SS-MW-2

Aesthetic and Orderly Development Analysis Report

Shaftsbury Solar Project

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Introduction

At the request of Petitioner VT Real Estate Holdings 1 LLC (to be referred to as "Shaftsbury Solar"), VHB has prepared this technical memorandum concerning the Shaftsbury Solar Project ("Project"), a proposed solar electric generation facility that will occupy approximately 83(+/-) acres, within a perimeter fence, located on four parcels of land that total approximately 182 (+/-) acres. The Project site is located off Holy Smoke Road in Shaftsbury, Vermont. The content of this technical memorandum presents the results of an assessment of the Project as it relates to the following criteria under 30 V.S.A. § 248(b)(5) and the Act 250 criteria referenced therein:

- Orderly Development of the Region (30 V.S.A. § 248(b)(1))
- Aesthetics (10 V.S.A. § 6086(a)(8))

The Vermont Public Utility Commission ("PUC" or the "Commission") will apply these criteria in its review of Shaftsbury Solar's request for a Certificate of Public Good ("CPG").

1.1 Project Description

The proposed Shaftsbury Solar Project is further described in the pre-filed testimony of Mr. Reed Wills. In general summary, it is a proposed 20 MW solar electric generation facility to be located within an approximately 83 acre fenced footprint within the Project parcels. The parcels are located off Holy Smoke Road and U.S. Route 7 ("U.S.-7") in Shaftsbury, Vermont (Refer to Exhibit SS-RW-2).

The Project consists of ground-mounted, fixed-tilt solar modules mounted on metal racks arranged in rows running east to west in three distinct areas, or "sub-arrays." The entire Project will be enclosed by perimeter fencing.

In addition to the solar arrays, the Project will install electrical facilities, including a Project substation that will step up power to 46 kV, and then deliver to an adjacent Green Mountain Power ("GMP") substation, to be constructed by Shaftsbury Solar, to interconnect with the existing 46 kV transmission line that is located on the Project property.

A segment of a public waterline owned and operated by the North Bennington Water Department runs through the Project parcels. Shaftsbury Solar, as the owner of the land, has proposed to relocate and upgrade this segment of line. In addition, the Project will involve construction of new onsite graveled access roads, temporary laydown yards, operational stormwater treatment systems, and landscape berms and plantings.

While the Project was sited to make the most use of existing cleared areas, tree clearing of field hedgerows and along some forest margins will be necessary to facilitate construction, provide sufficient areas for the solar arrays, reduce impacts from shading, and provide areas

for stormwater treatment. The Project will involve earth disturbance from tree stump grubbing, as well as limited grading for construction of certain Project elements.

Methodology

1.2 Criterion 8 Requirements

Under Section 248(b)(5), the PUC must find that the Project will not have an undue adverse effect on aesthetics, giving due consideration to Criterion 8 of Act 250. Act 250's Criterion 8 addresses aesthetic impacts within the parameters of the "Quechee Analysis," which was established to provide a consistent and defensible method for evaluating the aesthetic impacts of commercial projects undergoing Act 250 review. The Quechee Analysis is a two-step process, which begins with assessing the nature of the project, its context, and whether it will lead to adverse aesthetic impacts. This first step asks whether the project is in harmony with its surroundings, which is determined based upon:

1. The nature of the project's surroundings;
2. The compatibility of the project's design with those surroundings;
3. The suitability for the project's context of the colors and materials selected for the project;
4. The locations from which the project can be viewed; and
5. The potential impact of the project on open space.

If it is determined that the project "fits" its context, it will not have an adverse effect. If it is concluded that the project has an adverse effect under Criterion 8, the second step of the Quechee Analysis is triggered which requires determining whether the adverse effect is "undue." The second step asks three questions to determine if an adverse effect is undue:

1. Does the project violate any clear, written community standards intended to protect the scenic beauty of the area?
2. Does the project appear shocking or offensive to the average person?
3. Has the applicant failed to take all generally available steps which a reasonable person would take to harmonize the project with its surroundings?

The Commission will conclude that an adverse effect is undue if it reaches a positive finding with respect to any one of the preceding factors. The Commission has clarified that a clear, written community standard must be "*…intended to preserve the aesthetics or scenic beauty of the area where the proposed project is located and must apply to specific resources in the proposed project area*".[1]

This analysis also recognizes that the Commission weighs societal benefits when considering the aesthetic impacts of projects within its purview[2], and has established that the focus of an aesthetics analysis is not "*in contemplation of protecting private property, but rather a*

[1] Petition of Georgia Mountain Community Wind, LLC for a Certificate of Public Good, Docket No. 7508, PUC Order of June 11, 2010, at p. 52.

[2] In Re: Vermont Elec. Power Co., Docket No. 6792, PUC Order of July 17, 2003.

mechanism for protecting members of the public from exposure to aesthetic degradation."[3] In order to more accurately describe visibility of the Project's components, the analyses have been divided into areas in which project components will be visible on a segment-by-segment basis. The discussion of the visual impact of these components, in accordance with the Quechee Analysis process described above, are included within the Visual Impact section.

1.3 Aesthetic Assessment

The methodology for the aesthetic assessment of this Project includes visibility analysis, field study, and document research and review. Our analysis focuses on the potential for visual and aesthetic impacts from publicly accessible vantage points from major federal, state or local roads; nearby public lands and areas of public interest; and areas with high scenic value or official designation as a cultural, open space, or scenic resource. Residences in close proximity to the proposed Project are 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.

1.3.1 Visibility Analysis

The visibility analysis calculates the potential for a clear, unobstructed line of sight between an observer and a target. The area from which the Project will be visible is referred to as the "viewshed."

The visibility analysis was performed using the GlobalMapper software viewshed tool in conjunction with ESRI ArcGIS software for pre- and post-processing of data and map preparation. The viewshed tool utilizes Digital Elevation Models ("DEMs") of the terrain and surface and a point shapefile with structure height information to determine where visibility of the structure will occur from a specified search radius. The algorithm incorporates two DEMs, a Digital Terrain Model ("DTM"), the bare terrain, and a Digital Surface Model ("DSM"), which includes terrain and obstructions such as vegetation and buildings to incorporate the screening effects of land cover and other large objects into the terrain-based results. The DSM and DTM are derived from publicly available lidar data. The obstructed viewshed is a more realistic representation of visibility compared to a terrain-based viewshed. An observer height of 1.676 meters (~5.50 feet) is assigned to the terrain layer to assess where visibility would occur for an average person. For this specific study, a three-mile radius was used for the study area because at three miles views from this distance would be considered "middle ground" where a viewer can perceive individual structures and trees but not in great detail. At this distance, individual landscape components begin to join together (hillsides become a range, trees become a forest).

The visibility analysis is primarily used to inform field investigation and often over-estimates Project visibility due to the resolution of the terrain and obstruction data. Additionally, the

[3] Petition of Rutland Renewable Energy, LLC for a Certificate of Public Good, Docket No. 8188, Final Order of March 11, 2015 at pp. 54-55.

visual impact at a given vantage point depends upon not only visibility, but also factors including landscape context, distance from the Project, and viewing angle, which need to be assessed and documented through field work.

1.3.2 Document Review & Resource Identification

In order to understand the local perceptions of landscape character, designated scenic, open space, or aesthetically significant resources, and goals and objectives regarding aesthetics and visual character, the following local and regional planning documents were reviewed:

- The *Shaftsbury Town Plan,* dated December 2, 2019
- The *Bennington County Regional Plan*, amended March 23, 2017

1.3.3 Field Investigation

VHB staff conducted field investigations on January 16, 2023. Weather conditions during the field visit were generally overcast and clear and approximate the "worst case" in terms of potential visibility to the greatest extent possible during leaf-off conditions. During these site investigations, VHB staff members drove public roads and visited public vantage points within the study area to observe the locations from which the proposed Project would be visible, partially screened, or fully screened. Viewpoint locations were captured using hand-held GPS units, and photographs were taken using a digital SLR camera utilizing a fixed focal length equal to 50mm on a 35mm camera in order to reproduce a field of view that appears natural to a human observer. Documentation of the field investigation is included within a photographic inventory of existing conditions, which includes representative photographs and panoramic views, and the viewshed map, which each viewpoint location.

Appendix A includes Visibility Maps with references to the viewpoint locations depicted in Appendix B.

Appendix B includes representative photographs and panoramic views of existing conditions of the surrounding area.

1.4 Impact Analysis

To evaluate visual changes associated with the Project, the following well-established factors in describing visual characteristics were considered[4]:

Landscape Composition: is the arrangement of objects and voids in the landscape categorized based upon spatial arrangement. Major compositional elements that define visual character include:

[4] Methodology based in part upon Chapter 2 of Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands, U.S. Department of Interior, March 2013.

- ***Form**:* the mass or shape of an object or of objects that appear to be unified (e.g., mountains, large masses of vegetation, lakes, buildings, etc.)
- ***Line:*** the path, real or imagined, that the eye follows when perceiving abrupt differences in form, color, or texture (e.g., edge of shapes or masses in the landscape, silhouette of a mountain against the sky)
- ***Color*:** the property of reflecting light of a particular intensity, which can vary in hue, value, and chroma.
- ***Texture*:** the aggregation of small forms or color mixtures into a surface pattern. The perception of texture is highly dependent on distance.

Visibility Factors: are factors that impact the apparent visual characteristics from a view based upon the observer, the observed object, and various factors that affect perception.

- ***Viewer Characteristics*:** characteristics of the viewer that affect perception of contrast and ability to discern objects in the landscape, such as whether the viewer will typically be in motion when observing the landscape.
- ***Duration of View*:** longer duration views of a project will have a greater potential for visual impact than quick glimpses.
- ***Distance*:** the distance of the viewer will affect both the apparent size of an object and the perceived degree of contrast. When other visibility factors are held constant, the greater the distance, the less detail is observable and the more difficult it will be for an observer to distinguish individual features. The distance zones referenced in this report are:
    - *Foreground*: 0 to approximately 0.5 miles. The viewer is able to perceive details of an object with clarity.
    - *Middle ground*: approximately 0.5 to 4.0 miles. The viewer can perceive individual structures and trees but not in great detail. In this zone, the individual landscape components begin to join together (hillsides become a range, trees become a forest).
    - *Background*: over 4.0 miles: The viewer is only able to discern broad landforms and patterns. The background contributes to scenic quality by providing a softened backdrop for foreground and middle ground features.

- ***Viewing Geometry*:** the spatial relationship of the viewer to the viewed object, including the observer position and the bearing of the view.
- ***Background/Backdrop*:** Objects that stand out against the visual backdrop typically draw more attention. "*As contrast between an object and its background is reduced, the ability to distinguish the object from the background diminishes. When the contrast becomes too small, the object will no longer be visible as separate from its background.*"[5] For example, when transmission structures are located on a ridgeline and are silhouetted against a bright sky (skylining), the structures are more visible than they would be against a darker and more varied backdrop such as a forest.

[5] Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands, U.S. Department of Interior, March 2013.

2

First Step of the Quechee Analysis

2.1 Project surroundings

The proposed Project is located on the east side of the Town of Shaftsbury in the "Rural 40" land use district,[6] approximately 2.13-miles northeast of Shaftsbury's Village Center, located west of U.S.-7, south of Holy Smoke Road, and east of Rod and Gun Club Road. There is one portion of the site identified in the Shaftsbury zoning map as "Forest Recreational." [7] This isolated area on the Project parcel is located along the eastern parcel boundary and spans into the adjoining U.S.-7 right-of-way.

The Project surroundings are rural and largely characterized by rolling hills and dense forested areas. The Project is located within a valley with flat or gently rolling terrain. There is steep terrain immediately east of the Project associated with the Glastenbury Wilderness Area, on the east side of U.S.-7 approximately 0.50 miles east from the Project site. The U.S.-7 corridor generally runs in a north-south direction and is located approximately 0.07 miles east of the Project site at its nearest point. The surrounding landscape has a pattern of rural residential development, agricultural fields, open meadows, hedgerows, rolling hills, and heavily forested lands.

There are private residences north of the Project site off Holy Smoke Road, with the closest being approximately 360 feet from the northern side of the solar array. The private residences east of the Project site are located off East Road (east of U.S.-7), with the closest being approximately 640 feet from the Project site. The private residences west of the Project site are located off Rod and Gun Club Road, with the closest being approximately 0.50 miles from the Project site. The private residences south of the Project site are located off East Road (east of U.S.-7), with the closest being approximately 850 feet from the Project site.

2.2 Project Visibility

2.2.1 Trumbull Hill Road

Trumbull Hill Road is a two-lane local gravel road that generally runs in a northeast-southwest direction, varying from approximately 0.60 to 1.60 miles north of the Project site. There are several privately owned open fields, lawns, or other cleared areas which may have some visibility of Project components as indicated in the visibility map. Field investigation of publicly accessible locations in these areas confirmed that the likelihood of visibility is limited due to a

[6] Shaftsbury Zoning Map, February 10, 2017.

[7] Shaftsbury Zoning Map, February 10, 2017.

combination of factors which include intervening topography and existing vegetation, and distance, with the exception of potential glimpses of portions of the Project's most westerly array. Areas identified along Trumbull Hill Road as having potential visibility on the Visibility Maps are noted in detail below.

Potential visibility of the Project along Trumbull Hill Road was identified along an approximate continuous 640-foot stretch, approximately 1.68 miles northeast of the Project site; however, field investigation revealed potential visibility of the Project is limited due to intervening topography and existing vegetation, and the significant distance away. Refer to Photographic Inventory, Viewpoint 1.

Potential visibility of the Project along a second segment of Trumbull Hill Road was identified along an approximate continuous 200-foot stretch, approximately 1.31 miles north of the Project site. Intermittent glimpses of the Project may be possible during leaf-off conditions, with the greatest potential for visibility of the western portion of the Project array as seen in Viewpoint 2; however, the Project is partially screened by intervening residential structures, topography, existing vegetation, and the significant distance away. From this vantage point the Project is not skylined, as it is backgrounded by existing landforms and/or vegetation. Additionally, the introduction of the proposed landscape mitigation (landscape berm and plantings), will further reduce potential views of the Project from this portion of Trumbull Hill Road. Refer to Photographic Inventory, Viewpoint 2. A photo simulation of the Project was developed from Viewpoint 2 looking south towards the Project site. Refer to Appendix E, Visual Simulations. Views depicted in the simulations depict the Existing Conditions, Landscape Mitigation installed the first year, and Landscape Mitigation within approximately 5 years of growth.

Potential visibility of the Project along a third segment of Trumbull Hill Road was identified along an approximate continuous 0.33-mile stretch, approximately 1.10-miles north of the Project site. Intermittent glimpses of the Project may be possible during leaf-off conditions, with the greatest potential for visibility of the western portion of the Project array as seen in Viewpoint 5; however, the Project is partially screened by intervening residential structures, topography, existing vegetation, and the significant distance away. From this vantage point the Project is not skylined, as it is backgrounded by existing landforms and/or vegetation. Additionally, the introduction of the proposed landscape mitigation (landscape berm and plantings), will further reduce potential views of the Project. Refer to Appendix B, Photographic Inventory, Viewpoints 3, 4 and 5; Appendix D.

Potential visibility of the Project along a fourth segment of Trumbull Hill Road was identified near the intersection of Trumbull Hill Road and Holy Smoke Road, approximately 0.61-miles northwest of the Project site; however, field investigation revealed potential views of the Project from public vantage points are limited due to intervening topography, existing vegetation, and the significant distance away. Refer to Photographic Inventory, Viewpoint 6.

2.2.2 Holy Smoke Road

Holy Smoke Road is a two-lane local gravel road that runs close to the northern border of the Project site. Holy Smoke Road parallels the Project site on the northern edge of the Project for approximately 0.19 miles before the road turns 90 degrees and then runs in a north-south

direction towards Roys Road and Trumbull Hill Road. The Project parallels Holy Smoke Road on the west side of the north-south orientation for approximately 480 feet. There are a few private residences and privately-owned open fields, lawns, or other cleared areas which may have visibility of Project components as indicated on the visibility map. Field investigation of publicly accessible locations in these areas generally confirmed that the likelihood of visibility is limited due to a combination of factors which include intervening residential structures, topography, and existing vegetation. See Appendix B, Photographic Inventory, Viewpoints 7-17. Select locations along Holy Smoke Road may have the potential for higher visibility of Project components than other locations due to natural breaks in existing vegetation and understory plant material, or where natural topography may display Project components more prominently. Areas identified along Holy Smoke Road as having potential visibility on the visibility map are noted in detail below.

Potential visibility of the Project along a segment of Holy Smoke Road was identified near a private residence located at 54 Holy Smoke Road approximately 0.60-miles northwest of the Project; however, field investigation revealed potential visibility of the Project is limited due to intervening topography and existing vegetation. Refer to Photographic Inventory, Viewpoint 7.

Potential visibility of the Project along a second segment of Holy Smoke Road was identified near a private residence located at 632 Holy Smoke Road approximately 0.16-miles north of the Project; however, field investigation revealed potential visibility of the Project is limited due to intervening topography and existing vegetation. Additionally, the introduction of the proposed landscape mitigation (landscape berm and plantings), will further reduce potential views of Project components. Refer to Photographic Inventory, Viewpoint 8.

Potential visibility of the Project along a third segment of Holy Smoke Road was identified near a private residence located at 708 Holy Smoke Road approximately 375 feet north of the Project, with the greatest potential for visibility of the western portion of the Project array; however, the Project is partially screened by existing vegetation. Additionally, the introduction of the proposed landscape mitigation (landscape berm and plantings), will further reduce potential views of Project components. Refer to Photographic Inventory, Viewpoint 9. To illustrate the effect of the mitigation, a line-of-sight cross-section was prepared which depicts the relationship of the Project with the private residence. As shown, the proposed six-foot-tall (+/-) landscape berm and proposed plant material creates a layered effect of deciduous and evergreen trees with an understory of shrubs, which will reduce potential views of Project components from the backyard of the private residence. Refer to Appendix C, Sheet, S1.00, Section A.

Field investigation identified visibility of the Project along a fourth segment Holy Smoke Road at the existing driveway to be used by the Project, through natural breaks in the existing vegetation and through existing understory plant material during leaf-off conditions, as seen in Viewpoints 10-17. The two closest private residences along Holy Smoke Road are located north of the Project site where Holy Smoke Road runs in an east-west direction, approximately 360 ft and 369 ft from the Project respectively. A line-of-sight cross-section was prepared through the Project access drive intersection with Holy Smoke Road to the Project site. This line-of-sight depicts the relationship of the Project with Holy Smoke Road and the private residences, and how the proposed landscape mitigation will reduce potential visibility of the

Project from both the road and residences to the north. Refer to Appendix C, Sheet S1.00, Section B. While potential visibility was identified along this portion of Holy Smoke Road, views of the Project would be intermittent as the Project is partially screened by intervening residential structures, and existing vegetation. Additionally, the introduction of the proposed landscape mitigation (landscape berm and plant material), will further reduce potential views of the Project. Refer to Appendix D. A photo simulation of the Project was developed from Viewpoint 15. Views from this location depict the Project's access from Holy Smoke Road looking southeast at the Project site. Refer to Appendix E, Visual Simulations. An additional simulation of the Project was developed from Viewpoint 17 looking south at the Project site. Refer to Appendix E, Visual Simulations. Views depicted in the simulations depict Existing Conditions, Landscape Mitigation installed the first year, and Landscape Mitigation with approximately 5 years of growth.

2.2.3 U.S. Route 7

U.S. Route 7 is a two-lane highway with a posted speed limit of 55 miles per hour ("mph") that runs in a north-south direction, located approximately 0.07 miles east of the Project site. There are a few privately owned open fields, lawns, or other cleared areas northeast and east of the Project which are adjacent to U.S.-7 and may have some visibility of Project components as indicated on the visibility map. Field investigation of publicly accessible locations along U.S.-7 generally confirmed that the likelihood of visibility is limited due to intervening topography, existing vegetation, and distance. See Appendix B, Photographic Inventory, Viewpoints 18-24. Areas identified along U.S.-7 as having potential visibility on the visibility map are noted in detail below.

Potential visibility of the Project along a segment of U.S.-7 was identified along an approximate continuous 1.36-mile stretch of road, varying from approximately 0.27 to 1.60 miles northeast of the Project site; however, field investigation revealed potential visibility of the Project is limited due to intervening topography, existing vegetation, and distance. Refer to Appendix B, Photographic Inventory, Viewpoints 18, 19, 23, and 24. One area along this identified stretch of U.S.-7 does have potential visibility of the Project through a natural break in the existing vegetation as seen from approximately 1.21 miles northeast of the Project. Refer to Appendix B, Photographic Inventory, Viewpoint 24; however, the Project is partially screened by existing vegetation and distance, and Project components would be backgrounded by existing landform, vegetation, or a combination of both. Views of the Project's eastern array from this area would be seen at a distance and would not stand out due to the visual backdrop of existing terrain and forested area.

Potential visibility of the Project along a second segment of U.S. 7 was identified along an approximate continuous 0.28-mile stretch of road, approximately 530 feet east of the Project site; however, field investigation revealed potential visibility of the Project would be partially screened and intermittent during leaf-off conditions along an approximate 0.16-mile portion of the 0.28-mile stretch of road due to intervening existing vegetation. Along the entire 0.28-mile portion of U.S.-7 the partially screened and intermittent views would occur over a duration of approximately 18.5 seconds while traveling at 55 mph. As seen from this general area, the Project components would be backgrounded by existing landform, vegetation, or a combination of both. Additionally, the introduction of the proposed landscape mitigation, will

further reduce potential views of the Project. Refer to Appendix B, Photographic Inventory, Viewpoints 20 and 21. A photo simulation of the Project was developed from Viewpoint 21 along U.S.-7 looking west to the Project. Refer to Appendix E, Visual Simulations. Views depicted in the simulations depict Existing Conditions, Landscape Mitigation installed the first year, and Landscape Mitigation with approximately 5 years of growth.

The greatest visibility of Project components along U.S.-7 is specific to a third segment, where a natural break in the existing vegetation occurs and where clearing is proposed to construct the temporary U.S.-7 project access and new district waterline. In this location, Project components would be seen along U.S.-7 for a distance of approximately 140 feet. While there will be views of Project components from this location, they would occur over a duration of approximately 1.7 seconds while traveling at 55 mph and the viewing geometry would require the travelers to look due west, perpendicular to the direction of travel. Project components would be backgrounded by existing landform, vegetation, or a combination of both. Additionally, the introduction of the proposed landscape mitigation will further reduce potential views of the Project. See Appendix D. A line-of-sight cross-section was prepared from this location of U.S.-7 to the Project. The line-of-sight drawing shows the eastern most Project array will have limited visibility due to the landscape mitigation proposed between the array and U.S.-7. There may be some visibility of Project components related to the substation; however, these components would be seen at an approximate distance of 815 feet (+/-) and are related to the substation lighting arrestors which are small in diameter, yielding a narrow profile. See Appendix C, Sheet S1.01, Section C.

GMP's existing 46 kV transmission line is present in this area, consisting of 56 foot (+/-) high H-tower utility poles and associated transmission lines. This transmission infrastructure is visible from this same stretch of road and would be in the foreground of the Project's eastern most array and substation.

Potential visibility of the Project along a fourth segment of U.S.-7 was identified along an approximate 75-foot stretch of road near the southern end of the Project, approximately 360 feet east; however, field investigation revealed potential visibility of Project components is limited due to intervening topography and existing vegetation. Refer to Appendix B, Photographic Inventory, Viewpoint 22.

2.2.4 VT-7A Historic

VT-7A Historic is a two-lane local road that generally runs north-south, approximately 1.63 miles west of the Project site. There are private residences and privately owned open fields, lawns, or other cleared areas which may have visibility of Project components as indicated on the visibility map. Field investigation of publicly accessible locations in these areas generally confirmed that the likelihood of visibility is limited due to a combination of factors which include intervening residential structures, topography, and existing vegetation.

Potential visibility of the Project along a segment of VT-7A Historic was identified along an approximate 0.34-mile stretch of road, approximately 2.6 miles northwest of the Project site; however, field investigation revealed potential visibility of the Project is limited due to intervening topography, existing vegetation, and distance. Refer to Appendix B, Photographic Inventory, Viewpoints 25 and 26.

Potential visibility along a second segment of VT-7A Historic, within Shaftsbury Center is located approximately 2.09 miles northwest of the Project site along VT-7A Historic. Potential visibility was identified on the visibility map; however, field investigation revealed potential visibility of the Project is limited due to intervening topography, existing vegetation, and distance. While the visibility map identified intermittent visibility along an approximately 0.73-mile portion of VT-7A Historic approximately 1.63-miles west of the Project site, field investigations revealed that visibility of Project components was not possible due to a combination of intervening structures, topography, existing vegetation, and distance. Refer to Appendix B, Photographic Inventory, Viewpoint 27.

2.2.5 Glastonview Road

Glastonview Road is a two-lane local gravel road that generally runs north-south, approximately 2.12 miles west of the Project site. There are private residences and privately owned open fields, lawns, or other cleared areas which may have visibility of Project components indicated in the visibility map. Field investigation of publicly accessible locations in these areas generally confirmed that the likelihood of visibility is limited due to a combination of factors which include intervening residential structures, topography, existing vegetation, and the significant distance. See Appendix B, Photographic Inventory, Viewpoint 28.

2.2.6 Ehrich Road

Ehrich Road is a two-lane local gravel road that generally runs north-south, approximately 2.75 miles west of the Project site. There are private residences and privately-owned open fields, lawns, or other cleared areas which may have visibility of Project components as indicated in the visibility map. Field investigation of publicly accessible locations in these areas generally confirmed that the likelihood of visibility is limited due to a combination of factors which include intervening residential structures, topography, existing vegetation, and the significant distance. See Appendix B, Photographic Inventory, Viewpoint 29.

2.2.7 Publicly Accessible Areas

Land owned by the Vermont Land Trust, located approximately 1.50 miles northwest of the Project site, was identified on the visibility maps as having potential visibility of the Project; however, field investigation revealed that views from the open meadows in this area are not likely due to intervening topography, existing vegetation, and the significant distance.

In addition, VHB has not identified any other public or conserved lands that will have visibility of the Project.

2.3 Suitability of Project Colors and Materials

The Project materials and colors for the Project arrays would primarily consist of dark black photovoltaic panels, metal array frames, wooden fence posts, and metal agricultural fencing. The Project materials and colors for the Project substation and interconnection components will consist of wooden utility poles, galvanized or green steel equipment, galvanized steel mesh fence and gates, and wooden poles. The materials proposed for this Project are

consistent with materials used in similar solar generation projects throughout Vermont—these materials are not in themselves unsuitable or incompatible in the context of a rural landscape, particularly given the presence of the existing 46 kV transmission line that runs through the Project site. Industrial facilities in Shaftsbury also have elements of similar materials and colors, such as the Dailey Precast manufacturing facility located off Airport Road, approximately 1.55 miles west of the Project site, the Casella Waste Systems facility located off North Road, approximately 1.33 miles northwest of the Project Site, and the former Stanley Tools facility located off Route 67E, approximately 2.26 miles southwest of the Project site. For these reasons, the Project's colors and materials are considered compatible with the surroundings.

2.4 Impact on Open Space

A definition for the term "Open Space" is not provided within Act 250 or Section 248. The Project is proposed to be constructed on a privately owned parcel and is not within any identified conserved lands or open space identified within the Town Plan or Regional Plan. Therefore, the Project will have no impact on identified or protected Open Space.

2.5 Summary of Potential Adverse Impacts

This review of potential aesthetic impacts under Step One of Quechee found that the potential visibility of the Project would be localized within an approximately one-mile buffer area of the Project. While potential visibility was identified beyond the one-mile buffer, field investigation confirmed potential visibility in those areas was limited or not possible. The visibility analysis is primarily used to inform field investigation and often over-estimates Project visibility due to the resolution of the terrain and obstruction data. Refer to Appendix A - Project Maps. Potential visibility from surrounding roads and nearby residences is limited, with the exception of certain specific views from U.S.-7 and Holy Smoke Road, and potential long-range, partially screened views from Trumbull Hill Road. As discussed above, many of the views are already limited by existing vegetation, topography, intervening structures, or distance. In addition, certain identified views are being mitigated with the introduction of the proposed landscape mitigation (landscape berm and plantings). There would be no impact to open space resources as identified within the town or regional plans, and the colors and materials are not incompatible with the Projects surroundings. However, the introduction of a solar generation facility of this size that is visible from an approximate 140-foot stretch of U.S.-7 and specific vantage points along Holy Smoke Road does pose a change in the landscape from existing conditions. Due to this fact, and given how the Quechee test has been applied in other cases, the Project would result in an "adverse" impact to the aesthetics of the area. Therefore, we have provided an analysis of the Project under the three factors of the second part of the Quechee Analysis, as follows.

3

Second Step of the Quechee Analysis

3.1 Clear Written Community Standards

The Project is located in the Town of Shaftsbury, which is within the region covered by the Bennington County Regional Planning Commission ("RPC").

Local and regional planning documents were reviewed in order to determine if the Project would violate a clear written community standard pertaining to scenic resources. The following is a summary of potentially relevant provisions in those plans:

Regional Plan

- Generally, the Regional Plan discusses the importance of aesthetics and scenic qualities of the region regarding future land use, development patterns, historic resources, and recreation.

- *"The Bennington County Region will be a place where all residents have an opportunity to enjoy an outstanding quality of life through an emphasis on its distinctive sense of place. The essential elements of that place include its natural, scenic, cultural, and historic re-sources;"*[8]

- *"Development in rural areas should respect the need to protect important natural resources and scenic landscapes."*[9]

- *"The quality of the region's natural, scenic, and historic resources must be protected to maintain the unique character of the area and to support recreational, public health, and economic development objectives."*[10]

- The Regional Plan references a portion of U.S.-7 as the "Shires of Vermont Byway,"[11] a scenic by-way identified in the Vermont Byways Program, an approximate 76-mile stretch of U.S.-7 from Pownal to Manchester. Reference section 3.5 Shocking or Offensive to the Average Person in this report for additional explanation regarding identified limited visibility from U.S.-7.

[8] Bennington County Regional Plan adopted March 19, 2015 – Vision and Goals pg. 5

[9] Bennington County Regional Plan adopted March 19, 2015 – Vision and Goals pg. 6

[10] Bennington County Regional Plan adopted March 19, 2015 – Vision and Goals pg. 7

[11] Bennington County Regional Plan adopted March 19, 2015 – Tourism and Recreation pg. 46

- **"***While the tourism and recreation sectors clearly benefit from the region's location, scenic character, and recreational amenities, many other businesses also can benefit from this location."* [12]

- *"The region's upland forests also are critical to the scenic character of the region, and provide a natural backdrop to rural valleys, farmland, and historic settlements."* [13] The Project is not located in upland forests.

- *"Agriculture is a vital part of the Bennington region's rural heritage and economic future. The working agricultural landscape maintains the region's rural character, contributes an essential element to its scenic quality, and is an important component of the regional economy."* [14]

As is common within Regional Plans, encouragement and support is provided for towns to identify scenic resources; however, the Bennington County Regional Plan does not itself provide a clear written community standard under Quechee, because it does not identify the proposed Project site or its immediate surroundings as a highly scenic area designated for special protection.

<u>Town Plan</u>

- The Town Plan references preserving the scenic qualities of the Rural Residential zoning districts, which this Project falls within: *"The purpose of the Rural Residential Districts is to ensure the preservation of natural resources, scenic qualities and agricultural land while accommodating relatively low-density residential development."*[15]

- The Town Plan highlights an action item for the Town to consider scenic designation for certain roads in the Town. A portion of Trumbull Hill Road is listed, "*Trumbull Hill Road: from Holy Smoke Road to end"* [16] While the Town Plan references this as an action item, there was no reference in town mapping or other documents that Trumbull Hill Road has a scenic designation.

- The Town Plan does not offer specific requirements for solar siting, the Town Plan references the Bennington County Regional Plan's Energy Plan that discusses siting guidelines for renewable energy projects and considerations for scenic vistas:

  "The Bennington County Regional Energy Plan, completed in 2017, developed siting guidelines for renewable energy resources based on:

[12] Bennington County Regional Plan adopted March 19, 2015 – Physical Assets pg. 50

[13] Bennington County Regional Plan adopted March 19, 2015 – Upland Forests pg. 74

[14] Bennington County Regional Plan adopted March 19, 2015 – Agricultural Lands pg. 98

[15] Shaftsbury, Vermont Town Plans December 2, 2019 – Land Use Districts pg. 18

[16] Shaftsbury, Vermont Town Plans December 2, 2019 – Recreation pg. 31

1. Locations where resources existed in sufficient quantities to make development technically and economically feasible;

2. Known and possible constraints to development;

3. Regionally or locally identified conditions where development should be discouraged or may not be feasible or where development should be encouraged; and

4. Any additional considerations such as scenic viewsheds, necessary screening to reduce impacts, location of energy and transportation."

The Project is consistent with the Regional and Town Plans since it has been sited to maintain the rural character of the area and avoids, minimizes, and/or mitigates, as the case may be, impacts to regulated natural resources, and historic and cultural resources. Additionally, the Project's siting is sensitive to aesthetics of the region and results in limited potential visibility from public roads and public lands.

In review, the Regional and Town Plans provide encouragement to protect scenic resources and recognize their value, but do not specifically address the Project site or provide a clear standard for the proposed Project site. Thus, the Regional and Town Plans do not contain any clear, written community standards intended to protect the scenic beauty of the area and The Project does not violate any such standards.

3.2 Shocking or Offensive to the Average Person

In order for a Project to be deemed shocking or offensive to an average person, which is a neutral party and not an affected neighbor, the Project would need to be entirely inconsistent with its surroundings or the surrounding land use, or exceptionally out of scale with its surroundings.

Our evaluation of impacts under the first step of the Quechee Analysis determined that the Project's visibility would cause an adverse impact, specifically due to the Project's visibility from Holy Smoke Road, and from one 140-foot portion along U.S.-7.

This 140-foot portion of U.S.-7 is included in the identified "Shires of Vermont Byway"—a scenic by-way identified in the Vermont Byways Program, and referenced in the Regional Plan. However, this short section of Project visibility from U.S.-7 does not impact the overall scenic character of the area as it does not interfere with an important visual gateway to a community, nor does this section of U.S.-7 possess distinctive near or distant scenic views looking westerly towards the Project site. Additionally, the introduction of landscape mitigation will harmonize the Project with the surroundings and soften views of Project components. Views from this portion of U.S.-7 are seen at a distance approximately 530 feet away and Project components would be backgrounded by existing landform, vegetation, or a combination of both, and the duration of views would be very short. Utility infrastructure (GMP-TL-15 transmission line) currently has a presence in the landscape with existing views from U.S.-7 in this area. *See, e.g.*, Appendix B, Viewpoint 21.

The views of Project components identified along Holy Smoke Road are limited due to the existing vegetation along Holy Smoke Road that will be retained. The views from Holy Smoke Road and views from private residences are being mitigated with the proposed landscape berm and mixture of deciduous and evergreen trees and shrubs that will provide visual

screening both during leaf-on and leaf-off conditions. See Landscape Mitigation Plan, Appendix D.

The Petitioner has made efforts to reduce the potential visibility of the Project from surrounding roads and nearby residences through site selection and design that retains existing dense vegetative buffers, takes advantage of surrounding topography, and the introduction of extensive landscape mitigation.

The limited potential visibility from surrounding roads, residences, and the lack of any effect on identified scenic resources, public lands, or recreation resources limits the potential impacts to the average person.

Thus, we conclude that the Project will not be shocking or offensive to the average person.

3.3 Generally Available Mitigation Steps a Reasonable Person Would Take

The Project mitigation efforts to harmonize the Project with its surroundings include the following:

1. Site selection that minimizes potential visibility where possible from surrounding roads, nearby residences, and public lands, due to existing topography, natural screening, and in some cases distance
2. Siting the Project in very close proximity to an existing transmission line, thereby minimizing the need for new transmission line infrastructure or additional tree clearing that would likely be associated with new transmission line infrastructure. Additionally, the siting of a substation in proximity to an existing transmission line can be considered compatible.
3. A landscape mitigation plan was prepared in order to reduce and soften the visual impacts of the Project from public areas identified through field investigation efforts. This mitigation plan utilizes an extensive landscape berm ranging from four to six feet in height, 105 proposed deciduous trees, 211 proposed evergreen trees, and 461 proposed shrubs to further reduce offsite visibility of the Project as detailed below:
    a. A mix of deciduous and evergreen trees, and deciduous shrubs are proposed along the northern and eastern sides of the Project to screen views from the north and east, particularly views from U.S.-7, Holy Smoke Road and Trumbull Hill Road.
    b. The mixture of deciduous and evergreen vegetation is selected from native or adaptive species that are appropriate to the Project site and are intended to blend in with the existing vegetation of the surrounding area while providing screening during leaf-on and leaf-off conditions.
    c. The berm has been designed so it has a naturalized sinuous shape linearly, and its berm elevations varies in height rather than having a symmetrical profile.

Additional details on the mitigation plan are shown in Appendices C, D and E of this report.

4. Designing the Project to avoid, minimize, and/or mitigate potential adverse impacts to natural resources on the Project parcels, and agreeing to conserve approximately 67 acres of forest outside the Project footprint but within the Project parcels. Refer to Exhibit SS-AC-2.

With these measures, the Project has taken generally available mitigation steps a reasonable person would take to harmonize the Project with its surroundings and reduce potential visibility from the surrounding area.

3.4 Closing Statement

In review, the findings of this assessment conclude that the overall visual impact of the Project would not be unduly adverse for the following reasons:

- The Project does not violate any clearly written community standard intended to preserve the aesthetics or scenic beauty of the specific area at and around the Project site.
- The Applicant has taken reasonable steps to mitigate the visual impact of the Project through development of an extensive landscape mitigation plan, and siting of Project components to take advantage of topography, and natural screening from existing, mature dense vegetation on the site.
- The Project would not be considered shocking or offensive to the average person because it is not sited in a prominent location, lessening potential visual impact from surrounding areas.

4

Orderly Development

Section 248(b)(1) of Title 30 of the Vermont Statutes Annotated requires that the PUC find that a proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. Substantial deference is given to land conservation measures and specific policies contained in a duly adopted regional or municipal plan in accordance with Section 248(b)(1)(C).

The following discusses the standards and land conservation measures as detailed in the Bennington County Regional Plan (the "Regional Plan"), and the Shaftsbury Town Plan (the "Town Plan").

4.1 Regional Plan

The Regional Plan establishes goals as follows:[17]

- "*Plan development to reinforce the historic settlement pattern of well-defined urban and village centers surrounded by rural countryside.*" Encouraging new growth to occur in compact centers that remain consistent with the historic character of the area.

- *"Encourage development of a strong and diverse economy that provides satisfying and rewarding job opportunities while maintaining high social and environmental standards."* Encouraging a diversity of economic enterprises and associated infrastructure needed to support new business growth.

- *"The quality of the region's natural, scenic, and historic resources must be protected to maintain the unique character of the area and to support recreational, public health, and economic development objectives."* Encouraging public investment and regulations to protect valuable open spaces, historic sites and special districts.

- *"Ensure that the systems of public utilities and community facilities and services are sufficient to sup-port a growing resident population and the economic needs of the region."* Identifying the importance of maintaining public utilities in good condition and coordinating proposed extensions and expansions with regional and local land use policies.

[17] Bennington County Regional Plan adopted March 19, 2015 – Vision and Goals, pp. 6-8

Chapter VII – Land Use - *"Directing most new growth into discretely bounded urban centers and villages while preserving the open rural lands between those centers."*[18] The Project is located in the Rural Area land use district[19] where "*Agriculture, forestry, recreation, and other land uses that rely on the region's natural resources are appropriate."*[20] The Regional Plan discusses the intent to reduce scattered development and promote development in and around urban and village centers to maintain open space. The Project supports the Regional Plan's goals by preserving the site as rural land.

The Regional Plan identifies the importance of preserving historic, archeological, and cultural resources. "*Preservation of the region's historic resources has many benefits. The area's historic rural character, in large part attributable to those early sites and structures, is a key ingredient driving the success of tourism-related businesses."*[21] The Project does not involve areas identified as having important cultural or historically significant buildings, or any identified archeological sensitive areas, nor is the Project located within a designated Hamlet or Village Center. Refer to Exhibit SS-BT-2.

Chapter VIII – Natural Resources - Describes eight regional natural resources: Water Resources, Clean Air, Agricultural Lands, Forest Lands, Earth Resources, Fish and Wildlife Resources, Unique Natural Features, and Scenic and Recreational Areas. The Regional Plan highlights the importance of preserving these resources and how these resources contribute to the region's character. *"These natural resources are extraordinarily important assets, contributing to the health and quality of life of residents while also playing an important role in supporting economic prosperity and future development."* The Project has been sited to avoid, minimize, and/or mitigate impacts to natural resources. Refer to the prefiled testimony of Adam Crary and Exhibit SS-AC-2.

Under Unique Natural Features, the Regional Plan identifies "Shaftsbury Cobbles" as item 60 on Map 8-8 Unique Natural Features.[22] It is difficult to discern if the location for item 60 is on the Project parcels; however, even if it is the Project is not proposing any earthwork or removal of trees, thus preserving the existing elevated landforms and associated forested areas.

Under Agricultural Lands, the Regional Plan identifies the importance that agricultural lands play within the region, contributing to its character: *"The working agricultural landscape maintains the region's rural character, contributes an essential element to its scenic quality, and is an important component of the regional economy."* [23] The Regional Plan goes on to highlight the importance of maintaining future use of the region's agricultural soils: *"The importance of maintaining the potential for the region's best agricultural soils to be used for growing and raising agricultural products"*[24] The Project has identified the presence of prime agricultural lands, and has prepared a Primary Agricultural Soil Assessment which identifies

[18] Bennington County Regional Plan adopted March 19, 2015 – Chapter VII – Land Use, pg. 60

[19] Bennington County Regional Plan adopted March 19, 2015 – Map 7-2 Land Use Districts, pg. 63

[20] Bennington County Regional Plan adopted March 19, 2015 – Chapter VII – Land Use, pg. 69

[21] Bennington County Regional Plan adopted March 19, 2015 – Chapter VII – Historic Districts and Properties, pg. 72

[22] Bennington County Regional Plan adopted March 19, 2015 – Map 8-8 Unique Natural Features, pg. 112

[23] Bennington County Regional Plan adopted March 19, 2015 – Chapter VIII – Agricultural Lands, pg. 98

[24] Bennington County Regional Plan adopted March 19, 2015 – Chapter VIII – Agricultural Lands, pg. 98

steps the Project is taking to mitigate any impacts to the soils, allowing for complete restoration of the Project site upon decommissioning, preserving future capability for agricultural uses on the Project parcel. Refer to the prefiled testimony of Stephanie Wyman and Exhibit SS-SW-4.

Based on the descriptions and mapped information included in the Regional Plan, the Project will minimize impacts to any identified agricultural soils or natural resources on the Project site. See references above.

Chapter XII Energy – Discusses the region's energy sources and uses, conservation strategies, and renewable energy development. The Regional Plan notes the importance of renewable energy sources and role they play in addressing current and future energy needs: *"Energy from renewable sources can help address space and water heating needs, provide fuel for transportation, and generate electricity (that can, in turn, be used for heating, transportation, and many other functions)."*[25] The Regional Plan references the Bennington County Regional Energy Plan for further information. The Project will generate renewable energy that will be used in the New England Region.

This review highlights how the Project is compatible with the orderly development of the region based on a review of the Bennington County Regional Plan. The Project site and design address many of the region's goals by maintaining the rural character of the area and avoiding and minimizing impacts to regulated natural resources, and historic and cultural resources. Additionally, the Project's siting is sensitive to aesthetics of the region and results in limited potential visibility from public roads and public lands.

4.2 Regional Energy Plan

The Bennington County Regional Energy Plan discusses energy and energy planning, environmental protection, economic needs and opportunities as well as regional energy supply and demand. The Regional Energy Plan identifies the state goal to have renewable energy sources meet 90% of the state's total energy need by 2050 with the Regional Energy Plan adopting this same goal, "*This regional energy plan, and similar plans developed in each region around the state, target the '**90X50**' goal, using that objective as a basis for determining the amount of conservation and fuel conversion required in each energy sector as well as the amount of new renewable energy generation required across the state."*[26]

The Regional Energy Plan's goals include:[27]

- Assure diversity in the mix of energy sources to minimize the impacts of a supply restriction in any particular fuel.
- Decrease reliance on non-local energy sources through conservation, efficiency, and the development and use of local renewable energy sources.
- Make energy choices that minimize adverse impacts to the environment.

[25] Bennington County Regional Plan adopted March 19, 2015 – Chapter XII – Renewable Energy, pg. 181

[26] Bennington County Regional Energy Plan, March 2017, pg. 18

[27] Bennington County Regional Energy Plan, March 2017, pg. 19

- Maximize energy efficiency by matching fuel type to end use.
- Assure both an adequate supply of electricity and a secure distribution network to meet the region's needs.

The Regional Energy Plan comments on future regional energy supply and highlights the importance renewable energy will play in that role, "*Forecasts for energy supply indicate that there will be significant need for additional renewable energy in the form of liquid biofuels and electricity, and that woody biomass will play an increasingly important role in meeting the region's space heating requirements."*[28]

Regional Electricity Capacity & Production – discusses the need for additional in-state solar capacity to be developed in order to support the "90x50" goals by the state and the RPC. "*Currently, as was discussed in **Section II**, the Bennington region only produces about 4% of the electricity it consumes, deriving from about 10 MW of solar and a very small amount of wind and hydro. Electricity production in the region will need to increase dramatically based on the LEAP scenario modeling analysis. By 2050, the region should be generating a significant amount of electricity from local renewable resources.*

Approximately 112 MW of new generating capacity (85 MW solar; 26 MW wind; and 1 MW hydro) will be required within the region to support attainment of state energy goals."[29]

Renewable Energy Generation Facility Siting Guidelines – highlights site feasibility considerations for determining locations for renewable energy facilities.[30]

1. *Identify locations where renewable energy resources are present in sufficient quantity to make development technically and economically feasible.*
2. *Identify areas with Known Constraints and eliminate areas with Level 1 Constraints from consideration.*
3. *Identify areas with Possible Constraints and note site-specific concerns, and investigate those conditions.*
4. *Identify regionally and/or locally identified conditions, including:*
   A) Areas where development must be avoided;
   B) Areas of special concern where development may or may not be feasible based on site conditions; and
   C) Areas where energy development is encouraged.
5. *Determine any additional considerations that are relevant to the project, such as:*
   A) Any scenic viewsheds that are impacted;
   B) Siting and screening needed to mitigate visual impact on nearby properties;
   C) Location of electricity infrastructure; or
   D) Location of transportation infrastructure for site access.

[28] Bennington County Regional Energy Plan, March 2017, pg. 52

[29] Bennington County Regional Energy Plan, March 2017, pg. 56

[30] Bennington County Regional Energy Plan, March 2017, pg. 92

Key elements of the Shaftsbury Solar project that are consistent with relevant aspects of the Regional Energy Plan include:

- Onsite presence of 46 kV GMP transmission line, thus eliminating the need for offsite electrical infrastructure upgrades.
- Adjacency to U.S. Route 7, and associated limited access pending approval by VTrans and FHWA to construct and utilize a temporary access drive directly to the site to facilitate the movement of facility components to the site.
- Avoidance of natural resource impacts, including wetlands, streams, river corridors, etc.
- Site is currently well screened from surrounding public viewpoints.
- Much of the site is currently open fields, thus reducing the area of tree clearing that will be necessary.
- Site is gently sloping, thus minimizing need for grading and reducing potential for soil erosion.

This review highlights how the Project addresses the compatibility with the orderly development of the region based on review of the Bennington County Regional Energy Plan and how the Project supports many of the RPC's energy goals.

4.3 Town Plan

The Town Plan Policy 12.1.1 – *"The town of Shaftsbury will not impose screening or other restrictions on renewable energy development beyond those imposed for other types of building and industry. The town does not seek to regulate renewable energy beyond regulations imposed by the public service board. The town should not institute zoning or other ordinances that would limit renewable energy development."*[31]

While the Town Plan does not impose screening restrictions for renewable energy projects, the Project has taken steps to provide an extensive landscape mitigation plan (landscape berm and plant material) to provide visual mitigation of the Project during leaf-on and leaf-off conditions.

The Town Plan defers to the PUC for review of solar generation facilities, "*The Planning Commission has concluded that the Town should not regulate or limit the locations of solar or wind resources and will leave siting decisions to the Vermont Department of Public Services."* [32]

Land Use Districts – The Project is located in the Rural Residential District which states, "*The purpose of the Rural Residential Districts is to ensure the preservation of natural resources, scenic qualities and agricultural land while accommodating relatively low-density residential development. These districts are planned to be predominantly residential in character, while permitting appropriate compact development but in all cases at densities to avoid the need for municipal water supplies or sewer systems."* [33]

[31] Shaftsbury, Vermont Town Plan, December 2, 2019, Energy pg. 36.

[32] Shaftsbury, Vermont Town Plan, December 2, 2019, Energy pg. 38

[33] Shaftsbury, Vermont Town Plan, December 2, 2019, Land Use Districts pg. 18

Local zoning districts do not apply to section 248 projects. Nonetheless, as proposed, the Project would maintain the rural character of this land-use district through its siting with topography and maintaining existing vegetative buffers, while adding landscape mitigation to harmonize the Project with the surroundings.

Map 5.1 Land Use Plan: The majority of the site is designated "Rural Residential 40" with a portion around "Shaftsbury Cobbles" designated as "Forest and Recreation."[34] The map notes the isolated area on the Project parcel which is located along the eastern parcel boundary and spans into the adjoining U.S.-7 right-of-way. The Project is not proposing any earthwork or removal of trees on elevated portions of the site, preserving the existing elevated landforms and forested areas.

Map 10.1 Open Space Lands: The site is not identified on the map. The parcel immediately to the south, which will be unaffected by the Project, is identified "Vermont Land Trust Easement." [35]

Map 12.1 Proposed Solar Sites and Solar Potential: The map is challenging to read; however, it does appear to reference an existing <15KW solar project in the general area. Portions of the site are shown as having potential for solar, both with and without possible constraints.[36]

Energy – The Town Plan highlights the importance of providing reliable and affordable energy that is not derived from fossil fuels, "*Providing energy that is reliable and resilient in terms of supply and cost is essential to the Vermont economy. The sources of energy use can be realigned from fossil fuels to solar, wind, hydropower, geothermal, biomass and other sources not derived from fossil fuels to mitigate changes in the climate resulting from greenhouse gas emissions.*" [37]

Because the Shaftsbury Town Plan has not received an affirmative determination of energy compliance under 24 V.S.A. § 4352, 30 V.S.A. § 248(b)(1) requires only that due consideration be given to the land conservation measures contained in the Shaftsbury town plan with respect to the orderly development of the region. Nevertheless, as described above, the Project accords with related provisions of the Town Plan.

Conclusion:

In conclusion, the Project will not unduly interfere with orderly development of the region, after consideration of any specific provisions of the town and regional plans that would apply to a section 248 renewable energy solar project. There are no specific local or regional land conservation measures that would apply to the Project, and the Project will not interfere with any specific local or regional recommendations regarding the proposed land use for this site. The plans also include statements supporting the use of renewable energy.

[34] Shaftsbury, Vermont Town Plan, December 2, 2019: Land Use Plan, Map 5.1, Page 57 (of PDF)

[35] Shaftsbury, Vermont Town Plan, December 2, 2019: Open Space Lands, Map 10.1, pg. 61 (of PDF)

[36] Shaftsbury, Vermont Town Plan, December 2, 2019: Proposed Solar Site and Solar Potential, Map 12.1, pg. 61 (of PDF)

[37] Shaftsbury, Vermont Town Plan, December 2, 2019, Energy pg. 35

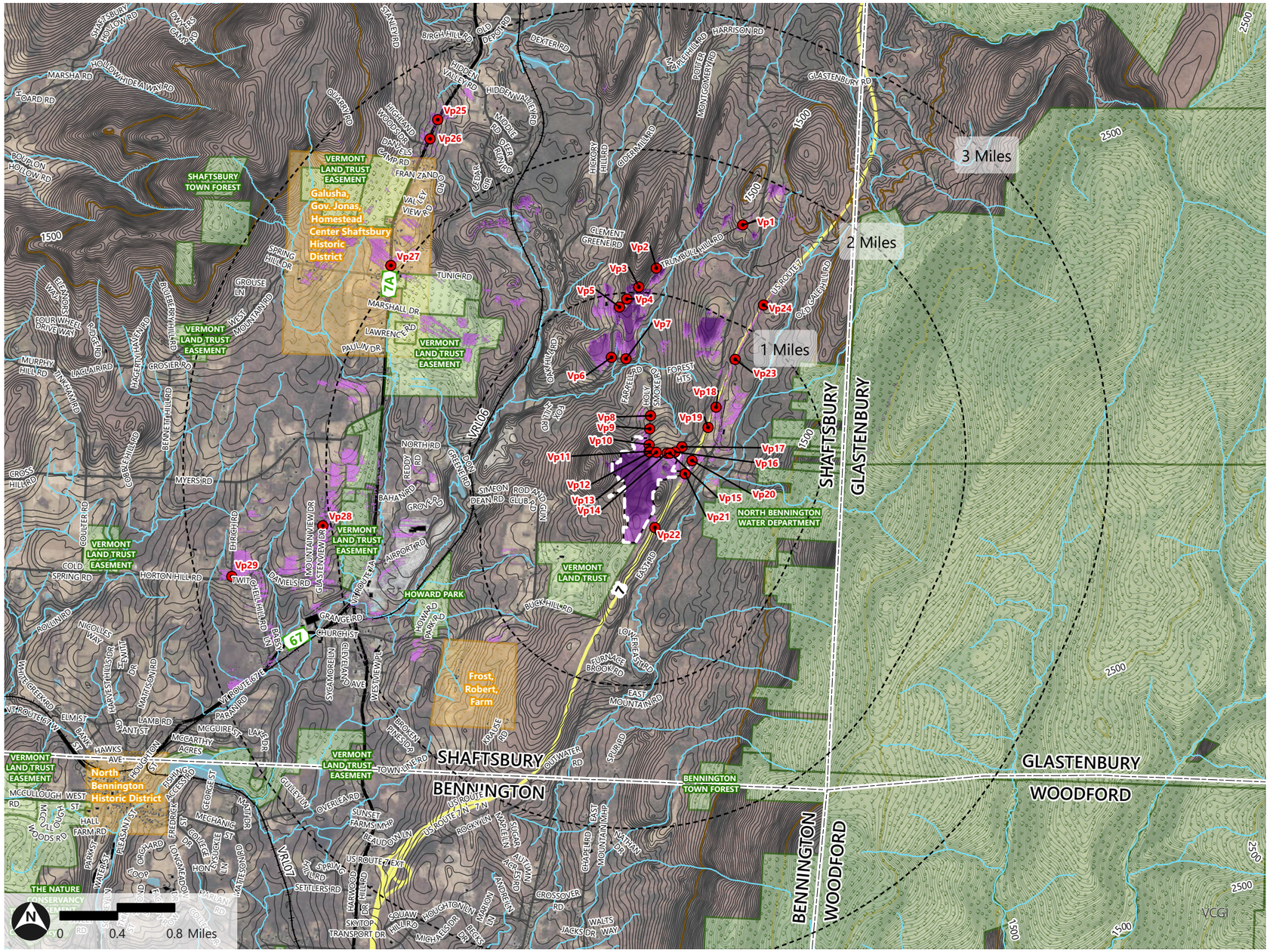
Appendix A

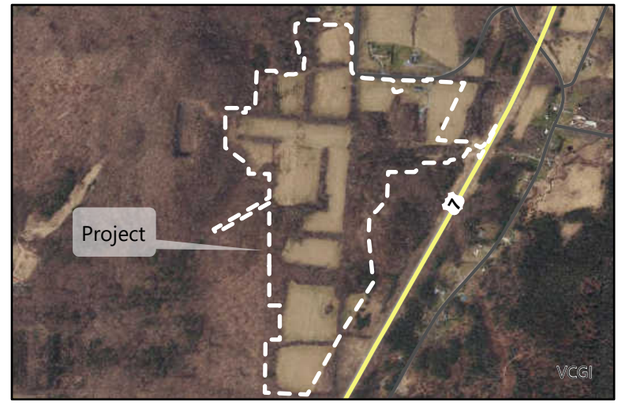
Project Maps

Visibility Overview Map

Freepoint Shaftsburg | Shaftsburg, VT

April 27, 2023





Legend

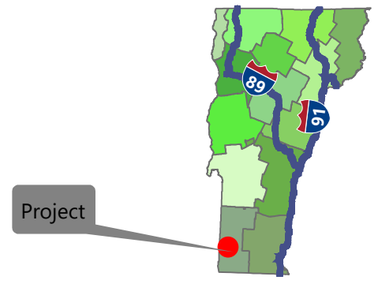
- Limit of Work (VHB)
- Project Buffer - 1, 2, 3 - Mile (VHB)

Visibility at 5.5 feet above ground surface

- High Visibility
- Low Visibility
- Viewpoint Location
- Buildings (VCGI 2016)
- Vermont Protected Lands (VCGI, 2019)
- National Register Historic Sites (VT) (NPS, 2014)
- Streams (VCGI)
- Waterbody (VCGI)

Roads (VTrans)

- US Highway
- State Highway
- Local Road
- Other Road
- Private Road
- Railroad (VTrans, 1984)
- Railroad Lines (VTrans)
- Town Boundary (VCGI, 2016)*
- 20 ft. Contours (VCGI, 2012)
- 500 ft. Contours (VCGI, 2012)



Source: Background Imagery by VCGI (2018); ANR - Vermont Agency of Natural Resources (Various Years); FEMA - Federal Emergency Management Agency (Various Years); FWD - Vermont Fish and Wildlife Department (Various Years); NRCS - Natural Resource Conservation District (Various Years); VCGI - Vermont Center for Geographic Information (Various Years); VHD - Vermont Hydrography Dataset (Various Years); VTrans - Vermont Agency of Transportation; VHB (2022).

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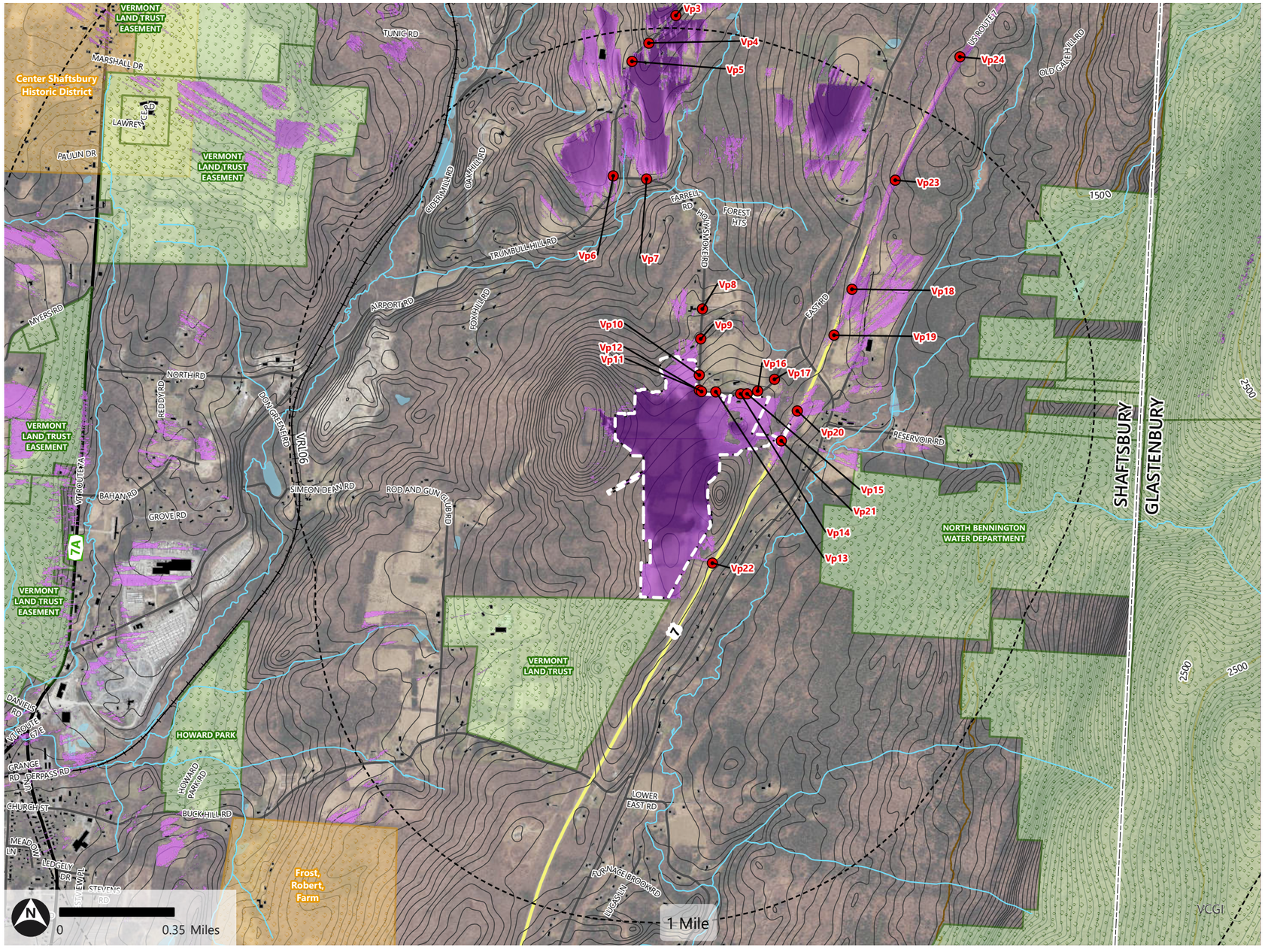
Visibility Map Inset

Freepoint Shaftsbury | Shaftsbury, VT

April 27, 2023

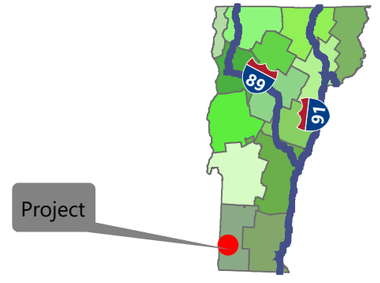


Legend

- Limit of Work (VHB)
- Project Buffer - 1, 2, 3 - Mile (VHB)
- Visibility at 5.5 feet above ground surface
- High Visibility
- Low Visibility
- Viewpoint Location
- Buildings (VCGI 2016)
- Vermont Protected Lands (VCGI, 2019)
- National Register Historic Sites (VT) (NPS, 2014)
- Streams (VCGI)
- Waterbody (VCGI)

Roads (VTrans)

- US Highway
- State Highway
- Local Road
- Other Road
- Private Road
- Railroad (VTrans, 1984)
- Railroad Lines (VTrans)
- Town Boundary (VCGI, 2016)*
- 20 ft. Contours (VCGI, 2012)
- 500 ft. Contours (VCGI, 2012)



Source: Background Imagery by VCGI (2018); ANR - Vermont Agency of Natural Resources (Various Years); FEMA - Federal Emergency Management Agency (Various Years); FWD - Vermont Fish and Wildlife Department (Various Years); NRCS - Natural Resource Conservation District (Various Years); VCGI - Vermont Center for Geographic Information (Various Years); VHD - Vermont Hydrography Dataset (Various Years); VTrans - Vermont Agency of Transportation; VHB (2022-23).

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Appendix B

Photographic Inventory of Existing Conditions

Viewpoint 1

Panorama view from Trumbull Hill Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 1

View from Trumbull Hill Road approximately 1.68-miles northeast, looking southwest towards the proposed Project. Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 2

Panorama view from Trumbull Hill Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 2

View from Trumbull Hill Road approximately 1.31-miles north, looking south towards the proposed Project. Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 3

Panorama view from Trumbull Hill Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 3

View from Trumbull Hill Road approximately 1.18-miles north, looking south towards the proposed Project. Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 4

Panorama view from Trumbull Hill Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 4

View from Trumbull Hill Road approximately 1.10-miles north, looking south towards the proposed Project. Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 5

Panorama view from Trumbull Hill Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 5

View from Trumbull Hill Road approximately 1.06-miles north, looking south towards the proposed Project. Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 6

Panorama view from the intersection of Trumbull Hill Road and Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 6

View from the intersection of Trumbull Hill Road and Holy Smoke Road approximately 0.61-miles northwest, looking southeast towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 7

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 7

View from the intersection of Trumbull Hill Road and Holy Smoke Road approximately 0.57-miles northwest, looking southeast towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 8

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 8

View from Holy Smoke Road approximately 0.16-miles north, looking south towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 9

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 9

View from Holy Smoke Road, approximately 375-feet north looking south towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 10

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 10

View from Holy Smoke Road, approximately 93-feet east looking west towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 11

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 11

View from Holy Smoke Road, approximately 167-feet east looking west towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 12

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 12

View from Holy Smoke Road, approximately 184-feet north looking south towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 13

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 13

View from Holy Smoke Road, approximately 188-feet north looking south towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 14

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 14 - Photo A

View from Holy Smoke Road, approximately 218-feet northwest looking southeast towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 14

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 14 - Photo B

View from Holy Smoke Road, approximately 422-feet northeast looking southwest towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 15

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 15

View from Holy Smoke Road, approximately 162-feet northwest looking southeast towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 16

Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 16

View from Holy Smoke Road, approximately 154-feet north looking south towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 17

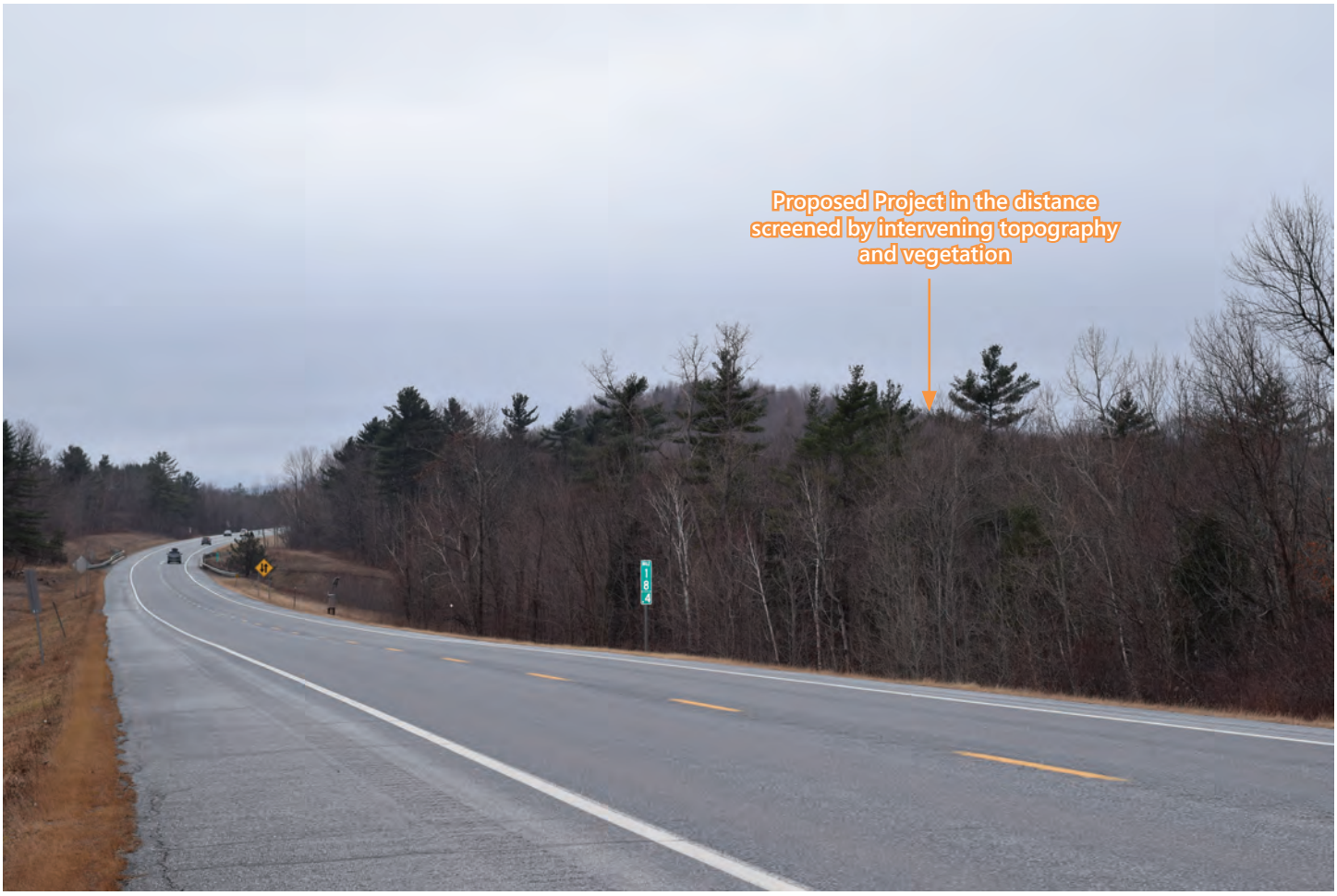
Panorama view from Holy Smoke Road in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 17

View from Holy Smoke Road, approximately 380-feet northeast looking southwest towards the proposed Project (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 18

Panorama view from Route 7 in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.



Viewpoint 18

View from Route 7, approximately 0.43-miles northeast looking southwest towards the proposed Project, Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 19

Panorama view from Route 7 in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 19

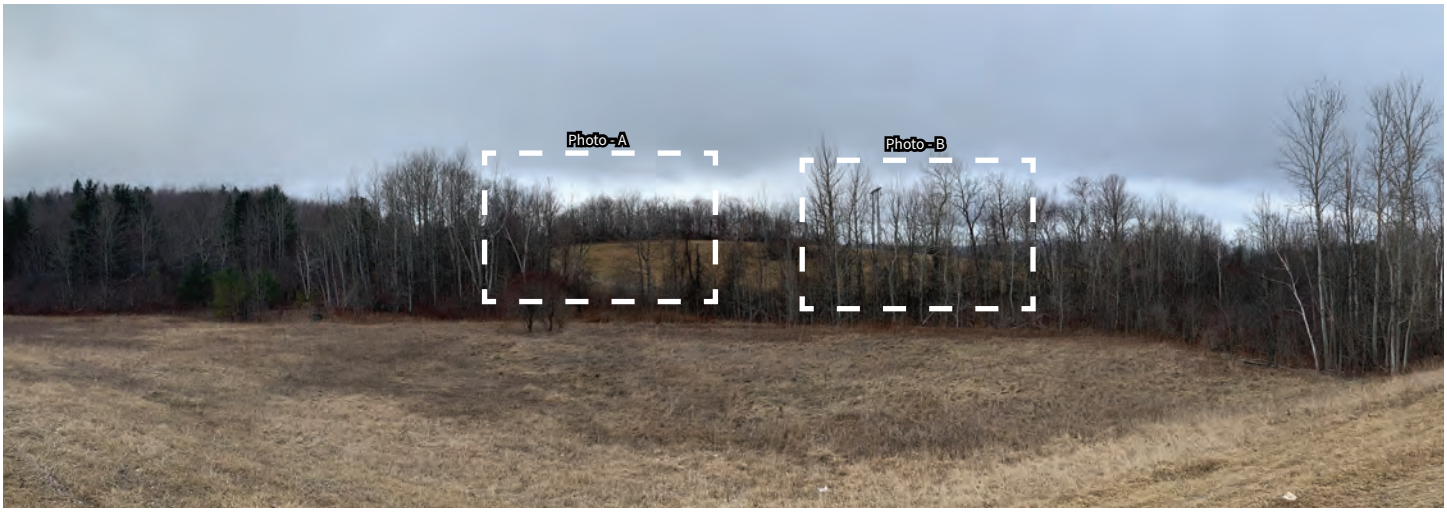
View from Route 7, approximately 0.29-miles northeast looking southwest towards the proposed Project, Cobble Hill can be seen in the distance. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 20

Panorama view from Route 7 in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 20

View from Route 7, approximately 640-feet east looking west towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

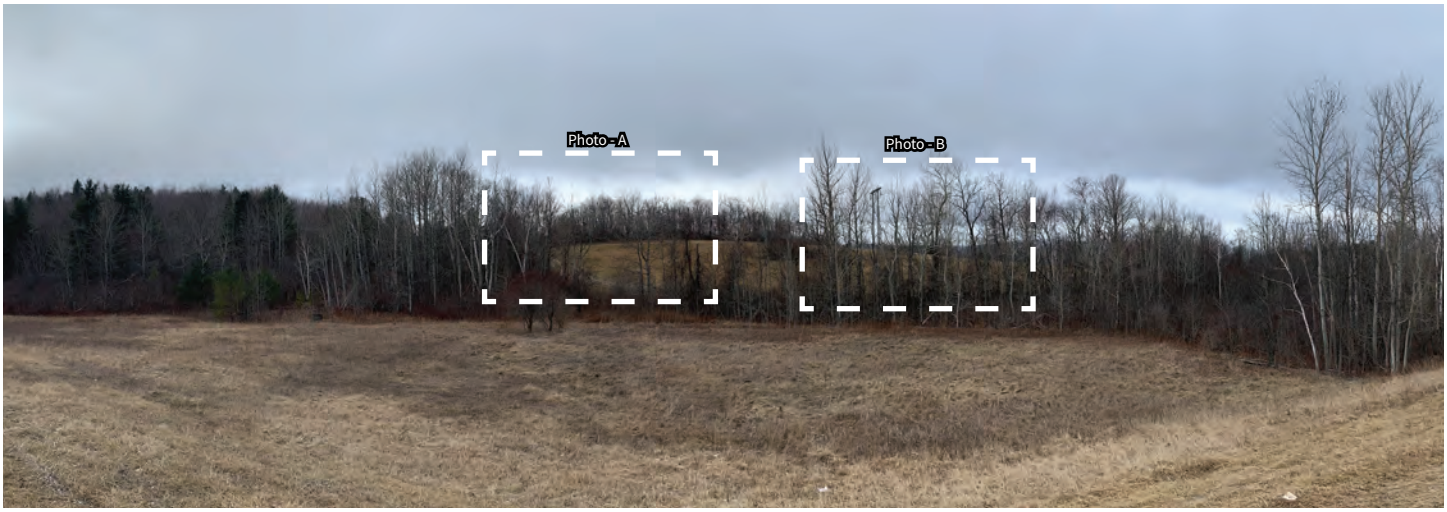


Viewpoint 21

Panorama view from Route 7 in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 21 - Photo A

View from Route 7, approximately 530-feet east looking west towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.



Viewpoint 21

Panorama view from Route 7 in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 21 - Photo B

View from Route 7, approximately 530-feet east looking west towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 22

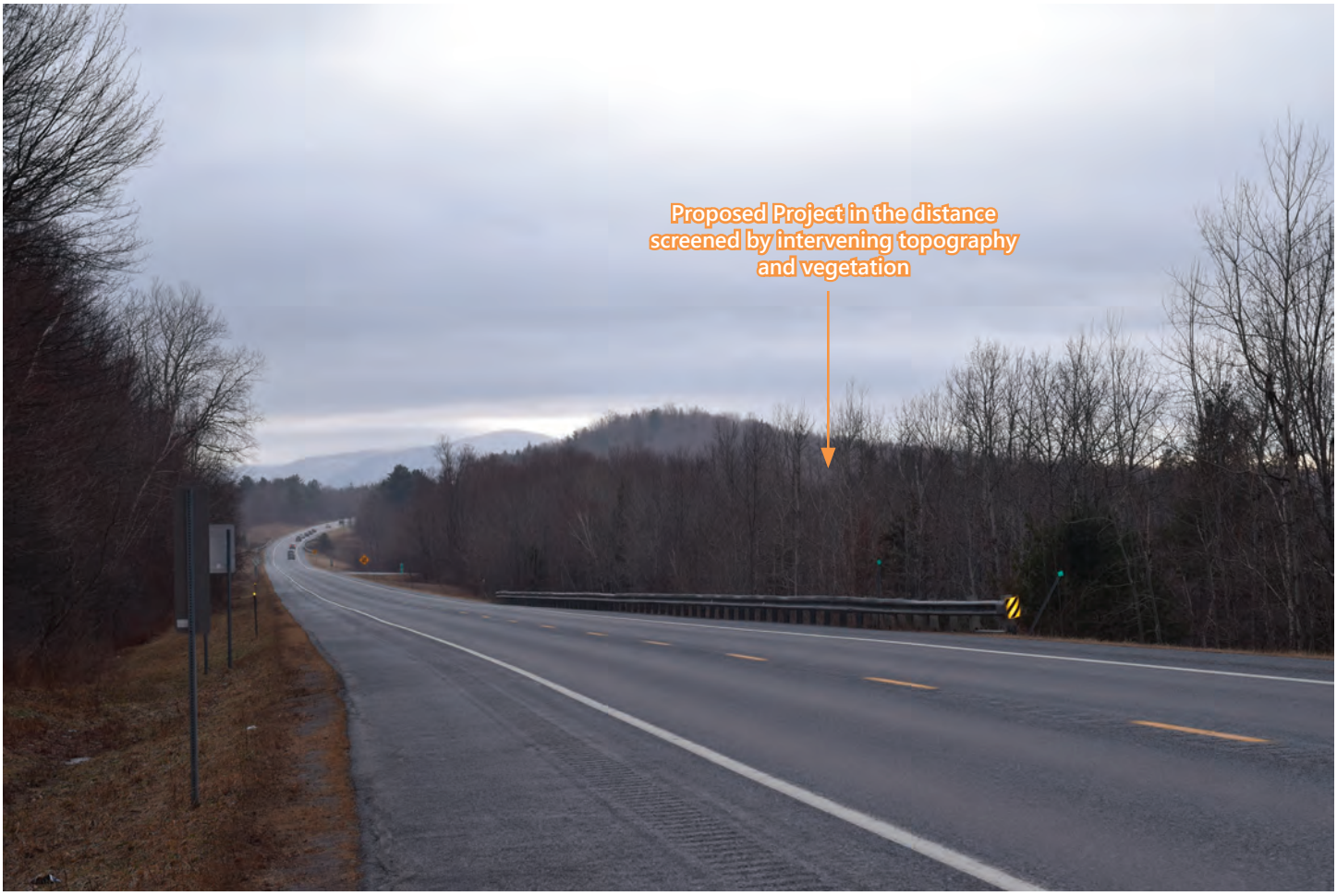
Panorama view from Route 7 in the town of Shaftsbury, panning from south to north. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 22

View from Route 7, approximately 450-feet east looking west towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 23

Panorama view from Route 7 in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.



Viewpoint 23

View from Route 7, approximately 0.80-miles northeast looking southwest towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 24

Panorama view from Route 7 in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 24

View from Route 7, approximately 1.21-miles northeast looking southwest towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 25

Panorama view from VT-7A Historic in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 25

View from VT-7A Historic, approximately 2.66-miles northwest looking southeast towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 26

Panorama view from VT-7A Historic in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 26

View from VT-7A Historic, approximately 2.57-miles northwest looking southeast towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 27

Panorama view from VT-7A Historic in the town of Shaftsbury, panning from east to west. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 27

View from VT-7A Historic, approximately 2.09-miles northwest looking southeast towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 28

Panorama view from Glastonview Drive in the town of Shaftsbury, panning from north to south. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

Viewpoint 28

View from Glastonview Drive, approximately 2.13-miles west looking east towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Viewpoint 29

Panorama view from Ehrich Road near the intersection with Horton Hill Road in the town of Shaftsbury, panning from north to south. The white frame represents the extent of the 50mm (35mm equivalent) photograph below.

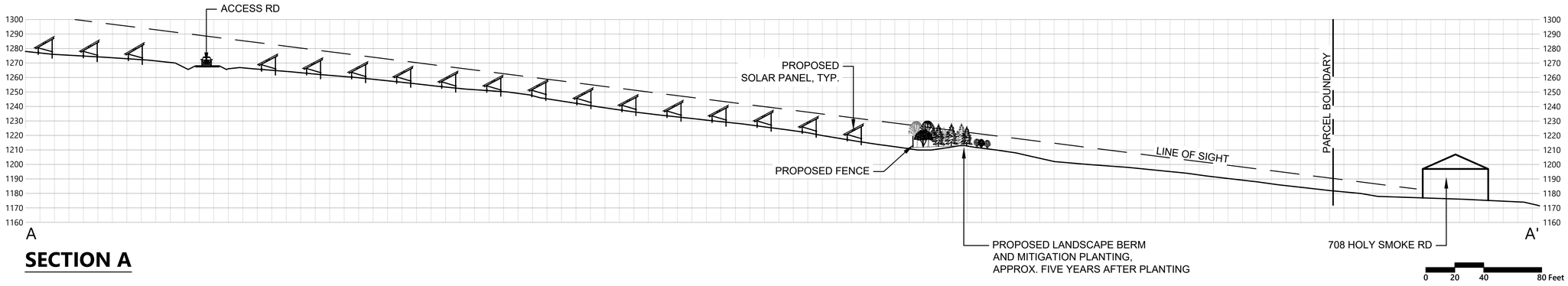
Viewpoint 29

View from Ehrich Road, approximately 2.81-miles west looking east towards the proposed Project. (50mm equivalent focal length). Captured January 16, 2023.

Appendix C

Line of Sight Cross-sections

KEY



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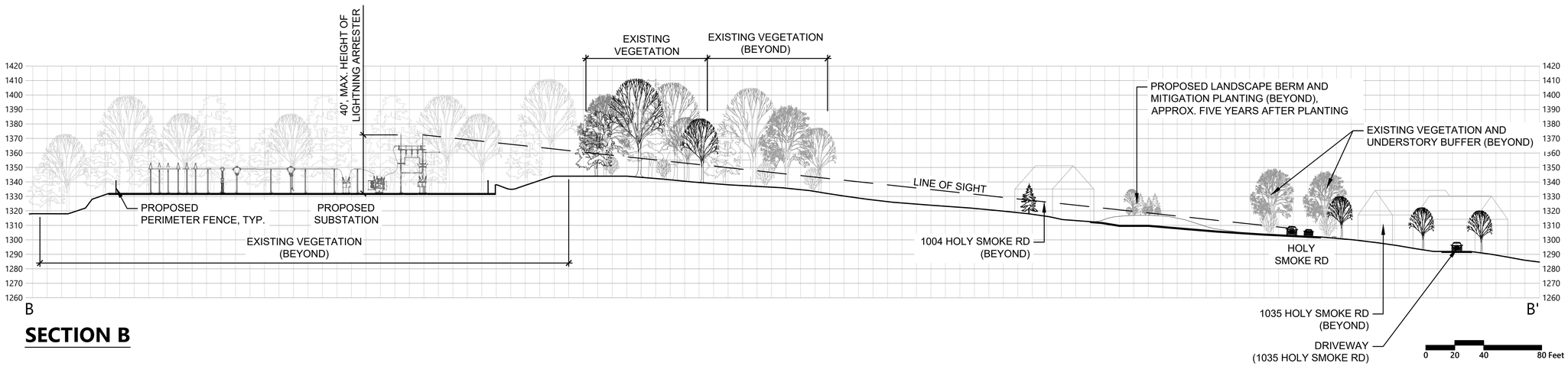

SECTION B

Appendix C

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Shaftsbury Solar
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1004 Holy Smoke Road
Shaftsbury, VT 05262

No.	Revision	Date	Appvd.

Designed by JRD | Checked by MKW

Issued for **PERMIT** | Date **4/21/2023**

Not Approved for Construction

Drawing Title
Landscape Cross Sections

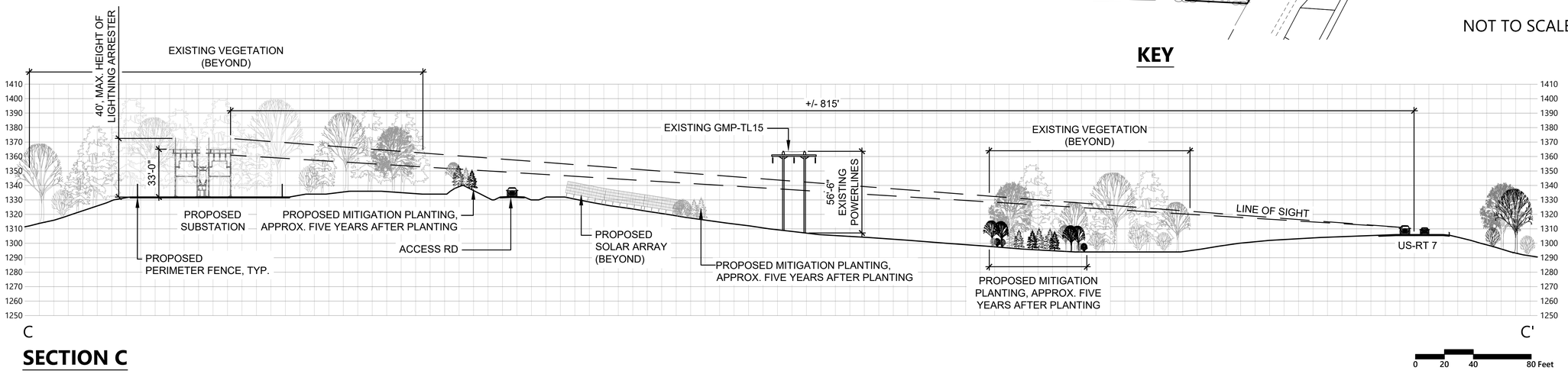
Drawing Number
S1.00

Sheet of
66

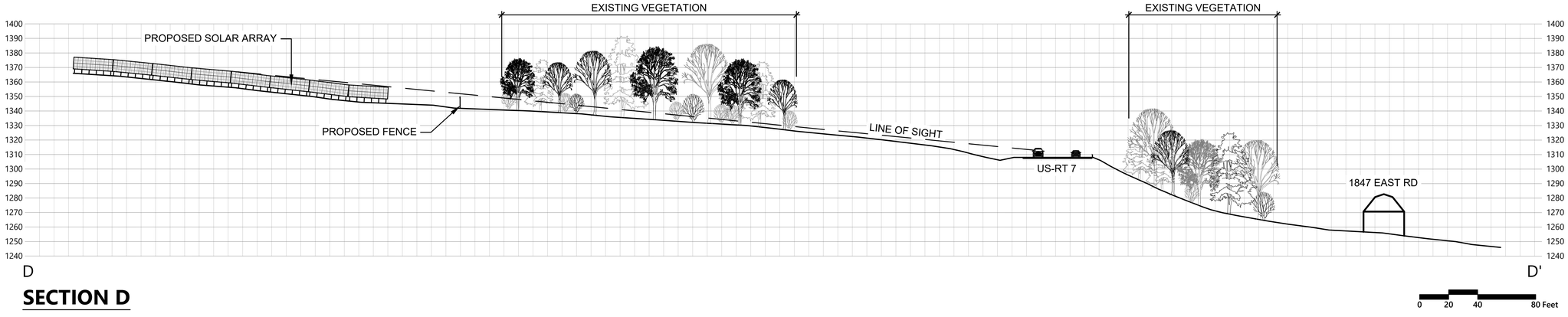
Project Number
58071.01

NOT TO SCALE

KEY



SECTION C



SECTION D

0 20 40 80 Feet

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Drawing Title
Landscape Cross Sections

Drawing Number
S1.01

Sheet of 66

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58071.01

Appendix D

Landscape Mitigation Plans

Appendix D

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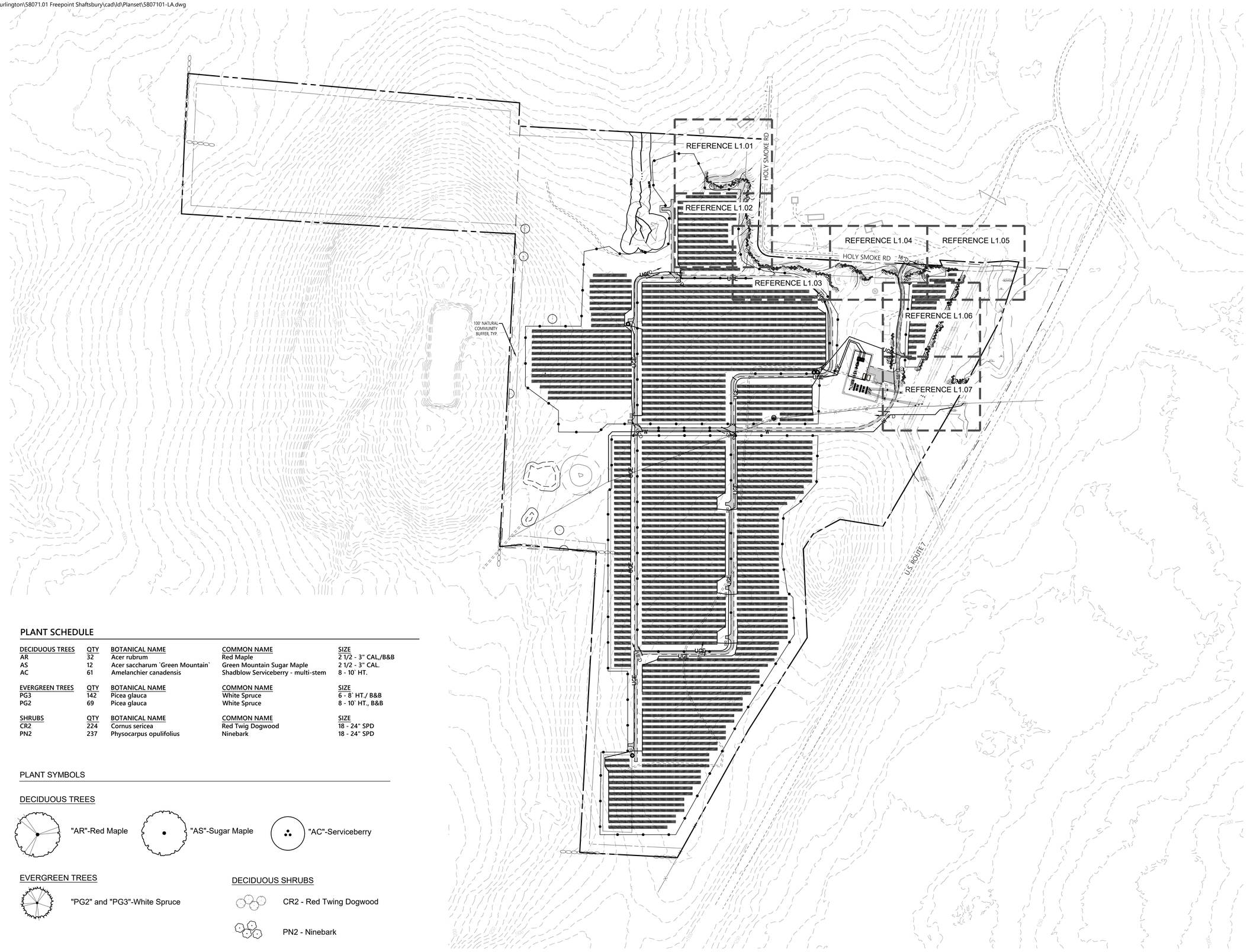

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark

0 125 250 500Feet

Shaftsbury Solar
VT Real Estate Holdings 1 LLC

1004 Holy Smoke Road
Shaftsbury, VT 05262

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Date
April 24, 2023

Not Approved for Construction

Drawing Title
Overall Landscape Mitigation Plan

Drawing Number
L1.00

Sheet of --

Project Number
58071.01

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark

PRIVATE RESIDENCE

HOLY SMOKE ROAD

STORM WATER TREATMENT

AGRICULTURAL FENCE

SOLAR ARRAY

EXISTING TREES TO REMAIN

1190
1188
1186
1188
1190
1192
1192
1194
1196
1198
1200
1200
1210
1210
1220

2 AC
8 PN2
2 PG2
4 PG3
2 AR
6 CR2
1 PG2
4 PG3
6 PN2
2 AC
3 PG2
3 PG3
2 AR
14 PN2
2 PG2
4 PG3
10 CR2
3 AC
1 PG2
3 PG3

0 10 20 40 Feet

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Drawing Title
Landscape Mitigation Plan

Drawing Number
L1.01

Sheet of
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Project Number
58071.01

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL/B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

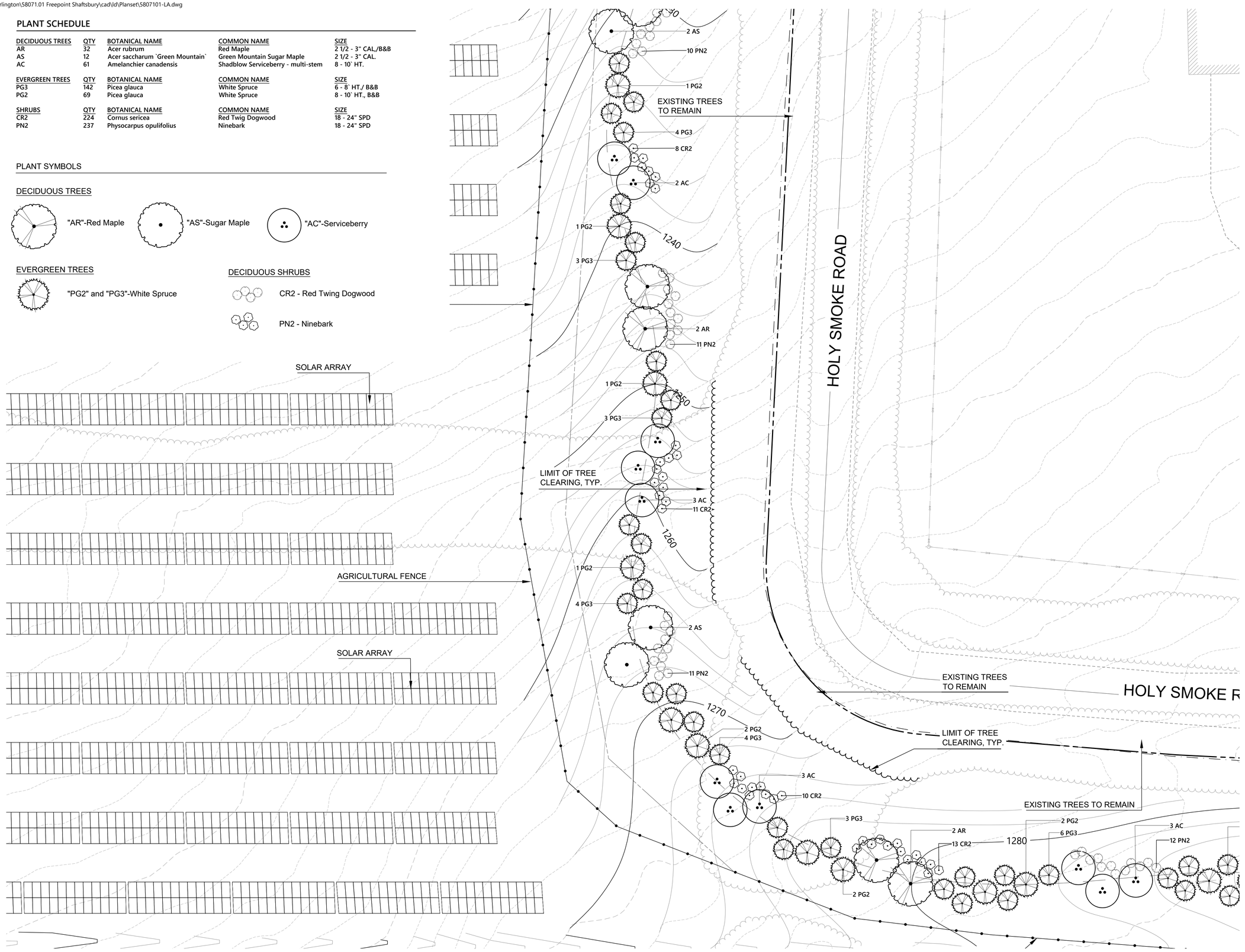
EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark



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Landscape Mitigation Plan

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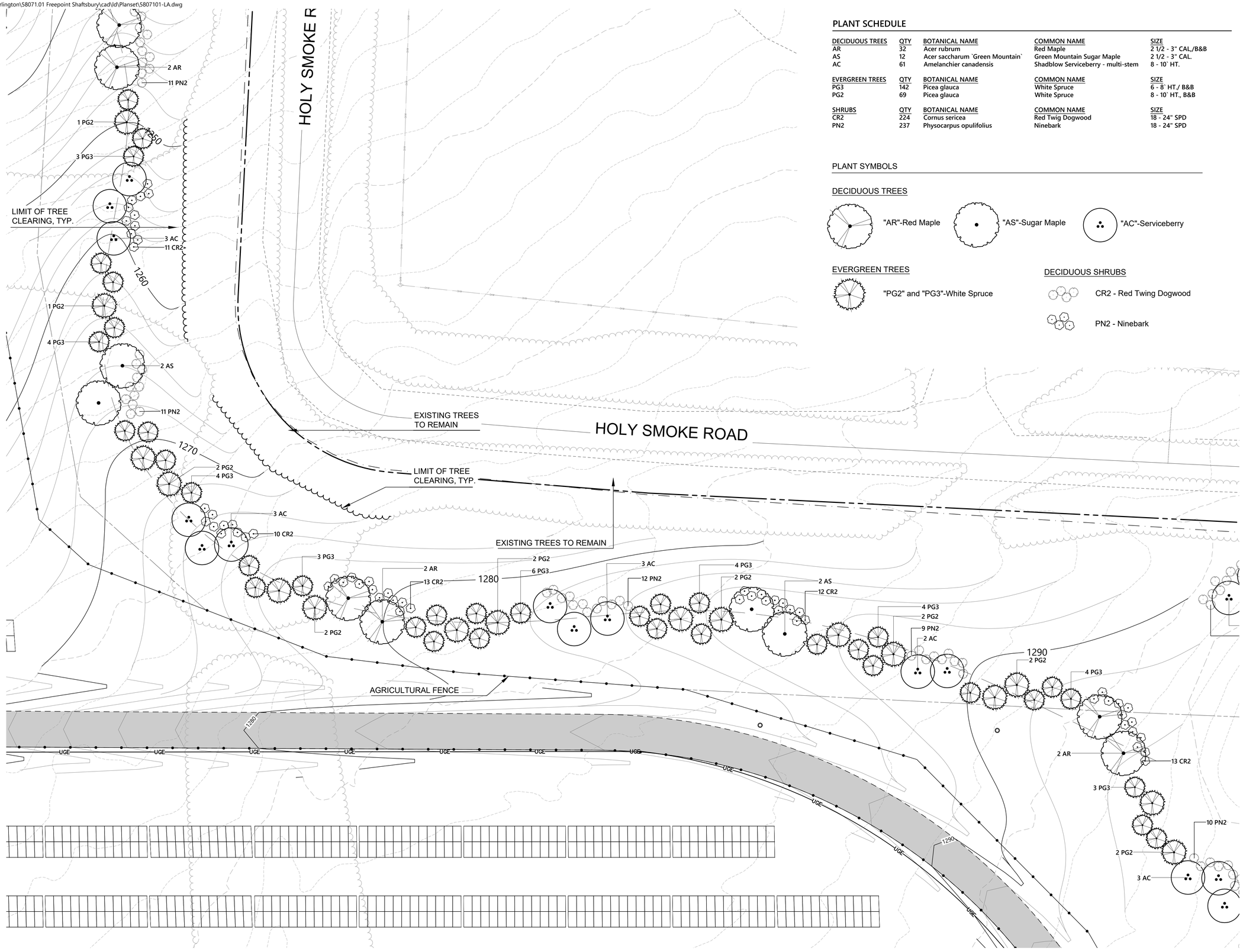

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twig Dogwood

PN2 - Ninebark

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Landscape Mitigation Plan

Drawing Number

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PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark

PRIVATE RESIDENCE

HOLY SMOKE ROAD

EXISTING TREES TO REMAIN

EXISTING SEPTIC SYSTEM

EXISTING BUILDING

PROJECT ACCESS DRIVE
(At existing access drive along Holy Smoke Road)

AGRICULTURAL FENCE

SOLAR ARRAY

EX

1310

1304

1314

2 PG2, 5 PG3, 13 CR2, 2 AR, 3 AC, 12 PN2

4 PG3, 2 AR, 13 CR2, 3 PG3, 10 PN2, 2 PG2, 3 AC

2 PG2, 5 PG3, 8 PN2, 3 AC, 7 CR2, 2 PG2, 4 PG3

11 CR2, 3 AC, 2 PG2, 2 AR, 4 PG3, 5 PN2

3 AC, 12 PN2, 3 AC, 3 PG3, 3 PG2, 2 PG2, 6 PG3, 2 AR, 2 AR

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PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL/B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

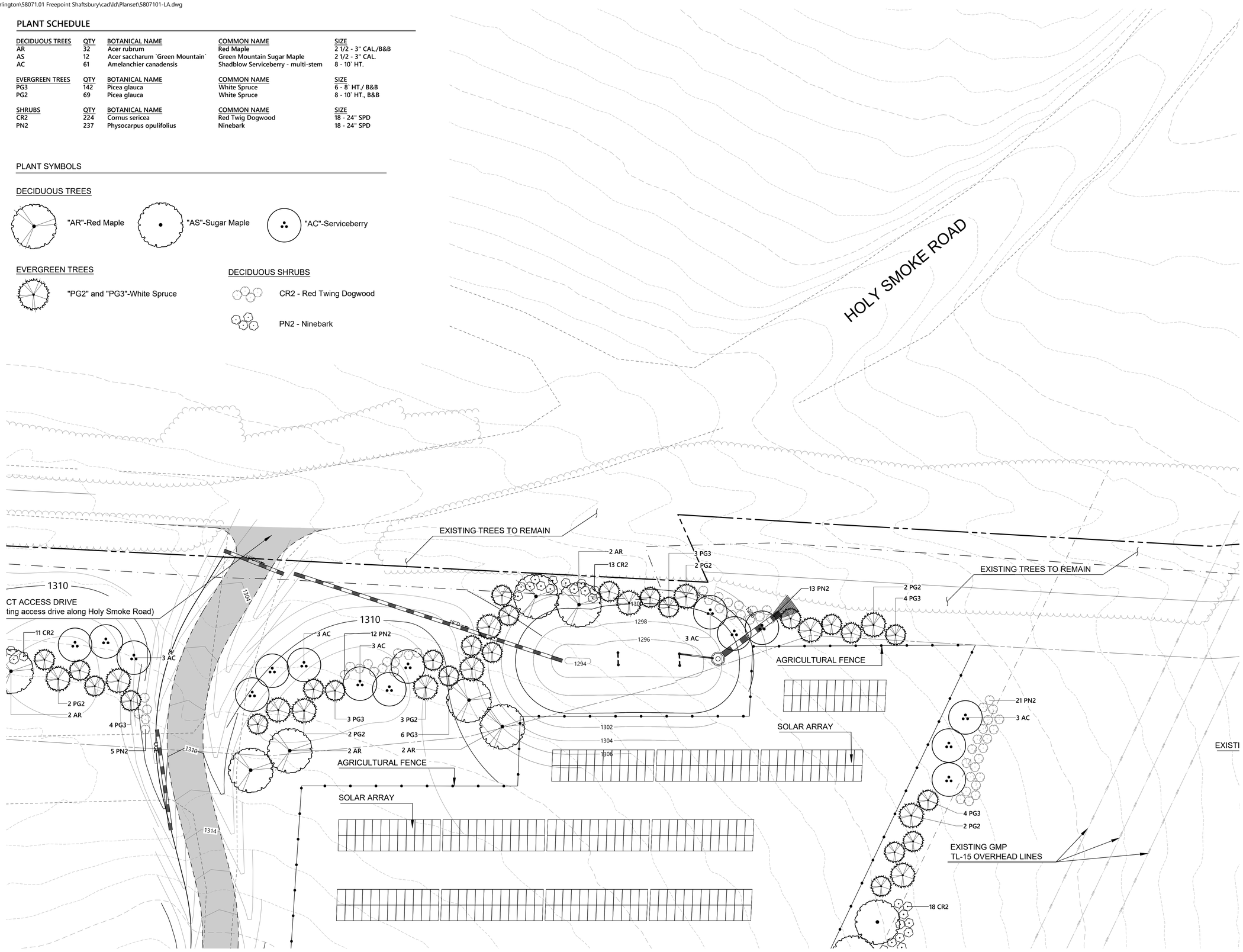
EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark



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PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

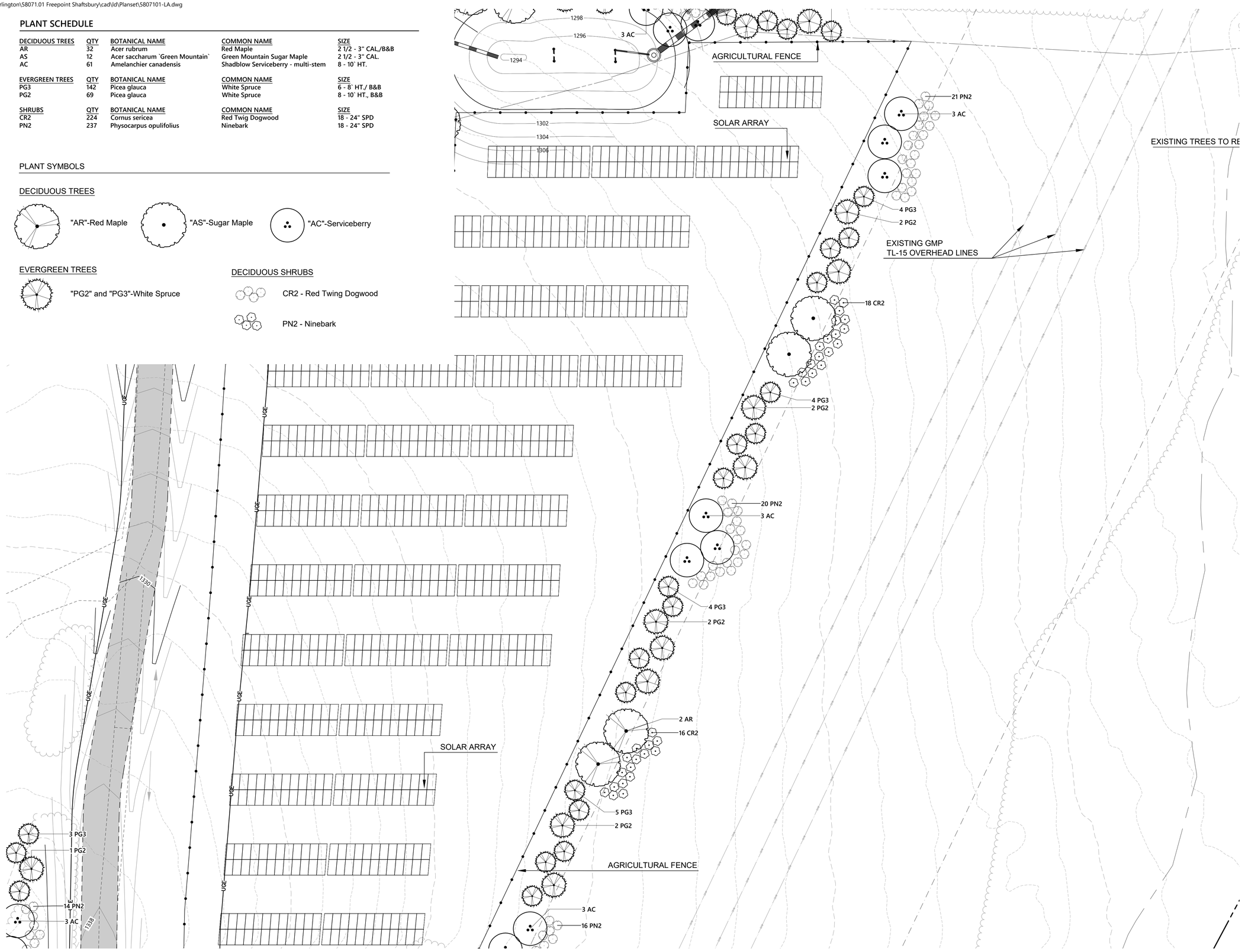
EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twing Dogwood

PN2 - Ninebark



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Shaftsbury, VT 05262

No.	Revision	Date	Apprvd.

Designed by

Checked by MKW

Issued for

Permitting

Date April 24, 2023

Not Approved for Construction

Drawing Title

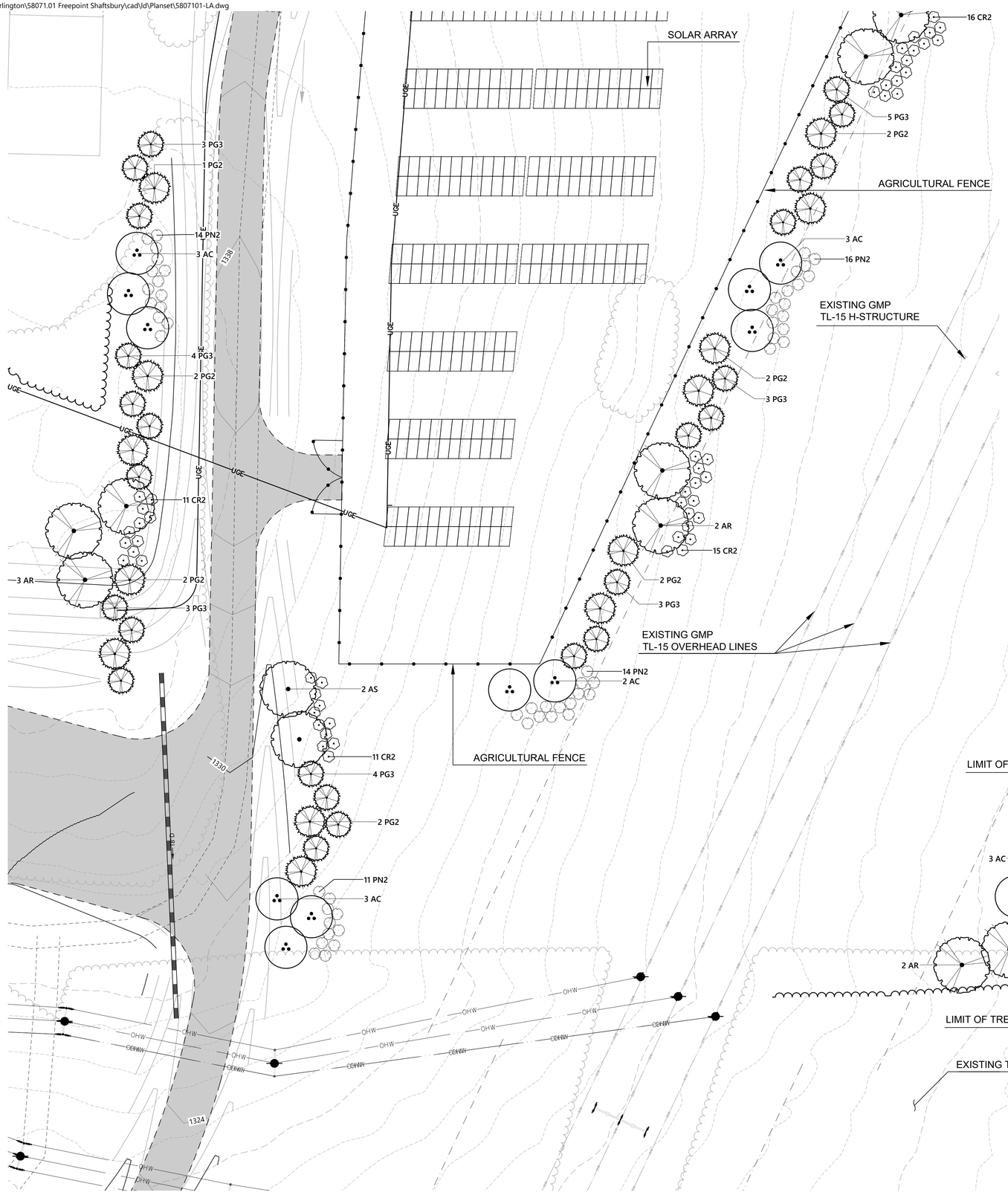
Landscape Mitigation Plan

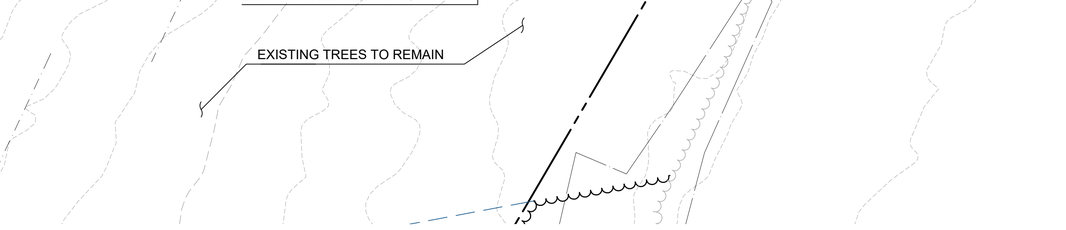
Drawing Number

L1.06

Sheet of --

Project Number 58071.01





PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	32	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AS	12	Acer saccharum `Green Mountain`	Green Mountain Sugar Maple	2 1/2 - 3" CAL.
AC	61	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10` HT.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PG3	142	Picea glauca	White Spruce	6 - 8` HT./ B&B
PG2	69	Picea glauca	White Spruce	8 - 10` HT., B&B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
CR2	224	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
PN2	237	Physocarpus opulifolius	Ninebark	18 - 24" SPD

PLANT SYMBOLS

DECIDUOUS TREES

"AR"-Red Maple

"AS"-Sugar Maple

"AC"-Serviceberry

EVERGREEN TREES

"PG2" and "PG3"-White Spruce

DECIDUOUS SHRUBS

CR2 - Red Twig Dogwood

PN2 - Ninebark

0 10 20 40 Feet

vhb.com

vhb

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802.497.6100

Shaftsbury Solar
VT Real Estate Holdings 1 LLC

1004 Holy Smoke Road
Shaftsbury, VT 05262

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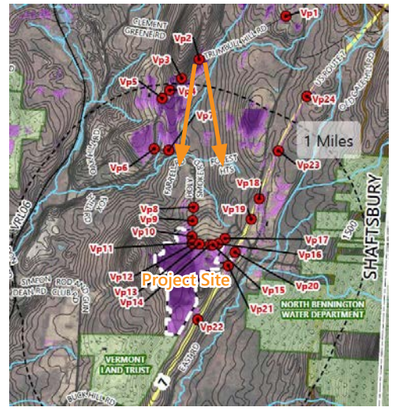
Sheet of --

Project Number
58071.01

Appendix E

Visual Simulations

View Point Location



View Point Location: #2
Refer to Photo Location Map (Appendix A)

View Description

Existing view from Trumbull Hill Road, approximately 1.31 miles north, looking south towards the proposed Project.

Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Existing Conditions

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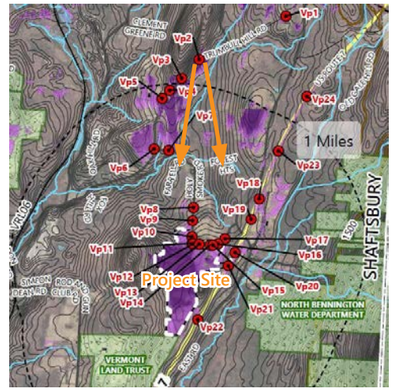
View Point Location



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Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscape mitigation installed the first year)

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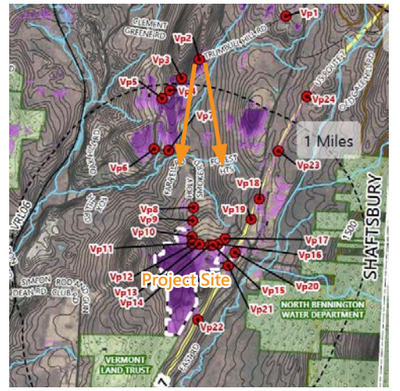
View Point Location



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Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscpae mitigation with approximately 5 years of growth)

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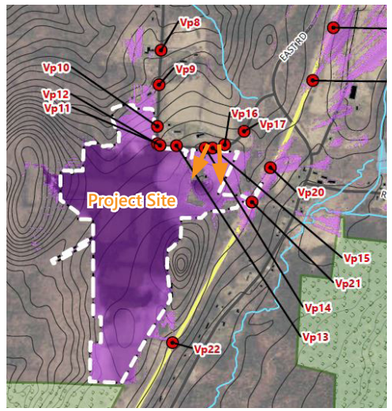
View Point Location



View Point Location: #15
Refer to Photo Location Map (Appendix A)

View Description

Existing view from Holy Smoke Road, approximately 162-feet northwest, looking southeast towards the proposed Project.

Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Existing Conditions

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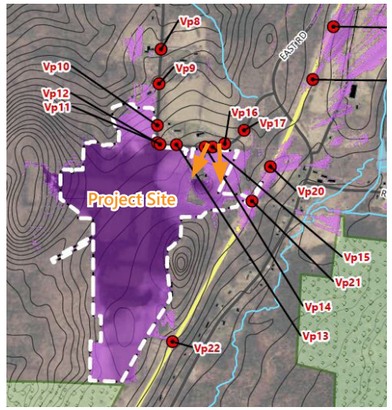
View Point Location



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Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscape mitigation installed the first year)

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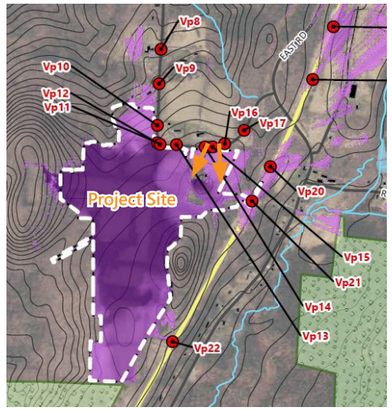
View Point Location



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Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscpae mitigation with approximately 5 years of growth)

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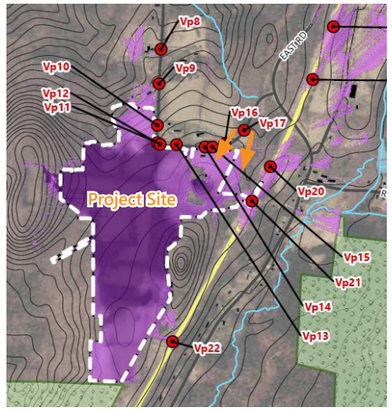
View Point Location



View Point Location: #17
Refer to Photo Location Map (Appendix A)

View Description

Existing view from Holy Smoke Road, approximately 380-feet northeast, looking southwest towards the proposed Project.

Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Existing Conditions

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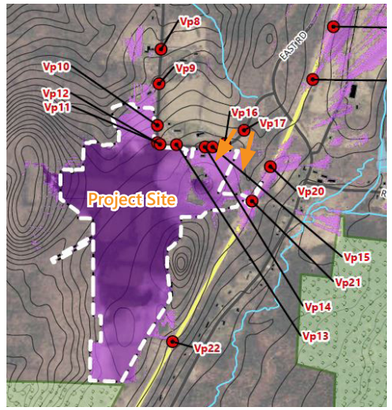
View Point Location



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Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscape mitigation installed the first year)

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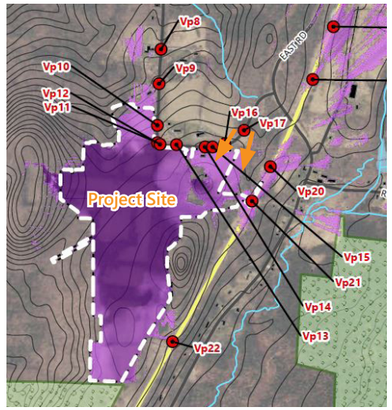
View Point Location



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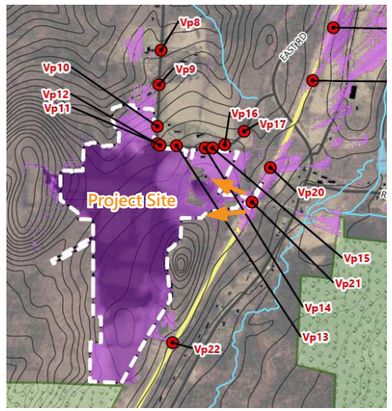
View Point Location



View Point Location: #21
Refer to Photo Location Map (Appendix A)

View Description

Existing view from U.S.-7, approximately 530-feet east, looking west towards the proposed Project.

Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Existing Conditions

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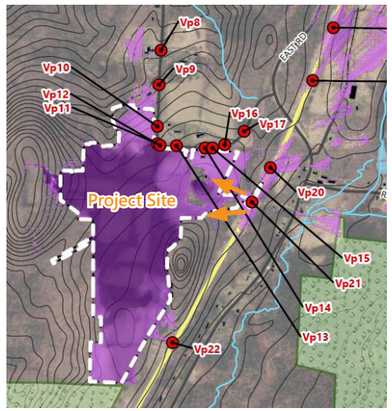
View Point Location



View Point Location: #21
Refer to Photo Location Map (Appendix A)

View Description

Simulated view from U.S.-7, approximately 530-feet east, looking west towards the proposed Project.

Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscape mitigation installed the first year)

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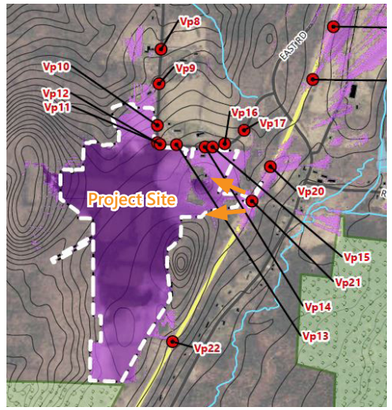
View Point Location



View Point Location: #21
Refer to Photo Location Map (Appendix A)

View Description

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Lens: 50mm equivalent focal length

Date Captured: January 16, 2023

Shaftsbury Solar

Shaftsbury, Vermont

Visual Simulation - Proposed Conditions (Landscpae mitigation with approximately 5 years of growth)

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