,2	3/22/21	44.91559 -74.13977	Franklin

VIEWPOINT 9



NE



E



SE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road	Town of Burke	1,3	3/22/21	44.93174 -74.14217	Franklin

VIEWPOINT 10


SE


SSE


S

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road	Town of Burke	1,2,3	3/22/21	44.93617 -74.14288	Franklin

VIEWPOINT 11


SSW


WSW


WNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Lewis Road	Town of Chateaugay	1,2,3	10/15/20	44.94208 -74.13232	Franklin

VIEWPOINT 12


NE


E


SE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Martin Road	Town of Chateaugay	2,3	10/15/20	44.93675 -74.12726	Franklin

VIEWPOINT 13


NE


ENE


E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Lewis Road	Town of Chateaugay	1,3	3/22/21	44.92747 -74.11824	Franklin

VIEWPOINT 14


ENE


E


SE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Stuart Road	Town of Burke	1,3	3/22/21	44.92513 -74.14012	Franklin

VIEWPOINT 15


WNW


NW


N

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Stuart Road	Town of Burke	1,3	3/22/21	44.92973 -74.13470	Franklin

VIEWPOINT 16


WSW


W


WNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Main Street, Military Trail Scenic Byway, Chateau Hotel	Town of Chateaugay, Village of Chateaugay	3	10/15/20	44.92650 -74.07928	Franklin

VIEWPOINT 17


WSW


W


WNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
River Street	Town of Chateaugay, Village of Chateaugay	1,3,4	3/22/21	44.93140 -74.08006	Franklin

VIEWPOINT 18


S


SW


W

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Depot Street	Town of Chateaugay, Village of Chateaugay	3	10/15/20	44.92344 -74.07934	Franklin

VIEWPOINT 19

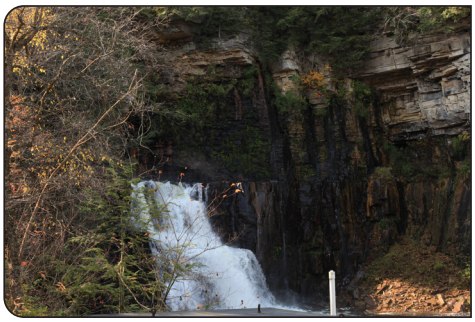

WNW


NW


NNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 374, Chateaugay Town Recreational Park	Town of Chateaugay	2,3	10/15/20	44.90940 -74.07246	Franklin

VIEWPOINT 20


SW


W


WNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
High Falls, Chateaugay River, High Falls Pulp Co. (Historical)	Town of Chateaugay	2,5	10/15/20	44.90963 -74.08577	Franklin

VIEWPOINT 21


WSW


W


NW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Cemetery Road	Town of Chateaugay	1	3/22/21	44.91446 -74.09749	Franklin

VIEWPOINT 22



NNW N NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Cook Road	Town of Burke	1	3/22/21	44.89202 -74.12921	Franklin

VIEWPOINT 23



N NNE NE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Selkirk Road, Snowmobile Trail	Town of Burke	1,2	3/22/21	44.90784 -74.13877	Franklin

VIEWPOINT 24



NNE NE E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Burke	1	10/15/20	44.91026 -74.14998	Franklin

VIEWPOINT 25


NE


ENE


E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Depot Street, Burke United Methodist Church	Town of Burke, Village of Burke	3	10/15/20	44.90439 -74.16918	Franklin

VIEWPOINT 26


NE


ENE


E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 34, Military Trail Scenic Byway, NY State Bikeway 11	Town of Burke	1,3	3/22/21	44.91876 -74.17937	Franklin

VIEWPOINT 27


NE


ENE


SE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Burke	1,3	3/22/21	44.92121 -74.14616	Franklin

VIEWPOINT 28



NE



E



SE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Chateaugay	1,3	3/22/21	44.92065 -74.10457	Franklin

VIEWPOINT 29



NW



NNW



N

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Chateaugay	1,3	3/22/21	44.91114 -74.11949	Franklin

VIEWPOINT 30



SW



WSW



W

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 35	Town of Chateaugay, Village of Chateaugay	1,3	3/22/21	44.92926 -74.09341	Franklin

VIEWPOINT 31


WNW


NW


NNW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Brayton Hollow Road Chateaugay River	Town of Chateaugay	2,5	10/15/20	44.94126 -74.12501	Franklin

VIEWPOINT 32


NNW


N


NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Thayer Corners, Military Trail Scenic Byway, NY State Bikeway 11	Town of Burke	1,3	3/22/21	44.92209 -74.13622	Franklin

VIEWPOINT 33


SSE


S


SSW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Burke	1,3	3/22/21	44.92250 -74.13079	Franklin

VIEWPOINT 34



NW



N



NE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Chateaugay	1,3	3/22/21	44.92348 -74.11859	Franklin

VIEWPOINT 35



SSW



SW



WSW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Chateaugay	1,3	3/22/21	44.92428 -74.10868	Franklin

VIEWPOINT 36



WSW



WNW



NW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
State Route 11, Military Trail Scenic Byway, NY State Bikeway 11	Town of Chateaugay	1,3	3/22/21	44.92501 -74.09930	Franklin

VIEWPOINT 37



SW



WSW



W

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Chateaugay	1,3	3/22/21	44.92391 -74.10064	Franklin

VIEWPOINT 38



W



WNW



NW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Chateaugay	1,3	3/22/21	44.91733 -74.10842	Franklin

VIEWPOINT 39



N



NNE



NE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Jerdon Road, Snowmobile Trail	Town of Chateaugay	1,3	3/22/21	44.90810 -74.11591	Franklin

VIEWPOINT 40


S


SSW


SW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 35	Town of Chateaugay	1,3	3/22/21	44.94049 -74.11395	Franklin

VIEWPOINT 41


S


SSW


SW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Brayton Hollow Cemetery	Town of Chateaugay	2,4	3/22/21	44.94248 -74.12130	Franklin

VIEWPOINT 42


SSE


S


SSW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road	Town of Burke	1	3/22/21	44.96186 -74.14783	Franklin

VIEWPOINT 43



ESE



SE



SSE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road	Town of Burke	1	3/22/21	44.94496 -74.14453	Franklin

VIEWPOINT 44



NNE



NE



E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road, Thayer Corners	Town of Burke	1,3	3/22/21	44.92328 -74.14099	Franklin

VIEWPOINT 45



NE



ENE



E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
East Road, Thayer Corners	Town of Burke	3	3/22/21	44.92187 -74.14087	Franklin

VIEWPOINT 46





W WNW NW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 23	Town of Burke	1,3	3/22/21	44.91123 -74.12908	Franklin

VIEWPOINT 47





WSW WNW NW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Town of Chateaugay Town Recreational Park	Town of Chateaugay	2,4	3/22/21	44.90859 -74.07625	Franklin

VIEWPOINT 48





NW NNW N

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Hartnet Road	Town of Chateaugay	2,3	3/22/21	44.89326 -74.10858	Franklin

VIEWPOINT 49


SE


SSE


S

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Sam Cook Road, Chateaugay River	Town of Chateaugay	2,3,5	3/22/21	44.96295 -74.13164	Franklin

VIEWPOINT 50


NNW


N


NNE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Ridgeway Cemetery, Cook Road	Town of Burke	1,2,4	3/22/21	44.89033 -74.15375	Franklin

VIEWPOINT 51


N


NE


ENE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Sellers Field Road, Sellers Field	Town of Burke	3,4	3/22/21	44.89666 -74.16489	Franklin

VIEWPOINT 52



ESE



SE



SSE

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
County Route 29	Town of Burke	1,2	3/22/21	44.93842 -74.16581	Franklin

VIEWPOINT 53



NNE



NE



E

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
1207 County Route 23	Town of Burke	1,3	11/28/21	44.90861 -74.15410	Franklin

VIEWPOINT 54



SSE



S



SSW

Location:	Municipality:	LSZ:	Photo Date:	Lat/Long	County:
Atwater Cemetery, Martin Road	Town of Chateaugay	2,4	11/28/21	44.93717 -74.12563	Franklin

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 1 of 8

Existing Conditions

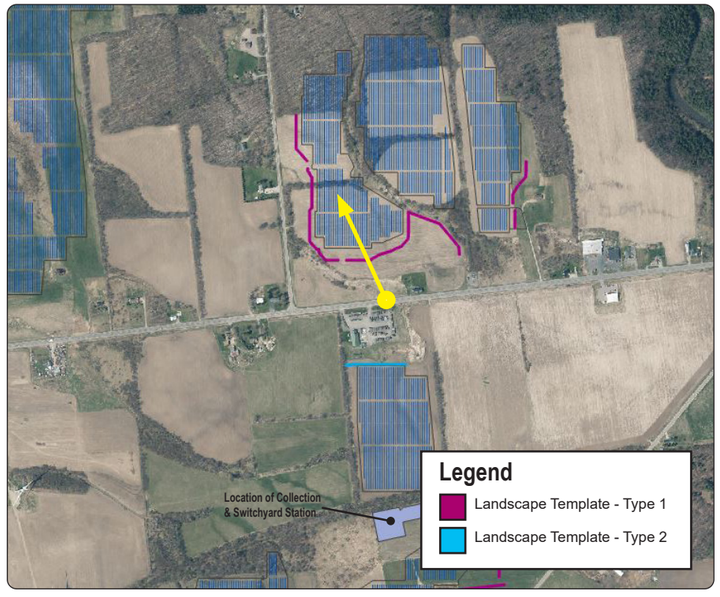




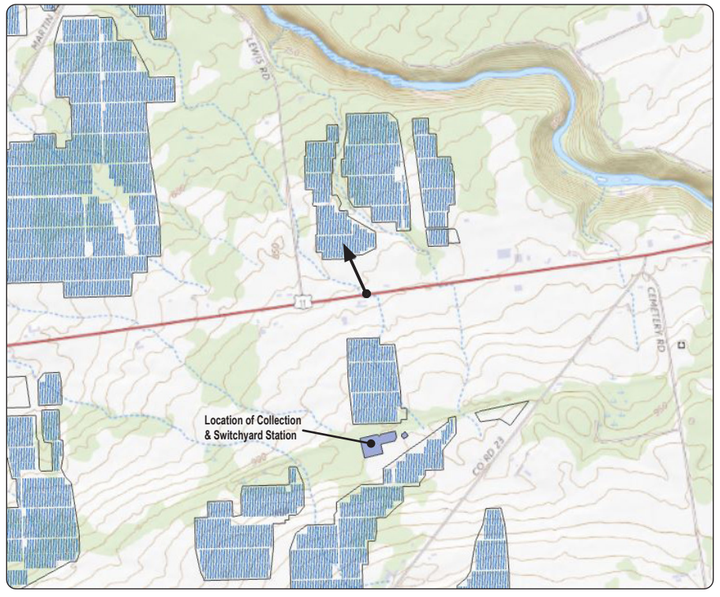


NNW

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.92251 -74.13079
Town	Burke
Viewpoint Elevation (MSL)	882
Distance to Fence Line	508’
Direction of View	North Northwest
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 10:22 AM



VP4 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11

Representative Simulation - Existing Conditions

Sheet 2 of 48 | January 2022



VP4 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Proposed Facility Without Landscaping | Sheet 3 of 48 | January 2022



VP4 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 4 of 48 | January 2022



VP4 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11

Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On)

Existing Conditions

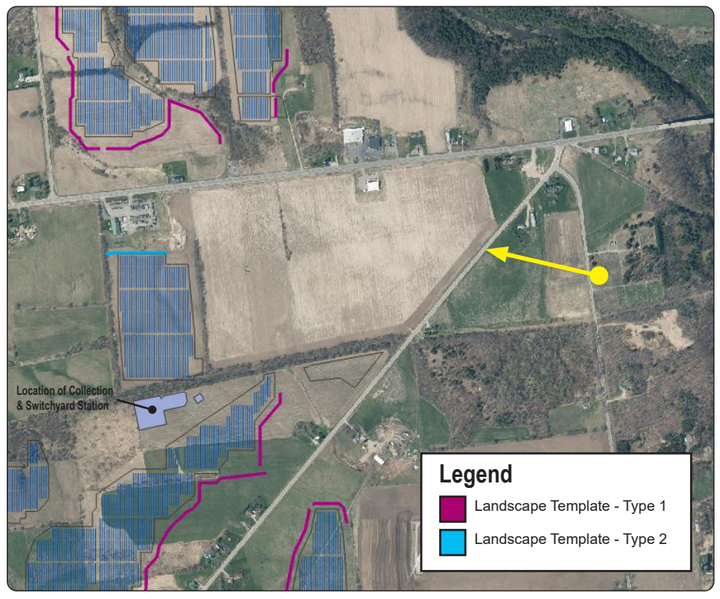




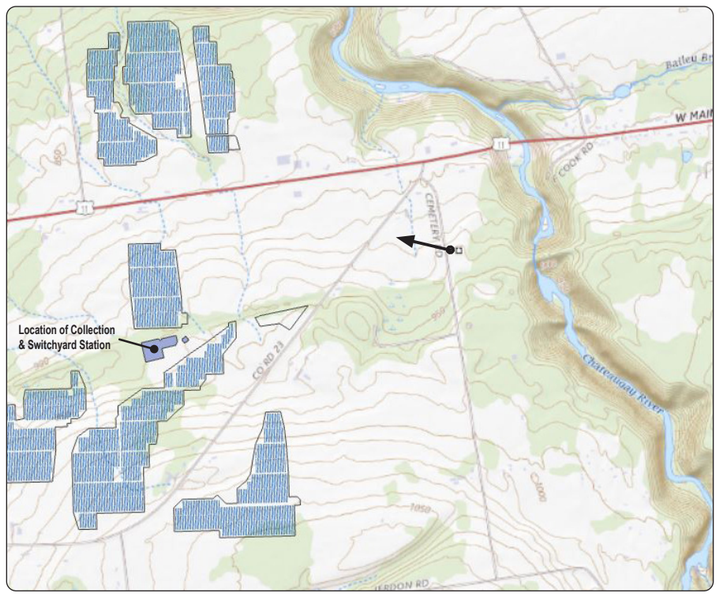


WNW

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.9217 -74.09841
Town	Chateaugay
Viewpoint Elevation (MSL)	946
Distance to Fence Line	.70 Mile
Direction of View	West Northwest
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 11:26 AM



VP5 - Saint Patrick's Cemetery | **Representative Simulation - Existing Conditions** | Sheet 7 of 48 | **January 2022**



VP5 - Saint Patrick's Cemetery

Representative Simulation - Proposed Facility Without Landscaping

Sheet 8 of 48 | January 2022



VP5 - Saint Patrick's Cemetery | **Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off)** | Sheet 9 of 48 | **January 2022**

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 2 of 8



VP5 - Saint Patrick's Cemetery

Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On)

Sheet 10 of 48 | January 2022

Existing Conditions

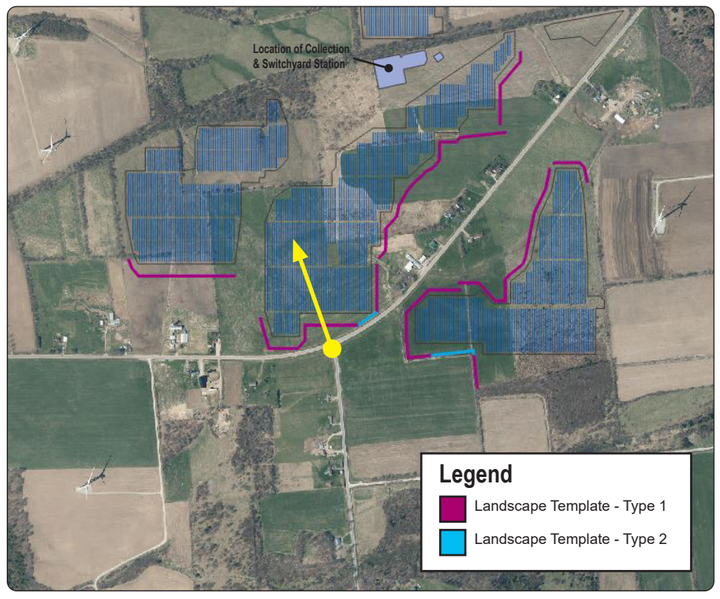




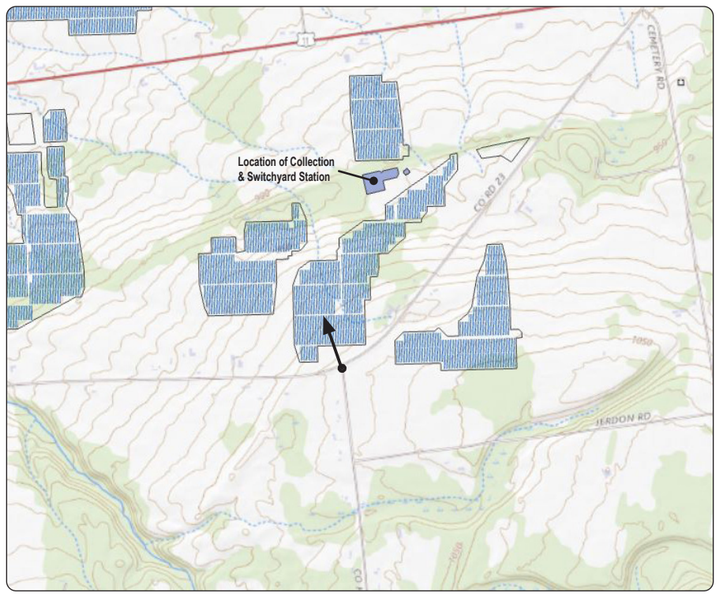


NNW

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.91134 -74.11632
Town	Chateaugay
Viewpoint Elevation (MSL)	1,034
Distance to Fence Line	308’
Direction of View	North Northwest
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 11:07 AM





VP7 - Intersection of County Route 33 & County Route 23 | Representative Simulation - Proposed Facility Without Landscaping | Sheet 13 of 48 | January 2022



VP7 - Intersection of County Route 33 & County Route 23 | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 14 of 48 | January 2022



VP7 - Intersection of County Route 33 & County Route 23 | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 15 of 48 | January 2022

Existing Conditions

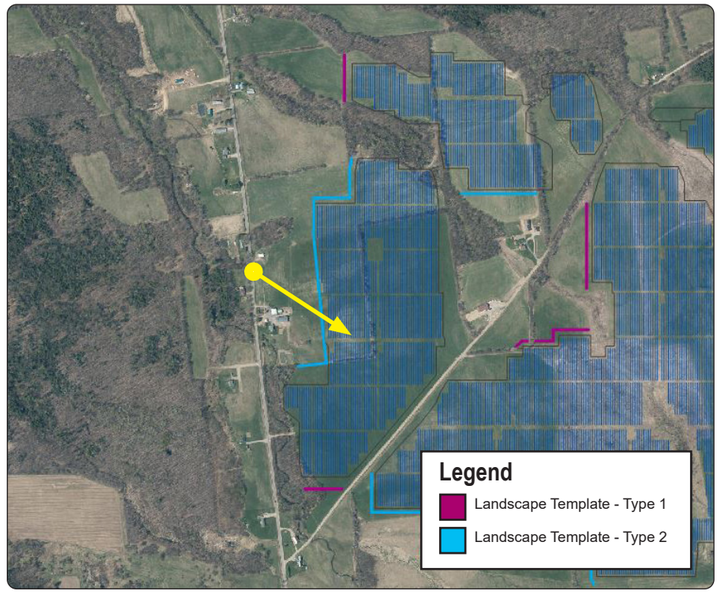




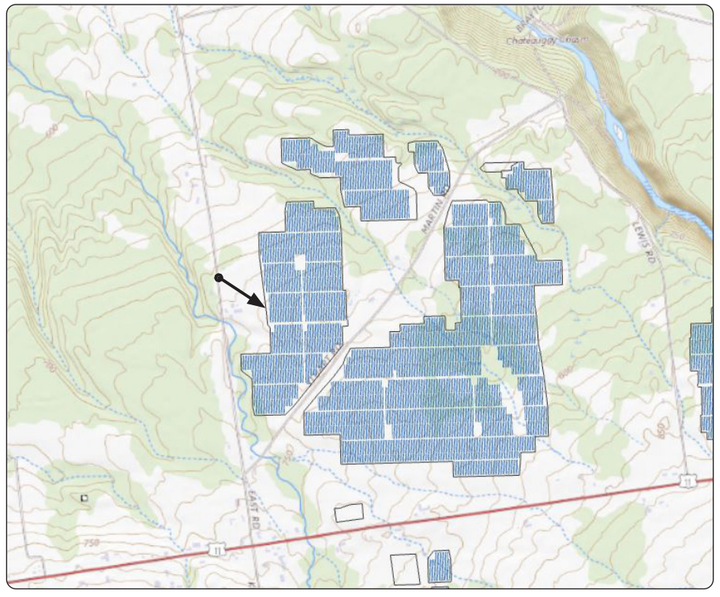


SE

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.93174 -74.14217
Town	Burke
Viewpoint Elevation (MSL)	711
Distance to Fence Line	620’
Direction of View	Southeast
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 1:06 PM



VP9 - East Road | **Representative Simulation - Existing Conditions** | Sheet 17 of 48 | **January 2022**



VP9 - East Road

Representative Simulation - Proposed Facility Without Landscaping

Sheet 18 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 3 of 8



VP9 - East Road | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 19 of 48 | January 2022



VP9 - East Road | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 20 of 48 | January 2022

Existing Conditions

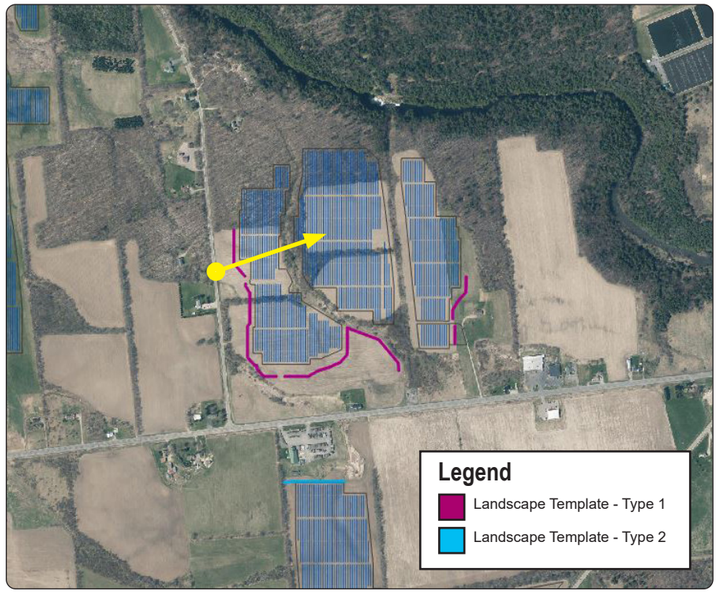




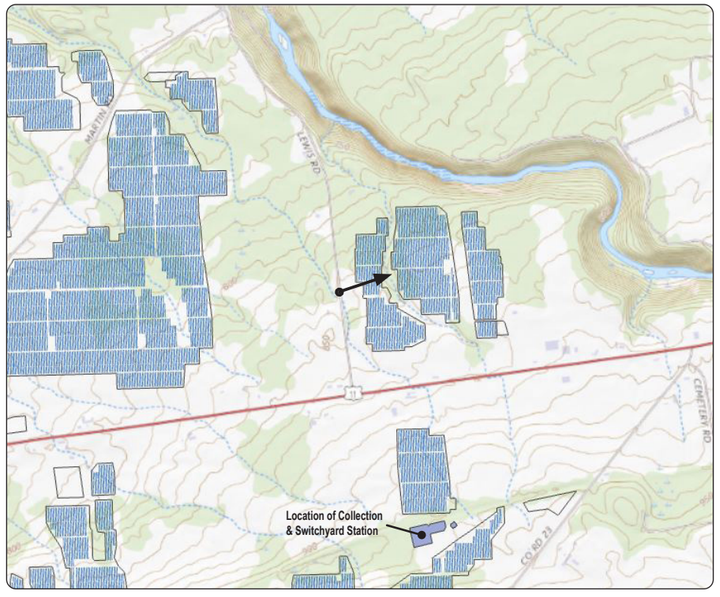


ENE

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.92747 -74.11824
Town	Chateaugay
Viewpoint Elevation (MSL)	839
Distance to Fence Line	265’
Direction of View	East Northeast
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 3:01 PM



VP13 - Lewis Road | Representative Simulation - Existing Conditions | Sheet 22 of 48 | January 2022



VP13 - Lewis Road | **Representative Simulation - Proposed Facility Without Landscaping** | Sheet 23 of 48 | **January 2022**



VP13 - Lewis Road

Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off)

Sheet 24 of 48 | January 2022



VP13 - Lewis Road | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 25 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 4 of 8

Existing Conditions

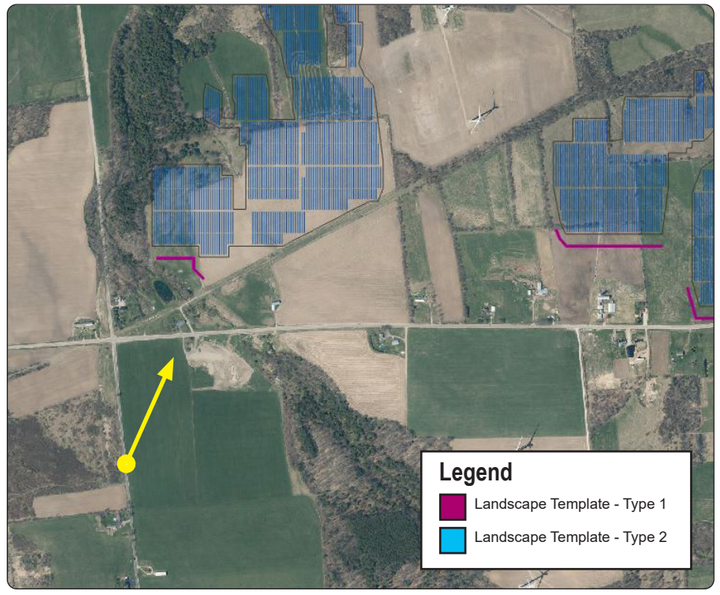




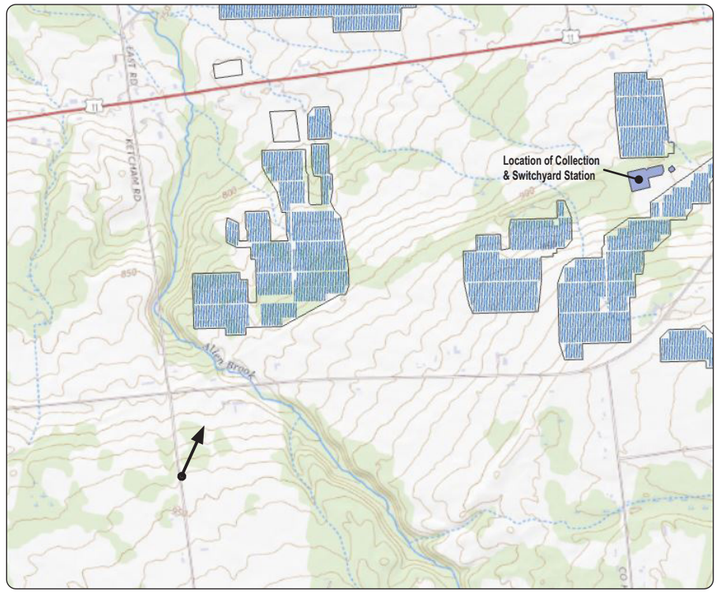


NNE

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.90784 -74.13877
Town	Burke
Viewpoint Elevation (MSL)	945
Distance to Fence Line	.38 Mile
Direction of View	North Northeast
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 1:43 PM



VP23 - Selkirk Road (Snowmobile Trail C8C) | Representative Simulation - Existing Conditions | Sheet 27 of 48 | January 2022



VP23 - Selkirk Road (Snowmobile Trail C8C) | Representative Simulation - Proposed Facility Without Landscaping | Sheet 28 of 48 | January 2022



VP23 - Selkirk Road (Snowmobile Trail C8C) | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 29 of 48 | January 2022



VP23 - Selkirk Road (Snowmobile Trail C8C) | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 30 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 5 of 8

Existing Conditions

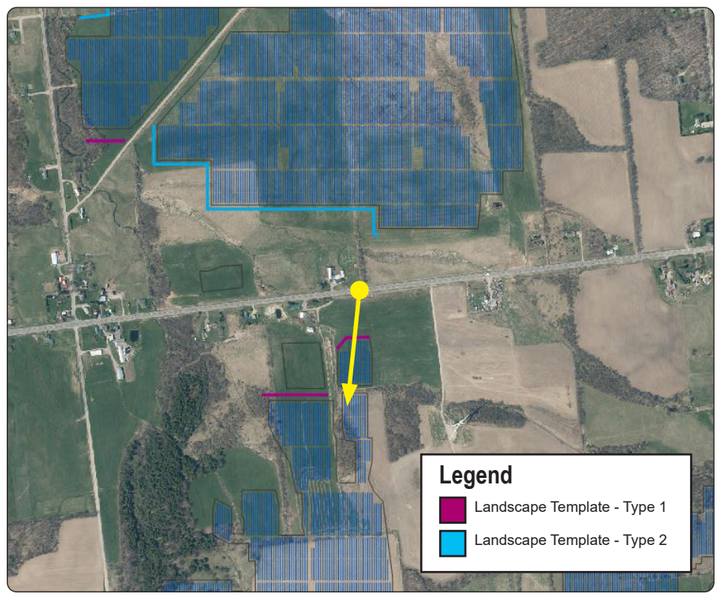




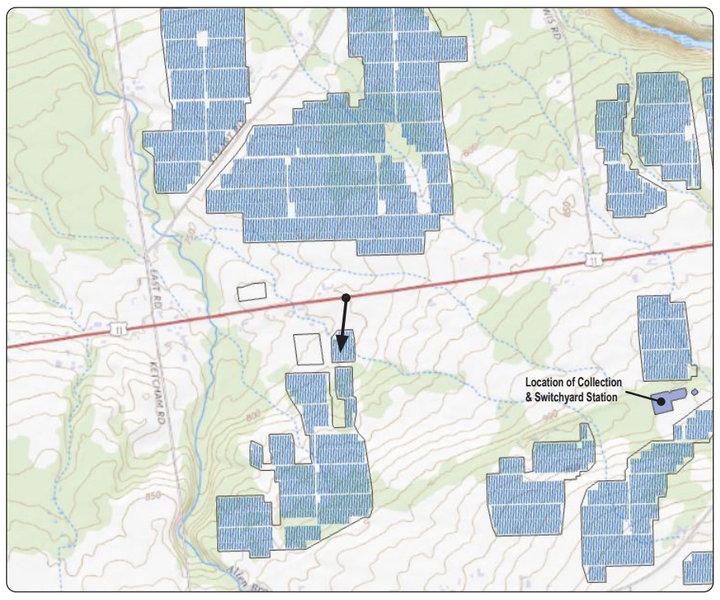


S

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.92251 -74.13079
Town	Burke
Viewpoint Elevation (MSL)	806
Distance to Fence Line	421’
Direction of View	South
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 10:08 AM



VP33 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Existing Conditions | Sheet 32 of 48 | January 2022



VP33 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Proposed Facility Without Landscaping | Sheet 33 of 48 | January 2022



VP33 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 34 of 48 | January 2022



VP33 - US Route 11, (Military Trail) Scenic Byway, State Bicycle Route 11 | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 35 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 6 of 8

Existing Conditions

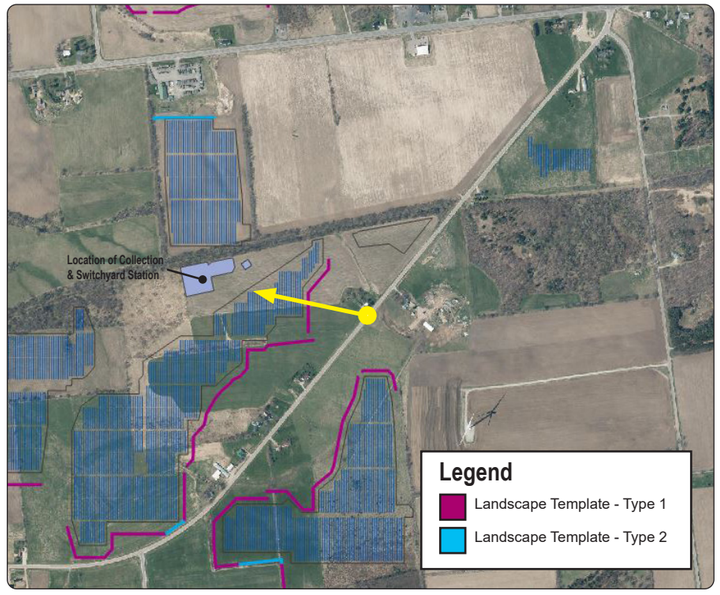




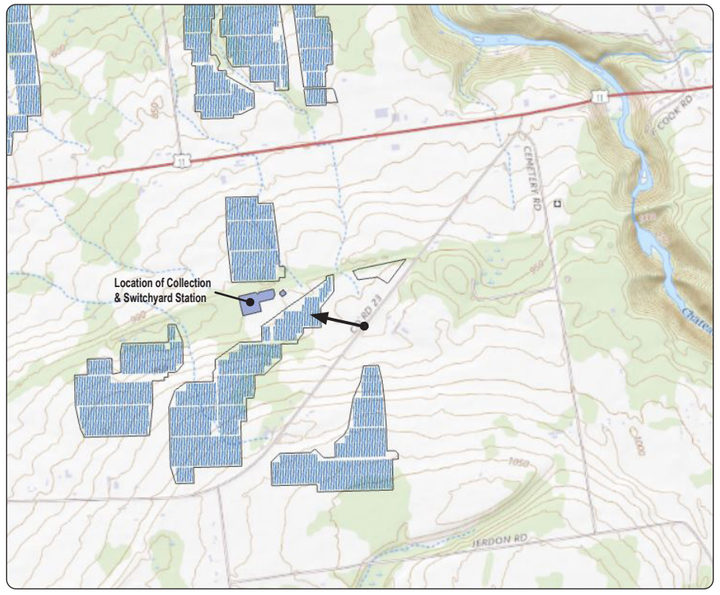


WNW

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.91733 -74.10842
Town	Chateaugay
Viewpoint Elevation (MSL)	967
Distance to Fence Line	554’
Direction of View	West Northwest
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 10:54 AM



VP38 - County Route 23 | Representative Simulation - Existing Conditions | Sheet 37 of 48 | January 2022



VP38 - County Route 23

Representative Simulation - Proposed Facility Without Landscaping

Sheet 38 of 48 | January 2022



VP38 - County Route 23

Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off)

Sheet 39 of 48 | January 2022



VP38 - County Route 23

Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On)

Sheet 40 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 7 of 8

Existing Conditions

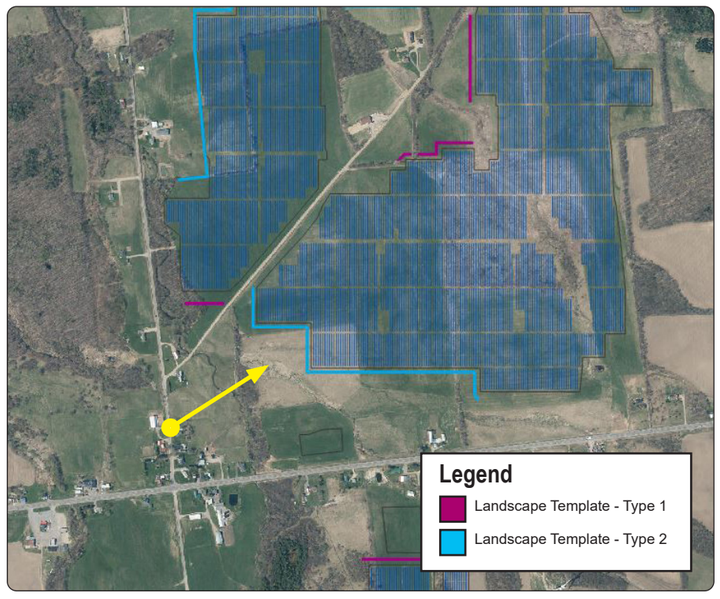




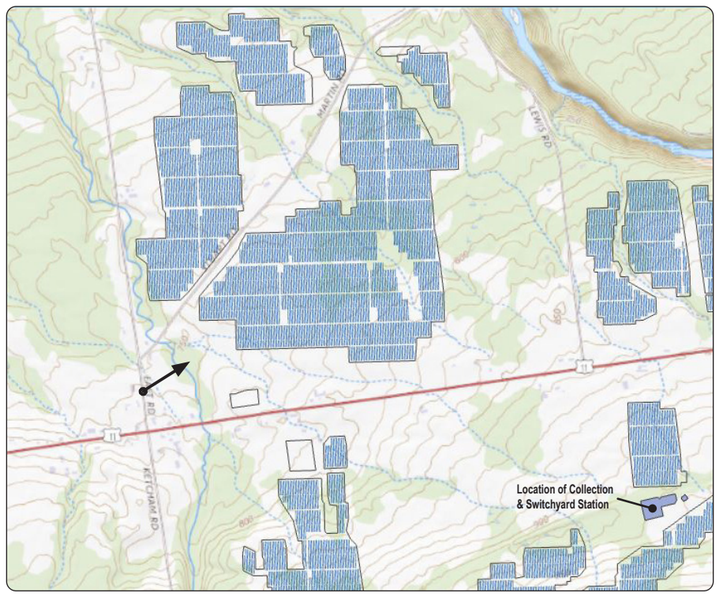


NE

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.92328 -74.14099
Town	Burke
Viewpoint Elevation (MSL)	759
Distance to Fence Line	.22 Mile
Direction of View	Northeast
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 1:13 PM



VP44 - East Road, Hamlet of Thayer Corners | Representative Simulation - Existing Conditions | Sheet 42 of 48 | January 2022



VP44 - East Road, Hamlet of Thayer Corners | Representative Simulation - Proposed Facility Without Landscaping | Sheet 43 of 48 | January 2022



VP44 - East Road, Hamlet of Thayer Corners | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf Off) | Sheet 44 of 48 | January 2022



VP44 - East Road, Hamlet of Thayer Corners | Representative Simulation - Proposed Facility With 10 Year Landscaping (Leaf On) | Sheet 45 of 48 | January 2022

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

SIMULATIONS AND LINES OF SIGHT

ATTACHMENT 4

Part 8 of 8

Existing Conditions

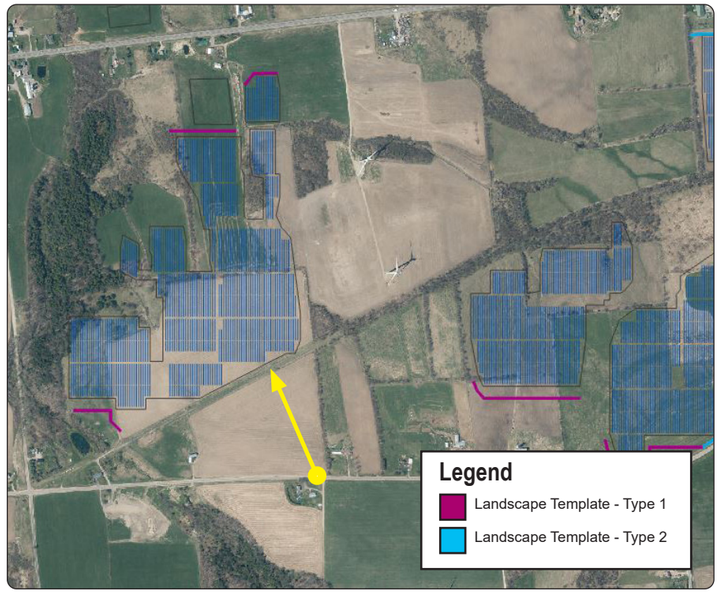




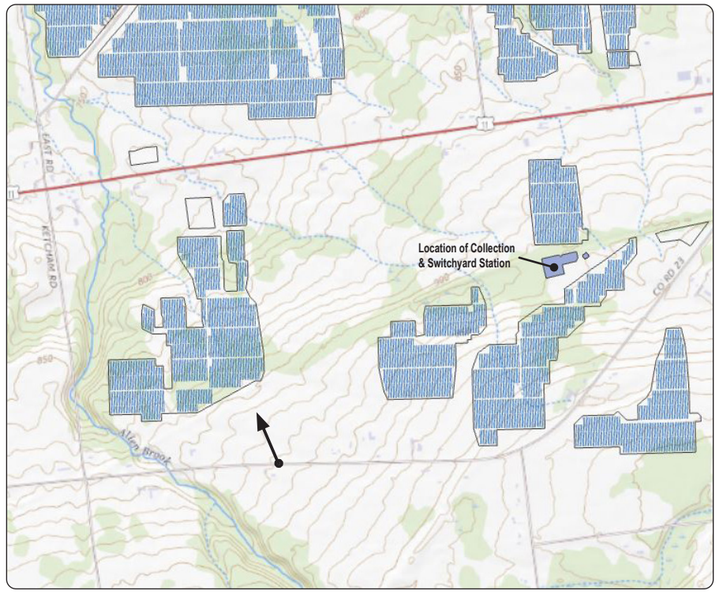


NNW

Viewpoint Location Aerial Map



Viewpoint Location Topographic Map



Viewpoint Coordinates	44.91123 -74.12908
Town	Burke
Viewpoint Elevation (MSL)	937
Distance to Fence Line	.21 Mile
Direction of View	North Northwest
Lens Focal Length	50mm (35mm Equivalent)
Date/Time of Photograph	3/22/2021, 1:48 PM

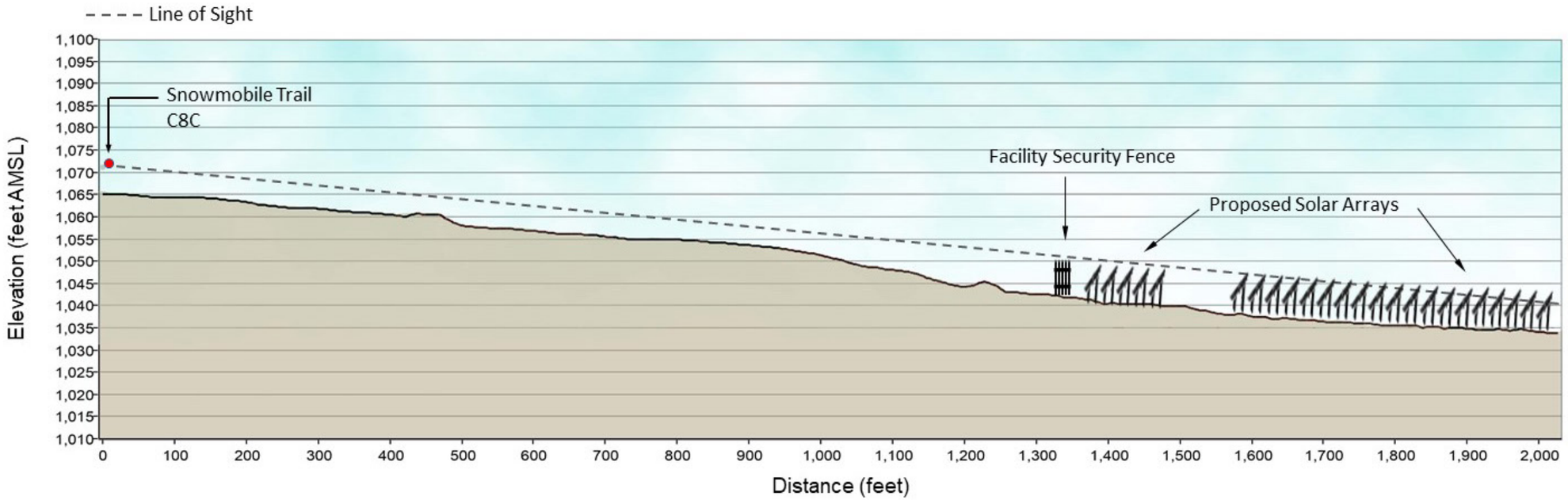


VP46 - County Route 23 | Representative Simulation - Existing Conditions | Sheet 47 of 48 | January 2022

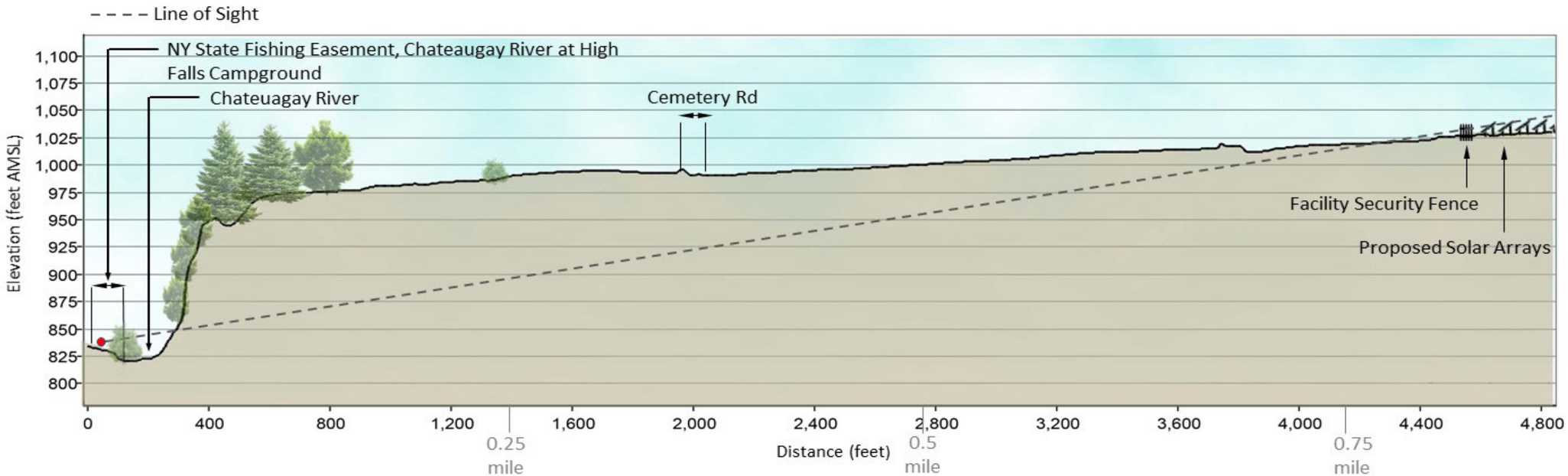


VP46 - County Route 23 | **Representative Simulation - Proposed Facility** | Sheet 48 of 48 | **January 2022**


N
Snowmobile Trail C8C
Project Security Fence
Proposed Solar Arrays
0
200
400
600
800
1000
1200
1400
1600
1800
2000
Existing Jericho Rise Wind Turbine


Line of Sight
Snowmobile Trail C8C
Facility Security Fence
Proposed Solar Arrays
Elevation (feet AMSL)
1,100
1,095
1,090
1,085
1,080
1,075
1,070
1,065
1,060
1,055
1,050
1,045
1,040
1,035
1,030
1,025
1,020
1,015
1,010
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
1,400
1,500
1,600
1,700
1,800
1,900
2,000
Distance (feet)

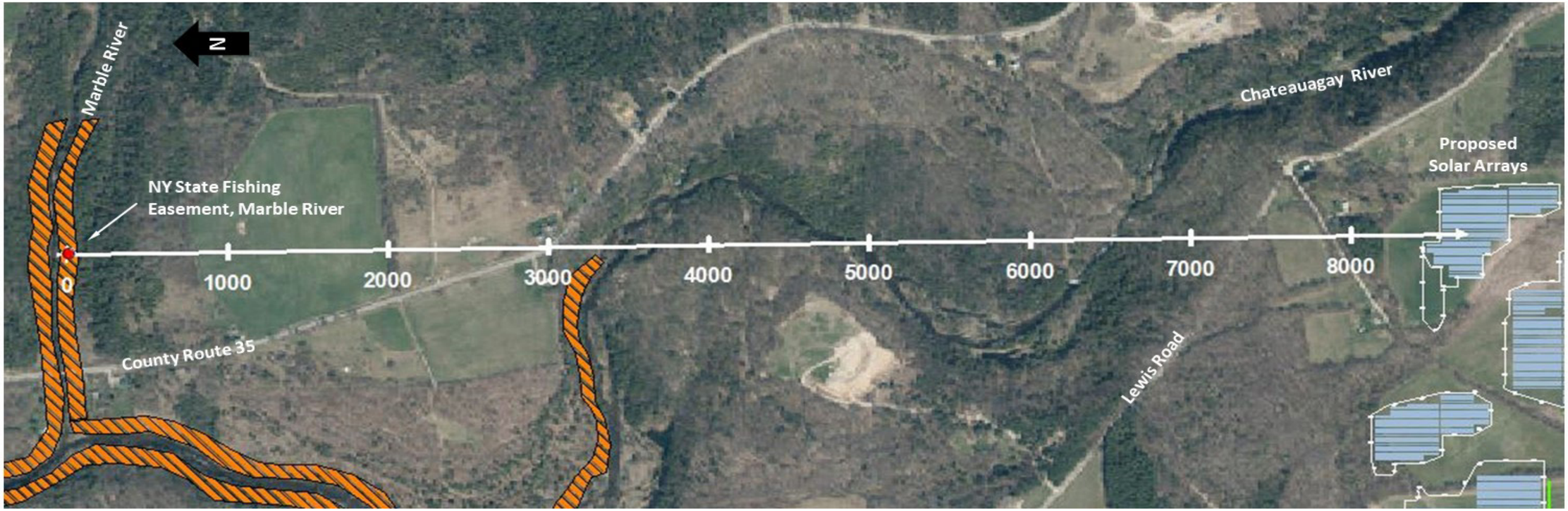


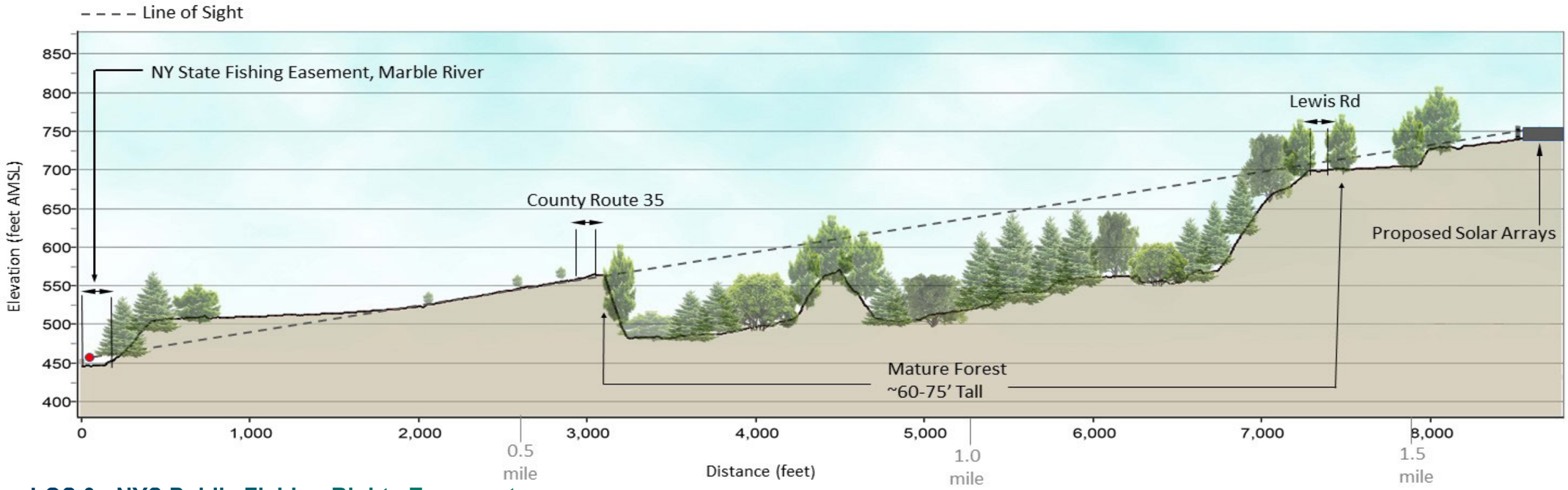


LOS 2 - NYS Public Fishing Rights Easement Chateaugay River at High Falls Campground

Line-of-Sight Profile

January 2022



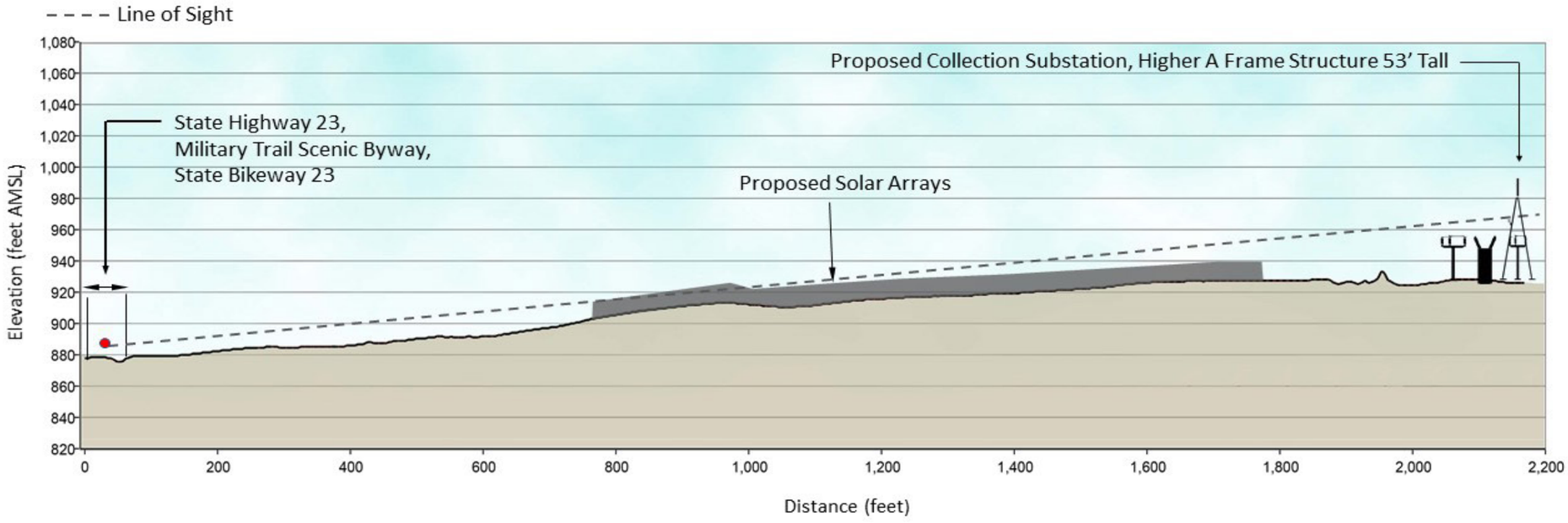


LOS 3 - NYS Public Fishing Rights Easement
Marble River

Line-of-Sight Profile

January 2022


Existing Transmission
Proposed Tree Clearing
N
State Route 11, Military Trail
Scenic Byway, Sate Bikeway 11
Facility Security Fence
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
Type 1 Vegetative Screening
Proposed Solar Arrays
Proposed Collection Station


Line of Sight
Proposed Collection Substation, Higher A Frame Structure 53' Tall
State Highway 23,
Military Trail Scenic Byway,
State Bikeway 23
Proposed Solar Arrays
Elevation (feet AMSL)
1,080
1,060
1,040
1,020
1,000
980
960
940
920
900
880
860
840
820
0
200
400
600
800
1,000
1,200
1,400
1,600
1,800
2,000
2,200
Distance (feet)

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

OUTREACH CORRESPONDENCE

ATTACHMENT 5

Brookside Solar Project
Visual Stakeholders List

HOST COMMUNITY
Mr. William Wood, Supervisor Town of Burke 5165 State Route 11 P.O. Box 121 Burke, New York 12917
Mr. Don Bilow, Supervisor Town of Chateaugay 191 East Main Street P.O. Box 9 Chateaugay, New York 12920
LOCAL COMMUNITY
Mr. Craig Dumas, Mayor Village of Burke 992 West Main Street P.O. Box 142 Burke, New York 12917
Ms. Donna Kissane, Manager Franklin County 355 West Main Street Suite 456 Malone, New York 12953
Mr. Carl Farone, Executive Director Development Authority of the North Country 317 Washington Street Watertown, New York 13601
STATE AGENCIES
Mr. Rudyard Edick, Office of Renewable Energy Siting Empire State Plaza 240 State Street, P-1 South, J Dock Albany, New York 12242
Mr. Daniel Mackay, Deputy Commissioner NYS Office of Parks, Recreation, and Historic Preservation 625 Broadway Albany, New York 12233
Ms. Noreena Chaudari, Assistant Counsel NYS Department of Public Service Agency Building 3, Empire State Plaza Albany, New York 12223
Mr. Robert Stegemann, Region 5 Commissioner NYS DEC 1115 NYS Route 86 P.O. Box 296 Ray Brook, New York 12977

Mr. Harold Johnson, Thousand Island Region Chair
NYS Parks
Keewaydin State Park
Alexandria Bay, New York 13607

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. William Wood
Supervisor, Town of Burke
5165 State Route 11
P.O. Box 121
Burke, New York 12917

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Wood:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

Several studies are currently ongoing for this Project. One of them is a visual impact assessment (VIA) which will evaluate potential visibility from the Project. The purpose of this letter, per §900-2.9 (b)(4), is to allow you an opportunity to review the enclosed materials and/or offer possible requests related to the evaluation of Project visibility, e.g. additional areas around the Project you would like considered for the VIA.

Preliminary information that is attached to this letter include:

- Attachment 1:
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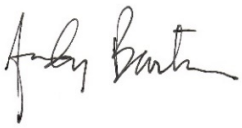
Best regards,



Judy Bartos, Visualization Specialist
TRC Companies, Inc.

From: Effler, Hayley
To: Bartos, Judith
Subject: FW: [EXTERNAL] AES Brookside Solar - Burke Vis Sim location requests
Date: Wednesday, July 21, 2021 7:02:31 AM
Attachments: image002.png

Hayley Effler (she/her)
Environmental Permitting Project Manager

215 Greenfield Parkway, Suite 102, Liverpool, NY 13088
C 315.715.1642
LinkedIn | Twitter | Blog | TRCcompanies.com

From: Brett Hastings <brett.hastings@aes.com>
Sent: Tuesday, July 20, 2021 9:15 PM
To: William Wood <burketown12@yahoo.com>
Cc: Joshua Baird <joshua.baird@aes.com>; Effler, Hayley <HEffler@trccompanies.com>
Subject: [EXTERNAL] AES Brookside Solar - Burke Vis Sim location requests

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Hello Mr. Otis (or other board rep),

Hope you all were spared any damages from the thunderstorms earlier this evening.

I recently received a request from the Town of Burke regarding the selection of site numbers from AES's visual outreach plan that the board would prefer to have used for creating the Visual Simulations related to the Brookside Solar Project and I just wanted to verify that the following site locations are correct:

- 2, 9, 15, 23, 24, 32, 33, 43, 44, 46

I you could please verify by replying to this email that the sample site locations were sufficient and this is the correct list of requested vis sim sites, I would appreciate it.

Thank you and have a great week

Brett Hastings

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. Don Billow
Supervisor, Town of Chateaugay
191 East Main Street
P.O. Box 9
Chateaugay, New York 12920

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Billow:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

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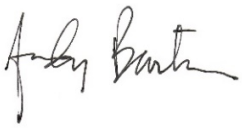

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. Craig Dumas
Mayor, Village of Burke
992 West Main Street
P.O. Box 142
Burke, New York 12917

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Dumas:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

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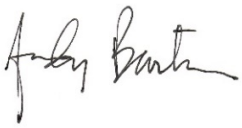

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
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June 22, 2021

Ms. Donna Kissane
Manager, Franklin County
355 West Main Street
Suite 456
Malone, New York 12953

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Ms. Kissane:

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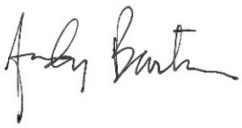

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June 22, 2021

Mr. Carl Farone
Executive Director
Development Authority of the North Country
317 Washington Street
Watertown, New York 13601

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Farone:

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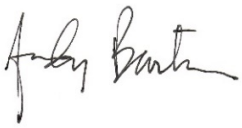

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June 22, 2021

Mr. Rudyard Edick
Office of Renewable Energy Siting
Empire State Plaza
240 State Street, P-1 South, J Dock
Albany, New York 12242

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Edick:

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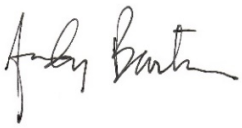

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TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. Daniel Mackay
Deputy Commissioner
NYS Office of Parks, Recreation, and Historic Preservation
625 Broadway
Albany, New York 12233

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Mackay:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

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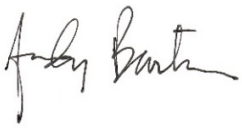
Please note that this request for either aesthetic resource recognition or additional simulation viewpoints are for locations in public rights-of-way.

Any comments or feedback you may have are **requested by July 16, 2021** and should be sent to:

- Via email to Judy Bartos: jbartos@trccompanies.com
- Via email to Hayley Effler: heffler@trccompanies.com

Best regards,



Judy Bartos, Visualization Specialist
TRC Companies, Inc.

From: Bagrow, Dan (PARKS)
To: Bartos, Judith
Subject: [EXTERNAL] Brookside Solar
Date: Thursday, July 1, 2021 11:28:12 AM

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Good morning Judy,

We have a recent submission for Brookside Solar from you with two questions. One is about identified resources and the other is about photo simulations. As far as identified "aesthetic resources" are concerned I am only interested in resources that may be eligible for the National Register of Historic Places, primarily focusing on building and structures. I don't have anything specific to add to the list you provided but I also rely on the architectural survey to identify the resources within the zone of visual impact.

As for the photo simulations, we don't need those for our review at this time. My review is focused on identifying and evaluating potentially National Register-eligible resources. If any resources are eligible (or already listed) then another reviewer, Weston Davey, will assess whether or not the project might have an adverse effect on them. At that point he may ask for photo simulations. Submitting them right now would be premature and I won't have anything to offer for comments. Weston will not be involved in the review of the project until my portion is complete. In the off chance that no eligible or previously-listed resources are identified then the architectural review would stop with me.

-Dan

Daniel A. Bagrow
Historic Preservation Program Analyst

New York State Parks, Recreation & Historic Preservation
Division for Historic Preservation
Peebles Island State Park, P.O. Box 189, Waterford, NY 12188-0189
518-268-2160, dan.bagrow@parks.ny.gov
https://parks.ny.gov/shpo

Are you registered to vote? Register to vote online today. Moved recently? Update your information with the NYS Board of Elections. Not sure if you're registered to vote? Search your voter registration status

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

January 11, 2022

Tim Sara
Program Manager, Cultural Resources
TRC
4425-B Forbes Blvd
Lanham, MD 20706

Re: PSC
Brookside Solar Project/100 MW/1212 acres
Towns of Burke and Chateaugay, Franklin County, NY
20PR03997

Dear Tim Sara:

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources.

We have reviewed your recent submission, dated December 15, 2021, for this project. This submission includes additional documentation illustrating the proposed solar arrays to address concerns with potential impacts to the historic St. Patrick's and Atwater Cemeteries.

Based on this review, it is the opinion of the SHPO that the proposed project will have No Adverse Impact to historic and cultural resources.

If you have any questions, I can be reached at (518) 268-2164.

Sincerely,

Weston Davey
Historic Site Restoration Coordinator
Weston.davey@parks.ny.gov

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Ms. Noreena Chaudari
Assistant Counsel
NYS Department of Public Service
Agency Building 3, Empire State Plaza
Albany, New York 12223

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Ms. Chaudari:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

Several studies are currently ongoing for this Project. One of them is a visual impact assessment (VIA) which will evaluate potential visibility from the Project. The purpose of this letter, per §900-2.9 (b)(4), is to allow you an opportunity to review the enclosed materials and/or offer possible requests related to the evaluation of Project visibility, e.g. additional areas around the Project you would like considered for the VIA.

Preliminary information that is attached to this letter include:

- Attachment 1:
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  - Photolog Aerial Maps
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We request your review of the following:

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1. One requirement of the VIA is to identify aesthetic resources (such as, but is not limited to: historic sites, scenic, recreational areas, locations of community importance, or high use areas) within the study area in order to understand sensitive areas of concern. A preliminary list of federal, state, and local aesthetic resources within a 2-mile Visual Study Area (VSA) around the Project as well as their mapped locations is provided in Attachment 1.

    a. **Please review the inventory of aesthetic resources in Tables 1-A to 1-C (in Attachment 1) for completeness. If you feel that the identified aesthetic resources are adequate, then no further action on your part is necessary.**

b. If you have additional aesthetic resources that you would like included for the VIA evaluation that have not been identified in Tables 1-A to 1-c, please list the names and locations.

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2. A series of photosimulations will be produced for the VIA where visibility is predicted. Photosimulations depict what the Project will look like by embedding a three-dimensional model of the proposed facility into a photograph. Site visits have been made and potential photos that will be used for photosimulations have been obtained by the Applicant. These photos are assembled in a Project Photolog found in Attachment 2 and represent different landscape settings and distances from the Project. Table 2 is a summary table of the photolog viewpoints that are in the Photolog. Locations of these viewpoints are also on the Attachment maps.

   Many of these photographs were taken to represent areas within the local community, such as roadways and near residences. The Applicant will produce a landscaping plan for the Project to screen views at residential locations and areas of cultural significance if applicable. Once the layout of the Project is closer to final, the Applicant would be happy to discuss the proposed landscaping plan to obtain feedback from the town.

For Request 2, please examine Table 2 and the Project Photolog. Ultimately, a smaller subset of those photos being presented will be chosen to produce photosimulations and thus, representative views of the Project.

a. If there is a preferred photo viewpoint location from the Photolog that you would like depicted for a photosimulation, please identify your selected viewpoint(s).

b. If there is a different viewpoint location you would like represented that is not in the Project Photolog, then please identify your suggested location and provide an explanation of why you consider it important.

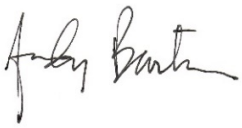
To assist in understanding where the solar arrays might be visible in the area, a visibility analysis (or viewshed map) has been produced and is included in the attached mapping. This visibility analysis shows areas of predicted Project visibility within a two-mile study area and is overlaid with the aesthetic resources and photo viewpoint locations.

Please note that this request for either aesthetic resource recognition or additional simulation viewpoints are for locations in public rights-of-way.

Any comments or feedback you may have are **requested by July 16, 2021** and should be sent to:

- Via email to Judy Bartos: jbartos@trccompanies.com
- Via email to Hayley Effler: heffler@trccompanies.com

Best regards,



Judy Bartos, Visualization Specialist
TRC Companies, Inc.

From: Chaudari, Noreena (DPS)
To: Effler, Hayley; Bartos, Judith
Cc: Chaskey, Chase (DPS); Flaum, Jeremy (DPS)
Subject: [EXTERNAL] RE: Brookside Solar, Visual Outreach Request
Date: Friday, July 16, 2021 4:29:05 PM
Attachments: image001.png

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Good afternoon,

In response to the Visual Impact Survey Request, the Department of Public Service Staff offers the following comments.

Request 1 – No additional aesthetic resources to call out (other than any locations requested by SHPO for consideration of Historic Architectural or project setting resources.

Request 2 – Selection of viewpoints for photo simulation (and/or line of sight) analysis:

Viewpoints selected for photo-simulation should have some degree of visibility of proposed facilities visible, to demonstrate change due to facility installation and to provide basis for required contrast review and analysis. The range of conditions (distance, orientation, landscape similarity zones) within the area with "potential visibility" should be represented in viewpoints selection. Facilities characteristics should be represented, including views of solar arrays, fencing, access road entry/gates, screening, and other facilities such as overhead electric lines, project substation/switchyard POI facilities connection. DPS notes that the location of the substation/POI as represented in the Survey Request materials is confusing: Photo Viewpoints map sheets A1 through A-4 all have call-out graphics for the "proposed substation" although it appears to be the case that only map sheet A-3 points to the proposed substation location. DPS recommends that a photo location representing a foreground view to the Substation be indicated, including solar arrays and POI as available; and that required screening be represented in the simulation view(s) of the substation mitigation.

Specific viewpoints from the inventory that appear to have potential significance include:

Viewpoint 5 – St. Patricks Cemetery historic property.

Viewpoints from the Military Trail Scenic Byway (Rt. 11) to proposed facilities both north and south of the Byway. DPS recommends that a sequence of three or more locations from the Byway be selected to represent the sequential views as would be experienced from an automobile (or bicycle touring on NYS Bicycle Route 11) driving along the Byway route. Several candidate viewpoints are represented, including 1, 2, 3, 4, 27, 32, 33, 34, and 35. DPS notes that VP 32 photos are very washed-out; and VP 33 photos are very dark. Other imagery from VP 32 and 33 should be developed to clearly depict the views from those locations.

Other viewpoints within the area of predicted visibility should be selected to represent all Landscape Similarity zones, and land uses including residential, commercial, farmland, and public uses.

Best,

Noreena Chaudari
Assistant Counsel, Office of General Counsel
Department of Public Service
3 Empire State Plaza, Albany, NY 12223
(518) 486-1966 | Noreena.Chaudari@dps.ny.gov

From: Effler, Hayley <HEffler@trccompanies.com>
Sent: Wednesday, June 23, 2021 10:59 AM
To: Chaudari, Noreena (DPS) <Noreena.Chaudari@dps.ny.gov>
Cc: Eric Will <Eric.will@aes.com>
Subject: Brookside Solar, Visual Outreach Request

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Ms. Chaudari –

Attached please find an information request regarding the Brookside Solar Project proposed in the Towns of Burke and Chateaugay, Franklin County, New York. We are requesting input from NYSDPS regarding the Applicant's selection of important or representative viewpoints for inclusion in the Section 94-c Application's Visual Impact Assessment (VIA). We kindly request your input by July 16, 2021. A hard copy of this consultation package can be provided upon request.

Due to file size, please confirm receipt of this email.

Thank you,

Hayley Effler (she/her)
Environmental Permitting Project Manager

215 Greenfield Parkway, Suite 102, Liverpool, NY 13088
C 315.715.1642
LinkedIn | Twitter | Blog | TRCcompanies.com

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. Robert Stegemann
Region 5 Commissioner, NYS DEC
1115 NYS Route 86
P.O. Box 296
Ray Brook, New York 12977

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Stegemann:

Brookside Solar, LLC (the Applicant), a subsidiary of The AES Corporation (AES), is proposing to submit an application to construct a 100-megawatt (MW) photovoltaic solar energy generation facility (the Project) in the Towns of Burke and Chateaugay, New York, under Section 94-c of the New York Executive Law. Refer to Figure 1 in Attachment 1 for the location of the Project.

Several studies are currently ongoing for this Project. One of them is a visual impact assessment (VIA) which will evaluate potential visibility from the Project. The purpose of this letter, per §900-2.9 (b)(4), is to allow you an opportunity to review the enclosed materials and/or offer possible requests related to the evaluation of Project visibility, e.g. additional areas around the Project you would like considered for the VIA.

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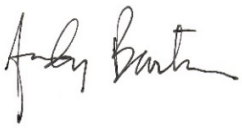

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 22, 2021

Mr. Harold Johnson
Thousand Island Region Chair, NYS Parks
Keewaydin State Park
Alexandria Bay, New York 13607

Subject: Visual Impact Survey Request – Brookside Solar Project

Dear Mr. Johnson:

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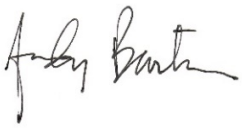
Best regards,



Judy Bartos, Visualization Specialist
TRC Companies, Inc.

From: Eric Will <eric.will@aes.com>
Sent: Monday, November 15, 2021 4:36 PM
To: Effler, Hayley <HEffler@trccompanies.com>
Cc: Stephanie Hince <stephanie.hince@aes.com>; Brett Hastings <Brett.hastings@aes.com>
Subject: RE: [EXTERNAL] RE: Brookside, informal visuals consultations/meetings

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

On July 15, 2021 Brett Hastings and Jim Muscato met with Bill Wood (Town of Burke Supervisor) and Don Bilow (Town of Chateaugay Supervisor). Kirby Selkirk from the Chateaugay Town Board was also present as was Stephen Le Fevre (Towns of Burke and Chateaugay Engineer). The sole purpose of that meeting was to discuss the project's visual impacts and our plan for mitigation through a strategic landscaping plan. They also requested specific viewpoints for us to provide visual simulations for in addition to the ones we're providing with the application. I've copied Stephanie Hince here so she can add this to the PIP Log. Eric

PS – once TRC has completed the project's Emergency Response and Site Security Plans please forward them to me so I can review them with the Fire Departments in the towns.

Eric Will
Senior Manager, Development
AES Clean Energy
eric.will@aes.com
Mobile: 315-952-3611

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

PHOTOSIMULATION CONTRAST RATINGS

ATTACHMENT 6

TRC Visual Impact Rating Form

This form is a simplified version of various federal agency visual impact rating systems. It includes concepts and applications sourced from:

- U.S. Bureau of Land Management (BLM), Handbook H-8431: Visual Contrast Rating, January 1986
- Visual Resources Assessment Procedure For U.S. Army Corps Of Engineers, March 1988
- National Park Service Visual Resources Inventory View Importance Rating Guide, 2016
- USDA Forest Service (USFS), United States Department of Agriculture Forest Service, Landscape Aesthetics: A Handbook for Scenery Management. USDA Forest Service Agriculture Handbook No. 701, 1995

Depending on the project location, a variety of visual impact assessment (VIA) guidance and established procedures exist as noted above that apply to management of federal lands that fall under a specific agency such as the U.S. Forest Service or Bureau of Land Management. These guidance documents vary in regards to agency specific rating systems or procedures and often begin with the evaluation of existing conditions such as scenic quality or presence of sensitive resource locations.

This form has been developed by TRC for efficient and streamlined use with projects that undergo state environmental permitting processes. It is assumed that visual resource inventories, terrain analyses, development of landscape similarity zones or viewshed analyses have already been performed in the project VIA according to state regulatory requirements or other visual policy. This form was developed to be used as a numerical rating system for the comparison of Existing Conditions (Before) vs. With Project (After) photosimulations of final selected viewpoint locations and is meant to accompany the project VIA.

1. How to Use the Visual Impact Rating Form

For evaluating visual impacts there are two parts to the form. Part 1 is *Visual Contrast Rating* which rates the Project as it contrasts against compositional visual elements of the viewpoint scene. This includes compositional contrasts against the existing and natural environment such as vegetation, water, sky, landform, or structures. The higher the rating total the higher the contrast. Part 2 is *Viewpoint Sensitivity Rating*. This section rates the sensitivity of the viewpoint location which inherently considers the importance of the viewpoint (if it falls within a visual resource area), duration of view, if it is a high use area, as well as general scenic quality. The higher the rating total, the more sensitive the viewpoint is. Part 3 is an overall *General Scenic Quality of the View* which rates the view of existing conditions only without the influence of the project.

The rating scale is as follows:

Rating Scale	
0	None
0.5	
1	Weak
1.5	
2	Moderate
2.5	
3	Strong

1.1. Degree of Contrast Criteria

None The element contrast is not visible or perceived.

Weak The element contrast can be seen but does not attract attention.

Moderate The element contrast begins to attract attention and begins to dominate the characteristic landscape.

Strong The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

2. Part 1 Visual Contrast Rating

Form Contrast: Form in this sense generally means the shape of an object or unification of shapes massed together by perceived pattern or color. In many rural undeveloped areas, the landscape may consist of homogenous or visually restful views of large shapes or shapes of color belonging to expanses of open field or forested areas. New project elements may provide a contrast or interruption against existing homogenous shapes within the view (strong). Conversely, there may be much visual existing clutter comprised of multiform shapes found in developed or urban areas where newly introduced project elements may better be visually absorbed in the view (weak).

Line Contrast: Line generally refers to the perceived edges of shapes as well as the orientation of these line edges. An undeveloped area at distance may be mostly horizontal line comprised of distant ridges or forest treetops as well as forest and field interfaces. New project elements may disrupt some of the line or they may introduce new vertically oriented lines as such as from a transmission line or wind farm (strong).

Texture Contrast: Trees and their leaves or buildings at close proximity will offer higher detail (strong). Texture and the level of discernible detail decreases with distance (weak). Objects at distance may appear as one homogenous texture or shape.

Color Contrast: Does the project color contrast greatly against color in the existing view (strong)? Color contrast may occur with the terrestrial background or the sky.

Project Scale Contrast/Spatial Dominance: Is the project size and scale dominant (strong), co-dominant, or subordinate (weak) in the view in relation to the rest of the surroundings?

Broken Horizon Line: Does the project remain below the horizon line (weak) or is the horizon line broken by project elements (strong)?

Visual Acuity: Visual acuity is the acuteness or clarity of vision, most often related to the amount of discernible detail or contrast with distance. Atmospheric conditions may also decrease visual acuity, especially on hazy humid days.

Amount of Project Clearing Perceived: The With Project (After) simulation may show extensive clearing that has occurred compared to existing conditions, thereby showing a large visual change from the project (strong). In many cases, no clearing is required (none), or minimal clearing might be seen from a viewpoint location (weak or moderate).

Screening/Mitigation Needed: This category is treated in two ways. 1) Is the project at a particular viewpoint seen because of being mostly in the open which would require some type of vegetative or structural mitigation (strong) to obscure direct views? Conversely, is there some type of existing screening that blocks partial or whole views such as trees, buildings, or topography that act as visual impediments in the landscape (weak). Or 2) How important is it to mitigate at a certain area or how high is the visual absorption capacity? For example, there may be a clear unobstructed view of a new transmission structure in the view, but if there are existing transmission poles or cell towers, or distribution lines along the street in a more urban area providing similar utility development it may not be necessary to mitigate (weak). Is a substation being proposed where there is a clear view but within industrial development (weak)? Or, there may be visible modifications to an existing substation but proposed elements are visually absorbed by the substation because of "like" components and thereby requires no mitigation (weak).

3. Part 2 Viewpoint Sensitivity Rating

Within a Visual Resource: Is the viewpoint located within a visual resource as listed in the Visual Resources Inventory section of the VIA? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If yes, then viewer expectations and sensitivity may be higher.

View of Other Visual Resources: Can you see a visual resource listed in the Visual Resources Inventory from the viewpoint location in combination with the project? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied.

A Listed/Known Scenic Resource of Visual Quality: Is the viewpoint located within a listed or known scenic area of visual quality? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If yes, this location would also be identified as a visual resource as listed in the Visual Resources Inventory section of the VIA. It is evaluated in the Viewpoint Sensitivity Rating because there are often town by-laws, master plans, or regional planning documents that call out specifically named locations that have been designated as a scenic viewing area and is important to note. It means that the location has added importance to the community and if yes, then viewer expectations and sensitivity are likely higher. This will be used infrequently.

Number of Viewers/High Use Activity: An area of high use and high number of viewer will incur a greater amount of visual impact to the community (strong). These areas may consist of high destination type locales visited by the public such as recreational areas, shopping centers, densely populated areas, or highways with large traffic counts. A roadway may not always be considered as high use. There may be viewpoints along local rural roadways that have relatively very low traffic counts. This category accounts for the immediate vicinity. For example the simulation might only show a roadway, but a resident may be very nearby or behind the viewer.

Duration of View: The duration of views is categorized as Long Duration (strong), Short Duration (weak) or Infrequent (weak). Residents or workers with views from the workplace or day long use at a picnic area would be a long duration view. Short duration views imply movement and are transient, such as passing the site on a highway, glimpsing a project from an open area on a hiking or snowmobile trail. A moderate duration view might be a destination type location such as a summit or historic landmark where the visitor seeks the location with purpose but only stays for a few hours. However care must be taken

when attributing an area to a short duration view. There could be short duration views encountered frequently over distance, such as a snowmobile trail.

Presence of Existing Development: For this category we are looking at intactness and how much the landscape has been altered by the presence of people. Is there much existing development consisting of commercial, utility, or industrial development or densely populated residential or urban neighborhoods in the photo or near vicinity? If so, then the sense of place or importance may be diminished and decreases viewer sensitivity as a place that does not have high value and should be rated as weak. Conversely, the lack of existing development contributes to the intactness of a more undisturbed natural environment a gives a sense of greater value. However, development is not all negative. Some development may have altered the environment but has only "somewhat" changed the view over time and may not be as visually impactful, such as a farm and associated farm fields. In this case, the Presence of Existing Development could be rated as moderate.

Uniqueness of Landscape Compared to Rest of Study Area: Photographs for project simulations are generally taken within a designated study area. Landscape features or scenic quality in the study area shown in simulations may be found to be consistently similar or unvaried (weak). If the viewpoint shows a view that is unique to the area such as an outstanding water feature, a series of dramatic cliffs, or mountain views not typically found elsewhere in the vicinity then it should be rated as strong.

Presence of Water: Generally the presence of water implies greater scenic quality or importance. This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If there is the presence of water and it is not very discernible in the view, then a rating of 2 (moderate) can be applied.

4. Part 3 Scenic Quality of the View

This section rates existing conditions only, without the influence of the project.

Each landscape expresses unique scenic qualities. Scenic attractiveness indicates the potential of a landscape to produce varying degrees of satisfaction, of positive physiological responses; such as reduced stress; positive psychological responses; and a general feeling of well-being.

Please consider the following when assessing existing scenic quality:

- Note that a higher rating of scenic quality does not always have to be within natural or rural environments. This can also occur within urban or other man-made cultural type environments that consist of pleasing building structures, hardscaping, or landscaping.

- Landscape Diversity. The degree of existing scenic quality is usually correlated with landscape diversity – the more natural diversity, generally, the greater the scenic quality. For example, landscapes with greater diversity in vegetation and topography are more likely to be scenic than flat landscapes with uniform vegetation. Water features such as rivers or ponds tend to add diversity as do natural rock outcroppings. High scenic quality often results from the contrast among landscape features such as field and forest, steep and flat or rolling, village and countryside.

- Intactness. Another relevant factor in determining scenic quality is the intactness of the landscape. A lack of landscape degradation contributes to the "intactness" of the landscape. Landscapes where there is a clear underlying order or logic tend to be more visually appealing. Natural landscapes exhibiting little evidence of human alteration (e.g. an intact prairie landscape) are likely to have high visual as well as natural value. In the human (built) landscapes too much diversity can lead to visual chaos or clutter, for example strip development in which every business vies for one's attention by looking different from its neighbor. But landscapes which retain 19th early 20th century landscape patterns, places with split-rail fencing or stone walls are often visually appealing in their simplicity and clear connections of use to the land itself.

- Focal Point. Focal points are elements in the landscape that stand out due to their contrasting shape (form), color or pattern. Often distinct focal points enhance scenic quality. They can be natural elements such as a lake, river or mountain; or they can be built elements such as an important public building, or a central green.

- Unity in a landscape provides a sense of order.

- Vividness is related to variety as well as contrast adding clearly defined visual interest.

- Coherence describes the ability of a landscape to be seen as intelligible rather than chaotic.

- Harmony exhibits a combination of parts of a landscape into a pleasing or orderly whole and a state of agreement, congruity, or proportionate arrangement of form, line, color, and texture.

- Pattern includes pleasing repetitions and configurations of line, form, color, or textures.

- *Strong values* might consist of areas where landform, vegetation patterns, water characteristics, and cultural features combine to have unique and strong positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.

- *Moderate values* are generally areas where landform, vegetation patterns, water characteristics, and cultural features use combine to provide ordinary or common scenic quality. These landscapes have generally positive, yet common, attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Normally they would form the basic typical matrix within the study area.

- Weak values are areas where landform, vegetation patterns, water characteristics, and cultural land use have lower scenic quality. Often water and rockform of any consequence are missing in these landscapes. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order, -harmony, uniqueness, and balance.

5. Assessing the Outcome of the Rating

The rating system and those developed by the other aforementioned agencies are designed to guide a subjective process (visual observation) objectively, by using straightforward common language that involves the discussion of compositional elements. A rating system is applied from low to high with the intent to provide consistent comparison between or across subject matter.

The simulations will show varying distance zones and landscape zones. The rating is also meant to provide comparison of the project within these zones as seen across the study area. The rating form is not meant as a public survey or to assess or appeal to how one feels about the development at a more emotional level.

However, it should be noted that when evaluating the outcome of the ratings, a high rating of form or texture contrast for example, does not necessarily imply a negative or disturbing result. Nor may the project be offensive to the average person. As well, there may be visual impacts implied by the rating forms but they may not be adverse.

In many cases the building design or choice of building material can be aesthetic and visually pleasing to the viewer and/or remain consistent with other development in the area. With utility development for example, a battery storage facility that may have a high texture, line, or form rating that is proposed within a seaside environment may incorporate weathered cedar shakes, white trim, and dormers into the building design in order to remain similar to cape style houses in the area. Although compositionally it may have a high contrast rating against what is currently there, the project may be considered to be aesthetically pleasing and interesting to look at. Similarly, a converter building project in a rural area may elect to design the building to look like a red barn. Although the proposed building may provide a large form with new vertical elements against the current landscape, and its red color may contrast highly against either green vegetation or white winter snow, the design choice of a red barn could be considered aesthetically pleasing and suitable while also remaining consistent with other large development (farms) in the area. Or perhaps there are brick materials proposed as building materials or hardscape for a project which could be considered aesthetically pleasing and visually interesting. In the case of solar development, although a solar panel could provide color contrast, the look of a solar panel itself may not be displeasing. Although basic solar panel design cannot be changed, the project can be combined with vegetative mitigation of native flowering and pollinator species implemented and spaced in a naturalized manner resulting in overall aesthetic and interesting landscape screening.

The rating forms are not standalone nor are results provided without context. The rating results are typically accompanied by a summary discussion that considers project design aspects as noted in the above examples as well as how the overall project fits within the landscape.

Contrast Rating Panel Qualifications

1. Michael Ross

Education

Bachelor of Science, Landscape Architecture, The Pennsylvania State Univ., University Park, PA, 1995

Professional Registrations/Certifications/Training:

- Pennsylvania Registered Landscape Architect License No. LA002697
- West Virginia Registered Landscape Architect License No. 416
- Colorado Registered Landscape Architect License No. LA1362
- North Carolina Registered Landscape Architect License No. 2096
- Maryland DNR Forest Conservation Qualified Professional

Memberships/Associations:

- American Society of Landscape Architects (ASLA)
- Counsel of Landscape Architectural Registration Boards (CLARB)

Area of Expertise

Mr. Ross has more than 23 years of experience in the profession of Landscape Architecture that includes:

- All aspects of the Land Development Submission process
- Civil Site Plan Development
- Site Analysis, Field Scoping Views, and Formal Survey Requests
- Due Diligence Reports and Utility Coordination
- Conceptual Design and Exhibit Presentations for Client
- Prime and/or Sub-Consultant Interaction and Consultation
- LEED Certified and Sustainable project site design
- Master planning, Estate planning, and Streetscaping
- Hardscape and Planting design/implementation
- All aspects of Permitting Approvals including: E&S/NPDES, HOP, PHMC, Zoning, Planning, and SALDO
- Design/build implementation and processes and Phased planning/design
- Project management and coordination with general and/or subcontractors throughout the construction process
- Program Manager for project site Visual Simulation Efforts

2. John Guariglia, RLA

Education

- Bachelor of Landscape Architecture, SUNY College of Environmental Science & Forestry, 1994
- Associate in Science, Monroe Community College, 1991Professional Registration

Professional Licensure
• Landscape Architect, New York (#0017651), 1999

Area of Expertise
Mr. Guariglia has 26 years' experience in the field of Landscape Architects, 23 of which have been in the specialized discipline of visual assessments. His experience includes:

- Planning (e.g., municipal and recreation studies) and site plans for non-energy related projects.
- Experience in creating three-dimension models and photographic simulations.
- Field assessments and photography.
- Author of visual assessments. Including the rating of simulations for Article X projects.
- Managing the completion of visual assessments.
- Published articles related to visual assessments, including cover story in a national trade publication.
- Involvement in renewable and traditional power projects, and transmission lines.
- Has been involved in projects across the U.S.
- Expert testimony (written and oral).
- Shadow-flicker analysis for wind energy projects.

3. Corban McElroy

Education
M.L.A., Master of Landscape Architecture, University of Colorado Denver, Denver, CO
B.A., Land Use – Geographic information Systems, Metropolitan State University of Denver, Denver, CO

Professional Registrations/Certifications/Training
• Associate Member, American Society of Landscape Architecture, ASLA
• Certified verifier – 2020, Nevada Sagebrush Ecosystem Technical Team, Habitat Quantification Tool (HQT)

Areas of Expertise
Mr. McElroy has over 10 years of professional GIS experience.
• Landscape Inspection
• Landscape Design
• Seismic Survey
• PLSS (Public Land Survey System)
• MTP (Master Title Plat)
• Oil and gas and government datasets and clients
• ESRI ArcGIS Software (ArcMap, Arc Pro), CAD-GIS-GPS Data conversion
GCDB (geographic Co-ordinate Database), Mobile GPS Data Collection (Trimble, Leica, Garmin) processing and integration into GIS, AutoCAD, Adobe Suite (Photoshop, Illustrator, InDesign)

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/22/21
Viewpoint Number: 4	Preparer: M. Ross
Viewpoint Location: US Route 11, Chateaugay	
Viewpoint Description: view northerly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The proposed solar panels and fence line create a rectilinear shape close in proximity to the viewpoint creating a contrast that is unnatural and out of place. The solar panel form is linear in shape which does help to reduce contrast and impact to some degree.
Line Contrast	1.5	Line contrast is present in this image. However, the lines of the proposed fence line and tops of the solar panels mimic the existing terrain and lines that are present in the existing roadway in the foreground.
Texture Contrast	1.5	The smooth, hard, angular man-made panels contrast with the natural vegetation that is present. The existing asphalt road in the foreground helps to soften impacts created.
Color Contrast	1.5	The hard silver fence line and dark grey toned panels contrast with the existing earth tone colors found in the existing landscape but blends somewhat with the deciduous vegetation grasses along the roadway in the foreground.
Project Scale Contrast/Spatial Dominance	1.5	The visual presence of the solar panels is fairly significant in this view creating a dominant feature in the landscape that feels foreign and unnatural.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	1.5	Some discernable detail is present in this view.
Amount of Project Clearing Seen	1.0	Some project clearing can be determined.
Screening/Mitigation Needed	2	The panels are visible from this location and a significant amount of screening will be needed in this location.
Total	**12.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	Military Trail Scenic Byway, State Bikeway 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	The site location is rural however, several roads are present along the solar array fields and in this view and a number of residential structures and a few businesses are in close proximity therefore, a higher number of views will most likely occur – especially in leaf-off conditions.
Duration of View	2	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures will most likely occur. There is also a road intersection nearby as well.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures and businesses are located near this viewpoint and in close proximity to the solar array fields.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.

Total	**9.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view provides a rural and quiet setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/16/2021
Viewpoint Number: 4	Preparer: John Guariglia
Viewpoint Location: US Route 11, Chateaugay	
Viewpoint Description: view northerly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.0	The form of the solar arrays is introduced into an agricultural setting where they are apparent.
Line Contrast	2.0	The lines seen as part of the proposed development are noticeable, but they do appear to somewhat mimic the vertical and horizontal lines seen within the field and adjacent vegetation.
Texture Contrast	2.0	The textures seen within the panels and fence are visible but appear muted (significant detailing is absent) due to distance from the observer.
Color Contrast	2.0	The colors seen on the proposed facility appear like that which is seen within the view, including the sky. Contrast is evident due to bluish gray panels against the browns of the background vegetation.
Project Scale Contrast/Spatial Dominance	2.0	The vertical scale/dominance of the facility seems to be minimal when compared to the vegetation. However, this is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	2.0	The facility is in clear view; however, detail diminishes due to the setback from the road.
Amount of Project Clearing Seen	1.5	Some vegetation removal will occur and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	1.5	There is an adjacent resident who could benefit from screening/mitigation. However, it is noted that the resident already has views of energy infrastructure and commercial enterprises.
Total	**15.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3.0	Military Trail Scenic Byway, State Bikeway 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2.0	On U.S. Route with some traffic and nearby residential structures.
Duration of View	1.5	Short duration for travelers, yet long for residences.
Presence of Existing Development	1.5	Nearby commercial and residential development
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**9.0**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1.5**	View contains open field/agriculture land that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

TRC okside Solar Project	Date:12/28/2021
Viewpoint Number: 4	Preparer: C. McElroy
Viewpoint Location: US Route 11, Chateaugay	
Viewpoint Description: view northerly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	A large cool to light grey horizontal line is introduced stretching from the western edge across the view to the east and continuing out of site.
Line Contrast	2	Vertical and near vertical lines at regular intervals are introduced by the panels and fence line. The tops of the panels are close enough to see the continuous horizontal shape they create.
Texture Contrast	2	The panels are close enough to clearly make out cells and individual panels creating a stronger contrast.
Color Contrast	1	The lightness of the sky helps absorb the light and cool grey of the panels and light fence. The light colors of plants in senescence helps lessen the perceived effects of the installation.
Project Scale Contrast/Spatial Dominance	1.5	The installation is seen as a single continuous strip moving across the view but constrained vertically to a single row which lessens the perceived effects.
Broken Horizon Line	0	The horizon line is not broken.
Visual Acuity	2	At 530 feet, the fence is still close enough to make out cells on individual panels.
Amount of Project Clearing Seen	0	There appears to be no clearing in this image.
Screening/Mitigation Needed	2	This view will need screening from road and residences.
Total	**12.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	Military Trail Scenic Byway, State Bikeway 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Moderate use road with few businesses and residences nearby.
Duration of View	1.5	A few homes and business will have a longer duration view while the road traffic will have a short duration.
Presence of Existing Development	1.5	A highway, several homes and businesses are in the immediate area.
Uniqueness of Landscape Compared to Region	.5	This is a scene that is indicative of rolling hills with farm fields.
Presence of Water	0	There is no water in this view.
Total	**8**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	A field with distant tree line containing low diversity with strong value.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/22/21
Viewpoint Number: 5	Preparer: M. Ross
Viewpoint Location: Cemetery Road, Chateaugay	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,4	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker (visitor)	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	0.5	The proposed solar arrays are located off in the distance to the point where little to no contrast in form can be discerned.
Line Contrast	0.5	The proposed solar arrays are located off in the distance to the point where little to no contrast in line can be discerned.
Texture Contrast	0.5	The proposed solar arrays are located off in the distance to the point where little to no contrast in texture can be discerned.
Color Contrast	0.5	The proposed solar arrays are located off in the distance to the point where little to no contrast in color can be discerned.
Project Scale Contrast/Spatial Dominance	0.5	The visual presence of the solar panels is minimal at best due to distance and location in this view providing little to no project scale contrast and/or dominance.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	0.5	Little to no discernable detail is present in this view.
Amount of Project Clearing Seen	1.0	Some project clearing can be determined.
Screening/Mitigation Needed	1.0	Some project screening is needed from this viewpoint but more so as you would get closer to the array field.
Total	**5.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	St. Patrick's eligible historic cemetery
View of Other Visual Resource with Project*	3	Military Trail Scenic Byway/State Bikeway 11
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	The site location is rural however, several roads are present, and a number of residential structures and a few businesses are in somewhat close proximity therefore, a higher number of views will most likely occur – especially in leaf-off conditions.
Duration of View	1.5	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures and/or businesses will most likely occur.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures and businesses are located near this viewpoint and in close proximity to the solar array fields.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**11.5**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1**	The view provides a rural and quiet setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Brookside Solar Project	Date: 12/16/2021
Viewpoint Number: 5	Preparer: John Guariglia
Viewpoint Location: Cemetery Road, Chateaugay	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,4	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker (visitor)	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	0	The facility is not noticeable in the view.
Line Contrast	0	Line contrast is not evident.
Texture Contrast	0	Texture contrast is not evident.
Color Contrast	0	Color contrast is not evident.
Project Scale Contrast/Spatial Dominance	0	Contrast related to scale/dominance is not evident.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	0	Acuity is not discernible.
Amount of Project Clearing Seen	0.5	Minor clearing is not noticeable.
Screening/Mitigation Needed	0.5	Screening is not required from this viewpoint, but may be beneficial for the structure in view (already may view the existing substation).
Total	**1**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	St. Patrick's eligible historic cemetery
View of Other Visual Resource with Project*	3	Military Trail Scenic Byway/State Bikeway 11
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.0	Number of viewers appears to be low.
Duration of View	.5	View will be short in duration. Existing turbines are also in view.
Presence of Existing Development	.5	Presence of development appears to be minimal.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**9**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	View contains open field/agriculture land and turbines that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 5	Preparer: C. McElroy
Viewpoint Location: Cemetery Road, Chateaugay	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,4	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker (visitor)	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	0	The installation is not visible from this viewpoint.
Line Contrast	0	The installation is not visible from this viewpoint.
Texture Contrast	0	The installation is not visible from this viewpoint.
Color Contrast	0	The installation is not visible from this viewpoint.
Project Scale Contrast/Spatial Dominance	0	The installation is not perceptible from this viewpoint.
Broken Horizon Line	0	The horizon line is not disturbed by the installation.
Visual Acuity	0	The installation is not visible from this viewpoint.
Amount of Project Clearing Seen	0	There appears to be no clearing in this image.
Screening/Mitigation Needed	0	Screening is not required.
Total	**0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	St. Patrick's eligible historic cemetery
View of Other Visual Resource with Project*	3	Military Trail Scenic Byway/State Bikeway 11
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	.5	Cemetery visitors and travelers on the road.
Duration of View	.5	Visitors and travelers will have short duration views.
Presence of Existing Development	2	There are several buildings, roads, overhead utility lines and a wind turbine.
Uniqueness of Landscape Compared to Region	.5	This is a relatively common site in the area.
Presence of Water	0	There is no water in the vicinity.
Total	**9.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**.5**	Minimally intact landscape broken up by buildings, overhead utilities and wind power.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/27/21
Viewpoint Number: 7	Preparer: M. Ross
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view north	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.0	The proposed solar panels and fence line create angular blocky shapes close in proximity to the viewpoint creating a contrast that is unnatural and out of place. The existing asphalt road does help to reduce contrast and impact to some degree.
Line Contrast	1.5	Line contrast is present created by the solar panels and fence line in this image. The lines of the proposed fence line mimic the existing terrain and edge of existing roadway in the foreground to some degree helping to soften contrast.
Texture Contrast	1.5	The smooth, hard, angular man-made panels contrast with the natural vegetation that is present in this image. However, the existing asphalt road and low ground vegetation in the foreground and the clear sky helps to soften impacts created.
Color Contrast	1.5	The silver/white fence line and silver/grey/blue tones of the panels contrast with the existing earth tone colors found in the existing landscape however the clear blue sky and color tones of the existing roadway help to offset contrast created.
Project Scale Contrast/Spatial Dominance	2.0	The visual presence of the solar panels is fairly significant in this view creating a dominant feature in the landscape that feels foreign and unnatural.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	2.0	Discernable detail is present in this view.
Amount of Project Clearing Seen	0	No project clearing can be determined in this view.
Screening/Mitigation Needed	3	The panels are visible from this location and a significant amount of screening will be needed in this location.
Total	**13.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	The site location is rural however, several roads and an intersection are present along the solar array field in this view and a number of residential structures and a few farms or businesses are in close proximity therefore, a higher number of views will most likely occur.
Duration of View	2	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures will most likely occur. There is also a road intersection present as well.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures and farms or businesses are located near this viewpoint and in close proximity to the solar array field.

Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**6.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/16/2021
Viewpoint Number: 7	Preparer: John Guariglia
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view north	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The form of the solar arrays is introduced into an agricultural setting where they are apparent. Contrast is increased due to proximity.
Line Contrast	2.5	The lines seen as part of the proposed development are noticeable, but they do appear to somewhat mimic the vertical and horizontal lines seen within the field, adjacent vegetation, pavement edges, and transmission structure/conductors. They are more pronounced in this particular view.
Texture Contrast	2.5	The textures seen within the panels and fence are visible.
Color Contrast	2.0	The colors seen on the proposed facility appear like that which is seen within the view, including the sky, distant landscape, and road surfaces. Contrast is evident due to bluish gray panels seen on the brown field surface.
Project Scale Contrast/Spatial Dominance	2.0	The vertical scale/dominance of the facility seems to be reduced when compared to the overall view and distance from viewer. Adding in the reduction is being able to view the distant landscape/horizon (exceeds the height of the panels). However, contrast is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	2.5	The facility is in clear view.
Amount of Project Clearing Seen	1.0	Minor clearing may be noticed.
Screening/Mitigation Needed	2.0	There are adjacent residences who could benefit from screening/mitigation. However, it should be noted that nearby residence already have views of energy infrastructure (turbines and/or transmission poles/conductors).
Total	**17**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences. It should be noted that turbines may be visible from this area.
Duration of View	1.5	Short duration for travelers, yet long for residences. It should be noted that turbines may be visible from this area.
Presence of Existing Development	2.0	Nearby residential development and turbines.
Uniqueness of Landscape Compared to Region	1.5	Typical of area.
Presence of Water	0	None.
Total	**6.5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**2.0**	View contains open field/agriculture land and the distant landscape. Turbines may also be visible from this location.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 7	Preparer: C. McElroy
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view north	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The massing's of sky and earth bled well encompassing a sizable distance.
Line Contrast	1	Undulating horizontal figures appear with regular cadence towards the west becoming sinusoidal towards the east.
Texture Contrast	.5	A view of a few miles allows for the swaying lines of the panels to merge into the distance.
Color Contrast	1	Light blue of reflected sky filters through shades of blue becoming deeper to the west.
Project Scale Contrast/Spatial Dominance	1	The installation has a slim profile leading to a weak contrast.
Broken Horizon Line	0	The installation remains below the horizon line.
Visual Acuity	1.5	The distance view behind the installation allows for the proximity to the fence line to diminish.
Amount of Project Clearing Seen	0	There is no clearing in the view.
Screening/Mitigation Needed	2	There will be a strong need for additional screening.
Total	**8.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No.
View of Other Visual Resource with Project*	0	No.
A Listed/Known Scenic Resource of Visual Quality*	0	No.
Number of Viewers (Low or High Use Activity)	2	Residential lined streets with moderate traffic count.
Duration of View	2.5	Residents will have views with long duration.
Presence of Existing Development	2	A few miles of low-density rolling farm fields can be seen with overhead utility lines seen in the midground.
Uniqueness of Landscape Compared to Region	2.5	The expanse of the view creates a strong impression.
Presence of Water	0	No discernable water features are noted.
Total	**7**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Relatively flat rolling hills with low diversity and strong value.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/27/21
Viewpoint Number: 9	Preparer: M. Ross
Viewpoint Location: East Road, Burke	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.0	The proposed solar panels and fence line create a large form in the landscape fairly close in proximity to the viewpoint creating a contrast that is unnatural and out of place. The existing barn structure and wind turbines do help to reduce contrast and impact to some degree.
Line Contrast	1.5	Line contrast is created by the rows of solar panels and perimeter fence line in this image. The lines of the proposed fence line tie into the barn structure roofline helping to offset contrast.
Texture Contrast	1.5	The smooth, hard, angular man-made panels contrast with the natural vegetation that is present in this image. However, the existing barn structure roof and clear sky helps to soften impacts created.
Color Contrast	1.5	The silver/white fence line and dark grey/black tones of the panels contrast with the existing earth tone colors found in the landscape however the clear blue sky and color tones of the existing metal roof on the barn structure help to offset contrast created.
Project Scale Contrast/Spatial Dominance	2.0	The visual presence of the solar panels is fairly significant in this view creating a dominant feature in the landscape that feels foreign and unnatural.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	1.0	Some discernable detail is present in this view.
Amount of Project Clearing Seen	1.5	Some project clearing can be observed in this view.
Screening/Mitigation Needed	3	The panels are visible from this location and a significant amount of screening will be needed in this location.
Total	**14.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	The site location is rural however, a road and an intersection are present along the solar array field near this view and a number of residential and barn-type structures are in close proximity therefore, a higher number of views will most likely occur.
Duration of View	2	Short-term views will occur by vehicular travel and passersby utilizing the existing roadway and potential long-term views from the nearby residential structures will most likely occur. There is also a road intersection present near this viewpoint as well.
Presence of Existing Development	1.5	The area is rural however, a number of residential and barn-type structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.

Presence of Water	0	No water appears to be present in this view.
Total	**6.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/16/2021
Viewpoint Number: 9	Preparer: John Guariglia
Viewpoint Location: East Road, Burke	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The form of the solar arrays is introduced into an agricultural setting where they are apparent. Contrast appears to be reduced due to the existing structure(s) seen within view to the right.
Line Contrast	1.5	The lines seen as part of the proposed development are noticeable, but they do appear to somewhat mimic the vertical and horizontal lines seen within the field, adjacent vegetation, and the existing development (including turbines) in view. Contrast is further reduced to the facilities distance to the viewer.
Texture Contrast	1.5	The textures seen within the panels and fence are visible but appear muted (significant detailing is absent) due to distance from the observer and presence of the existing structure(s).
Color Contrast	1.5	The colors seen on the proposed facility mostly appear like that which is seen within the view, including the sky and existing structure(s). Contrast is more evident due to the darker facility color seen on the left.
Project Scale Contrast/Spatial Dominance	1.5	The vertical scale/dominance of the facility seems to be minimal when compared to the vegetation, existing structures (including turbines). Also, it seems that the viewer is at a slightly higher elevation compared to the facility, changing the overall height appearance. However, this is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	1.0	The facility is in clear view; however, detail diminishes due to the distance from the viewer and as a result of that seen on the existing structure(s) visible on the right.
Amount of Project Clearing Seen	1.0	Some vegetation removal will occur (removal of a thin hedgerow) and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	1.5	There are few adjacent residences who could benefit from screening/mitigation. However, it should be noted that nearby residence already has views of the existing turbines.
Total	**11**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences. It should be noted that turbines are visible from this area.
Duration of View	1.5	Short duration for travelers, yet long for residences. It should be noted that turbines may be visible from this area.
Presence of Existing Development	1.5	Nearby residential development and turbines.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.

Presence of Water	0	None.
Total	**5.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	View contains open field/agriculture land and turbines that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 9	Preparer: C. McElroy
Viewpoint Location: East Road, Burke	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	.5	Darker rectangular shapes remain close to the darker mass of trees near the center.
Line Contrast	.5	The darker thin horizontal line of the top and bottom of the front row of panels flows across the site interrupted by the fence line which creates a screening effect.
Texture Contrast	1	The panels are closer to the viewer in the north that offer slightly higher contrast that diminishes with distance towards the south.
Color Contrast	.5	The tree line offers darker shapes that help to encompass the dark panels.
Project Scale Contrast/Spatial Dominance	1.5	The panels stretch out towards the south with the leading edge splayed toward the viewer in the north.
Broken Horizon Line	0	The installation remains below the horizon.
Visual Acuity	1	The northern panels are closer offering some detail of individual panels that quickly fades to the south with distance.
Amount of Project Clearing Seen	1.5	There is project clearing in the fields to the east southeast.
Screening/Mitigation Needed	2	The installation needs to be screened from the house and road to the west.
Total	**8.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Few residences along a rural roadway.
Duration of View	2.5	The residents will have long duration views.
Presence of Existing Development	1.5	Wind turbines are visible over farm fields and homes.
Uniqueness of Landscape Compared to Region	1	This is a typical view in the region.
Presence of Water	0	There are no water features present.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Fairly unified intact landscape with low diversity and weak value.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/27/21
Viewpoint Number: 13	Preparer: M. Ross
Viewpoint Location: Lewis Road, Chateaugay	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The proposed solar panels, fence line, and access road create a large area some blocky in form within the landscape that is close in proximity to the viewpoint. These areas create a contrast that is unnatural and out of place.
Line Contrast	2.0	Line contrast is created by the rows of solar panels, perimeter fence line, and access road in this image.
Texture Contrast	1.5	The smooth, hard, angular man-made panels, fence line, and gravel access road contrast with the natural vegetation that is present in this image. However, the clear sky helps to soften impacts created.
Color Contrast	1.5	The silver/white fence line and dark grey/blue tones of the panels contrast with the existing earth tone colors found in the landscape however the clear blue sky and color tones of the proposed gravel access road help to offset contrast created.
Project Scale Contrast/Spatial Dominance	2.0	The visual presence of the solar panels and access road is fairly significant in this view creating a dominant feature in the landscape that feels foreign and unnatural.
Broken Horizon Line	1.0	A small portion of the horizon line is broken by the panels.
Visual Acuity	1.5	Some discernable detail is present in this view.
Amount of Project Clearing Seen	2.5	Project clearing can be observed in this view.
Screening/Mitigation Needed	3	The panels are visible from this location and a significant amount of screening will be needed in this location.
Total	**17.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	The site location is rural however, several roads and an intersection are present along the solar array field near this view and a number of residential structures are in close proximity therefore, a higher number of views will most likely occur.
Duration of View	2	Short-term views will occur by vehicular travel and passersby utilizing the existing roadway and potential long-term views from the nearby residential structures will most likely occur. There is also a road intersection present near this viewpoint as well.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.

Total	**6.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/17/2021
Viewpoint Number: 13	Preparer: John Guariglia
Viewpoint Location: Lewis Road, Chateaugay	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The form of the solar arrays is introduced into an agricultural setting where they are apparent. Contrast is increased due to proximity.
Line Contrast	2.5	The lines seen as part of the proposed development are noticeable, but they do appear to somewhat mimic the existing landform. The lines seen on the proposed roadway also adds an additional band within the landscape. The lines, including the visible diagonal lines, tend to be a bit pronounced in this view.
Texture Contrast	2.5	The textures seen within the panels and fence are visible.
Color Contrast	2.5	The colors seen on the proposed facility appear like the sky but can be seen as a contrast with the distant brown trees and field.
Project Scale Contrast/Spatial Dominance	2.5	The vertical scale/dominance of the facility appears to be minimized when compared to the vegetation. However, this is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	2.5	The facility is in clear view and a level of detail is seen.
Amount of Project Clearing Seen	1.5	Some vegetation removal will occur and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	1.5	There is an adjacent resident who might benefit from screening/mitigation (if they have views through on-site vegetation). However, it is noted that the resident already has views of energy infrastructure and commercial enterprises.
Total	**18**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences
Duration of View	1.5	Short duration for travelers, yet long for residences
Presence of Existing Development	1.5	Nearby residential development is evident.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**5.5**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1.5**	View contains open field/agriculture land that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 13	Preparer: C. McElroy
Viewpoint Location: Lewis Road, Chateaugay	
Viewpoint Description: view east	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	Horizontal layers of cleared earth, road, fence and panels, tree line and sky create the view.
Line Contrast	2	Clearly visible sections of short altercating horizontal and vertical lines ae introduced close to the viewer.
Texture Contrast	2	The uniformly spaced panels are in opposition with the vegetation in the foreground and tree line in the distance.
Color Contrast	1.5	The installation and vegetation remain lighter in this lighting condition but would become further apart in spring/summer.
Project Scale Contrast/Spatial Dominance	2	The installation seems to grow in scale and extend towards the north.
Broken Horizon Line	.5	The installation breaks the horizon line in the southern extent in this view.
Visual Acuity	2	At 256 feet the fence creates a weak screen while the panels remain highly visible.
Amount of Project Clearing Seen	2.5	There is a substantial amount of project clearing seen across the view.
Screening/Mitigation Needed	2.5	The Residences and road traffic will need a large amount of additional screening.
Total	**17**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	There is a few residences nearby along a lower traffic count road.
Duration of View	2.5	The residents will have long duration views out the front door.
Presence of Existing Development	.5	A cleared farm field and a road are in the view .
Uniqueness of Landscape Compared to Region	.5	This is a common scene in the countryside.
Presence of Water	0	There are no water features in this view.
Total	**5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Largely intact landscape with lower diversity and strong values.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/28/21
Viewpoint Number: 23	Preparer: M. Ross
Viewpoint Location: Selkirk Road, Burke	
Viewpoint Description: view northerly	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.0	The proposed solar panels and fence line create a large linear form within the landscape however, distance helps to soften impacts.
Line Contrast	1.0	Line contrast is created by the rows of solar panels and perimeter fence line in this image however, distance, the existing road edge, and existing utility lines helps to offset contrast.
Texture Contrast	1.0	The smooth, hard, angular man-made panels and fence line contrast with the natural vegetation that is present in this image however, distance and the existing asphalt road helps to soften impacts created.
Color Contrast	1.0	The dark grey/black tones of the panels contrast with the existing earth tone colors found in the agriculture fields in this landscape however the existing asphalt road helps to offset contrast created.
Project Scale Contrast/Spatial Dominance	1.0	The visual presence of the solar panels spans across this image which is fairly significant in this view however distance minimizes spatial dominance of this feature in the landscape.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	0.5	Minimal discernable detail is present in this view.
Amount of Project Clearing Seen	2.0	Project clearing can be observed in this view.
Screening/Mitigation Needed	2.5	The panels are visible from this location and span a considerable area. Significant amount of screening will be needed in this location to mitigate this solar field.
Total	**10.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	NYS snowmobile trail C8C
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	The site location is rural however, several roads and an intersection are present along and/or near by the solar array field close in proximity to this view and a number of residential structures are in close proximity as well therefore, a higher number of views will most likely occur.
Duration of View	1.5	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures will most likely occur. There is also a road intersection present near this viewpoint as well.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1.0	The landscape appears to be representative to the area.
Presence of Water	1.0	No water appears to be present in this view however, a small pond feature and brook can be identified using aerial imagery.

Total	**9.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/21/2021	
Viewpoint Number: 23	Preparer: John Guariglia	
Viewpoint Location: Selkirk Road, Burke		
Viewpoint Description: view northerly		
Landscape Similarity Zone: 1		
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker		
Seasonal Condition: ☐ Leaf On ☒ Leaf Off		
Visual Rating Element	**Rating**	**Notes**
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The form of the solar arrays is introduced into an agricultural setting where they are seen, but not highly visible. Contrast appears to be reduced due distance and the existing structure seen within view.
Line Contrast	1.0	Lines seen as part of the proposed development are noticeable, but they do appear to mimic the vertical and horizontal lines seen within the field, utility poles and conductors, the dwelling, and the turbine (located on the same property). Contrast is reduced due to the facilities distance to the viewer.
Texture Contrast	1.0	The ability to see the textures of the facility is limited. This is due to the distance between the observer and facility.
Color Contrast	1.0	The colors seen on the proposed facility is similar to that which is seen in the view. The facility is similar to the deciduous vegetation, road, roof of the dwelling, and to a lesser extent the sky.
Project Scale Contrast/Spatial Dominance	1.0	The vertical scale/dominance of the facility seems to be minimal when compared to the vegetation, existing structures (including the turbines). Also, the viewer is at a superior elevation to the facility which minimizes vertical scale. However, when considering the horizontal layout, it is visible within the entire view.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	0.5	The facility is in view, however detail is diminished/non-existent due to the distance from the viewer.
Amount of Project Clearing Seen	1.0	Some vegetation removal will occur (removal of a thin hedgerow) and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	1.0	There are few adjacent residences who could benefit from screening/mitigation. However, it should be noted that nearby residence already has views of the existing turbines.
Total	**8.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	NYS snowmobile trail C8C
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences. It should be noted that turbines are visible from this area.
Duration of View	1.5	Short duration for travelers, yet long for residences. It should be noted that turbines may be visible from this area.
Presence of Existing Development	1.5	Nearby residential development and turbines.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.

Total	**8.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	View contains open field/agriculture land and turbine that may be appealing for some. Is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 23	Preparer: C. McElroy
Viewpoint Location: Selkirk Road, Burke	
Viewpoint Description: view northerly	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	.5	The forms can be seen as road, large field, houses and trees, tree line and sky.
Line Contrast	.5	The installation seems to limit line introduction to just one thin form that remains close to the horizon.
Texture Contrast	.5	The panels are distant enough to create a very weak contrast.
Color Contrast	.5	Similar to the shades of brown and grey in the vegetation, the panels seem to blend in well with the tree line.
Project Scale Contrast/Spatial Dominance	.5	The project seems to rest gently throughout the scene creating a weaker sense of impingement.
Broken Horizon Line	0	The horizon line remains unbroken by the installation.
Visual Acuity	.5	There is nearly 2,000 feet to the installation which weakens the discernable details of the installation.
Amount of Project Clearing Seen	1	There is a moderate amount of project clearing noticeable.
Screening/Mitigation Needed	1.5	There is a moderate need for screening towards the east.
Total	**5.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	NYS snowmobile trail C8C
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	There are recreational users on the snowmobile trail as well as residents and travelers on the road.
Duration of View	1.5	Shorter views form people traveling through the area.
Presence of Existing Development	2	There is a large wind turbine, house, outbuildings, roads and overhead utility lines.
Uniqueness of Landscape Compared to Region	.5	This is a usual scene from rural forested farmland.
Presence of Water	0	There are no water features identifiable in this image.
Total	**9**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	A large turbine serves as a focal point in a an agricultural setting with low population.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/28/21
Viewpoint Number: 33	Preparer: M. Ross
Viewpoint Location: US Route 11, Burke, Chateaugay town line	
Viewpoint Description: view south	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The proposed solar panels and fence line create large angular shapes within the landscape that feel foreign and unnatural.
Line Contrast	2.0	Line contrast that is well defined is created by the rows of solar panels and perimeter fence line in this image.
Texture Contrast	2.5	The smooth, hard, angular man-made panels and fence line are close in proximity in this view and contrast with the natural vegetation that is present in this image.
Color Contrast	2.0	The grey/black tones of the panels and panel shadows contrast with the existing earth tone colors found in the agriculture fields in this landscape. The existing woodland in the background does help to offset impacts.
Project Scale Contrast/Spatial Dominance	2.5	The visual presence of the solar panels spans across this image which is fairly significant in this view creating spatial dominance in the landscape.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	1.5	Discernable detail is present in this view.
Amount of Project Clearing Seen	2.0	Project clearing can be observed in this view.
Screening/Mitigation Needed	2.5	The panels are visible from this location and span a considerable area. Significant amount of screening will be needed in this location to mitigate this solar field.
Total	**17.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	Military Trail Scenic Byway, State Bikeroute 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	The site location is rural however, a road is present along the solar array field close in proximity to this view and a number of residential structures are in close proximity as well therefore, a higher number of views will most likely occur.
Duration of View	1.5	Short-term views will occur by vehicular travel and passersby utilizing the existing roadway and potential long-term views from the nearby residential structures will most likely occur.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1.0	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**8.5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/22/2021
Viewpoint Number: 33	Preparer: John Guariglia
Viewpoint Location: US Route 11, Burke, Chateaugay town line	
Viewpoint Description: view south	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The form of the solar arrays is introduced into an agricultural setting where they are apparent. Contrast is increased due to proximity.
Line Contrast	2.5	The lines seen as part of the proposed facility are noticeable, but they do appear to somewhat mimic the existing landform. The proximity to the viewer and long distinct linear lines seen as one views down the length of the panels adds to the contrast. The lines seen on the panels to the right tend to merge together into a mass.
Texture Contrast	2.5	Textures seen on the panels and fence that are closest to the viewer as they begin to fade/merge with distance.
Color Contrast	2.5	The colors seen on the proposed facility are noticeable, but portions appear similar to the sky, and background vegetation. The shadows seen on the ground plane towards the left side of the image appear a bit more noticeable.
Project Scale Contrast/Spatial Dominance	2.5	The vertical scale/dominance of the facility appears to be minimized when compared to the vegetation. However, this is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	0	The horizon line is not broken.
Visual Acuity	2.0	The facility is in clear view and a level of detail is seen where it is in close proximity to the viewer. However, with those panels/fence in the distance, finer details are reduced or lacking.
Amount of Project Clearing Seen	1.5	Vegetation removal will occur and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	2.0	There are a few adjacent residents who could benefit from screening/mitigation. However, it is noted that the resident already has views of energy infrastructure.
Total	**18**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	Military Trail Scenic Byway, State Bike Route 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2.0	Moderate potential due to being on Route 11. Number of residents will likely be low.
Duration of View	1.5	Short duration for travelers, yet long for residences
Presence of Existing Development	1.5	Nearby residential development and wind facility is evident.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**9**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	View contains open field/agriculture land and turbines that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Brookside Solar Project	Date:12/28/2021
Viewpoint Number: 33	Preparer: C. McElroy
Viewpoint Location: US Route 11, Burke, Chateaugay town line	
Viewpoint Description: view south	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☒ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	A loose massing of panels coalesce into a solid mass towards the west breaks up field and sky.
Line Contrast	2.5	Strong vertical lines are introduced that cover most of the field in the view.
Texture Contrast	2	Individual panels can be made out while more distant panels meld into one mass.
Color Contrast	2	Light panels on dark earth near dark tree line creates a stronger contrast.
Project Scale Contrast/Spatial Dominance	2.5	More than half of this view is solar panels which creates a dominant project influence on the landscape.
Broken Horizon Line	0	The Horizon line remains intact in this instance.
Visual Acuity	2.5	The 400 feet to the fence line appears to be a shorter distance as the installation moves from the viewer farther up the hill and stretches south.
Amount of Project Clearing Seen	1	There is minimal project clearing seen in this image.
Screening/Mitigation Needed	2.5	There is a strong need for additional screening at this location.
Total	**17**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	Military Trail Scenic Byway, State Bikeroute 11
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	The highway brings travelers through while there are few homes in the area.
Duration of View	2	The residents will have longer duration views while the travelers will experience short duration views.
Presence of Existing Development	1.5	Cleared fields with farm outbuildings scattered throughout.
Uniqueness of Landscape Compared to Region	1	This is a scene from a forested farmland with rolling hills.
Presence of Water	0	There are no water features in this image.
Total	**8.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	The distant farm buildings dot treelined farm fields with low diversity and strong values.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/28/21
Viewpoint Number: 38	Preparer: M. Ross
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view northwest towards proposed collection station	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.0	The proposed solar panels and fence line span this view creating form contrast within the landscape that feel foreign and unnatural.
Line Contrast	2.0	Well defined line contrast is created by the rows of solar panels and perimeter fence line that span the length of this view in this image and by the utility poles as well.
Texture Contrast	1.5	The smooth, hard, angular man-made panels and fence line are close in proximity in this view and contrast with the natural vegetation that is present in this image. The clear sky does help to soften impacts.
Color Contrast	1.5	The grey/black tones of the panels contrast with the existing earth tone colors found in in this landscape. The blue sky helps to offset impacts.
Project Scale Contrast/Spatial Dominance	2.0	The visual presence of the solar panels spans across this image which is fairly significant in this view creating spatial dominance in the landscape and the utility poles further contribute as well.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	1.5	Discernable detail is present in this view.
Amount of Project Clearing Seen	2.0	Project clearing can be observed in this view.
Screening/Mitigation Needed	2.5	The panels are visible from this location and span a considerable area. Significant amount of screening will be needed in this location to mitigate this solar field.
Total	**15.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	The site location is rural however, a road is present along the solar array field close in proximity to this view and a number of residential structures are in close proximity as well therefore, a higher number of views will most likely occur.
Duration of View	1.5	Short-term views will occur by vehicular travel and passersby utilizing the existing roadway and potential long-term views from the nearby residential structures will most likely occur.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1.0	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**5.5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/23/2021
Viewpoint Number: 38	Preparer: John Guariglia
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view northwest towards proposed collection station	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The form of the solar arrays and substation infrastructure is introduced into an agricultural. Contrast is increased due to number of proposed varying forms against a natural background.
Line Contrast	2.0	The varying lines seen as part of the proposed development are noticeable. The horizontal lines appear to somewhat mimic the existing landform; however, the angular lines and vertical lines are a bit more prominent where they are seen against the natural background or where the rise above the tree line, respectively. Contrast is reduced somewhat due to the lines seen in the existing turbines and existing transmission poles.
Texture Contrast	2.0	The textures seen within the panels and fence are visible, but not highly detailed. The smooth texture of the proposed substation and infrastructure appears in contract to the natural setting; however, this is somewhat reduced with the smooth texture of the visible turbines.
Color Contrast	1.5	The colors seen on the proposed panels appear like the sky, but can be seen as a contrast with the distant brown trees and field. The fence and substation and infrastructure appear to take on a brownish hue, similar to that of the vegetation and field.
Project Scale Contrast/Spatial Dominance	2.0	The vertical scale/dominance of the facility appears to be minimized when compared to the vegetation, turbines, and due to the distance from the viewer. However, this is increased when considering the horizontal layout as it is visible within the entire view.
Broken Horizon Line	1.5	While the panels do not break the horizon, portions of the substation and associated infrastructure do. This is lessened to due the presence of the turbines in the same view.
Visual Acuity	1.5	The facility is in clear view and a level of detail is seen. However, the distance from the viewer reduces the finer details of the facility.
Amount of Project Clearing Seen	1.5	Some vegetation removal will occur and may be noticeable at first. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	1.5	There is an adjacent resident who could benefit from screening/mitigation. However, it is noted that the resident already has views of energy infrastructure and commercial enterprises.
Total	**16**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences
Duration of View	1.0	Short duration for travelers, yet long for residences
Presence of Existing Development	1.0	Nearby residential and utility infrastructure (e.g., wind turbines) development is evident.

Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**4.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.0**	View contains open field/agriculture land and turbines that may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/29/2021
Viewpoint Number: 38	Preparer: C. McElroy
Viewpoint Location: County Route 23, Chateaugay	
Viewpoint Description: view northwest towards proposed collection station	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	Brown field, Grey massing of solar, dark tree line, light wind turbines, and blue sky.
Line Contrast	1.5	The bottom of the fence line creates a strong horizontal line while the tops of the panels create another strong line.
Texture Contrast	1.5	The panel sections can be seen which give a pixilated effect to the horizontal line.
Color Contrast	1.5	The light grey of the panels helps bring in the blue of the sky and darker blue in the distance.
Project Scale Contrast/Spatial Dominance	1	The panels are seen as one continuous row with their depth hidden by the slope of the hill.
Broken Horizon Line	0	The horizon line remains unbroken.
Visual Acuity	1.5	The panels are close enough to the viewer that the edges are clearly seen.
Amount of Project Clearing Seen	1.5	There is a fair amount of project clearing seen here. Especially for the substation.
Screening/Mitigation Needed	2	There will be a strong need for additional screening at this location.
Total	**12**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Few residences nearby along a rural farm road.
Duration of View	2	The residents will have long term views.
Presence of Existing Development	2	There are overhead utility lines, wind turbines and a cleared field in the view.
Uniqueness of Landscape Compared to Region	1	This is a typical view of a filed and tree line with wind turbines in the area.
Presence of Water	0	There is no water present.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Pastoral countryside with rolling hills. Strong values with low diversity.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/28/21
Viewpoint Number: 44	Preparer: M. Ross
Viewpoint Location: East Road, Thayer Corners, Burke	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The proposed solar panels cover a large area this view creating form contrast within the landscape however, distance helps to offset impacts.
Line Contrast	1.5	Line contrast is created by the rows of solar panels and perimeter fence line that span the length of this view in this image. Distance helps to offset impacts.
Texture Contrast	1.0	The smooth, hard man-made panels and fence line in this view contrast with the natural vegetation that is present. Distance helps to offset impacts.
Color Contrast	1.0	The grey/black tones of the panels contrast with the existing earth tone colors found in in this landscape. Distance helps to offset impacts.
Project Scale Contrast/Spatial Dominance	1.5	The visual presence of the solar panels spans across this image which is fairly significant in this view creating a sense of spatial dominance in the landscape however, distance helps to offset impacts.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	0.5	Minimal discernable detail is present in this view.
Amount of Project Clearing Seen	0	No project clearing can be observed in this view.
Screening/Mitigation Needed	2.0	The panels are visible from this location and span a considerable area. Screening will be needed in this location to mitigate this solar field.
Total	**9.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	In vicinity of eligible historic site at 15 East Road located behind viewer
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	The site location is rural however, several roads and road intersections are present near the solar array field and a number of residential structures and businesses are in close proximity as well therefore, a higher number of views will most likely occur.
Duration of View	1.5	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures and businesses will most likely occur.
Presence of Existing Development	1.5	The area is rural however, a number of residential structures and businesses are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1.0	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**8.5**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/23/2021
Viewpoint Number: 44	Preparer: John Guariglia
Viewpoint Location: East Road, Thayer Corners, Burke	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.0	The form of the solar arrays is introduced into an agricultural setting where they are seen, but not highly visible. Contrast appears to be reduced due distance and the existing hedgerow.
Line Contrast	1.0	The horizontal line of the facility is most noticeable, where they meet the sky and ground plane. They do appear to mimic horizontal lines already seen within the field and fence line. Contrast is also reduced to the facilities distance to the viewer.
Texture Contrast	1.0	The ability to see the textures of the facility is limited to non-existing due to the distance between the observer and facility.
Color Contrast	1.0	The colors seen on the proposed facility is similar to that which is seen in the view. The facility is similar to the deciduous vegetation and to a lesser extent the sky. Distance from the viewer appears to cause the darkness of the facility to begin fading.
Project Scale Contrast/Spatial Dominance	1.0	The vertical scale/dominance of the facility is minimal due to distance and the foreground and background vegetation. When considering the horizontal layout, the overall extent is reduced due to the foreground hedgerow.
Broken Horizon Line	1.0	The horizon line is exceeded on the left-hand side of the image. It appears limited but is seen against the sky.
Visual Acuity	0.5	The facility is in view, however detail is diminished/non-existent due to the distance from the viewer.
Amount of Project Clearing Seen	0	Vegetation clearing is not evident.
Screening/Mitigation Needed	2.0	There are adjacent residences who could benefit from screening/mitigation. However, it should be noted that nearby residence already has views of the existing turbines.
Total	**8.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	In vicinity of eligible historic site at 15 East Road located behind viewer
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences. It should be noted that turbines are visible from this area.
Duration of View	1.5	Short duration for travelers, yet long for residences.
Presence of Existing Development	1.5	Nearby residential development is evident.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**8.5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	View contains open field/agriculture land may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date:12/29/2021
Viewpoint Number: 44	Preparer: C. McElroy
Viewpoint Location: East Road, Thayer Corners, Burke	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	.5	The lines introduced lay low in the horizon and remain thin.
Line Contrast	1	Mostly horizontal lines are introduced. Some fence lines are lighter which can be seen.
Texture Contrast	1	There are some details of the fencing visible, but the panels appear as dark thin shapes.
Color Contrast	1	The dark tree line helps to absorb the dark grey of the panels here.
Project Scale Contrast/Spatial Dominance	1.5	The layout can be seen stretching from one side to the other here.
Broken Horizon Line	.5	It feels like the installation might get very close to the horizon line in the left third of the image.
Visual Acuity	1	The fence and panels are at a sufficient distance to not be able to make out much detail with any amount of clarity.
Amount of Project Clearing Seen	1.5	There is a fair amount of clearing in the left third of the image.
Screening/Mitigation Needed	2	There are several residences and a road nearby that will require additional screening.
Total	**10**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	3	In vicinity of eligible historic site at 15 East Road located behind viewer
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	There are several residences and a road in the immediate vicinity.
Duration of View	2	The residents will have long duration views.
Presence of Existing Development	1.5	There are overhead utility lines and fencing in the foreground with cleared agriculture fields in the distance.
Uniqueness of Landscape Compared to Region	1	This is a typical scene indicative of the rural farming community in the area.
Presence of Water	0	There are no water features present in the view.
Total	**9.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Pastoral farmland with high annual precipitation, low population and weak diversity.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/28/21
Viewpoint Number: 46	Preparer: M. Ross
Viewpoint Location: County Road 23, at Burke-Chateaugay town line	
Viewpoint Description: view northwesterly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	0.5	Minimal form contrast is present due to distance and terrain.
Line Contrast	0.5	Minimal line contrast is present due to distance and terrain.
Texture Contrast	0.5	Minimal texture contrast is present due to distance and terrain.
Color Contrast	0.5	Minimal color contrast is present due to distance and terrain.
Project Scale Contrast/Spatial Dominance	0.5	The solar array field is located off in the distance and terrain minimizes views creating minimal project scale contrast.
Broken Horizon Line	0	The horizon line is not broken by the panels.
Visual Acuity	0.5	Minimal discernable detail is present in this view.
Amount of Project Clearing Seen	2.0	Project clearing can be observed in this view.
Screening/Mitigation Needed	1.0	The panels are barely visible from this location. Some strategic screening will be needed to mitigate this solar field.
Total	**6.0**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.0	The site location is rural however, a road is present near the solar array field and a number of residential structures are in close proximity as well therefore, a higher number of views will most likely occur. Terrain does help to mitigate views as well from this location.
Duration of View	1.0	Short-term views will occur by vehicular travel and passersby utilizing the existing roadways and potential long-term views from the nearby residential structures will most likely occur. Terrain does help to mitigate views as well from this location.
Presence of Existing Development	1.0	The area is rural however, a number of residential structures are located near this viewpoint and in close proximity to the solar array field.
Uniqueness of Landscape Compared to Region	1.0	The landscape appears to be representative to the area.
Presence of Water	0	No water appears to be present in this view.
Total	**4.0**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1**	The view is a rural setting that seems fairly common and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Brookside Solar Project	Date: 12/23/2021
Viewpoint Number: 46	Preparer: John Guariglia
Viewpoint Location: County Road 23, at Burke-Chateaugay town line	
Viewpoint Description: view northwesterly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	0.5	The form of the solar arrays is introduced, minimally, into an agricultural setting and are not highly visible. Contrast appears to be reduced due distance from the viewer, other visible structures in view and position in the landscape.
Line Contrast	0.5	There is a small horizontal line of the facility noticeable where they seen against the distant vegetation. They do appear to mimic the horizontal line seen within the foreground field.
Texture Contrast	0.5	The panels appear to be smooth and have a slight contrast with the adjacent vegetation. Other smooth appearing objects appear in view as well.
Color Contrast	0.5	The colors seen on the proposed facility is similar to that which is seen in the view. Only a small amount of the facility is visible. Distance from the viewer appears to cause the darkness of the facility to begin fading.
Project Scale Contrast/Spatial Dominance	0.5	The facility seems to be a very small component of the overall landscape.
Broken Horizon Line	0	The horizon is not broken.
Visual Acuity	0.5	A small portion of the facility is in view, however detail is diminished/non-existent due to the distance from the viewer.
Amount of Project Clearing Seen	1.0	A minor amount of vegetation clearing is noticeable. However, what remains in view will be natural in appearance.
Screening/Mitigation Needed	0.5	There are some residential structures in area. With a minor amount of the facility visible from this viewpoint, the quantity of potential screening is reduced. If/when crops with height (e.g., corn) are established in the field, screening will be available during the growing season.
Total	**4.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Low to moderate viewers due to number of overall residences. It should be noted that turbines are visible from this area.
Duration of View	1.5	Short duration for travelers, yet long for residences.
Presence of Existing Development	1.5	Nearby residential and turbine development is evident.
Uniqueness of Landscape Compared to Region	1.0	Typical of area.
Presence of Water	0	None.
Total	**5.5**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1.5**	View contains open field/agriculture land may be appealing for some. But is not unique to the area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Brookside Solar Project	Date:12/29/2021
Viewpoint Number: 46	Preparer: C. McElroy
Viewpoint Location: County Road 23, at Burke-Chateaugay town line	
Viewpoint Description: view northwesterly	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	.5	There is a thin dark line introduced to the northwest about a third from the right of the image.
Line Contrast	.5	A dark thin horizontal line can be seen on top of a lighter grey swath of the same length.
Texture Contrast	1	The installation appears as a smooth line whereas the surrounding vegetation has a softer natural feel.
Color Contrast	.5	The cool grey seems to blend ok with the brown tree line,
Project Scale Contrast/Spatial Dominance	.5	The installation seems to remain subordinate to the landscape in this image.
Broken Horizon Line	0	The horizon line remains unbroken by the installation.
Visual Acuity	0	Its very hard to tell what is going on at that location at this distance.
Amount of Project Clearing Seen	0	There appears to be very minimal clearing in this instance.
Screening/Mitigation Needed	1	There could be a need for minimal screening here.
Total	**4**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	There are very few residences nearby along a rural farm road.
Duration of View	1.5	The residents will have longer duration views while the travelers on the road will have short duration views.
Presence of Existing Development	2	A few miles can be surveyed from this vantage point. Buildings, farms and houses can be made out in the distance while a cleared field and road is in the foreground.
Uniqueness of Landscape Compared to Region	1.5	Although this is on a hill overlooking a field and the countryside beyond, this is a typical view of a pastoral countryside.
Presence of Water	0	No water features are discernable in this image.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Intact rural countryside with low population and low diversity, strong values.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

BROOKSIDE SOLAR PROJECT

94-C EXHIBIT 8

VISUAL IMPACTS MINIMIZATION AND MITIGATION PLAN

ATTACHMENT 7

PLAN 7A - LANDSCAPE PLAN
PLAN 7B - PLAN AND PROFILE; LIGHTING PLAN
PLAN 7C - GLINT AND GLARE ANALYSIS

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ATTACHMENTS

Plan 7A. Landscape Plan
Plan 7B. Proposed Lighting Plan and Collection Substation Plan and Profile
Plan 7C. Glint and Glare Analysis Report

1.0 VISUAL IMPACTS MINIMIZATION AND MITIGATION PLAN

Pursuant to Section 94-c of the New York State Executive Law, 19 New York Codes, Rules and Regulations (NYCRR) §900.2.9 (d) requires a visual impacts Minimization and Mitigation Plan (MMP) that includes proposed minimization and mitigation alternatives to avoid and minimize visual impacts to the maximum extent practicable. Appropriate and practicable measures to reduce visibility of solar development include approaches such as screening (landscaping), architectural design, visual offsets, relocation or rearranging facility components, reduction of facility component profiles, alternative technologies, facility color and design lighting options for work areas and safety requirements.

1.1 Siting and Design

Siting layout and design considerations that offer mitigation, are summarized as follows:

- Minimized vegetation clearing outside of the arrays in order to preserve existing trees and other vegetation to the best extent possible.
- Panels proposed against background trees to reduce visual contrasts, as color contrasts are absorbed and moderated by the background trees.
- Setbacks and offsets: The Facility alignment has been designed to incorporate and abide by and/or exceed the minimum property and building setback distance requirements for 94-c (see Exhibit 5 for more detail). The Applicant used minimum setbacks of 500 feet from non-participating occupied residences, 100 feet from non-participating residential property lines, and 50 feet from the center line of public roads and non-residential, non-participating property lines.
- The Facility has been designed to comply with local laws related to visual impact minimization (See Exhibit 24 for further details on compliance with local laws).
- General site location placed far from sensitive agency recognized and listed visual receptors.as best as practicable.
- The Facility has been sited away from larger population centers to minimize potential visibility by a relatively larger number of viewers.
- The collection substation and switchyard are located proximal to the existing transmission right-of-way for minimally distant new interconnects.
- The collection substation is located close to wooded areas with a large setback distance from nearby roads.

- Collection lines have been placed underground to decrease additional aboveground Facility visibility. This configuration allows continued use of the land within the Facility Site.

- Use of antireflective coatings on solar panels. Solar photovoltaic panels are also designed to absorb light and minimize reflected light and therefore, produce minimal, if any, glare.

- Racking systems consist of non-reflective metallic materials.

1.2 Downsizing and Low Profile

The size and profile of the Facility in terms of dimensions is necessary to achieve Facility purpose and MW capacity. Panels are anticipated to have a maximum height of 8 feet, 11 inches from finished grade, inclusive of the racking system which is low-profile as compared to the typical existing trees and buildings. The Facility is also using tracker and bi-facial panel technology. The maximum height of a tracker system, however, is only sustained for a short period during daylight hours as the racking makes continuous angle adjustments to follow the sun. For example, tracker systems lay flat near mid-day when the sun is directly overhead resulting in a panel height considerably lower than the maximum height. If needed, tracker arrays allow for the ability to directly program and adjust panel tilt in certain areas at certain times of day to minimize and eradicate glare in problem areas.

1.3 Alternate Technologies

Alternate technologies generally do not exist that would substantially reduce the visibility and visual impact of the proposed substation. However, some newer technology that solar facilities are using more frequently, including the Brookside Solar Project, are bifacial solar panels. Bifacial solar panels allow for light sensitivity on both sides. By constructing the arrays with the bifacial solar panel presentation, the Applicant is able to minimize the overall Facility footprint and still meet the MW capacity.

1.4 Facility Color

Generally, parts of the facility such as racking systems and collection substation (gray) and their color and form cannot easily be changed as materials are standardized. Racking systems will consist of non-reflective metallic materials.

Current technology of PV solar panels must be manufactured to certain specifications to function as intended. Solar panels, however, are consistent in color and designed to reflect the least possible light. Since the solar panels are manufactured to absorb light and minimize reflected light, they therefore, produce minimal, if any, glare. Additionally, the Facility will use antireflective coatings on solar panels.

1.5 Relocation and Rearranging Facility Components

The Applicant has undergone several iterations of the facility alignment prior to final design drawings mainly due to new or updated landowner agreements and boundary setback

adjustments, as well as shifts in stormwater design at the collection substation. However, most changes and shifts of Facility components were due to avoidance of wetlands impacts. The Applicant carefully designed the Facility to avoid state jurisdictional wetlands and the adjacent areas. Through minimization efforts including a thorough design process and multiple drafts and revisions of the Facility, the Applicant ensures that wetland impacts were avoided and/or minimized to the maximum extent practicable.

1.6 Advertisements, Conspicuous Lettering, or Logos

Other than warning and safety signs, no advertisements, conspicuous lettering, or logos will be permitted on Facility components.

1.7 Electrical Collection System

The collection system will be placed underground. However, should subsequent unforeseen engineering, construction, or environmental constraints dictate the need for overhead infrastructure, such apparatus will be utilized for the shortest distance possible.

1.8 Electrical Collection and Transmission Facilities

Electric collection and transmission structures shall have a non-glare finish. Use of a dark brown or green weathered steel dead-end structure shall be considered in the development of final engineered design.

1.9 Non-Specular Conductors

Non-specular conductors shall be used for any portion of the transmission line and electric collection system.

1.10 Glare for Solar Facilities

The Applicant prepared a Glint and Glare Analysis, included as Plan 7C in Attachment 7, to identify any potential glint/glare impacts on nearby residences at first and second-story viewing heights, as well as roadways at car and truck viewing heights. The analysis was prepared by Capitol Airspace Group using the Solar Glare Hazard Analysis Tool (SGHAT).

The results of the analysis indicate that there are no predicted glare occurrences for nearby residences or roadways as a result of the proposed single-axis tracking arrays. The results are based on the application of Federal Aviation Administration (FAA) glint and glare standards in the absence of non-aviation regulatory guidelines. Panels are designed to absorb sunlight and will be treated with anti-reflective coatings that will absorb and transmit light rather than reflect it. In general, solar panels are less reflective than window glass or water surfaces (NYSERDA, 2019) and any reflected light from solar panels will have a significantly lower intensity than glare from direct sunlight (Massachusetts Department of Energy Resources, 2015).

In cooperation with the Department of Energy (DOE), the FAA developed and validated the Sandia National Laboratories SGHAT, now licensed through ForgeSolar. ForgeSolar has enhanced the SGHAT for glare hazard analysis beyond the aviation environment. These enhancements include a route module for analyzing roadways as well as an observation point module for analyzing residences. SGHAT is a very conservative tool in that:

- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover, and geographic obstructions.

- The glare analysis assumes clear, sunny skies for 365 days of the year and does not take into account meteorological conditions that would nullify predicted glare such as clouds, rain, or snow.

- Although only a portion of a modeled array may have the potential to produce glare, the results are provided as if the receptor has visibility of the entire array. SGHAT does not account for the mutual screening of panels, i.e., front panels that screen the view of other rear panels.

1.11 Planting Plan

Vegetative landscape plantings are proposed to minimize visual impacts to the maximum extent practicable under §900.2.9 (d). The regulations do not state that 100% screening must be achieved. There may be areas where views are not entirely blocked.

An abbreviated version of the Landscaping Plan for vegetative mitigation can be found as Plan 7A in Attachment 7. The full plan can be found in Appendix 5-1 of Exhibit 5 engineering drawings.

Vegetative mitigation, or screening, can be effective in further minimizing views. To provide additional screening, a landscape plan was developed that contains sustainable, hearty and resilient plantings that primarily consist of native/indigenous species. The planting scheme has an emphasis on evergreens which will help minimize year-round views into the Facility Site. Additionally, ornamental, pollinator-friendly, small trees and shrubs have been incorporated into the plan to provide a more natural look, as well as being more aesthetically pleasing and complimentary to the surrounding area. The following items and concepts were applied to the plan:

- Native/indigenous evergreen trees and pollinator-friendly deciduous shrubs and small ornamental tree species were selected for the vegetative buffer. The species chosen will need to reach an adequate height and width to provide the appropriate visual screening required while also maintaining minimum mature heights that will not produce shade over the Facility in later years. Deciduous and evergreen tree species include balsam fir (*Abies balsamea*), northern white cedar (*Thuja occidentalis*), white spruce (*Picea glauca*), eastern red cedar (*Juniperus virginiana*), flowering dogwood (*Cornius florida*), and downy shadbush (*Amelanchier arborea*). Shrub species include red chokeberry (*Aronia arbutifolia*), red twig dogwood (*Cornus sericea*), common witch hazel (*Hamamelis*

virginiana), common winterberry (*Ilex verticillata*), and highbush blueberry (*Vaccinium corymbosum*).

- The plantings are proposed along the outside fence line or at property boundaries in locations noted on the Landscaping Plan. Two planting types are proposed for an approximate total of 26,145 linear feet of vegetative mitigation around the arrays:

    - Mitigation Planting Template Type 1: This planting scheme provides a density of plantings that will be considered a typical visual screening effort for this Facility. Approximately 28 evergreens per 300 feet of linear planting are proposed among the deciduous species. Type 1 plantings will be utilized/implemented along 18,730 linear feet (72%) of the Facility.

    - Mitigation Planting Template Type 2: This planting scheme provides a density that is considered an alternative screening effort with a greater density of evergreens. Approximately 35 evergreens per 300 feet of linear planting are proposed among the deciduous species. Approximately 7,415 linear feet (28%) of Type 2 plantings are proposed to be used within the Facility site.

- A northeast native wildflower and grass seed mix using native/indigenous warm and cool season grasses was developed especially for the areas under and around the solar array fields. Native pollinator seed mixes are intended to provide excellent wildlife food and shelter that will attract a variety of pollinators and songbirds. Pollinator seed mixes are intended to provide nectar and food sources for a variety of pollinators and larva. and is considered favorable for wildlife habitat and sustainable growth. The native wildflowers and grasses in this mix provide an attractive display of color from spring to fall. The seed mix will provide a groundcover that minimizes erosion concerns, does not pose any shading issues, and is manageable year-round. Appendix 5-1 of Exhibit 5 identifies the species that are included in the grass seed mix.

- Expected growth heights (depending on the specific tree or shrub species) are expected to be between 5 to 23 feet at 10 years. However, fully mature heights of the year-round coniferous species may reach up to 40 feet high.

It is important to note that an annual Operation and Maintenance (O&M) effort will be provided to ensure that proper care and attention is given to the proposed plantings once they have been installed. Annual O&M efforts will include, but not be limited to, selective pruning, mowing, and monitoring of invasive species. Additionally, landscaping notes in the Landscaping Plan will provide further direction, recommendations, insight, and guidelines to ensure a healthy, viable, and sustainable landscape throughout the life-cycle of the Facility to the maximum extent practicable.

1.12 Lighting Plan

Lighting is proposed only at the Facility substation, and is only intended for security, safety, and maintenance purposes. The Facility's Lighting Plan along with the collection substation plan and profile drawing is included as Plan 7B in Attachment 7. The Lighting Plan was developed to minimize fugitive light while meeting lighting standards established by the National Electrical Safety Code (NESC). The proposed lighting also complies with Occupational Safety and Health Administration (OSHA) requirements, as proper illumination will be provided for all working spaces around the electrical equipment. All of which has been designed so that control points or persons making repairs will not be endangered by "live parts" or other equipment.

Lighting has been designed to provide an average of 2 foot-candles, to eliminate unnecessary light trespass beyond the substation. Light fixtures will be mounted at a height not to exceed 15 feet and will not be illuminated during unoccupied periods. Full cut-off fixtures and task lighting will be used wherever feasible, as specified in the Lighting Plan. The lighting plan addresses the following, as applicable:

- Security lighting needs at the substation. Lights are located on such structures as the takeoff, control house, CT metering, and three pole-mounted locations – two of which are located near entries to the substation.

- All lighting will be activated manually and installed facing downward to minimize potential impacts to the surrounding public.

- Plan and profile figures to demonstrate the lighting area needs and proposed lighting arrangement and illumination levels to provide safe working conditions at the collection substation site;

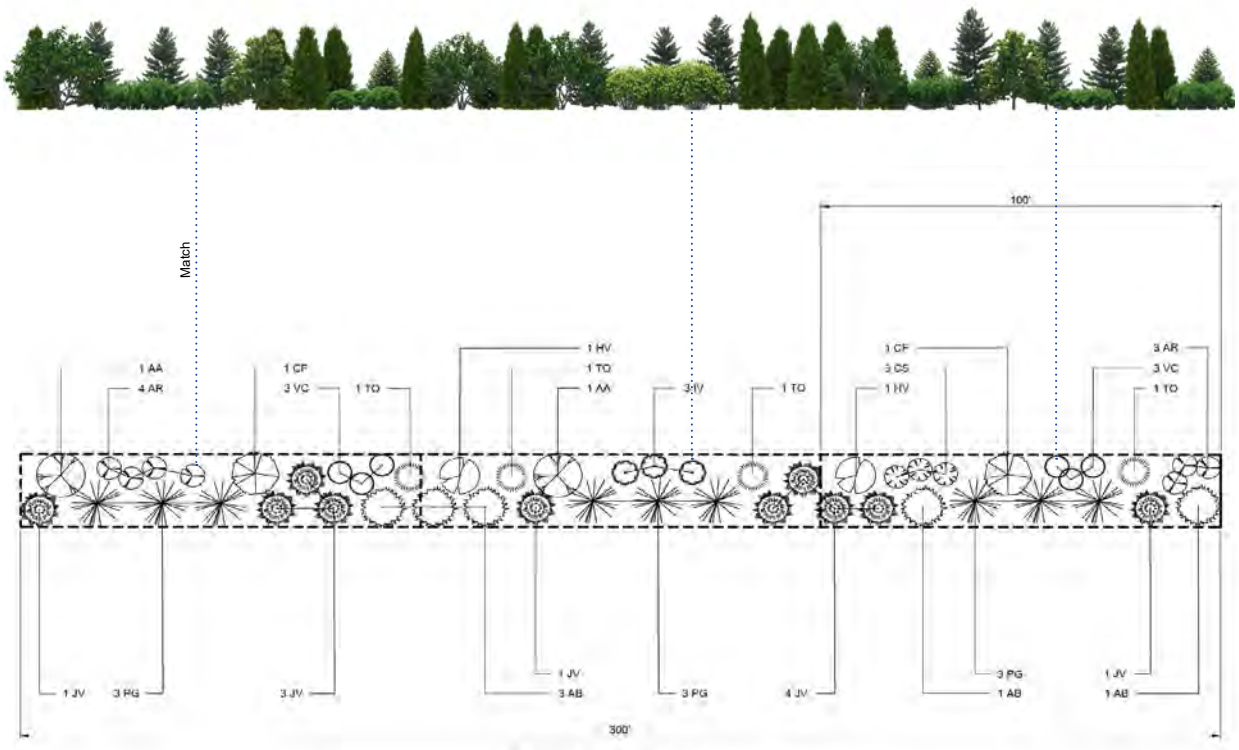
- Exterior lighting design will be limited to lighting required for health, safety, security, emergencies, and operational purposes and will be specified to avoid off-site lighting effects as follows:

    - Using task lighting as appropriate to perform specific tasks; limiting the maximum total outdoor lighting output; task lighting fixtures will be designed to be placed at the lowest practical height and directed to the ground and/or work areas to avoid being cast skyward or over long distances, incorporate shields and/or louvers where practicable, and capable of manual or auto-shut off switch activation rather than motion detection; and

    - Requiring full cutoff fixtures, with no drop-down optical elements (that can spread illumination and create glare) for permanent exterior lighting. Manufacturer's cutsheets of proposed lighting fixtures are provided.

PLAN 7A

LANDSCAPE PLAN



VISUAL MITIGATION PLANTING TEMPLATE - TYPE 1

LANDSCAPE PLANTING SCHEDULE (TYPICAL VISUAL BUFFER/SCREENING EFFORT)

DECIDUOUS AND EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
AA	AMELANCHIER ARBOREA DOWNY SHADBUSH	2	6'-8' HT. CLUMP	B&B	15'-20' HT.
AB	ABIES BALSAMEA BALSAM FIR	5	5'-6' HT.	B&B	40'-60' HT.
CF	CORNUS FLORIDA FLOWERING DOGWOOD	2	1" CAL. MIN.	B&B	15'-25' HT.
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	10	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	9	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	4	5'-6' HT.	B&B	40'-50' HT.

SHRUBS

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
AR	ARONIA ARBUTIFOLIA RED CHOKEBERRY	7	24"-30" HT.	#3/5 CONT.	7'-10' HT.
CS	CORNUS SERICEA RED TWIG DOGWOOD	3	24"-30" HT.	#3/5 CONT.	7'-9' HT.
HV	HAMAMELIS VIRGINIANA COMMON WITCH HAZEL	2	3'-4' HT.	B&B	15'-25' HT.
IV	ILEX VERTICILLATA COMMON WINTERBERRY	3	24"-30" HT.	#3/5 CONT.	10'-12' HT.
VC	VACCINIUM CORYMBOSUM HIGHBUSH BLUEBERRY	6	24"-30" HT.	#3/5 CONT.	6'-12' HT.

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PROJECT: BROOKSIDE SOLAR PROJECT

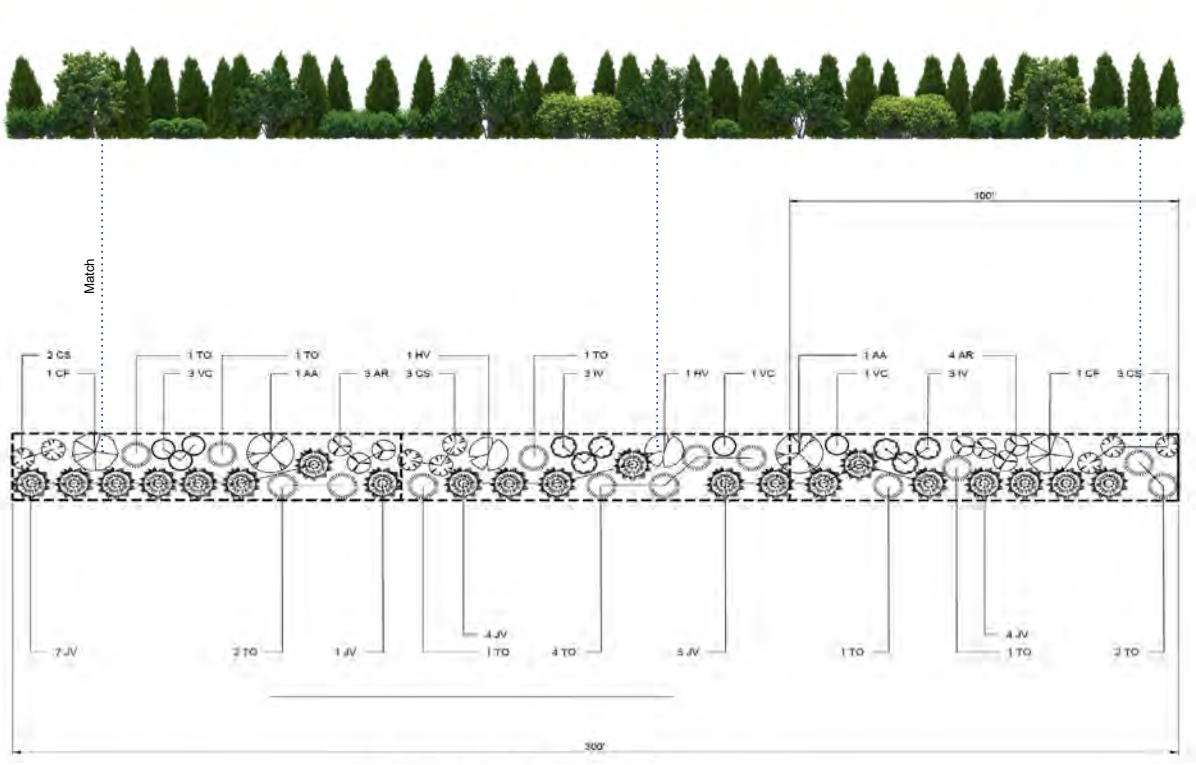
TITLE: TYPE 1 PLANTING TEMPLATE

DATE: 01/12/22

PROJ. NO.: 373210

FILE: Brookside VIA_Plan 7A

FIGURE 1



VISUAL MITIGATION PLANTING TEMPLATE - TYPE 2

LANDSCAPE PLANTING SCHEDULE (ALTERNATIVE VISUAL BUFFER/SCREENING EFFORT)

DECIDUOUS AND EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
AA	AMELANCHIER ARBOREA DOWNY SHADBUSH	2	6'-8' HT. CLUMP	B&B	15'-20' HT.
CF	CORNUS FLORIDA FLOWERING DOGWOOD	2	1" CAL. MIN.	B&B	15'-25' HT.
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	21	5'-6' HT.	B&B	40'-50' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	14	5'-6' HT.	B&B	40'-50' HT.

SHRUBS

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
AR	ARONIA ARBUTIFOLIA RED CHOKEBERRY	7	24"-30" HT.	#3/5 CONT.	7'-10' HT.
CS	CORNUS SERICEA RED TWIG DOGWOOD	8	24"-30" HT.	#3/5 CONT.	7'-9' HT.
HV	HAMAMELIS VIRGINIANA COMMON WITCH HAZEL	2	3'-4' HT.	B&B	15'-25' HT.
IV	ILEX VERTICILLATA COMMON WINTERBERRY	6	24"-30" HT.	#3/5 CONT.	10'-12' HT.
VC	VACCINIUM CORYMBOSUM HIGHBUSH BLUEBERRY	5	24"-30" HT.	#3/5 CONT.	6'-12' HT.

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PROJECT: BROOKSIDE SOLAR PROJECT

TITLE: TYPE 2 PLANTING TEMPLATE

DATE: 01/12/22

PROJ. NO.: 373210

FILE: Brookside VIA_Plan 7A

FIGURE 2



PRELIMINARY
NOT FOR CONSTRUCTION

600 0 600 1200 FT

SCALE: 1" = 600'

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

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KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/19/2022	DESIGN DRAWINGS
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

PROJECT TITLE:

BROOKSIDE SOLAR PROJECT

PROJECT LOCATION:

TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

OVERALL LANDSCAPE PLAN

PROJ NUM:	422299
DES:	M.ROSS
DWN:	T.FIEBRANZ
CHK:	M.ROSS
APV:	-
DATE:	04/02/2021

SCALE AT 24" x 36":

AS NOTED

SHEET NO: PV-C.13.00

REV: 0

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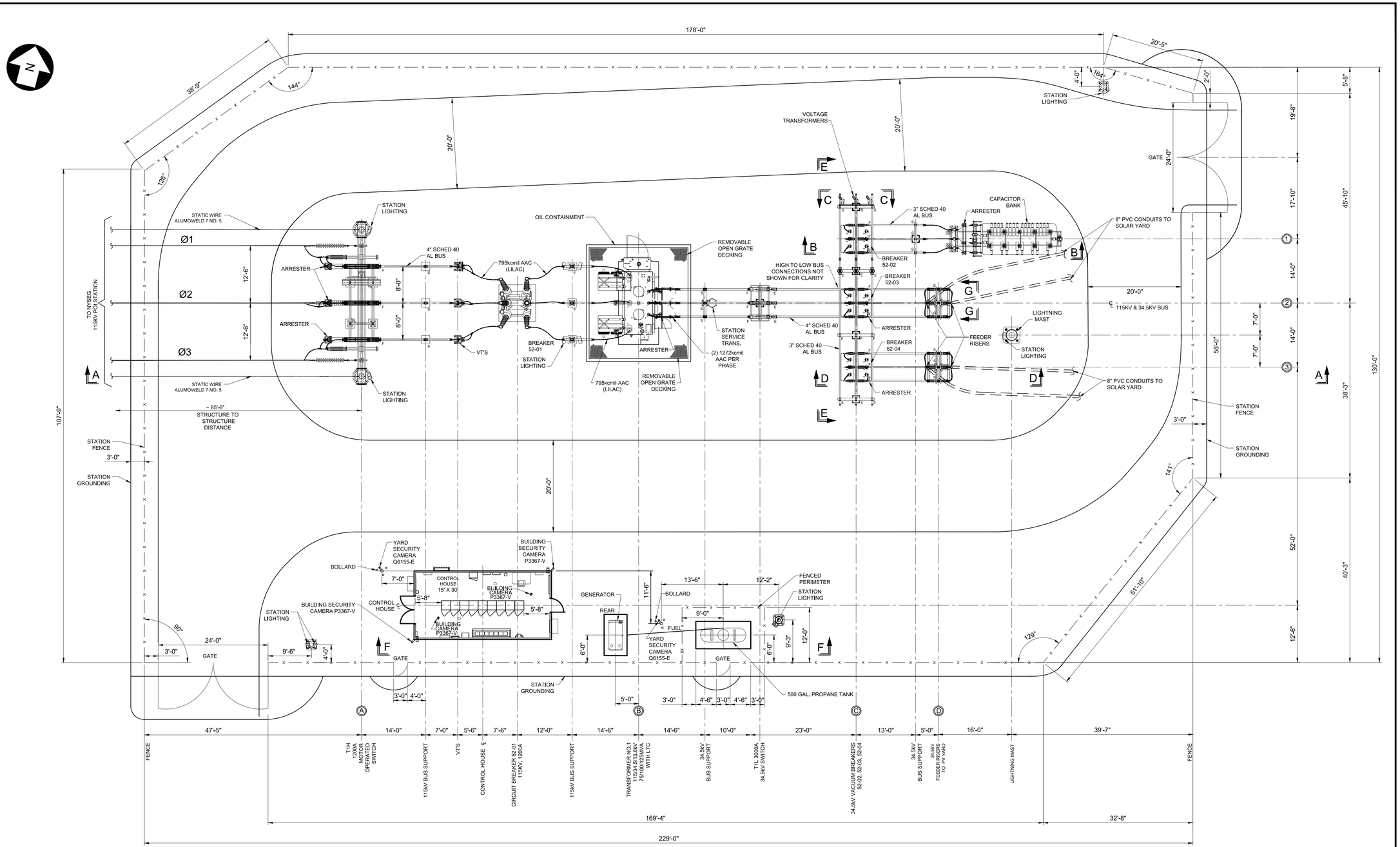
PLAN 7B

PROPOSED LIGHTING PLAN AND COLLECTION SUBSTATION PLAN AND PROFILE DRAWINGS



PRELIMINARY
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(801) 679 - 3500

TRC
249 Western Avenue
Augusta, ME 04330

PE STAMP:

STATE OF NEW YORK
CHARLES PASCALE
072988
LICENSED PROFESSIONAL ENGINEER

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:

BROOKSIDE SOLAR COLLECTION SUBSTATION 115KV-34.5KV

PROJECT LOCATION:

TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

GENERAL ARRANGEMENT

OVERALL ELECTRICAL PLAN

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D. FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	04/02/21

SCALE AT 22" x 34":
0 4' 8' 16' 24'
3/32" = 1'-0"

SHEET NO: HV-P.01.01
REV: 0

AES Tilebox 22X34 v210319

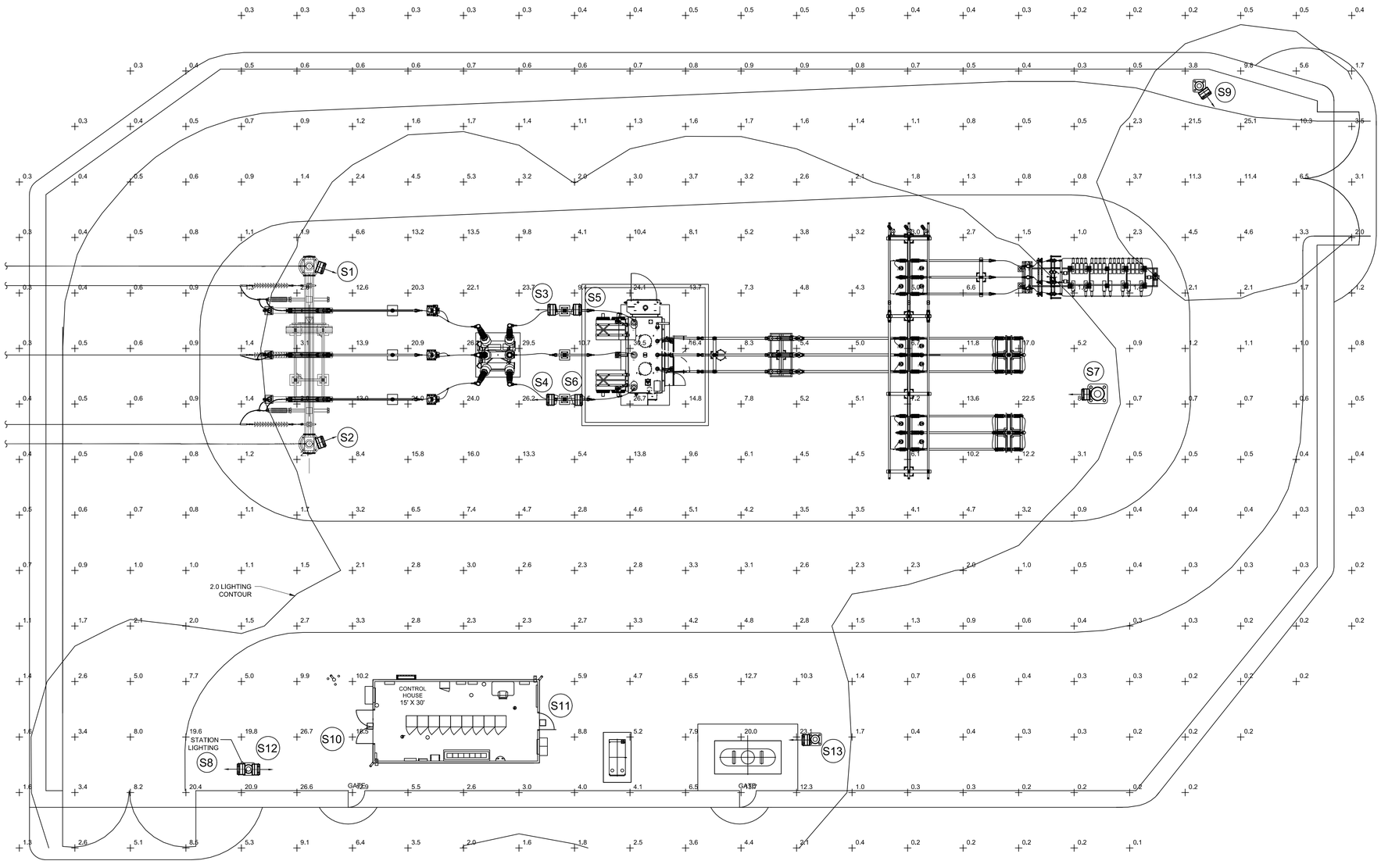


TABLE 1 - LIGHTING FIXTURE SCHEDULE

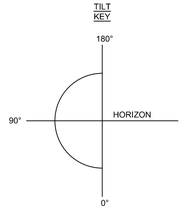
FIXTURE							LAMP	PHOTO-ELECTRIC CONTROL
TYPE	WATTAGE	LIGHT SOURCE	VOLTAGE	WEIGHT (LBS)	LUMENS	NEMA CLASS	MANUFACTURER (GE) ITEM #	MANUFACTURER ITEM #
A1	25W	LED	120V	9.5	2,900	N/A	GE EVOLVE EWAS011A3730N	N/A
A3	150W	LED	120V	26	18,800	7X6	GE EVOLVE EFH101AA76740 W/ TOP & SIDE VISOR TSDKBZ-EFH	N/A
A5	297W	LED	120V	26	37,800	7X6	GE EVOLVE EFH101EE76740 W/ TOP & SIDE VISOR TSDKBZ-EFH	N/A

FIXTURE SCHEDULE

LIGHT NO.	TYPE	TILT ANGLE	WATTAGE	VOLTAGE
S1	A3	75°	150W	120VAC
S2	A3	75°	150W	120VAC
S3	A3	60°	150W	120VAC
S4	A3	60°	150W	120VAC
S5	A3	60°	150W	120VAC
S6	A3	60°	150W	120VAC
S7	A5	75°	297W	120VAC
S8	A3	45°	150W	120VAC
S9	A3	45°	150W	120VAC
S10	A1	0°	25W	120VAC
S11	A1	0°	25W	120VAC
S12	A3	45°	150W	120VAC
S13	A3	45°	150W	120VAC

AVERAGE = 4.4 F.C.
MAX= _ _ _ 30.5 F.C.
MIN = _ _ _ _ 0.2 F.C.

TILT KEY



NOTES:
1. STATION LIGHTING IS COMPRISED OF (2) 25W, (10) 150W, AND (1) 297 W, 120V AC LED FLOODLIGHTS.
2. LIGHT FIXTURES TO BE MOUNTED ON INDICATED STRUCTURES 15' ABOVE FINISHED GRADE. THE FIXTURES SHALL BE AIMED AS SHOWN ON THE DRAWING AND HAVE A TILT ANGLE BASED ON THE FIXTURE SCHEDULE.
3. YARD CONTOURS ARE 2.0 FT CANDLES (F.C.) FOR THIS STATION. 2 FT CANDLES IS THE EQUIVALENT OF 22 LUMENS PER SQUARE METER.
4. FLOODLIGHTS INSTALLED WITH TOP AND SIDE VISORS ACHIEVE FULL CUTOFF REQUIREMENT (0 F.C.) ABOVE FIXTURE.

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STATE OF NEW YORK · CHARLES PASCALE · LICENSED PROFESSIONAL ENGINEER · 072988

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:
BROOKSIDE SOLAR COLLECTION SUBSTATION 115KV-34.5KV

PROJECT LOCATION:
TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:
GENERAL ARRANGEMENT

LIGHTING PLAN

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D. FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	05/21/21

SCALE AT 22" x 34": 0 4' 8' 16' 24'
3/32" = 1'-0"

SHEET NO: HV-P.13.01
REV: 0

PLOTTED: 1/14/2022 11:05 AM
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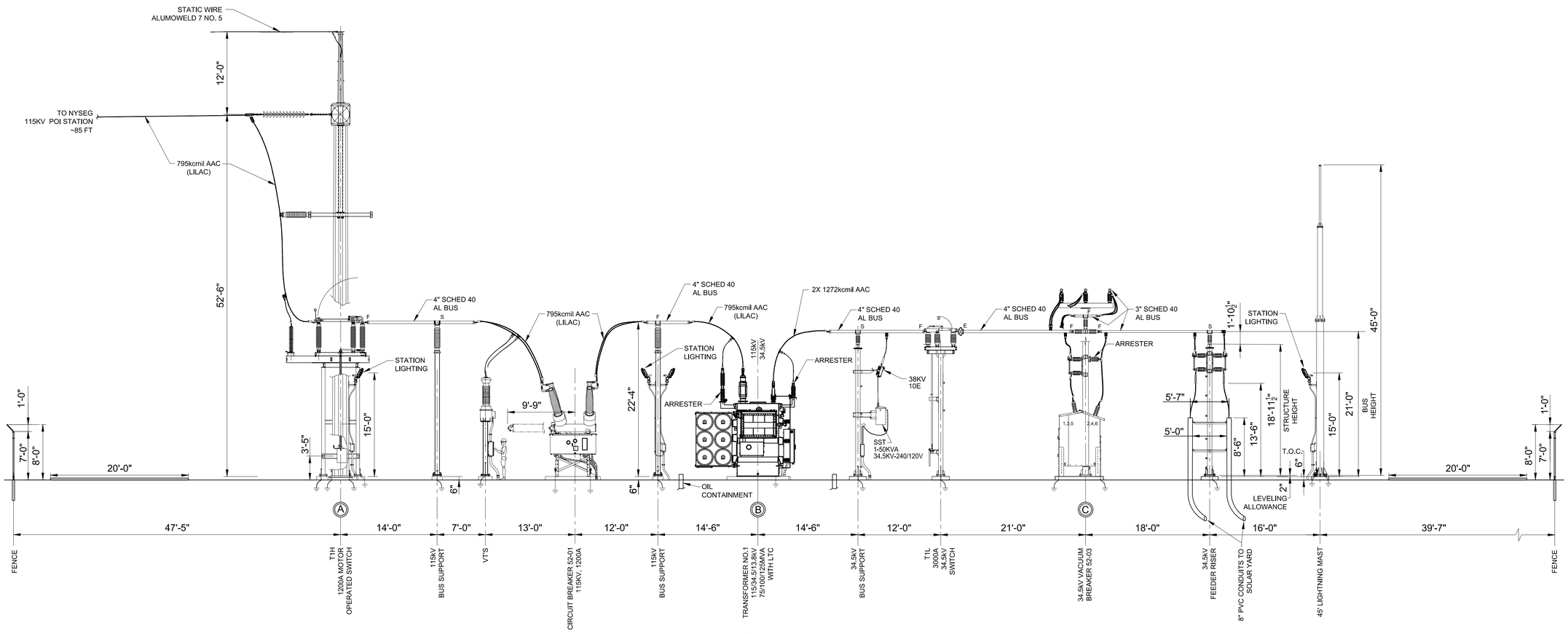

SECTION A-A

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

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LICENSED PROFESSIONAL ENGINEER

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:

BROOKSIDE SOLAR
COLLECTION
SUBSTATION
115KV-34.5KV

PROJECT LOCATION:

TOWNS OF BURKE AND
CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

ELECTRICAL
EQUIPMENT
ELEVATIONS

SECTION A-A

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D.FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	04/02/2021

SCALE AT 22" x 34":
0 4' 8' 12' 16'
1/8" = 1'-0"

SHEET NO:	REV:
HV-P.02.01	0

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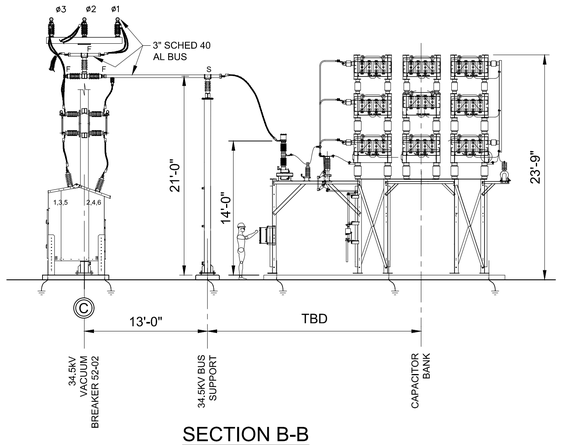
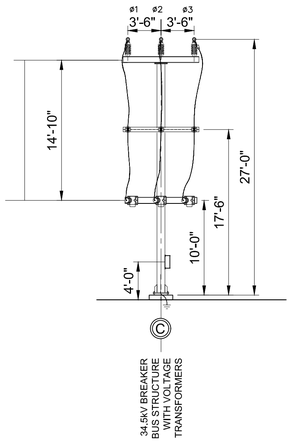


SECTION B-B



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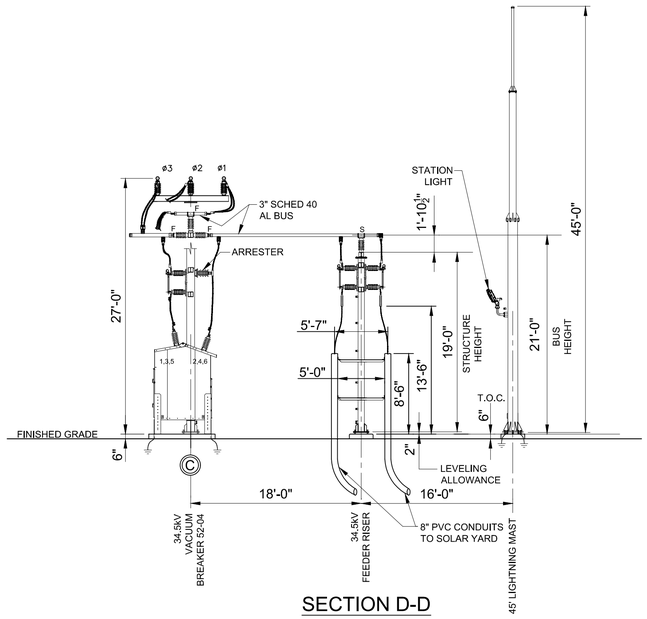
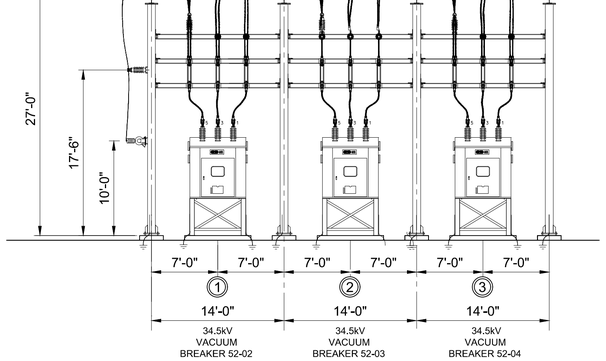


SECTION D-D



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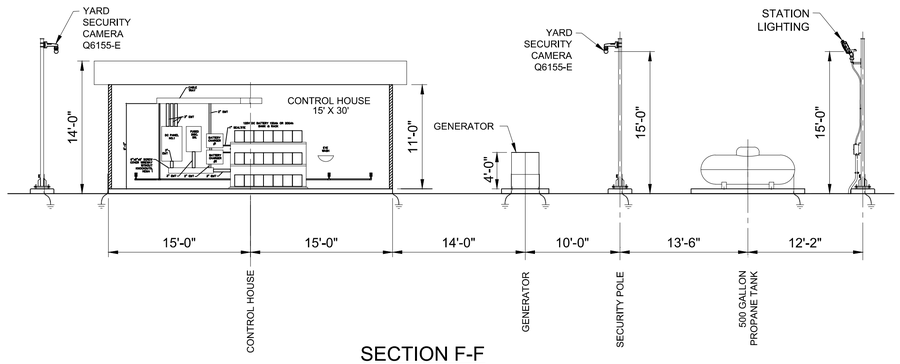

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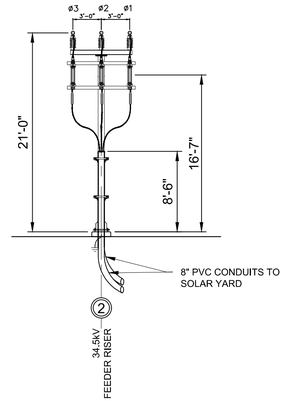

SECTION G-G

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PE STAMP:

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CHARLES PASCALE
072988
LICENSED PROFESSIONAL ENGINEER

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:
BROOKSIDE SOLAR
COLLECTION
SUBSTATION
115KV-34.5KV

PROJECT LOCATION:
TOWNS OF BURKE AND
CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:
ELECTRICAL
EQUIPMENT
ELEVATIONS

SECTIONS B-B, C-C
D-D, E-E, F-F, G-G, H-H,
J-J

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D. FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	04/02/2021

SCALE AT 22" x 34":
0 4' 8' 12' 16'
1/8" = 1'-0"

SHEET NO: HV-P.02.02
REV: 0

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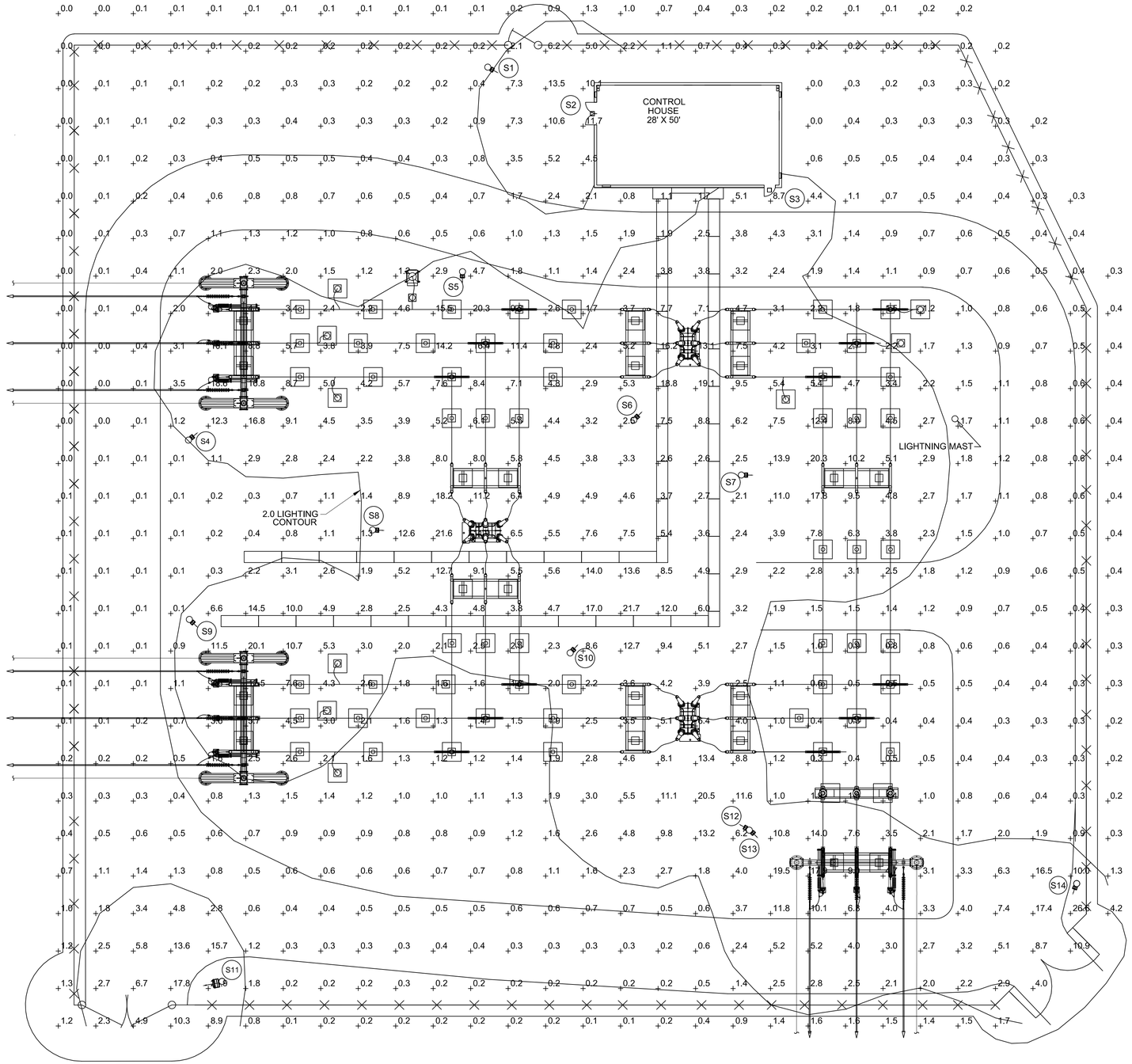

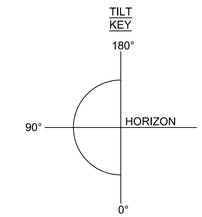

FIXTURE SCHEDULE				
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S6	A5	75°	297W	120VAC
S7	A5	75°	297W	120VAC
S8	A5	75°	297W	120VAC
S9	A5	75°	297W	120VAC
S10	A5	75°	297W	120VAC
S11	A3	45°	150W	120VAC
S12	A5	75°	297W	120VAC
S13	A5	75°	297W	120VAC
S14	A3	45°	150W	120VAC

NOTES:

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AVERAGE = 3.0 F.C.
MAX= _ _ _ 26.6 F.C.
MIN = _ _ _ _ 0.0 F.C.

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PE STAMP:

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CHARLES PASCALE
072988
LICENSED PROFESSIONAL ENGINEER

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:

BROOKSIDE SOLAR POI SUBSTATION 115KV

PROJECT LOCATION:

TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

GENERAL ARRANGEMENT

LIGHTING PLAN

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D. FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	05/20/2021

SCALE AT 22" x 34":
0 8' 16' 24' 32'
1/16" = 1'-0"

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REV: 0

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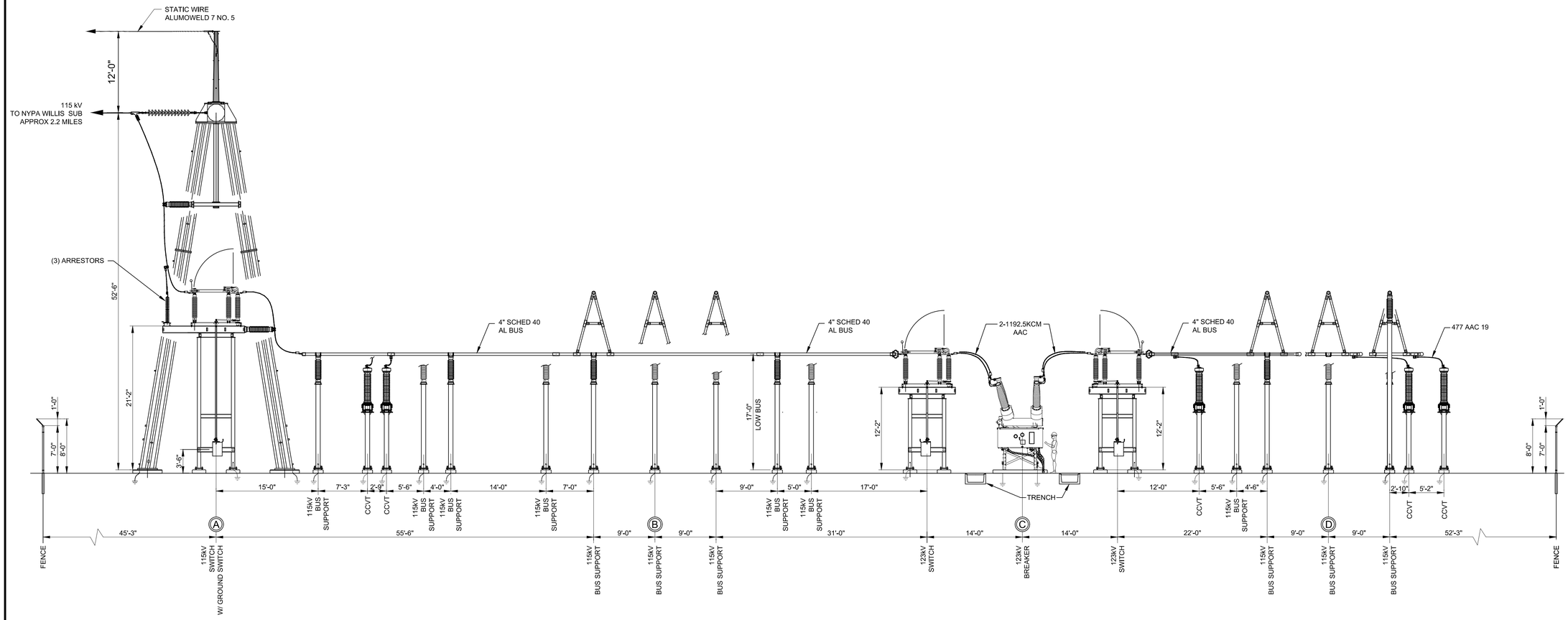

SECTION A-A

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KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:

BROOKSIDE SOLAR
POI
SUBSTATION
115KV

PROJECT LOCATION:

TOWNS OF BURKE AND
CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

ELECTRICAL
EQUIPMENT
ELEVATIONS

SECTION A-A

PROJ NUM:	422299
DES:	D. FARRELL
DWN:	D. FARRELL
CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	04/02/2021

SCALE AT 22" x 34":
0 4' 8' 12' 16'
1/8" = 1'-0"

SHEET NO: 422299-0003-001
REV: 0

AES Tilebox4 22X34 v210319

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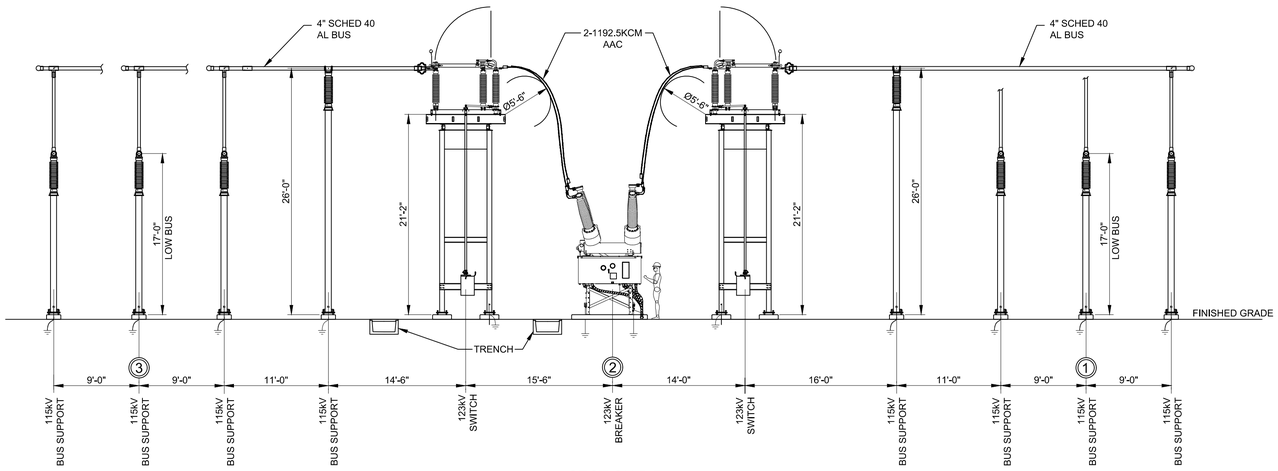

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KEY PLAN:

REVISIONS:

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0	01/14/2022	DESIGN DRAWINGS

PROJECT TITLE:

BROOKSIDE SOLAR
POI
SUBSTATION
115KV

PROJECT LOCATION:

TOWNS OF BURKE AND CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

ELECTRICAL EQUIPMENT ELEVATIONS

SECTION B-B

PROJ NUM:	422299
DES:	D. FARRELL
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CHK:	C. PASCALE
APV:	C. PASCALE
DATE:	04/02/2021

SCALE AT 22" x 34":
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1/8" = 1'-0"

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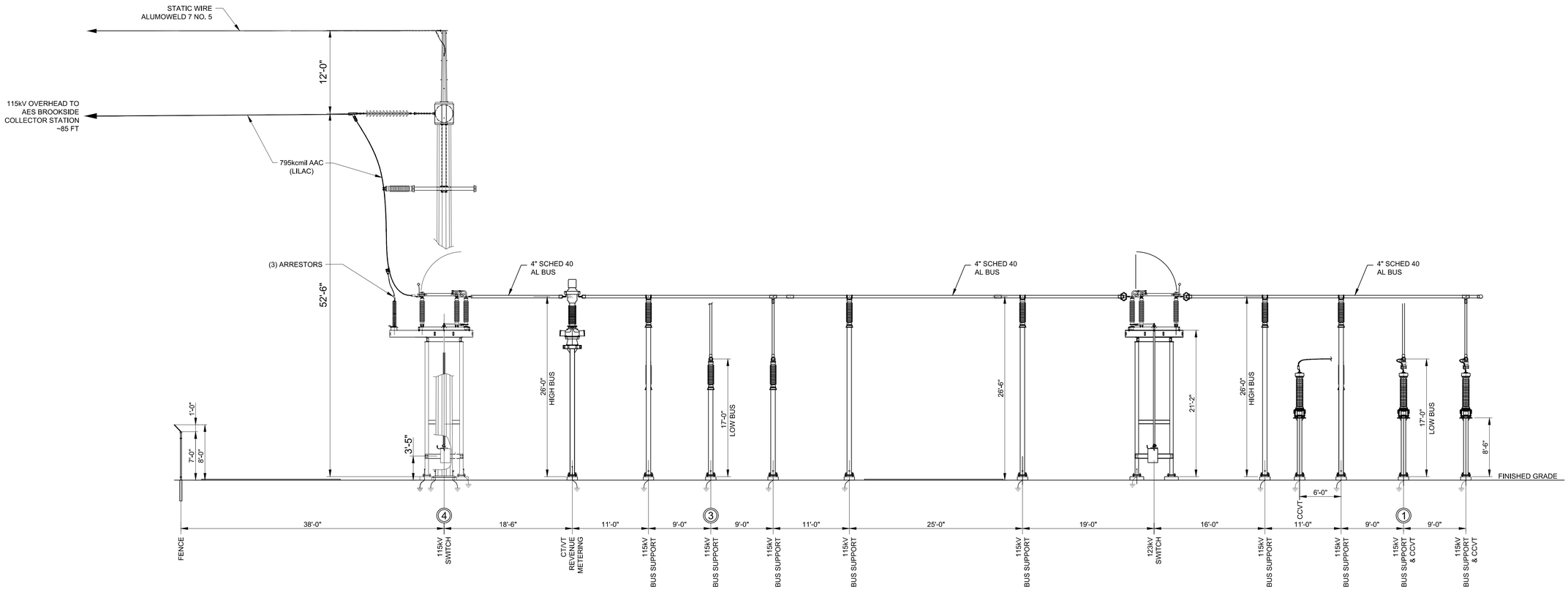
REV: 0



SECTION C-C

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POI
SUBSTATION
115KV

PROJECT LOCATION:

TOWNS OF BURKE AND
CHATEAUGAY, NY

SHEET TITLE & DESCRIPTION:

ELECTRICAL
EQUIPMENT
ELEVATIONS

SECTION C-C

PROJ NUM:	422299
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DATE:	04/02/2021

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SHEET NO: 422299-0005-001
REV: 0

AES Tilesbock 22X34 v210319
PLOTTED: 1/14/2022 9:13 AM
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XREFs:

Evolve® EFH Series

LED Flood Light



CUSTOMER NAME _____

Project Name _____

Date _____ Type _____

Catalog Number _____

The Evolve® LED High Output Flood Light is our high-lumen solution to efficiently illuminate building facade, flag poles, billboard signage and many more traditional flood applications. Designed to replace 250W-400W HPS and 400W-1000W Metal Halide Flood Lights

CONSTRUCTION

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional = Coastal Finish
Weight:	35 lbs (15.9 kgs)

OPTICAL SYSTEM

Lumens:	18,000 - 39,000
Distribution:	6x5, 6x6, 7x6, 7x7
Efficacy:	115 -140 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

ELECTRICAL

Input Voltage:	120-277V, 277-480V & 347-480V
Input Frequency:	50/60 Hz
Power Factor (PH):	> 90% at rated watts
Total Harmonic Distortion (THD):	< 20% at rated watts

SURGE PROTECTION

TYPICAL (120 STRIKES)		
6kV/3kA*	☐ 10kV/5kA*	☐ 20kV/10kA*

*Per ANSI C136.2-2015

LUMEN MAINTENANCE

Projected Lxx per IES TM-21-11 at 25°C

Lumen Codes	Distribution	LXX(10K) @ Hours		
		25,000 HR	50,000 HR	60,000 HR
AA, BB, CC, DD, EE	65, 66, 76, & 77	L95	L91	L90

Note: Projected Lxx based on LM80 (= 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements

LUMINAIRE AMBIENT TEMPERATURE FACTOR

Ambient Temp (°C)	Initial Flux Factor	Ambient Temp (°C)	Initial Flux Factor
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

RATINGS

Operating Temperature:	-40° C to 50° C
Vibration:	3G - Trunnion Mount per Per ANSI C136.31-2010:
LM-79:	Testing in accordance with IESNA Standards

CONTROLS

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid and Daintree Compatible

WARRANTY

☐ 5 Year (Standard)

GE current
a Daintree company

UL 1598 for WET LOCATIONS

IP66 IK08

Evolve® EFH Series

LED Flood Light

Catalog Logic

CUSTOMER NAME

Project Name _____

Date _____ Type _____

Catalog Number _____

Ordering Information

**EFH1 01 _ _ _

Evolve® EFH Series

LED Flood Light

Spec Tables

CUSTOMER NAME

Project Name _____

Date _____ Type _____

Catalog Number _____

OPTIC CODE	DIST CODE	CLASSIFICATION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE	3000K	
			3000K	4000K	5000K	120-277 & 347-480V	120-277V	347-480V
AA	77	7x7	18900	19300	19500	150	EFH101_AA77730	
BB			26300	28600	27100	194	EFH101_BB77730_	
CC			29100	29700	30000	218	EFH101_CC77730_	
DD			34000	34700	35000	266	EFH101_DD77730_	
EE			37900	38700	39000	297	EFH101_EE77730_	
AA	76	7x6	18500	18800	19000	150	EFH101_AA76730	
BB			25700	26200	26500	194	EFH101_BB76730_	
CC			28400	29000	29300	218	EFH101_CC76730_	
DD			33200	33900	34200	266	EFH101_DD76730_	
EE			37100	37800	38100	297	EFH101_EE76730_	
AA	66	6x6	18200	18600	18800	150	EFH101_AA66730	
BB			25400	25900	26200	194	EFH101_BB766730_	
CC			28100	28700	29000	218	EFH101_CC66730_	
DD			32800	33500	33800	266	EFH101_DD66730_	
EE			36600	37400	37700	297	EFH101_EE66730_	
AA	65	6x5	17300	17700	17900	150	EFH101_AA65730	
BB			24100	24600	24800	194	EFH101_BB65730_	
CC			26700	27200	27500	218	EFH101_CC65730_	
DD			31200	31800	32100	266	EFH101_DD65730_	
EE			34800	35500	35800	297	EFH101_EE65730_	

Not all products on this document are DLC qualified, please visit https://www.designlights.org/search/

Evolve® EFH Series

LED Flood Light

Photometric Plots

CUSTOMER NAME

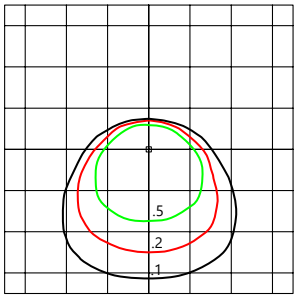
Project Name _____

Date _____ Type _____

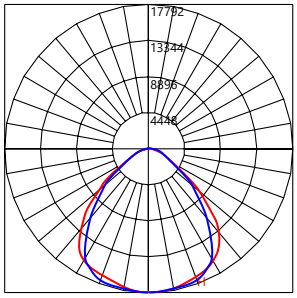
Catalog Number _____

77-EE

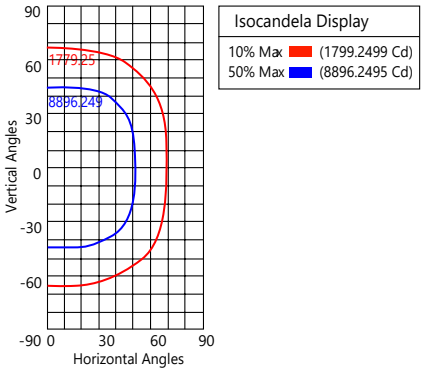
38,700 Lumens, 4000K
EFH101_EE77740__.IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade



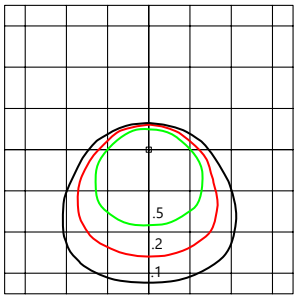
— Vertical Axel Candela Distribution
— Horizontal Axel Candela Distribution



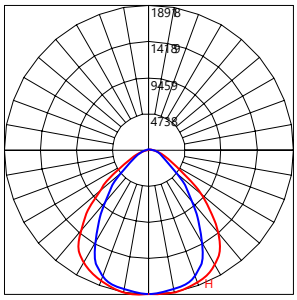
76-EE

37,800 Lumens, 4000K
EFH101_EE76740__.IES

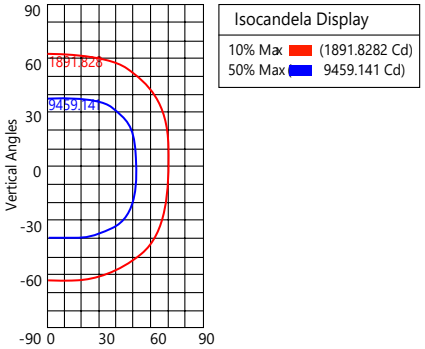
[3] This optic is designed to address a Roadway Photometric Application and may classify as Type II or III.



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

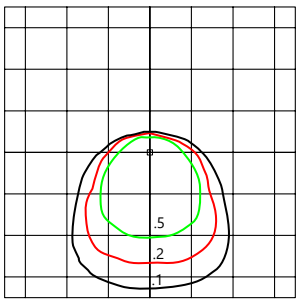


— Vertical Axel Candela Distribution
— Horizontal Axel Candela Distribution

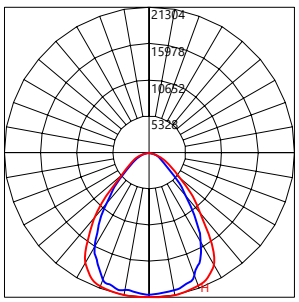


66-EE

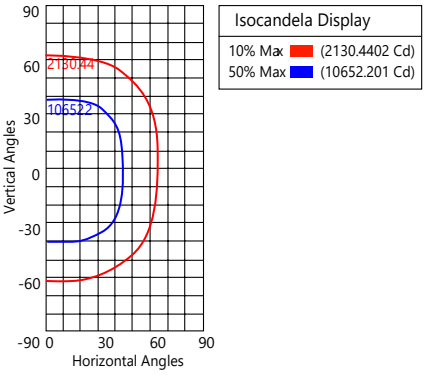
37,400 Lumens, 4000K
EFH101_EE66740__.IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

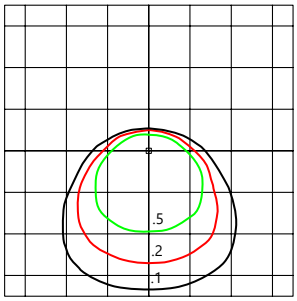


— Vertical Axel Candela Distribution
— Horizontal Axel Candela Distribution

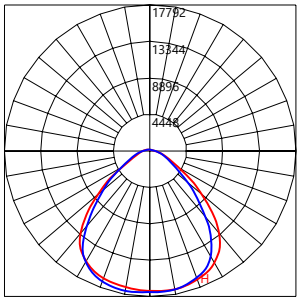


65-EE

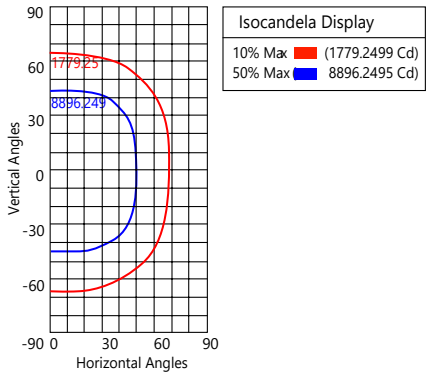
35,500 Lumens, 4000K
EFH101_EE65740__.IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade



— Vertical Axel Candela Distribution
— Horizontal Axel Candela Distribution



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Evolve® EFH Series

LED Flood Light

Motion Sensing

CUSTOMER NAME

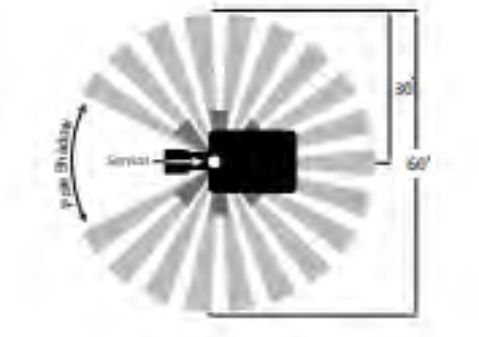
Project Name _____

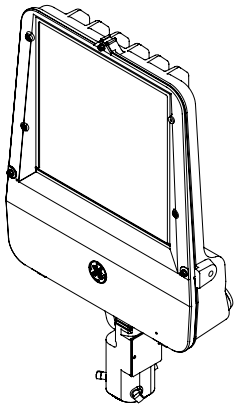
Date _____ Type _____

Catalog Number _____

H MOTION SENSING OPTION

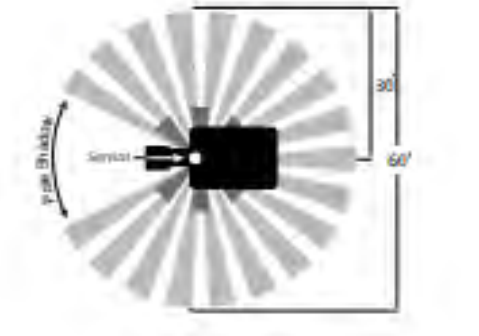
Recommended Mounting Height:	15-30′ (4.6-9.1m)
Coverage Radius:	15-20′ (4.6-6.1 m)
Lateral Coverage:	300 °
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100%/Unoccupied - 50%
PE Sensor:	None
Ramp/Fade:	5 Minutes/5 Minutes
Adds:	< 1W to fixture power rating
Field:	Programmable using FSIR-100 hand held programmer

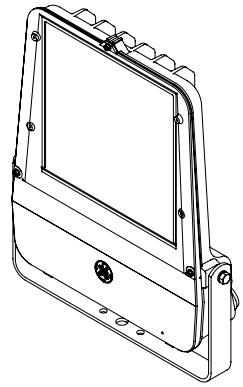




H2 MOTION SENSING OPTION

Recommended Mounting Height:	15-30′ (4.6-9.1m)
Coverage Radius:	15-20′ (4.6-6.1 m)
Lateral Coverage:	300 °
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100%/Unoccupied - 50%
PE Sensor:	Enabled
Ramp/Fade:	5 Minutes/5 Minutes
Requires Daintree Enterprise and wide area control (WAC)	





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Evolve® EFH Series
LED Flood Light

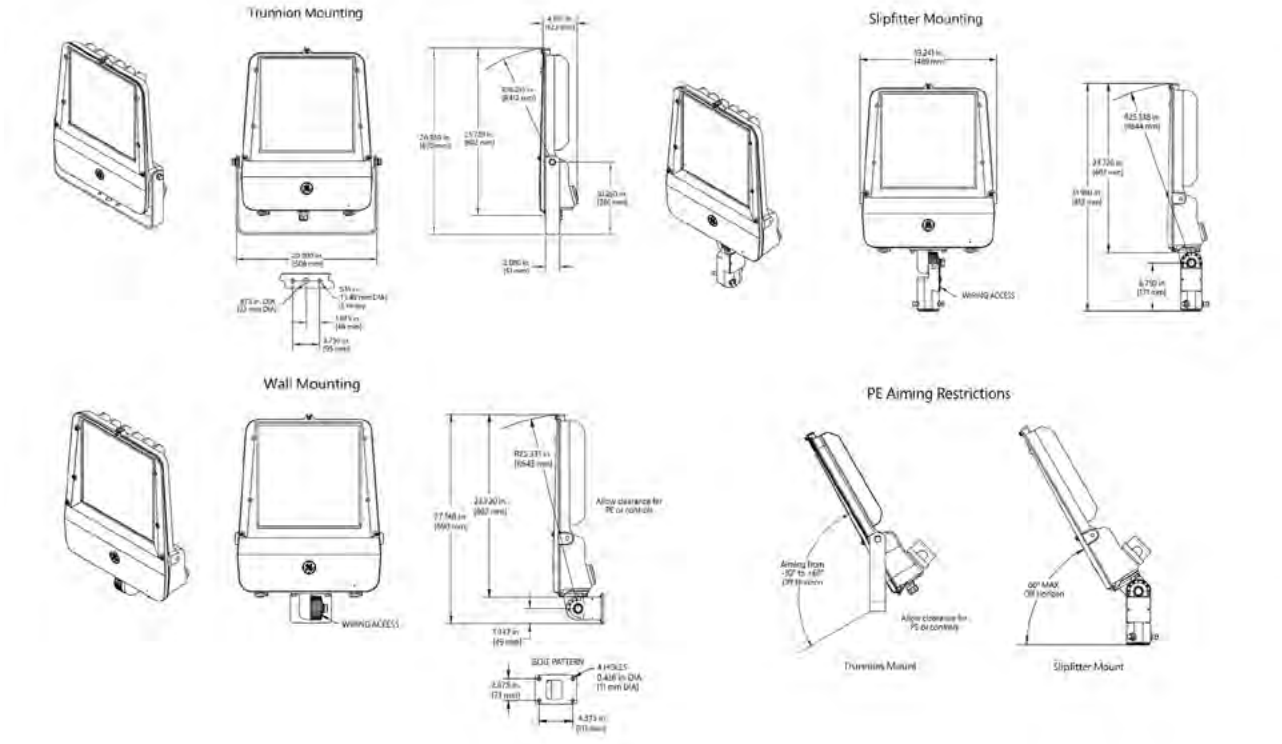
Mounting & Accessories

CUSTOMER NAME

Project Name _____

Date _____ Type _____

Catalog Number _____



MOUNTING

- Adjustable for 1.25 to 1 in. nominal mounting pipe
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

EFFECTIVE PROJECTED AREA

- – Vertical 3.51 sq ft (0.33 sq M) (aimed at horizon)
- – Tilted 1.79 sqft (0.17 sq M) (aimed down 45 degrees)

ACCESSORIES

SAP Number	Part Number	Description
93123552	WANSI - 277	ANSI 136.41 Dimming PE Danitree Enable, 105-305V
93123553	WANSI - 480	ANSI 136.41 Dimming PE Danitree Enable, 312-530V
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V
28299	PECOTL	Standard 120-277V
28294	PEC5TL	Standard 480V
80436	PECDTL	Standard 347V
73251	SCCL-PECTL	Shorting Cap

SHIELDS

SAP Number	Part Number	Description
93033494	TSVBLCK-EFH	Top and Side Visor
93033655	TSVDKBZ-EFH	Top and Side Visor
93033493	TSVGRAY-EFH	Top and Side Visor
93033656	TSVWHTE-EFH	Top and Side Visor
93034260	VAN-EFH	Vandal Shield
93034259	WG-EFH	Wire Guard
93034837	BDABLCK-EFH	Barn Doors
93034838	BDADKBZ-EFH	Barn Doors
93034836	BDAGRAY-EFH	Barn Doors
93034839	BDAWHTE-EFH	Barn Doors

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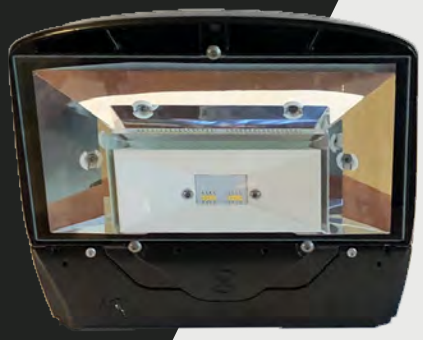
OLP3107 (Rev 04/30/21)

Evolve® LED Wall Pack

A Series (EWAS)



Project Name _____

Date _____ Type _____

Notes _____

The **Evolve**® LED A Series Wall Pack (EWAS), offers Type II, III and IV optical patterns with lumen levels ranging from 3,000 to 17,000 lumens, and is a designed replacement for 50W to 400W HID including an optional Emergency Battery Backup.

CONSTRUCTION

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze, Gray & White (RAL & custom colors available)
Weight:	8 - 10 lbs.

OPTICAL SYSTEM

Lumens:	3,000 - 17,000
Distribution:	Type II, III, IV
CCT:	3000K, 4000K, 5000K
CRI:	≥70

ELECTRICAL

Input Voltage:	120-277V & 347-480V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

SURGE PROTECTION

Typical	Enhanced
☐ 6kV/3kA*	☐ 10kV/5kA*

*Per ANSI C136.2-2015

WARRANTY

☐ 5 Year (Standard)

LUMEN MAINTENANCE

Projected Lxx per IES TM-21-11 at 25°C

Distribution	LXX(10K) @ Hours		
	25,000 HR	50,000 HR	60,000 HR
A2, A3, A4, B2, B3, B4, C2, C3, C4, D2, D3, D4	L95	L93	L92
E2, E3, E4, F2, F3, F4, G2, G3, G4	L96	L94	L94

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

LUMINAIRE AMBIENT TEMPERATURE FACTOR

Ambient Temp (°C)	Initial Flux Factor	Ambient Temp (°C)	Initial Flux Factor
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

RATINGS

Operating Temperature:	-40°C to 50°C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IESNA Standards

CONTROLS

Dimming:	Standard - 0-10V ☐
Sensors:	Photo Electric Sensors (PE) available LightGrid and Daintree Compatiable

EMERGENCY BATTERY BACKUP

Provides reliable emergency operations when there is a loss to normal power, supported by Independent Secondary Battery and LED Board.

Powers luminaire for a minimum of 90 minutes @ 1,000 lumens.

Available on A* and B* Optical Code Packages only

Operating Temperature (for EMBB models) -20° to 40°C

3kV/1.5kA surge protection for EMBB models.

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UL 1598 WET LOCATIONS · IP66 Optical · IK08

Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

Evolve® LED Wall Pack

A Series (EWAS)

Catalog Logic

Project Name _____

Date _____ Type _____

Notes _____

EWAS 01 7 FM

_ _ _ _

Evolve® LED Wall Pack

A Series (EWAS)

Spec Tables

Project Name _____

Date _____ Type _____

Notes _____

TYPE	OPTIC CODE	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATINGS	
							3000K	4000K & 5000K
			3000K	4000K & 5000K	120-277V	347-480V	B-U-G	B-U-G
Type IV	A4	Asymmetric Forward (AF)	2900	3000	21	23	B1-U0-G1	B1-U0-G1
	B4		4900	5000	36	38	B1-U0-G1	B1-U0-G1
	C4		7300	7500	56		B1-U0-G2	B1-U0-G2
	D4		9800	10000	77		B2-U0-G2	B2-U0-G2
	E4		11500	12200	89		B2-U0-G2	B2-U0-G2
	F4		13600	14400	109		B2-U0-G2	B2-U0-G2
	G4		16100	17000	130		B3-U0-G3	B3-U0-G3
Type III	A3	Asymmetric Wide (AW)	2900	3000	21	23	B1-U0-G1	B1-U0-G1
	B3		4900	5100	36	38	B1-U0-G1	B1-U0-G1
	C3		7400	7600	56		B2-U0-G1	B2-U0-G1
	D3		9900	10200	77		B2-U0-G2	B2-U0-G2
	E3		11700	12400	89		B2-U0-G2	B2-U0-G2
	F3		13900	14700	109		B2-U0-G2	B2-U0-G2
	G3		16400	17300	130		B2-U0-G2	B3-U0-G2
Type II	A2	Asymmetric Narrow (AN)	2900	3000	21	23	B1-U0-G1	B1-U0-G1
	B2		4900	5000	36	38	B1-U0-G1	B1-U0-G1
	C2		7300	7500	56		B2-U0-G1	B2-U0-G2
	D2		9800	10100	77		B2-U0-G2	B2-U0-G2
	E2		11600	12300	89		B2-U0-G2	B2-U0-G2
	F2		13700	14500	109		B3-U0-G3	B3-U0-G3
	G2		16200	17100	130		B3-U0-G3	B3-U0-G3

For additional information on EWAS IES files, please click the following link: **EWAS IES Files**

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Evolve® LED Wall Pack

A Series (EWAS)

Photometric Plots

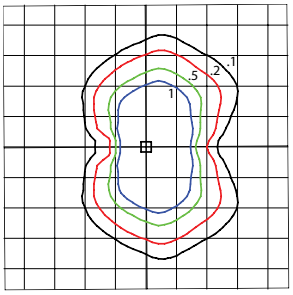
Project Name _____

Date _____ Type _____

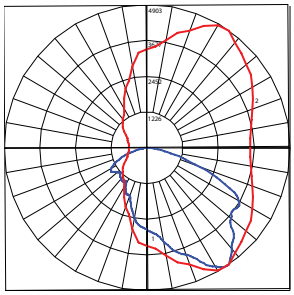
Notes _____

EWAS
ASYMMETRIC NARROW
(D2AN750)

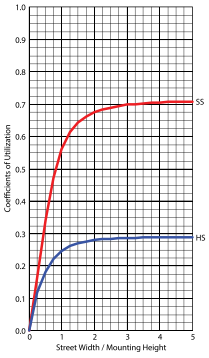
10,100 Lumens
5000K
EWAS01_D2AN750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade

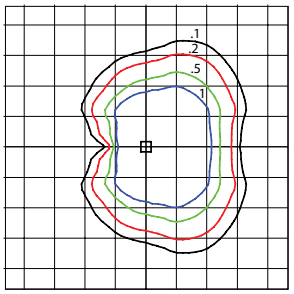


— Vertical plane through horizontal angle of Max. Cd at 55°
— Horizontal cone through vertical angle of Max. Cd at 34°

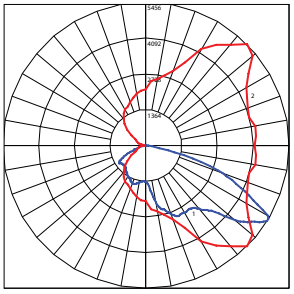


EWAS
ASYMMETRIC WIDE
(D3AW750)

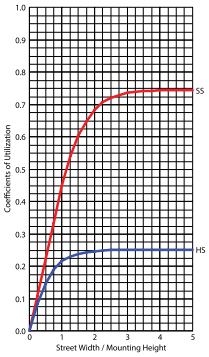
10,200 Lumens
5000K
EWAS01_D3AW750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade

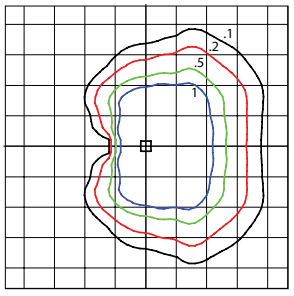


— Vertical plane through horizontal angle of Max. Cd at 45°
— Horizontal cone through vertical angle of Max. Cd at 59°

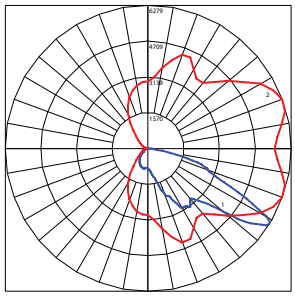


EWAS
ASYMMETRIC FORWARD
(D4AF750)

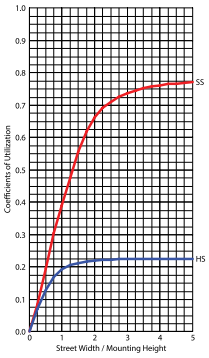
10,000 Lumens
5000K
EWAS01_D4AF750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade

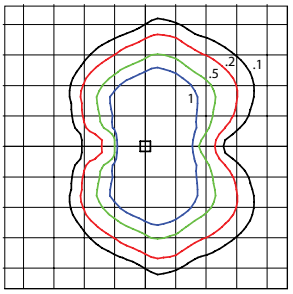


— Vertical plane through horizontal angle of Max. Cd at 20°
— Horizontal cone through vertical angle of Max. Cd at 58°

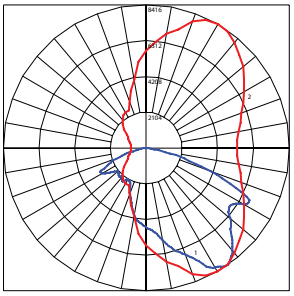


EWAS
ASYMMETRIC NARROW
(G2AN750)

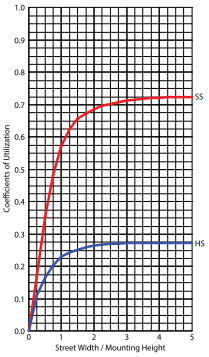
17,100 Lumens
5000K
EWAS01_G2AN750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade



— Vertical plane through horizontal angle of Max. Cd at 60°
— Horizontal cone through vertical angle of Max. Cd at 35°



GE current
a Daintree company

Evolve® LED Wall Pack

A Series (EWAS)

Photometric Plots

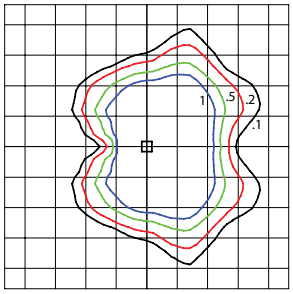
Project Name _____

Date _____ Type _____

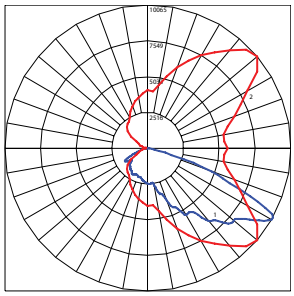
Notes _____

EWAS
ASYMMETRIC WIDE
(G3AW750)

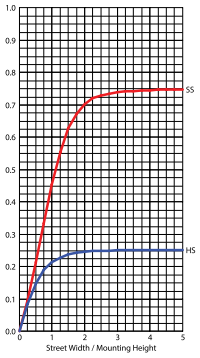
17,300 Lumens
5000K
EWAS01_G3AW750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade

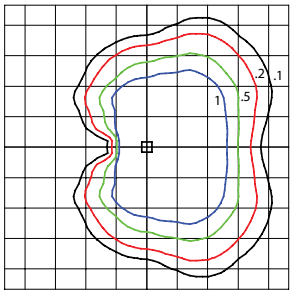


— Vertical plane through horizontal angle of Max. Cd at 40°
— Horizontal cone through vertical angle of Max. Cd at 61°

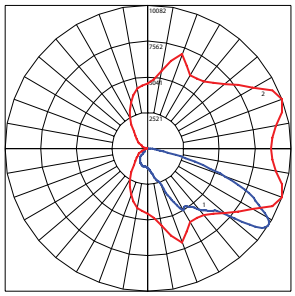


EWAS
ASYMMETRIC FORWARD
(G4AF750)

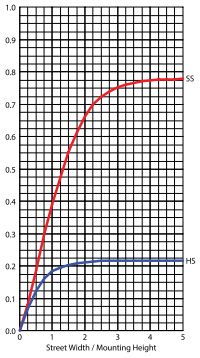
17,000 Lumens
5000K
EWAS01_G4AF750_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade

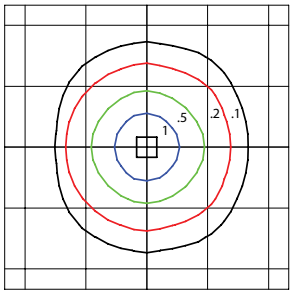


— Vertical plane through horizontal angle of Max. Cd at 20°
— Horizontal cone through vertical angle of Max. Cd at 57°

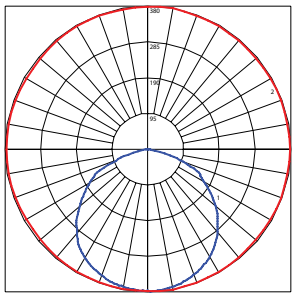


EWAS
(With Emergency Battery
Backup in Operation)

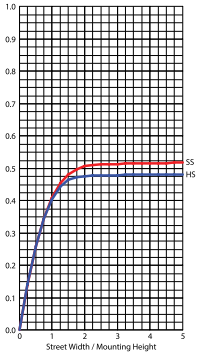
1,000 Lumens
3000K, 4000K, 5000K
EWAS01_With Emergency
Battery Backup On_.IES



- Mounting Height at 15'
- Initial Footcandle at Grade



— Vertical plane through horizontal angle of Max. Cd at 80°
— Horizontal cone through vertical angle of Max. Cd at 1°



GE current
a Daintree company

Evolve® LED Wall Pack

A Series (EWAS)

Motion Sensing

Project Name _____

Date _____ Type _____

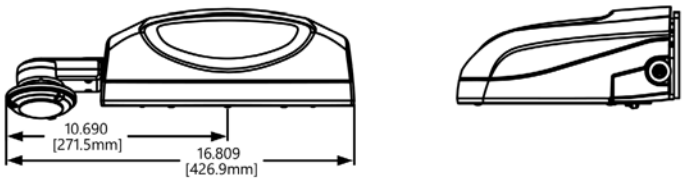
Notes _____

H MOTION SENSING OPTION

Recommended Mounting Height:	8-25ft
Coverage Radius:	25-30 ft
Lateral Coverage	Provides 180° coverage (180° blocked by wall)
Default Settings	
Output:	Occupied - 100% Unoccupied - 50%
PE Sensor:	Enabled
Ramp/Fade:	10% dimming after 5 minutes with no occupancy
	Adds < 1W to fixture power rating
	Field programmable using FSIR-100 hand held programmer SKU # 197634 (WS FSIR-100)

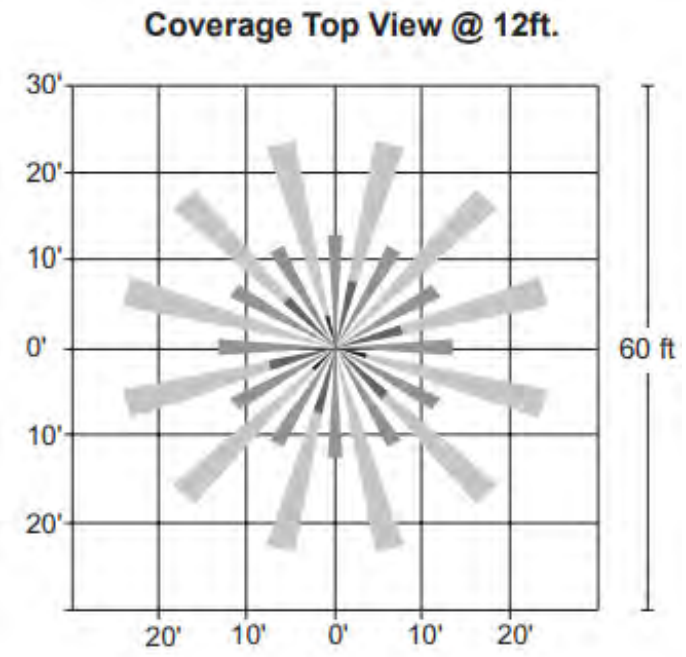


H Option - Wattstopper Motion Sensor
Bottom mount available with A, B, C, D, & E Optical Codes Only



H Option - Wattstopper® Motion Sensor
Side mount available with F & G Optical Codes Only

SENSOR PATTERN*



* Image used with permission from Catalog Number: FSP-L2/FSP-L3/FSP-L7

For additional information on Wattstopper® products please click the following link:

Wattstopper® Coverage Guide

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Evolve® LED Wall Pack

A Series (EWAS)

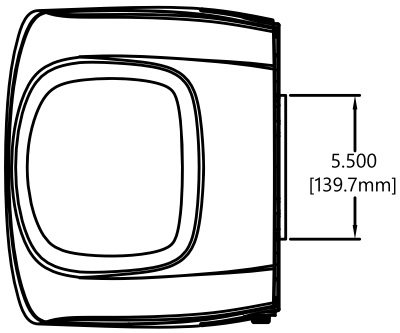
Mounting & Accessories

Project Name _____

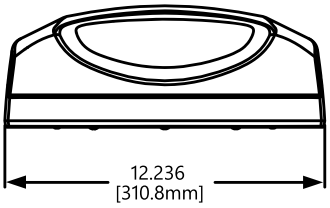
Date _____ Type _____

Notes _____

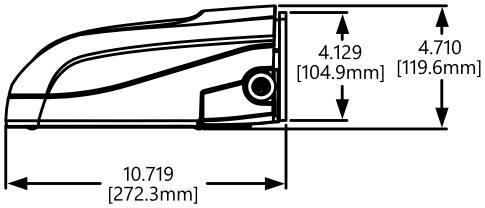
TOP VIEW

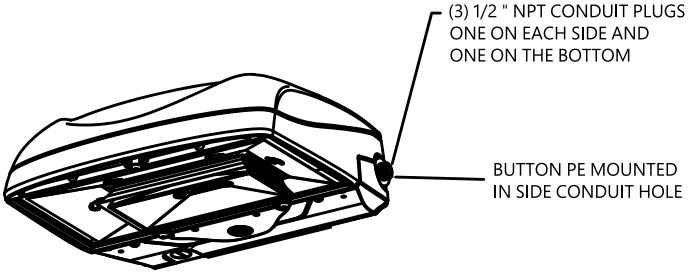


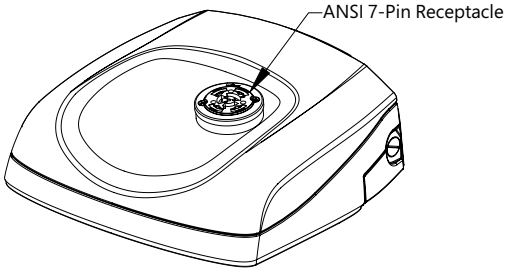
FRONT VIEW



SIDE VIEW







MOUNTING

- Flush Mount: Mounts directly to customer supplied junction box
- Surface Mount: Mounts to walls via separate mounting holes.

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Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
OLP3165 (Rev 11/24/21)

PLAN 7C

GLINT AND GLARE ANALYSIS

Brookside Solar Project

Brookside Solar, LLC

Franklin County, New York

Glint & Glare Analysis

November 19, 2021

Capitol Airspace Group

capitolairspace.com

(703) 256 - 2485

Capitol Airspace Group
5400 Shawnee Road, Suite 304
Alexandria, VA 22312
703-256-2485
capitolairspace.com

Summary

Brookside Solar, LLC is proposing to construct solar arrays near the town of Chateaugay in Franklin County, New York (***Figure 1***). On behalf of Brookside Solar, LLC, Capitol Airspace performed a glint and glare analysis utilizing the Solar Glare Hazard Analysis Tool (SGHAT) to identify the potential for glare impacts. Specifically, this analysis considered the potential for glare impacts on nearby residences at first and second story viewing heights, as well as roadways at car and truck viewing heights.

The results of the analysis indicate that there are no predicted glare occurrences for nearby residences or roadways as a result of the proposed single-axis tracking arrays. The results are based on the application of Federal Aviation Administration (FAA) glint and glare standards in the absence of non-aviation regulatory guidelines.

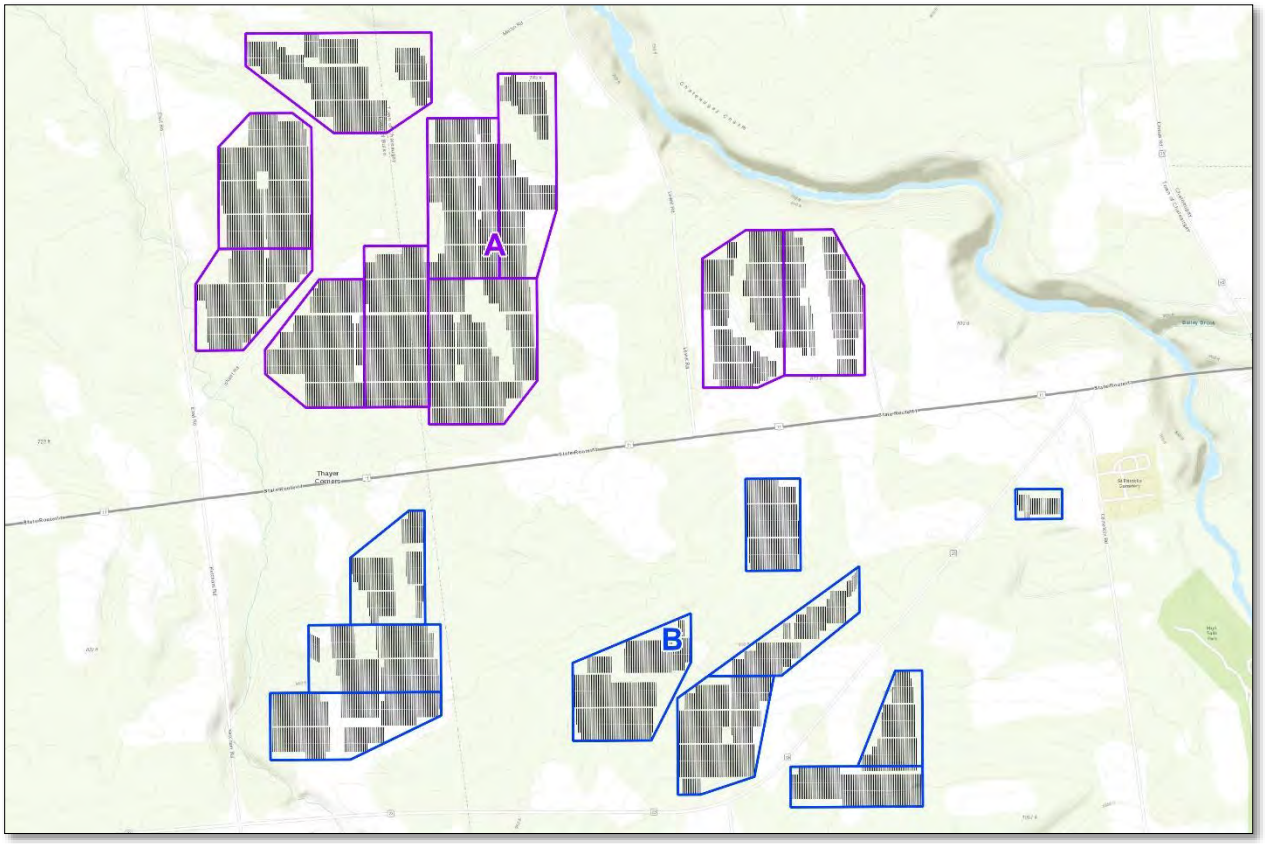

Figure 1: Location and identification of Brookside Solar project arrays

Methodology

In cooperation with the Department of Energy (DOE), the FAA developed and validated the Sandia National Laboratories SGHAT, now licensed through ForgeSolar. ForgeSolar has enhanced the SGHAT for glare hazard analysis beyond the aviation environment. These enhancements include a route module for analyzing roadways as well as an observation point module for analyzing residences. However, it should be noted that the SGHAT does not account for physical obstructions between reflectors and receptors.

The SGHAT analyzes the potential for glare over the entire calendar year in one-minute intervals from when the sun rises above the horizon until the sun sets below the horizon. The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. This analysis utilized the FAA approved default SGHAT setting which simulates the pilot's view from the cockpit. When the SGHAT identifies glare, the associated ocular impact is classified into three categories:

Green: Low potential for temporary after-image
Yellow: Potential for temporary after-image
Red: Potential for permanent eye damage

The FAA policy for *Review of Solar Energy System Projects on Federally-Obligated Airports* requires that proposed on-airport solar projects will not result in ocular impacts (no glare of any category) on the airport's ATCT cab. Although not required, the FAA encourages that off-airport solar energy systems in proximity to airports with ATCTs are assessed for potential ocular impact. Currently, there are no defined standards for acceptable ocular impact on residences or roadways.

Data

Solar array specifications (***Table 1***) as well as location and height information were provided by Brookside Solar, LLC.

Table 1: Brookside Solar project array specifications

Parameter	Value
Unit Height	9 feet
Axis Tracking	Single-axis rotation
Tracking Axis Orientation	180°
Tracking Axis Tilt	0°
Tracking Axis Panel Offset	0°
Max Tracking Angle	±52°
Resting Angle	+52°
Panel Material	Smooth glass with anti-reflection coating
Reflectivity	Varies with sun
Slope Error	Correlates with material

Results

Residences

The SGHAT assessed the potential for glare occurrences at 145 discrete observation point receptors (black points, ***Figure 2***). Each observation point was assessed at an eight-foot first story viewing height and a 16-foot second story viewing height. The SGHAT results do not predict glare occurrences for any of the 145 observation points at either viewing height as a result of single-axis tracking arrays.

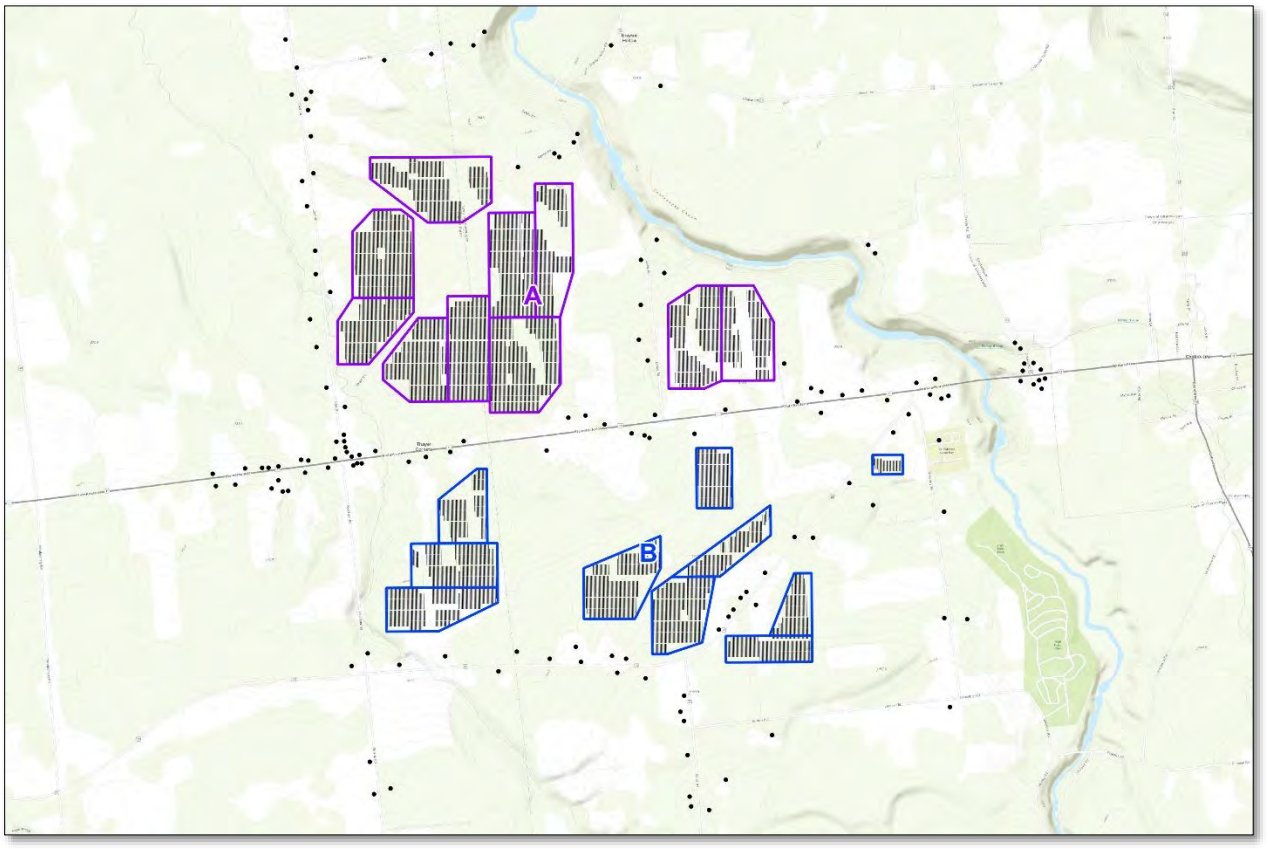

Figure 2: Discrete observation point receptors (black points) in proximity to Brookside Solar project

Routes

The SGHAT assessed the potential for glare occurrences along seven route receptors (dashed black lines, ***Figure 3***). Each roadway was assessed at a four-foot car viewing height and an eight-foot truck viewing height. The SGHAT results do not predict glare occurrences for any of the seven roadways at either viewing height as a result of single-axis tracking arrays.

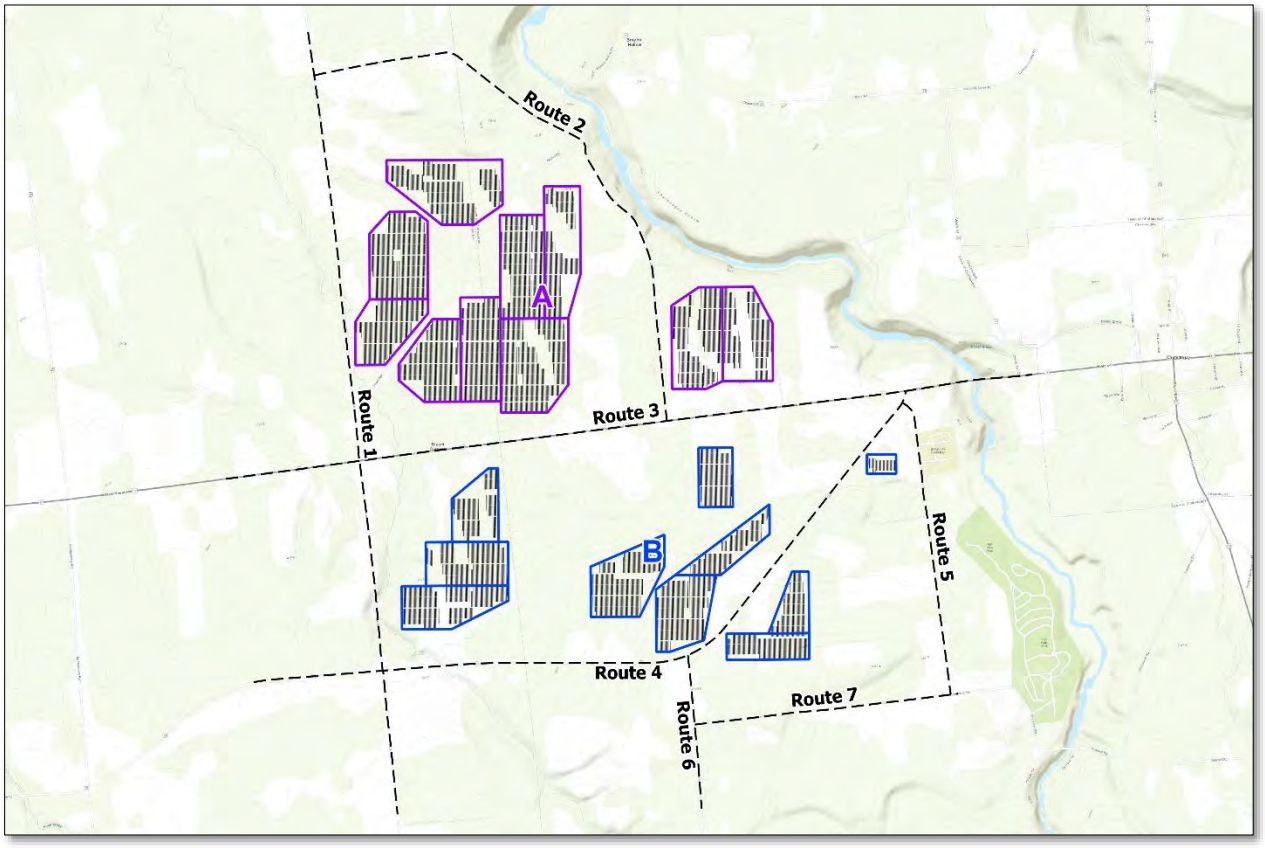

Figure 3: Roadway receptors (dashed black lines) in proximity to Brookside Solar project

Conclusion

The SGHAT does not predict any glare occurrences for nearby residences or roadways as a result of single-axis tracking arrays (***Table 2***). These results are based on the application of FAA glint and glare standards in the absence of non-aviation regulatory guidelines. As noted in the methodology, the glint and glare analysis does not consider vegetation, fencing, or other natural obstructions. This glint and glare analysis takes the most conservative approach in assessing the possibility of glare occurrences.

Table 2: Annual glare occurrence summary

Receptor	Green Glare (Hours:Minutes)	Yellow Glare (Hours:Minutes)	Red Glare (Hours:Minutes)
Residences (145)	0:00	0:00	0:00
Route 1	0:00	0:00	0:00
Route 2	0:00	0:00	0:00
Route 3	0:00	0:00	0:00
Route 4	0:00	0:00	0:00
Route 5	0:00	0:00	0:00
Route 6	0:00	0:00	0:00
Route 7	0:00	0:00	0:00

If you have any questions regarding the findings in this analysis, please contact ***Rick Coles*** or ***Jason Auger*** at (703) 256-2485.