



Richville Road Solar Project

Aesthetic Assessment

April 30, 2020

Project Location: Richville Road
Manchester, VT 05255

Project Size: 500 kW

Prepared For: MHG Solar, LLC

Prepared By: Lucy Thayer, PLA

TCE Project #: 19-297



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Introduction and Scope of Work

TCE was engaged by MHG Solar, LLC (the “Applicant”), to conduct a visual impact analysis to determine potential aesthetic impact of the proposed 500 kW Richville Road Solar Project located on Richville Road in Manchester, VT (the “Project”). This analysis is conducted in response to the requirements set forth for aesthetic review of energy transmission and generation projects under Title 30 Section 248 of the Vermont Statutes, governing the review of energy generation facilities and transmission projects. The Public Utility Commission adopted the Quechee Analysis, a two-step analysis as set forth originally for the review of aesthetics under Criterion 8 for Act 250 to determine that a proposed project will not have an undue adverse effect on a proposed project site’s aesthetics now set forth in Public Utility Commission Rule 5.112.

TCE is a multi-disciplinary consulting firm that specializes in landscape architecture, land surveying, engineering and environmental services with offices in Williston and St. Albans, Vermont. This visual impact analysis presents findings and conclusions of investigation as to whether alterations to the area’s visual character are adverse, and if so, whether the changes are unduly adverse as defined by the Quechee Analysis.

The methodologies for the aesthetic assessment of this Project include visual and spatial analyses of aerial photographs, satellite imagery and GIS data, field reconnaissance and site visits, and document research and review. Our primary analysis assesses the Project’s visibility and potential for visual and aesthetic impacts to public vantage points such as state or local roads. Locations that include neighboring properties and residential areas in close proximity to the proposed solar Project were also considered, although review of aesthetics under Section 248, using the Quechee Analysis, does not specifically guarantee that views from individual private homes and properties will never change. We have used multiple field studies to verify our analyses of the proposed conditions following completion of the proposed Project.

Report Organization and Contents

This report is organized around and relies on an extensive narrative of the Quechee Analysis as it applies to the proposed Project. This report is accompanied by a number of exhibits and plans as supporting documents which are referenced throughout the document or included as appendices.

Project Background

Project Description

The Project is located in the Town of Manchester, in Bennington County, Vermont, and will consist of the construction of a 500 kW (AC) ground-mounted photovoltaic generation facility in what is currently an undeveloped lot with a mown field and some woody vegetation, mostly along the western portion of the site. The proposed array will occupy approximately 3.2 acres of a 5 +/- acre leased area, on the eastern end of the overall subject parcel, which is approximately 8.2 acres in size. The ground mounted photovoltaic system will include approximately 15 rows of panels with a fixed tilt angle of 25 degrees. The Project array is proposed to be located approximately 100 feet northwest of Richville Road, a Class III Town Highway, at its closest point. The panels will be mounted on rack systems supported by pile-driven posts; the total height of the panels will not exceed 9.5 ft. in height above ground level, and they will be approximately 4 ft. off the ground to allow for flood conditions. The non-reflective photovoltaic modules will be oriented to the south. The inverter and MDP banks will be located on a rack system at the south end of the panels. The AC power production will tie into three pole mounted transformers. The power connection from the Project to the grid will be through underground 480v feeders at the southern end of the Project array connecting to overhead power through one new above ground utility pole that will be located on the Project parcel. The new utility pole is proposed at the southern end of the Project array and will connect to an existing Green Mountain Power 3-phase utility line that runs north-south along the west side of Richville Road. The connection will be to an existing pole that is located in close vicinity to the proposed utility pole. The Project may be surrounded by a 7-foot high, agricultural style perimeter fence. Additionally, a landscape mitigation plan is proposed along the eastern side of the Project array between the array and Richville Road. Site plans that show the detailed layout of the proposed Project and the landscape mitigation plan have been prepared and are included as part of **Exhibit MHG-TH-2** and **Exhibit MHG-LT-2**.



Image showing a solar array similar to the proposed Project array.

During construction, vehicles will access the site via Richville Road, and enter the site from the south end of the Project array. Some site clearing is proposed for the construction of the Project array and to limit shading of panels primarily along the western side of the Project. Tree and vegetation removal will be limited to what is required for site preparation and functional operation of the array.

A Class II wetland is present on the site parcel (but not within the Project footprint) along the west / northwest portion of the site. The Class II wetland is located near an existing railroad track and Bourn Brook. The Batten Kill River is located to the west of the railroad and the Project. The Project array, construction, or associated Project elements will not impact the Class II wetland, wetland buffer, or top of bank buffer area. The Project is located in a floodplain and has been designed so that it will not impede any floodwaters and can accommodate seasonal flooding. No site grading is proposed.



Site Plan Excerpt

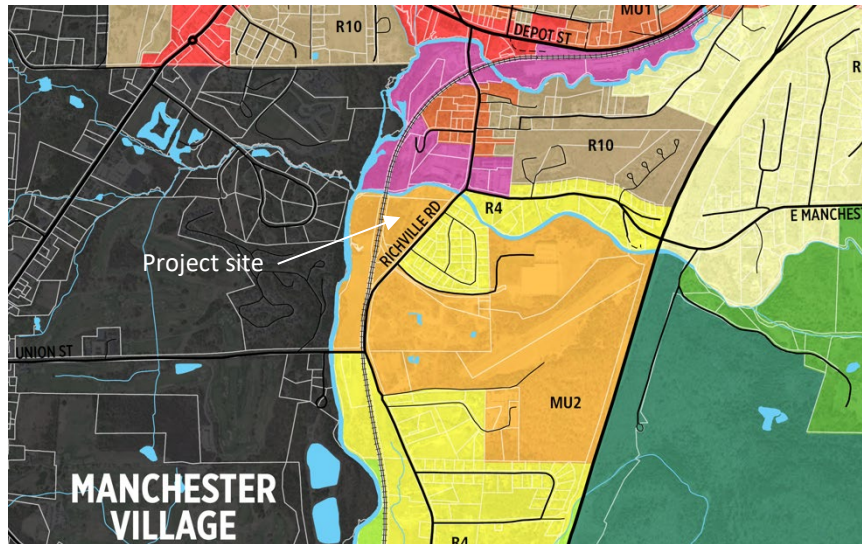
The Project will have varying amounts of visibility along nearby and adjacent public roads, with high visibility from Richville Road in the immediate Project area, and a landscape mitigation plan has been proposed to reduce visibility by buffering and filtering views to the Project. There is expected to be a range of high to partial to no visibility from Green Mountain Road, Valley Pass, and East Manchester Roads depending on the location, viewer orientation, and existing visual obstructions. The presence of

**Aesthetic Assessment of the Proposed 500 kW
Richville Road Solar, Manchester, VT**

intervening buildings, structures, vegetation and topography will help to screen the Project from nearby residences and viewpoints on Green Mountain Road, Valley Pass, and East Manchester Road. A landscape mitigation plan is proposed to help mitigate views to the Project from nearby neighbors, residences to the east on Richville Road, westbound traffic on Green Mountain Road, and north-south traffic on Richville Road, see **Exhibit MHG-LT-2**.

The Project is located in the Mixed Use 2 (MU2) zoning district as identified by Town zoning maps.

Additionally, the site has been designated as a “Preferred Site” as described in letters from the Town’s Selectboard and Planning Commission and the Bennington County Regional Planning Commission; see **Exhibit MHG-TH-4**.



Manchester Town Zoning Map Excerpt

Aesthetic Assessment

The Quechee Analysis is a two-step process that begins with assessing the nature of the project, its context, and whether or not it will lead to an adverse aesthetic impact. If found to have an adverse impact, the second step of the process determines if the impact is unduly adverse.

The first step asks questions of the project to test for adverse impacts. The five questions include the following themes:

1. The nature of the project's surroundings.
2. The project's design and compatibility with its surroundings.
3. The colors and materials selected for the project and suitability for the context.
4. The projects visibility.
5. The project's impact on open space in the area.

If the conclusion from the first step of the analysis is that the aesthetic impacts of the project are considered to be in harmony or compatible with its surroundings, then the aesthetic impacts of the project are considered not adverse. If this is not the case, then the project is considered to have an adverse impact and the second step of the Quechee Analysis is required to determine if the adverse impacts are undue.

An aesthetic impact is unduly adverse if any of the following is true:

1. The project violates a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area;
2. The project offends the sensibilities of the average person because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area; or
3. The applicant has failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings.

The Quechee Analysis

Step One of the Quechee Analysis

Project Surroundings

1. A. *What is the nature of the project's surroundings?*

The Project site is located in the Mixed Use 2 (MU2) district and the surrounding landscape is comprised of a variety of uses, including residences and a mix of businesses. The Project site is located approximately 0.5 miles south of Depot Street and the Town Center (TC) district. Across the road (east) from the Project site are several residences and a small business that are oriented towards the Project site. A residential subdivision community is located east of Richville Road, as well as a manufacturing / warehouse facility; and further east, approximately 0.56 miles, is US Route 7.

A residence is located directly north of the site, separated from the site by an existing hedgerow. A little farther north, north of Bourn Brook, there is business park; a bank, post office, and self-storage facility are present to the northeast of the site. Further to the north is a downtown and shopping area. To the south there is a satellite location for Burr and Burton Academy, and a private residence that appears to be operating a small massage and wellness business. To the west, there is an operational railroad track, and the Batten Kill River west of the railroad tracks. Several residential communities are west of the Batten Kill River. An active 4.6 kV GMP sub transmission line runs along the west side of the parcel, located west of the Project area and east of the railroad.

The Project is proposed to be approximately 100 feet from Richville Road (the nearest public road) and approximately 165 feet from the closest point of the nearest primary structure (a chiropractic care center) to the solar array.

Refer to **Figure 1** for a photographic inventory showing context of the site and surrounding areas.



Context Map showing a 0.5 mile radius

1. B. Is the project to be located in an urban, suburban, village, rural or recreational resort area?

Manchester is a lively Town that describes itself in the Town website as “the quintessential New England community” (www.manchester-vt.gov), attracting tourists and visitors for its shopping, dining, culture, and proximity to outdoor recreation. The Project site is approximately 0.56 miles from the more densely developed Manchester Town Center and the Manchester outlets, located to the north of the Project. There are a mix of residential and mixed-use development in the area around the Project; a business park is located on the northern side of Bourne Brook.

Development becomes less dense and more rural to the south and east of the Project site with a variety of uses including municipal and light industrial. The Town water and sewer facility is approximately 0.55 miles southwesterly, the Equinox Landing Field, is about 0.33 miles south, and a manufacturing / warehouse facility is 0.25 to the east.

1. C. What land uses presently exist?

The area is currently an undeveloped lot, maintained as an open field with some mixed evergreen and deciduous vegetation present, primarily along the western side of the property. Additionally, there is an

active GMP 46,000-volt line that spans the western portion of the property, located west of the Project area and east of the existing railroad tracks.

1 D. What is the topography like?

The topography on the subject parcel is flat, with little to no change in elevation across the Project site. Within the greater topographic context, Manchester, and the site, is located in a valley between two mountain ranges – the Taconic and Green Mountains. Topography to the west of the parcel and west of the Batten Kill River raises steeply, by approximately 100 ft in elevation within approximately 0.15 miles of the site. This change in elevation reflects the Taconic Mountain range to the west of the Project, and the peak of Mount Equinox (elevation 3850 ft) located about 7 miles to the west / southwest of the site. The raising slope to the west contains significant exiting mature trees and vegetative cover that prevent visibility from nearby / adjacent higher elevations to the site.

The topography directly to the south, east and north of the Project site, is generally flat with rolling hills. To the east of the subject parcel, the elevation begins to rise towards US Route 7 (approximately 0.56 miles east) and continues to raise in elevation toward the Green Mountains east of US Route 7.

1. E. What structures exist in the area?

The structures in the area are mixed and vary from residential homes to office buildings and light manufacturing / warehouse facilities. In the immediate vicinity of the Project area, there are single family residences and accessory structures, mixed-use developments and small businesses, a drive-thru bank, post office, a self-storage unit, municipal facilities as well as light manufacturing / warehouse facilities. A short distance (0.56 miles) north in Manchester Center, there are shopping centers that vary in building type from strip mall-type development to boutique retail buildings to municipal facilities to car dealerships.

Across the street from the Project, to the east, residential homes are present as part of a small residential community that extends onto Green Mountain Road and Valley Pass. On the abutting parcels north and south of the Project site, there is a residential home and home businesses that are separated by mature vegetation. To the west, up the hill and separated by swaths of mature vegetation is Manchester Village with the Equinox Resort located approximately 1.0 miles away, and Burr and Burton High School located about 1.25 miles away. In the area between Manchester Village and the site, there is a golf course, as well as several other residential subdivisions that are buffered from the Project by intervening topography, structures, and existing vegetation. The Equinox Village senior living community and Maple Street School are located approximately 0.33 miles northwesterly and separated from the site by topography and existing mature vegetation. The Orvis retail store and additional shopping and amenities are located approximately 0.63 miles westerly. An operational railroad track runs along the western side of the property. Utility structures on the site include a three-phase utility line that runs along the Richville Road side of the Project parcel, and a 4.6 kV GMP sub transmission line traverses the western side of the Project parcel. No other built structures are currently present on the site. Refer to Figure 1 for a photo inventory of the area.

1. F. What vegetation is prevalent?

On and adjacent to the Project site there is a mix of deciduous and evergreen trees and shrubs that include maple, ash, poplar, birch, cherry, pine, and sumac along with a mix of herbaceous plants, including forbs and grasses. The Batten Kill River supports riverine plants like dogwood, as well as invasive species like Japanese knotweed.

In the residential community across Richville Road, the vegetation consists of lawns and residential landscaping of ornamental plantings. Additionally, there are mature evergreens and hedgerows along the roadway and properties on Green Mountain Road and Valley Pass.

Beyond the site there are large patches of wooded areas and forest blocks that create natural visual buffers.

1. G. Does the area have particular scenic values?

The overall area can be considered to have scenic value. Mount Equinox, the highest point of the Taconic Mountains, is about 7 miles west of the site. There are views to Mount Equinox and the Taconic ridgeline from the site, however Mount Equinox and the Taconics are visible from many locations in the area, and there is no particularly significant view of the mountain ridge from the Project site.

Project Design

2. A. Is the project's design compatible with its surroundings?

The Project is compatible with its surroundings and the nearby land uses, in that, materials proposed as part of the Project that occur in commercial municipal and light industrial uses proximate to the Project. The relative low height (under 10 feet) of the Project's components and setback of the array from the road (100 feet) allows the vegetative and scenic backdrop to help to reduce the visual prominence of the Project from nearby lands. The landscape mitigation plan proposes to use densely branched plants that will be in the height range of 10-12 feet. The planting is anticipated to help mitigate views to the Project, while preserving views to Mount Equinox and the Taconics beyond.

Additionally, the Project has been designed to withstand flood events by setting panel elevation above flood levels (approximately 4' above ground level) and using flood compliant materials and practices.

2. B. Is the architectural style of the buildings compatible with other buildings in the area?

Although there are no buildings being proposed as part of the Project, the proposed solar structures (arrays, transformers, fencing, etc.) are not incompatible with materials of the buildings, utilities and structures associated with the surrounding uses.

2. C. Is the scale of the project appropriate to its surroundings?

The size of the Project is appropriate for the area and surroundings. There are light industrial type facilities and retail operations, like rk MILES sales and storage area on Depot Street, Langway automotive

dealership at the roundabout in the center of Town, and the warehouse building east of the site, that are of similar scales and material. The solar panels will be less than 10 feet in height and are setback from the road. Public views will be at ground level and primarily from the east, northeast, and southeast of the Project.

2. D. Is the mass of structures proposed for the site consistent with land use and density patterns in the vicinity?

The mass and size of development is consistent with land uses and density in surrounding areas and the MU2 district regulations. The area has a mix of commercial, retail, light industrial, and municipal facilities nearby. Manchester Center north of the Project site has a dense land use, and south of the site, the land use becomes more rural with pockets of residential sub developments interspersed in wooded areas. The Project site is located between the two land density patterns and is consistent with its surrounding land use and density.

Project Materials

3. Are the colors and materials selected for the project suitable for the context within which the project will be located?

The colors and materials of the photovoltaic arrays and perimeter agricultural style fence are suitable for the context of the area. The array materials are either dark or galvanized steel in color. The module panels containing glass will be treated with a low glare, anti-reflective coating. The supporting elements, will be sited together to limit any visual impact they may have. The proposed above ground utility pole will be similar in nature and size to the line of utility poles that already exist on the Project parcel along Richville Road. The fence, if utilized, will have wooden posts and an open wire mesh material. The Project has been sited so that it is set back from existing roadway by 100 ft and there will be landscaping between the Project and viewpoints along Richville Road.

Project Visibility

4. A. From where can the project be seen?

A site reconnaissance conducted by TCE on November 17, 2019 along public roads near the site yielded the conclusion that the eastern, northeastern, and southeastern side of the Project array will be visible from public viewpoints within a highly localized area – approximately 0.25 miles on Richville Road; at the intersections of Richville and Green Mountain Road; at the intersections of Richville and East Manchester Road; at the intersection of Natural Form Way and Richville Road; and along limited areas of Valley Pass. The Project is not expected to be visible from the residential subdivisions or properties at higher elevations to the west, the Town Center district, Manchester Village (including Burr and Burton High School or the Equinox Resort), US Route 7A, US Route 7, or the Lye Brook Falls Trailhead or Trail.

Data resulting from GIS analysis¹ (refer to Figure 1 in the appendix) provides information on potential visibility based on topography combined with tree cover. The initial result of the “tree cover” analysis was that the Project site had potential to be seen from limited portions of the surrounding areas due to the varied terrain of this region. In addition to GIS analysis, our examination of the visibility of the Project was complimented by conducting site visit and photo reconnaissance of the area to verify the initial GIS analysis.

Within the primary 0.25 mile viewshed area, views to the Project for southbound traffic on Richville Road will be from the north and east and viewers will see the back of the Project array. View for northbound traffic will be from the south and east. The proposed visual mitigation plan, see **Exhibit MHG-LT-2**, includes planting along the east (Richville Road) side of the Project site to help mitigate potential views from Richville, Green Mountain, and East Manchester Road and Natural Form Way, as well as parcels across the street from the Project site.

There are several residences near or adjacent to the Project site, some of which will have more direct views to the Project than others. It is anticipated that approximately ten residences or businesses will have visibility of the Project. Of these views, five residences are oriented toward the Project site and will have a westerly view; two will have south or southwesterly views; and three will have north or northwesterly views to the Project. These views will have varying degrees of visibility – some are expected to have partial, filtered, and limited visibility of the Project array because of existing intervening vegetation, structures, and buildings. The proposed mitigation plan is anticipated to further mitigate the views and reduce Project visibility from these residences and public roads. **Exhibit MHG-LT-2**. Most residences along Green Mountain Road and Valley Pass are not expected to have views of the Project due to their orientation, and the intervening structures and existing vegetation that serve to block potential views.

4. B. Will the project be in the viewer's foreground, middleground or background?

In the primary 0.25 mile viewshed area, views of the Project will generally be in the middleground to foreground. Mount Equinox and the wooded slopes west of the Project generally form the background of the Project. In areas where there are direct westerly, southwesterly, or northwesterly views, the Project is expected to be in the foreground, however these views are expected to be filtered by the proposed landscape mitigation plan. Views to the Project that are at the outside of the primary viewshed, like the intersection of Richville Road with East Manchester Road and Natural Form Way, the Project is expected to be in the middleground, with existing vegetation, buildings and structures in conjunction with the proposed landscape mitigation plan, obscuring views to the Project; the wooded backdrop will also help to absorb the visual impact of the Project.

4. C. Is the viewer likely to be stationary so that the view is of long duration, or will the viewer be moving quickly by the site so that the length of view is short?

¹ The viewshed analysis was conducted using ArcGIS 10.2 software and a LiDAR-derived 1.4 meter Digital Elevation Model. Using the Spatial Analysis Viewshed tool we were able to determine the maximum viewshed potential.

Travelers going north or south on Richville Road will be traveling parallel to the Project at a speed of approximately 35 miles an hour and will have a relatively short duration (approximately 26 seconds) of viewing time that is expected to be filtered by the proposed landscape mitigation plan. Travelers headed west on Green Mountain and East Manchester Road, and Natural Form Way will have short stationary views of the Project at the intersection of Richville Road while they are at the stop signs.

Pedestrians using the sidewalk on the east side of Richville Road and bicyclists will have longer duration of views of the Project given their speed of travel.

Residences that abut the property to the north and south, as well as the residences and business across the road from the Project on Richville Road will have stationary views from their western facing windows and front yards. The closest primary structure to the Project array is a chiropractor clinic approximately 165 feet to the east of the Project.

In conclusion, when considering public views from Richville Road, Green Mountain Road, Valley Pass, East Manchester Road, and Natural Form Way, with the addition of the proposed landscape mitigation plan in conjunction with existing mitigating factors like the relatively short duration of view and highly limited viewshed area, the Project visibility is considered **not adverse**. However, for the private residences and businesses that will have direct views to the Project as described above, the Project visibility could potentially be considered **adverse**.

Open Space

5. A. What is the project's impact on open space in the area?

The Project will not result in the permanent loss of any meaningful or identified open space. The Project parcel is not currently an open space or generally open to or used by the public. Additionally, no designated or official public use for or access to the Project site is anticipated. Finally, the Project elements, like panel height, proposed landscape plant selection, etc., are designed to preserve views to the Taconics to the west.

5. B. Will it maintain existing open areas, or will it contribute to a loss of open space?

The Town does not identify the Project site as a scenic resource, open space, or conserved land or resource. The Project is not expected to significantly alter any views from scenic resources or open space, and as mentioned above, has been designed to maintain views to the west. Thus, the Project is not considered to have an adverse impact on open space. Statewide prime agricultural soils and FEMA floodplain have been identified on the Project site; however, the transition of use from an unused vacant lot to renewable energy generation will not contribute to a loss of open space. These conclusions are supported by the Town's joint Selectboard and Planning Commission letter and the Bennington County Regional Planning Commission's letter of support, see **Exhibit MHG-TH-4**.

Conclusion of Step One of the Quechee Analysis

Given the above, we conclude that the Project is considered **not adverse** from publicly accessible roads and view locations in regard to the aesthetic impact on the visual resources of the area. However, there are several private residences and business that will have more direct and stationary views to the Project, and we conclude that the Project could be considered **adverse** from their view locations.

The second step of the Quechee Analysis is further explored below to ensure that Project is not unduly adverse for these view locations and does not violate any clear or written community standard.

Step Two of the Quechee Analysis

If it was determined that the impact is adverse by the first step of the Quechee Analysis, the next investigation is: will the adverse aesthetic impact be undue. An aesthetic impact is unduly adverse if any of the following is true:

1. The project violates a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area;
2. The project offends the sensibilities of the average person because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area; or
3. The applicant has failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings.

If the Project were found to create an adverse aesthetic impact on the visual resources of the area in the first part of the Quechee Analysis (which we have found that it does not), the Project **does not create an undue adverse** aesthetic impact under the second part of the Quechee Analysis. This is further explained below.

First, based on a review of the local and regional plans, the Project does not violate any clear, written community standard intended to preserve the aesthetics or scenic beauty of the area. There are no goals, policies or recommendations that the proposed Project would clearly violate. In fact, the Project has been designated as a "Preferred Site" by both the Manchester Selectboard and Planning Commission, and the Bennington Regional Planning Commission (BCRC) in letters to the Public Utility Commission, see **Exhibit MHG-TH-4**. The joint letter from the Town of Manchester Selectboard and Planning Commission stated that the Project should be required to "abide by Section 4.5 'Screening of Energy Generation Facilities' of the draft Manchester Energy Plan, dated February 18, 2020 (Proposed for March 24, 2020, public hearing before the Selectboard)." As described in this report, a landscape mitigation plan has been created that meets these criteria and is included in the Project proposal. In the letter from the BCRC, it is stated that the "BCRC had determined that this site has access to sufficient solar energy resources and does not contain any known critical environments, local, or regional constraints that would interfere with the development of the site."

Second, the Project does not offend the sensibilities of the average person because it is not out of character with its surroundings or otherwise significantly diminish the scenic qualities of the area. The mitigation plan proposes to use plants that will be in the 10-12 foot range, as requested by the Town of Manchester's Selectboard and Planning Commission (see **Hand PFT at 10-11**) in height and are densely branched to help buffer views to the Project throughout the year. This plant selection is intended to preserve scenic views to Mount Equinox and the Taconics, while filtering visibility to the Project. Given the viewshed area, there is a very small area of visibility that is generally limited to the immediate Project vicinity. As a result, the Project will not disrupt the rural character of its surroundings, nor will it significantly diminish any scenic qualities of the area.

Third, the applicant has taken generally available mitigating steps that a reasonable person would take to improve the harmony of the Project with its surroundings. The array has been sited as far to the west as site and environmental constraints allow to create distance from public while avoiding natural resources on the site. Furthermore, the applicant has worked with the Town to create a landscape plan that meets the municipal Screening of Energy Generation Facilities per the draft Manchester Energy Plan that will help to filter views to the Project. As a result, the applicant has taken reasonable mitigating steps in citing the Project appropriately to improve the harmony of the Project with its surroundings.

Final Conclusion

As previously presented, we conclude that the Project **does not create an undue adverse aesthetic impact** on the visual resources of the area.

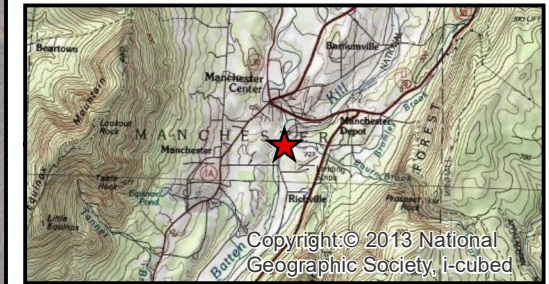
Appendices

Figure 1. Visibility Analysis Map

Figure 2. Context Map & Photo Inventory

Figure 3. Manchester Town Zoning Map (2018)

Location



Legend

- Project Parcel
- Project Radius (2 Mi)
- Viewpoint Location
- Mapped Tree Cover (65')
- Visibility Analysis (Tree Cover)**
 - Not Visible
 - Visible
 - Roads

Visibility analysis performed using an edited DEM by TCE (2020). Bare earth ground elevations from 0.7M hydro-flattened DEM by VCGI (2017) altered by TCE to add 65' of elevation to areas mapped as tree cover by UVM (2016). Visibility analysis based on sixteen (maximum allowed) observer points throughout the proposed array with 10' offset height.

Sources: Project Area by TCE (2019); VT E911 Roads (2019); All other layers by TCE (2019).

Disclaimer: The accuracy of information presented is determined by its sources. TCE is not responsible for any errors or omissions that may exist. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not a replacement for surveyed information or engineering studies.

MHG Solar
Richville Road
Manchester Center, VT

Visibility Analysis Map
with Tree Cover

Project: 19-297
Prepared By: BJL
05/02/2020
1 inch = 2,400 feet

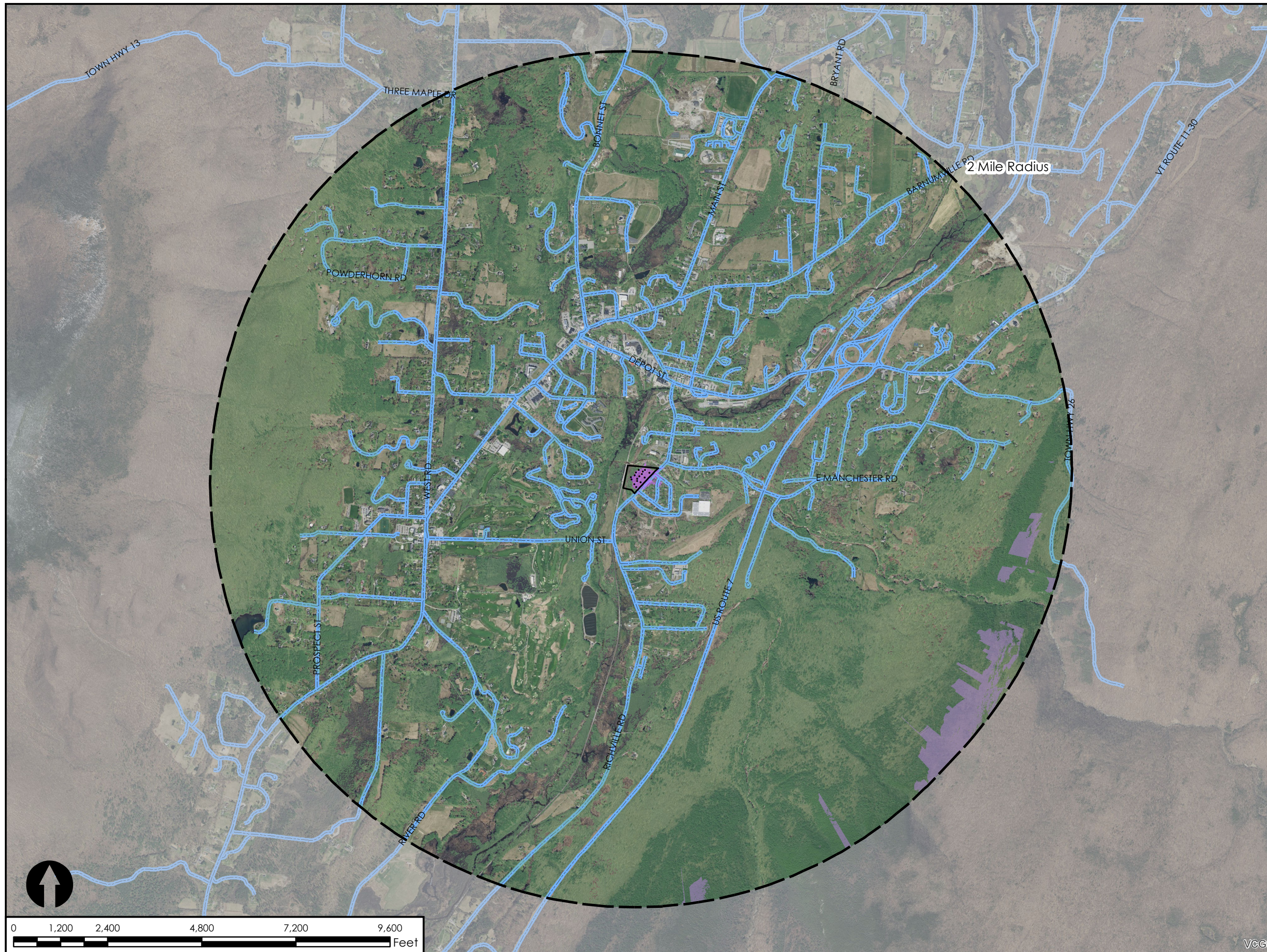
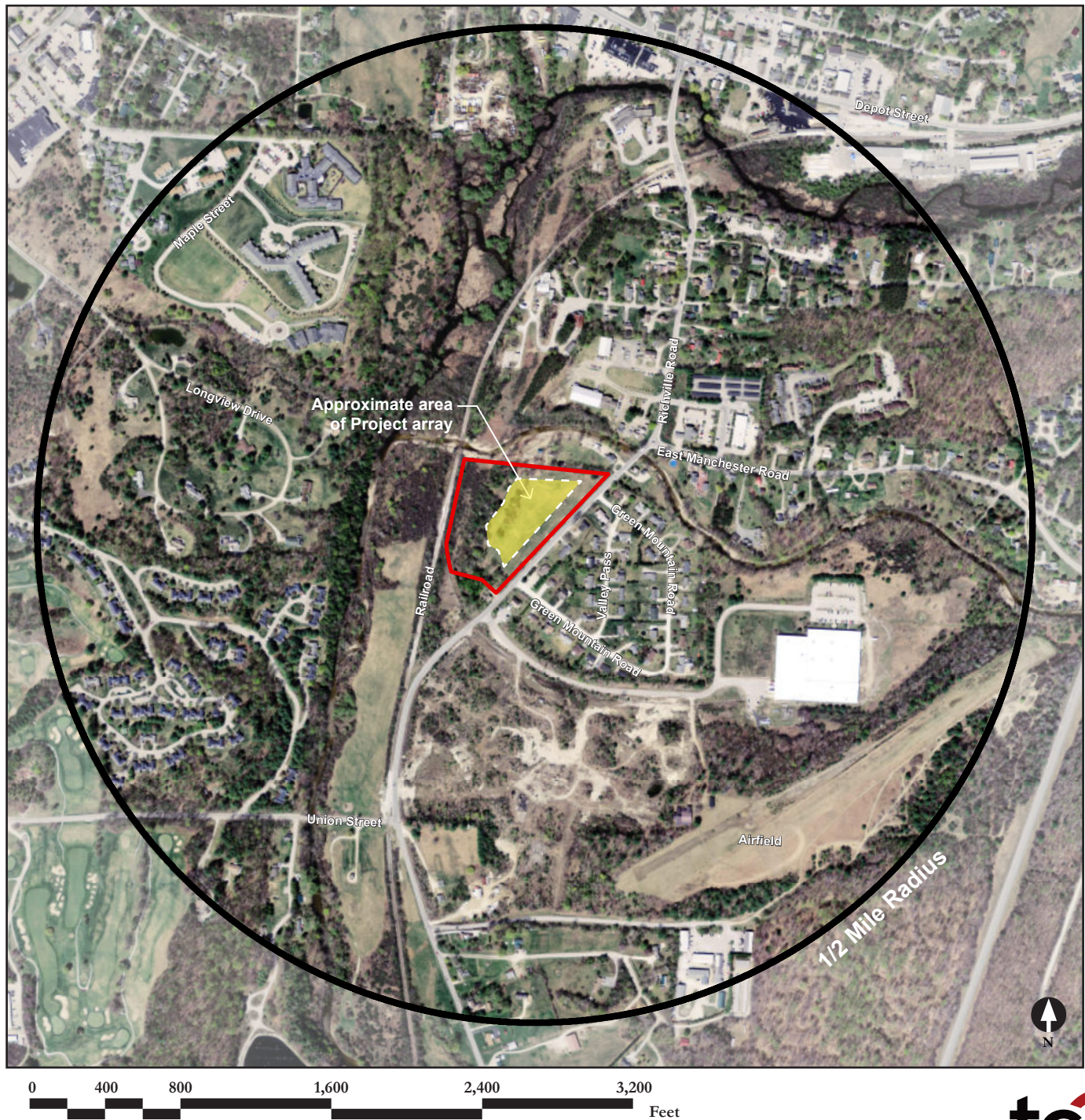


Figure 2a

Context Map



Civil Engineering

Environmental Services

Land Surveying

Landscape Architecture

478 Blair Park Road Williston, VT 05495 802 879 6331

42 Mapleville Depot Road St. Albans, VT 05478 802 528 5116

Figure 2b

Photo Location Map



Note: Photos contained in this inventory have a 50-55 mm focal length unless they are labeled with a white asterisk * in the bottom right corner; these photos were taken with an iPhone 7.

Civil Engineering

Environmental Services

Land Surveying

Landscape Architecture

478 Blair Park Road Williston, VT 05495 802 879 6331

42 Mapleville Depot Road St. Albans, VT 05478 802 528 5116



Photo 1: View from north of the intersection of Richville Road and East Manchester Road looking south. The Project is not expected to be visible from this location.



Photo 2: View from intersection of Richville Road and East Manchester Road looking southwest toward the Project. The Project will be visible from this location, however the landscape mitigation plan will help to buffer and filter views to the Project.



Photo 3: Panoramic view from Richville Road looking southwest toward the Project site. This is an area where the Project will have the greatest visual impact, however views to the Project will be filtered by the proposed landscape mitigation plan.



Photo 4: View from Green Mountain Road (private road), looking easterly toward the residential neighborhood across from the Project site. The subdivision and road layout, buildings, structures, and mature vegetation will block the Project from most residences.



Photo 5: View from Green Mountain Road (private road), looking westerly toward the Project site. The subdivision and road layout, building orientation, intervening structures, and mature vegetation will block the Project from most residences.



Photo 6: View from Valley Pass looking west toward the Project in one of the locations the Project will be visible from this private road. Most views from Valley Pass (private road) will be blocked by intervening structures, building orientation, and mature vegetation will block the Project from most residences.



Photo 7: View from Valley Pass (private road) looking west toward the Project. Most views from Valley Pass will be blocked by intervening buildings, structures and mature vegetation.



Photo 8: View from Green Mountain Drive looking west toward Richville Road the southern boundary of the Project site. Most views from Green Mountain Road (private road) will be blocked by intervening buildings, structures and mature vegetation.



Photo 9: View from just north of the intersection of Richville Road and Green Mountain Road (private road) / the southern extent of the Project area looking southwesterly. Notice the road bends to the west which will limit and block views to the Project outside of the more immediate Project and primary viewshed area for northbound travelers.



Photo 10: View from intersection of Richville Road and Natural Form Way (private road) looking northwest toward the Project. There will be partial and filtered visibility to the Project from this location, and the proposed landscape mitigation plan will help to buffer views from the south.

TOWN OF MANCHESTER

OFFICIAL ZONING DISTRICT MAP

Adopted and Effective: 18 JUN 2018

Proposed Zoning Districts

- Downtown (DN)
- Town Center (TC)
- Residential 1 (R1)
- Mixed Use 1 (MU1)
- Office Industrial (OI)
- Rural Residential (RR)
- Mixed Use 2 (MU2)
- Residential 10 (R10)
- Rural Agricultural (RA)
- Mixed Use 3 (MU3)
- Residential 4 (R4)
- Forest Conservation (FC)

