ATTACHMENT 5

SARATOGA ASSOCIATES

Proposed Wireless Telecommunications Facility

Site Name: EcoSite Glastonbury
63-80 Woodland Street
Glastonbury, CT 06073

VISUAL RESOURCE ASSESSMENT

Prepared for:
Infinigy
1033 Watervliet Shaker Road
Albany, NY 12205

February 28, 2017

Landscape Architects, Architects,
Engineers and Planners, P.C.

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#2017-002

VISUAL RESOURCE ASSESSMENT

EcoSite seeks approval from the Connecticut Siting Council for a certificate of Environmental Compatibility and Public Need to construct a wireless telecommunications facility (the “Project”) to be located on property at 63-80 Woodland Street (“host property”) in the Town of Glastonbury, Connecticut. To address issues of potential visual impact, Saratoga Associates, Landscape Architects, Architects, Engineers, and Planners, P.C. was retained to conduct a Visual Resource Assessment ("VRA") of the proposed Project.

The visual study area for this VRA extends to a two-mile radius from the project site (hereafter referred to as the “two-mile study area” or “study area”).

Project Description

The Project includes the construction of a 150-foot tall monopole designed to support up to four antenna platforms with associated ground equipment enclosed within a fenced compound at the base of the tower. The fenced area ("tower site") will be approximately 50 feet by 50 feet (2,500 square feet) located at 41° 39’ 38.”N, 72° 34’ 26.8”W. The existing ground elevation in this area is approximately 319 feet above mean sea level (AMSL). Access to the tower site would be from an existing gravel drive currently located on the host property. The access road will be improved to accommodate service vehicles.

Landscape Setting

The 173 acre host property is identified in Town of Glastonbury tax records as 63-80 Woodland Street. The proposed fenced compound area and 12-foot wide access road are located entirely within this parcel. The property is primarily wooded and undeveloped. Approximately 3.5 acres of the site has been used for sand and gravel extraction. Approximately 39 acres is presently used for active agricultural purposes. The host property is zoned “Rural Residence” as defined by the Glastonbury Town Code.

The tower site is approximately 2,400 feet south of Hopewell Road, 3,500 feet west of Woodland Street and 1,990 feet east of Matson Hill Road. The nearest residential structure is approximately 1,140 feet southwest of the tower site on Blueberry Lane.

The topography within the two-mile study area is characterized by rolling hills ranging in elevation from 861 feet at the southeast portion of the study area to near sea level at the Connecticut River. The study area is bisected by Roaring Brook and its tributary Slab Cut Brook which flow westerly to the Connecticut River.

Broad tracts of mature second growth deciduous forest interspersed with stands of mature evergreen species cover steep slopes, hilltops, ravines, and stream corridors. The tree canopy occupies approximately 3,278 acres of the 8,042 acre study area (41%). Mature tree cover in generally ranges from approximately 50 to 75 feet in height.

Extensive moderate density (1/2 acre to 5 acre lot) single-family development is clustered in planned residential subdivisions to the north and east of the host property. Residential neighborhoods are often heavily vegetated and deciduous trees commonly extend to road edges limiting long distance vistas. Other prevalent land uses include active orchards,

agricultural lands, meadows and large residential lawns where vistas to the distant landscape are more common.

Approximately 61 miles of public roadways are within the 2-mile study area. Chestnut Hill Road, approximately one (1) mile north of the tower site and Main Street approximately 1.5 miles west are the most heavily travelled roadways. Dense vegetation and intervening topography completely screen project views from these corridors. Residential collector roads including Woodland Street, Matson Hill Road and Hopewell Road surround the host property. These secondary roads are typically narrow and winding with short sight distances. Project views from collector road and connecting residential streets are commonly screened by roadside vegetation.

Viewshed Analysis

Viewshed mapping identifies the geographic area within which there is a relatively high probability that some portion of the proposed Project could be visible.

One viewshed map was prepared defining the area within which there would be no visibility of the Project due to the screening effect of intervening topography (see Figure 1). This "bare earth" analysis identifies the maximum potential geographic area within which further investigation is appropriate. A second map was prepared illustrating the screening effect of existing mature vegetation. The more realistic "vegetated condition" analysis identifies the geographic area where one would expect to be substantially screened by intervening forest vegetation (see Figure 2).

Global Mapper 17.0 GIS software was used to generate viewshed areas based on publicly available topographic and land cover datasets. Topographic data was derived from the National Elevation Dataset (1/3 arc second)[1]. Using Global Mapper's viewshed analysis tool, the proposed tower location and height were input and a conservative offset of six feet was applied to account for the observer's eye level. The resulting viewshed identifies grid cells with a direct line-of-sight to the tower high point.

Existing forest vegetation and built structures were manually digitized from 1-foot resolution digital ortho-photographs (2011) acquired from the ArcGIS World Imagery[2]. The screening effect of vegetation was incorporated by adding 50 feet to digitized areas that are completely forested. Existing built structures were assumed to be 25 feet tall. Forested areas and building footprints were removed from the viewshed result to account for affected areas located within structures or densely wooded cover.

Based on field observation, most trees in forested portions of the study area are taller than 50 feet. This height therefore represents a conservative estimate of the efficacy of vegetative screening. It is important to note that digitized vegetation is based on interpretation of forest areas that are clearly distinguishable in the source aerial photography. As such, the potential screening value of site-specific vegetative cover such as small hedgerows, street trees and individual trees and other areas of non-forest tree cover may not be represented in the viewshed analysis.

[1] http://viewer.nationalmap.gov/viewer/
[2] https://www.arcgis.com/home/item.html?id=10df2279f9684e4a9f6a7f08febac2a9

It is noteworthy that untrained reviewers often misinterpret "bare earth" condition viewshed maps to represent wintertime, or leafless condition visibility. In fact, deciduous woodlands provide a substantial visual barrier in all seasons. Since the digitized forest cover overlay generally identifies only larger stands of woodland vegetation that is clearly distinguishable from aerial photography, the land cover viewshed map is substantially representative of both leaf-on and leaf-off seasons.

By themselves, the viewshed maps do not determine either how much of the proposed wireless telecommunications tower would be visible above intervening landform or vegetation (e.g., 100%, 50%, 10% etc. of total tower height), but rather the geographic area within which some portion of the facility theoretically would be visible. Their primary purpose is to provide a general understanding of a project's potential visibility and identify areas where further investigation is appropriate.

Study Area Reconnaissance

Balloon Float - Saratoga Associates conducted a balloon float on Tuesday January 10, 2017 to confirm the accuracy of the viewshed analysis and identify potential visibility from visually sensitive areas. The Town of Glastonbury was alerted to the event to allow residents and local decision-makers an opportunity to observe.

One five-foot diameter red balloon was raised to an elevation of 150 feet above grade. Due to the presence of dense forest vegetation at the Project Site, the balloon was launched from the nearest open field location approximately 300 feet west of the Project Site. The launch position was marked in the field using a hand held GPS unit. The balloon was launched at 9:30am and remained aloft until approximately 1:30pm. The weather during the balloon float was partly cloudy to partly sunny with unlimited visibility. Winds (forecast to be light) were approximately 5-7 miles per hour at the time the balloon was aloft.

With variable winds, the balloon was blown down by an estimated 10-30 vertical feet (depending on gusts at any given moment).

Field Observation and Photography - With the balloon in the air, an experienced visual analyst drove public roads to inventory those areas where the balloon was and was not visible. The balloon was photographed from multiple vantage points to document the actual views toward the proposed Facility. The photographer attempted to photograph the balloon when it was at or near its apparent apex to minimize the effect of wind blow-down.

Several locations where the balloon was not visible were also photographed to provide documentation potential visibility from other areas of interest. Photographs were taken from 27 individual locations. Emphasis was placed on locations considered to be of scenic, cultural and/or social importance to the community. Such places include recreation and conservation areas, historic resources, open spaces, local roadways and residential neighborhoods.

Photographs were taken using a Nikon D3100 digital single lens reflex ("DSLR") 12.2-mega pixel camera with a lens setting of approximately 50mm[3] to simulate normal human eyesight

[3] A Nikon D3100 digital SLR with an 18-55milimeter (mm) zoom lens was used for all Project photography. This digital camera, similar to most digital SLR cameras, has a sensor that is

relative to scale. The precise coordinates of each photo location were recorded in the field using a handheld global positioning system (GPS) unit. In cases where the balloon was not visible the "waypoint indicator" function of the GPS (arrow pointing along a calculated bearing) was used to determine the precise direction of the tower site.

Photographs taken during the balloon float are provided in Appendix A – Photo Log. Photographs were taken from the following places:

Map ID	Location	Orientation	Distance to Tower	Theoretical View Indicated by Land Cover Viewshed - (See Figure 2)	Balloon Visible	Photo Simulation Provided as
1	Crystal Ridge at cul-de-sac	NNW	1.26	Yes	Yes	Figure 3
2	Crystal Ridge at Clark Hill Road	NNW	1.33	Yes	No	
3	Crystal Ridge (near #81)	NNW	1.27	Yes	Yes	
4	Crystal Ridge (near #51)	NNW	1.28	Yes	Yes	
5	Clark Hill Road (near #222)	NNW	1.21	Yes	No	Figure 4
6	Accornero Lane at cul-de-sac	NNW	1.10	Yes	Yes	Figure 5
7	Clark Hill Road (near #51)	NW	0.91		No	Figure 6
8	Woodland Street (near #713)	NW	0.73	Yes	No	
9	Country Club Road (near #735)	WNW	0.74	Yes	No*	
10	Acorn Ridge Road at cul-de-sac	WNW	0.75	No	No	
11	Woodland Street at Slab Cut Brook	SW	0.79	Yes	No	Figure 7
12	Hopewell Road (near #1003)	SW	0.96	Yes	No	
13	Hopewell School	SW	1.77		No	
14	New London Turnpike (near #1950)	SSW	1.96	Yes	No	
15	Leigh Gate (near #266)	S	0.58	No	No	
16	Leigh Gate (near #11)	SSE	0.83	Yes	No*	Figure 8
17	Colton Hollow Preserve at parking lot	SE	0.61	No	No	
18	Matson Hill Road at Roaring Brook	SE	0.45	Yes	Yes	Figure 9
19	Bittersweet Lane at cul-de-sac	E	0.58	No	Yes**	
20	Bittersweet Lane (near #30)	E	0.43	Yes	Yes	Figure 10
21	Matson Hill Road (near #519)	N	0.70	Yes	Yes	Figure 11
22	Chatham Hill Road (near #100)	N	0.83	Yes	No	
23	Belltown Hill Road (near #215)	NNE	0.99	Yes	No	
24	Matson Hill Road (near #452)	NNE	0.67	Yes	Yes	
25	Matson Hill Road (near #370)	NE	0.53	Yes	Yes	
26	Matson Hill Road (near #297)	NE	0.49	Yes	Yes	Figure 12
27	Foote Road (near #500)	ENE	0.65	Yes	No	

* Although the balloon was not spotted in the field further investigation determined tower visibility.
**Although viewshed analysis indicates no visibility the balloon was spotted through intervening deciduous vegetation

Photo Simulations

Of the 27 receptors visited, an unobstructed view of the balloon was found from 11 locations. Further assessment identified one additional location (#16 - Leigh Gate [near #11]) where the balloon was not spotted in the field (possibly due to wind blow-down or distance), but subsequent investigation determined visibility would exist. From another location (# 20 - Bittersweet Lane [near cul-de-sac]) the balloon was spotted through the leaf-less condition branches of intervening deciduous trees in an area where viewshed analysis indicated no visibility would occur.

approximately 1.6 times smaller than a comparable full frame 35mm film camera. Recognizing this differential, the zoom lens used was set to approximately 31mm to achieve a field-of-view comparable to a 50mm lens on a full frame 35mm camera (31mm x 1.6 = 50mm).

To illustrate how the wireless telecommunications tower will appear, photo simulations were prepared from 10 representative locations. Photo simulations were developed by superimposing a rendering of a three-dimensional computer model of the proposed Project into the base photograph taken from each corresponding visual receptor The three-dimensional computer model was developed using *Autodesk Civil 3D*® and *3D Studio Max Design*® software (3D Studio Max).

Simulated perspectives (camera views) were matched to the corresponding base photograph for each simulated view by replicating the precise coordinates of the field camera position (as recorded by handheld GPS) and the focal length of the camera lens used (e.g. 50mm). Precisely matching these parameters assures scale accuracy between the base photograph and the subsequent simulated view. The cameras elevation (Z) value is derived from digital elevation model (DEM) data plus the cameras height above ground level. The camera's target position was set to match the bearing of the corresponding existing condition photograph as recorded in the field. With the existing conditions photograph displayed as a "viewport background," and the viewport properties set to match the photograph pixel dimensions, minor camera adjustments were made (horizontal and vertical positioning, and camera roll) to align the horizon in the background photograph with the corresponding features of the 3D model.

To verify the camera alignment, elements (e.g. existing buildings, topography, vegetation, roads, etc.) visible within the photograph were identified and digitized from digital orthophotos. Each element was assigned a Z value based on DEM data and then imported to *3D Studio Max*. A 3D terrain model was also created (using DEM data) to replicate the existing site topography. The digitized elements were then aligned with corresponding elements in the photograph by adjusting the camera target. If necessary, slight camera adjustments were made for accurate alignment. Using this method of camera alignment, photo simulations do not rely on the position of the balloon visible in the photo frame and thus are not affected by balloon blow-down.

A daylight system was created matching the exact date and time of each baseline photograph to assure proper shading and shadowing of modeled elements.

Once the camera alignment was verified, a to-scale 3D model of the proposed project was merged into the model space. The 3D model was constructed in sufficient detail to accurately convey visual character and reveal impacts. The scale, alignment, elevations and location of the visible elements of the proposed facilities are true to the conceptual design. Post production editing (i.e., airbrush out portion of tower that falls below or behind foreground topography and vegetation) was completed using Adobe Photoshop software. Photo Simulations are provided in Appendix C.

Conclusions

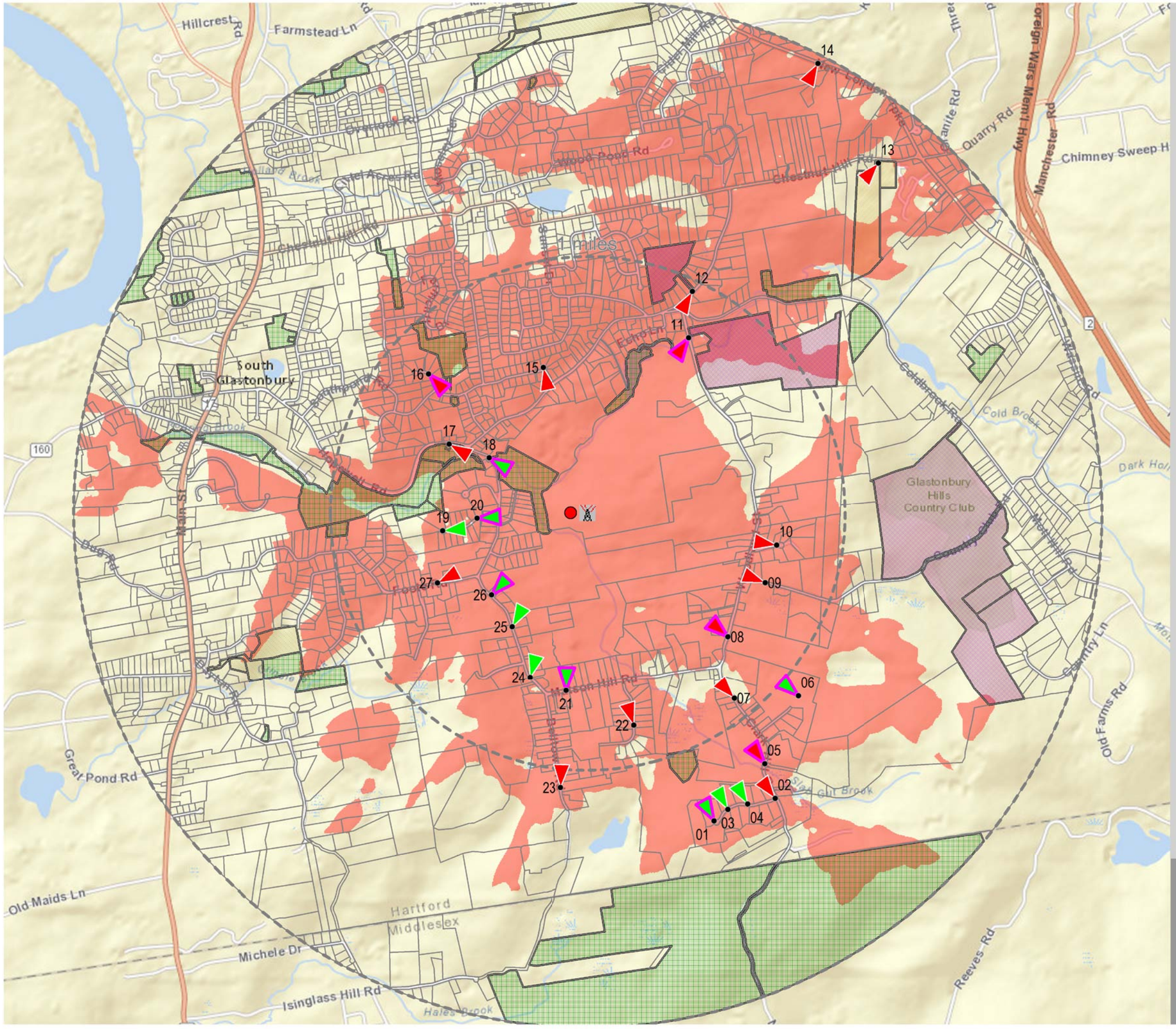
The proposed telecommunications tower is sited within a rolling landscape characterized by broad tracts of mature second growth deciduous forest interspersed with stands of mature evergreen species. Existing topography and mature woodland vegetation screen views of the proposed Project from most vantage points. Of the 8,042 acres within the 2-mile study area, a view of the proposed telecommunications tower is likely from approximately 317 acres (3.9%).

Of the 61 miles of public roads within the 2-mile radius Study Area, potential project views are found along approximately 2.3 linear miles (3.7%).

Extensive single-family development is clustered in planned residential subdivisions to the north and east of the host property. Other prevalent land uses include active orchards, agricultural lands, meadows and large residential lawns. Project views are most notable across open meadow and orchards approximately 0.5 mile southwest of the Project Site in the vicinity of Matson Hill Road. As depicted in Figures 10b and 11b, the proposed monopole tower will be visible across open fields and orchards in front of, and above background hills.

Other areas of direct visibility will occur on north facing slopes in the vicinity of the Clark Hill Road, Crystal Ridge, Accornero Lane at a distance or approximately 1.0 to 1.5 miles. As depicted in Figures 3b and 5b, the proposed monopole would be at a lower elevation and visible against background hills making it a point of minimal visual interest.

Saratoga Associates estimates that the proposed telecommunications tower will be directly visible to some degree from roughly 45-55 residential structures within the study area. This includes 10-12 structures on Matson Hill Road, three (3) residences on Hi Gate Farms Road, two (2) residences on Belltown Road, 6-7 residences on Chatham Hill Road, 5-6 residences on Foote Road, 13 residences on Crystal Ridge, 6-7 residences on Accornero Lane, and isolated pockets of visibility in other residential areas. As evidenced by the photo simulations, such visibility is at a distance where the project will be visually subordinate to other built structures currently visible from these affected locations.



LEGEND

- Cultural/Recreational Facilities
- Land Trust Properties
- Municipal Park/Open Space
- Schools

- Tower Visibility (bare earth)
- Balloon Location
- Tower Location

- ID # Photo Location - Balloon Not Visible
- ID # Photo Location - Balloon Visible
- ID # Photo Simulation Location

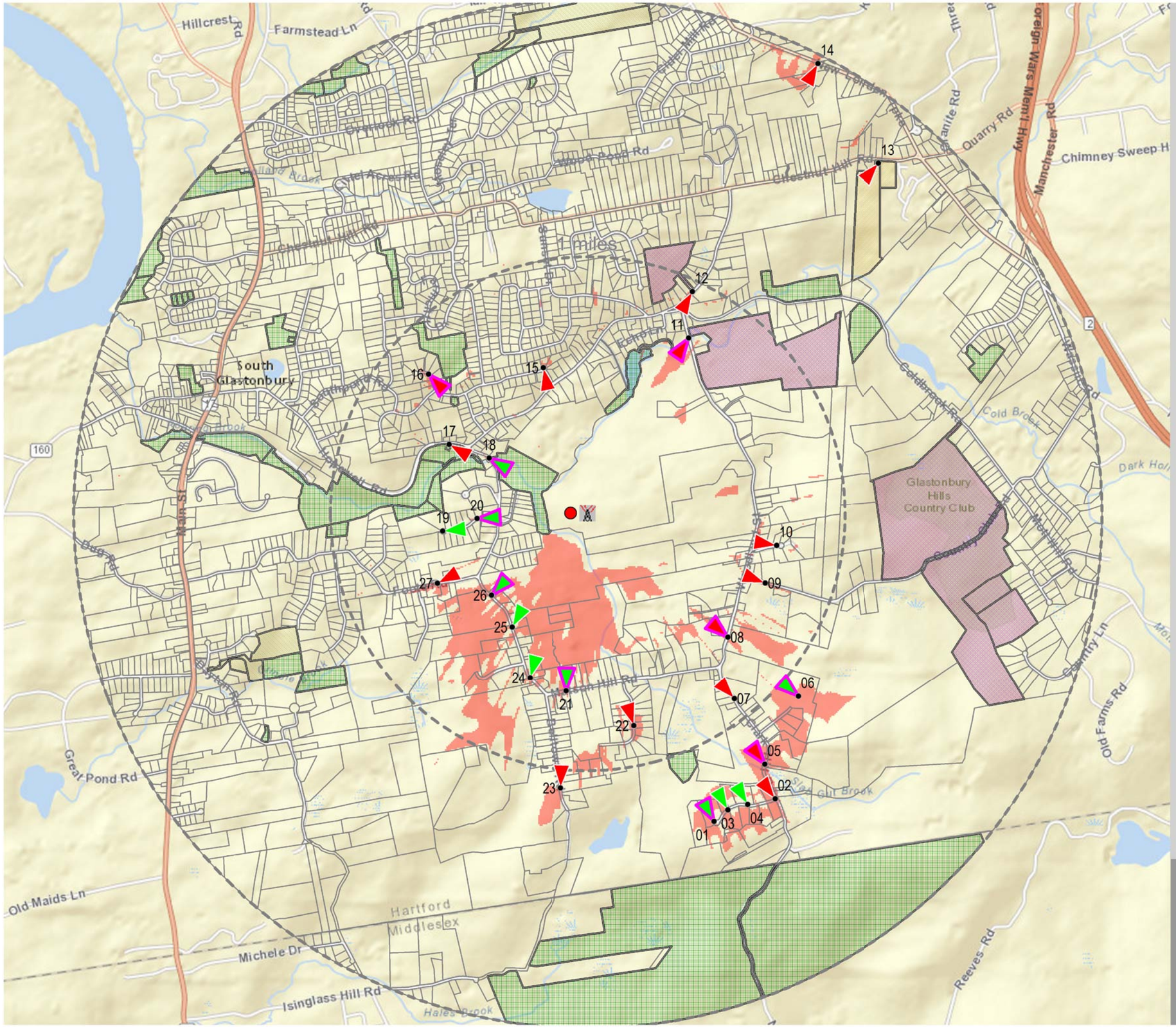
Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

This "bare earth' vierwshed map identifies areas where project high points may be visible without consideration of the screening effect of existing vegetation cr built structures. Bare earth analysis is provided to assist experienced visual analysts identify the maximum potential geographic area within which further investigation is appropriate. This topography-only viewshed map is not representative of project visibility during winter season leaf-off conditions and is not intended for public interpretation or presentation.

0 mi 0.5 mi 1 mi

FIGURE 1
Bare Earth Viewshed Map - 2 Mile Radius

Visual Resource Assessment
Eco-Site Glastonbury
63-80 Woodland Street
Glastonbury, CT 06073



LEGEND

- Cultural/Recreational Facilities
- Land Trust Properties
- Municipal Park/Open Space
- Schools

- Tower Viewshed (including existing forest cover and buildings)
- Balloon Location
- Tower Location

- ID # Photo Location - Balloon Not Visible
- ID # Photo Location - Balloon Visible
- ID # Photo Simulation Location

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

This "land cover condition" viewshed map includes the screening effect of intervening vegetation and buildings. Vegetated areas and buildings were manually digitized from 2011 one-foot resolution digital orthoimagery. All digitized tree cover is assumed to be 50 feet tall and all digitized buildings are assumed to be 25 feet tall.

0 mi 0.5 mi 1 mi

FIGURE 2

Land Cover Viewshed Map - 2 Mile Radius

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	10:46am
Focal Length:	53mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 38.60523’ N 72° 33.88134’ W
Distance:	1.32 Miles

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level

The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 3a

Existing Condition
VP01 - Crystal Ridge at cul-de-sac

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	10:46am
Focal Length:	53mm (film equivalent)
Camera:	14.2mp Nikon D3100
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Distance:	1.32 Miles

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level

The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 3b

Simulated Condition
VP01 - Crystal Ridge at cul-de-sac

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Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	11:03am
Focal Length:	48mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 38.79978' N 72° 33.6558' W
Distance:	1.23 Miles

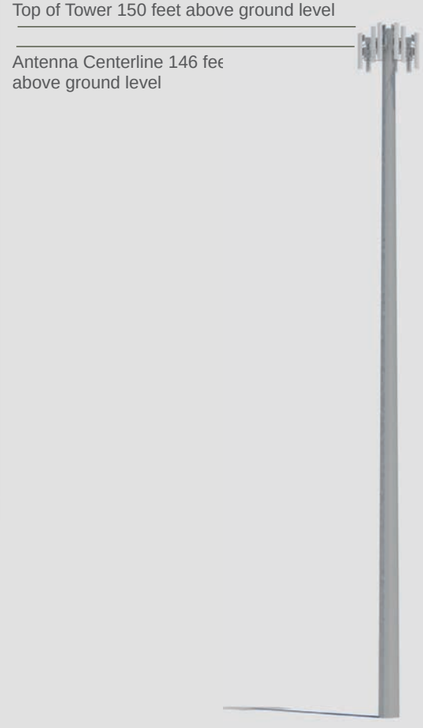

Figure 4a

Existing Condition
VP05 - Clark Hill Road (near #222)

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Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

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Distance:	1.23 Miles

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level

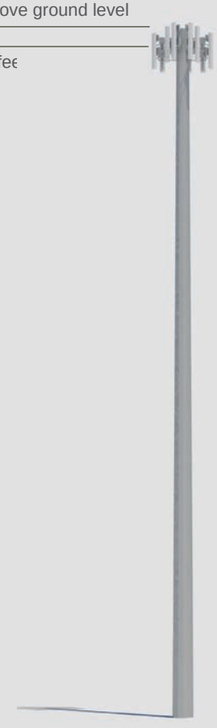

Figure 4b

Simulated Condition
VP05 - Clark Hill Road (near #222)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	11:09am
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.02958' N 72° 33.49908' W
Distance:	1.13 Miles

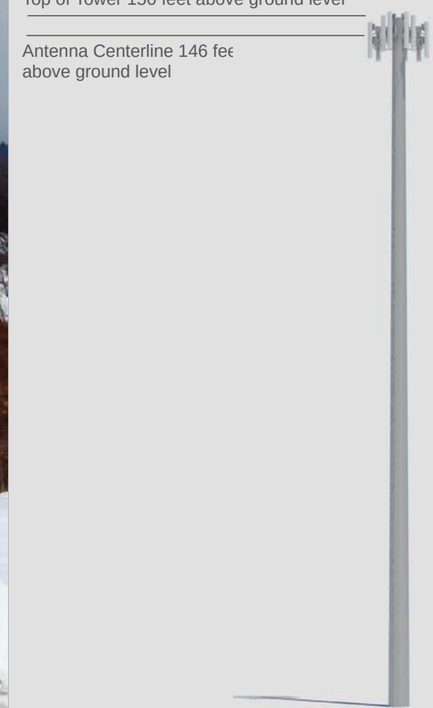

Figure 5a

Existing Condition
VP06 - Accornero Lane at cul-de-sac

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

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Date:	January 11,, 2017
Time:	11:09am
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.02958' N 72° 33.49908' W
Distance:	1.13 Miles

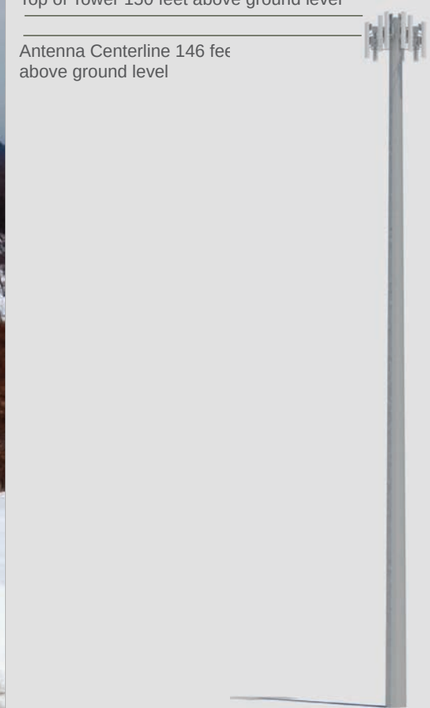


Figure 5b

Simulated Condition

VP06 - Accornero Lane at cul-de-sac

SARATOGA ASSOCIATES

Visual Resource Assessment

ECO-SITE - GLASTONBURY

63-80 Woodland Street

Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	11:15am
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.23016' N 72° 33.81534' W
Distance:	4,100 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee above ground level

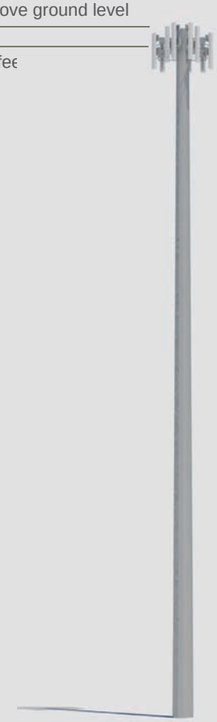


Figure 6a

Existing Condition
VP07 - Clark Hill Road (near #51)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	11:15am
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.23016’ N 72° 33.81534’ W
Distance:	4,100 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee above ground level

The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 6b

Simulated Condition

VP07 - Clark Hill Road (near #51)

SARATOGA ASSOCIATES

Visual Resource Assessment

ECO-SITE - GLASTONBURY

63-80 Woodland Street

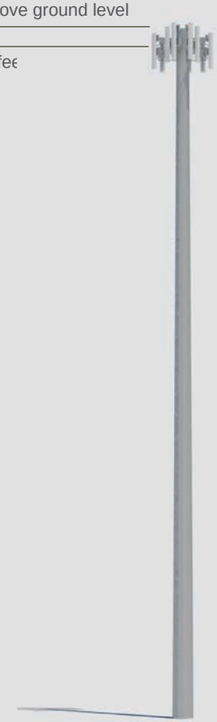
Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	11:27am
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 40.24116’ N 72° 33.98952’ W
Distance:	4,350 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level



The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 7a

Existing Condition
VP11- Woodland Street at Slab Cut Brook

SARATOGA ASSOCIATES

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Glastonbury, CT 06073

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Photo Location:	41° 40.24116' N 72° 33.98952' W
Distance:	4,350 Feet

Figure 7b

Simulated Condition

VP11- Woodland Street at Slab Cut Brook

SARATOGA ASSOCIATES

Visual Resource Assessment

ECO-SITE - GLASTONBURY

63-80 Woodland Street

Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	11:56am
Focal Length:	47mm (film equivalent)
Camera:	14.2mp Nikon D3100
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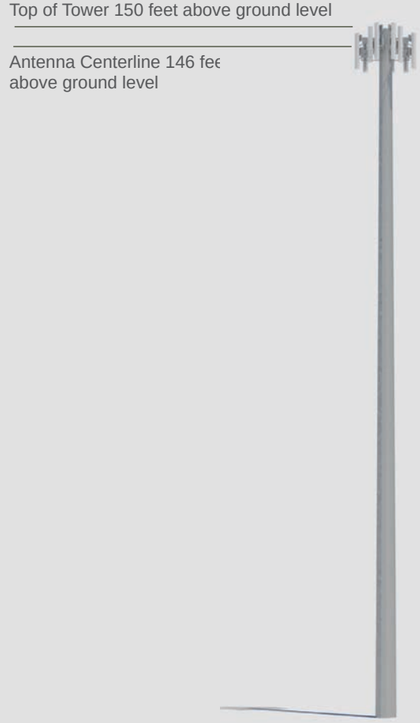

Figure 8a

Existing Condition
VP16 - Leigh Gate (near #11)

SARATOGA ASSOCIATES

Visual Resource Assessment
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63-80 Woodland Street
Glastonbury, CT 06073

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Photo Location:	41° 40.12122' N 72° 35.16252' W
Distance:	4,100 Feet

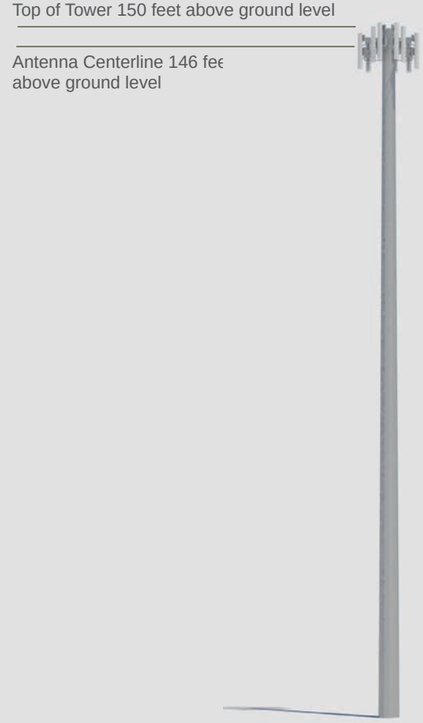


Figure 8b

Simulated Condition
VP16 - Leigh Gate (near #11)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	12:03pm
Focal Length:	48mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.88338’ N 72° 35.07012’ W
Distance:	4,100 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level

The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 9a

Existing Condition
VP18 - Matson Hill Road at Roaring Brook

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	12:03pm
Focal Length:	48mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.88338’ N 72° 35.07012’ W
Distance:	4,100 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee
above ground level

The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 9b

Simulated Condition

VP18 - Matson Hill Road at Roaring Brook

SARATOGA ASSOCIATES

Visual Resource Assessment

ECO-SITE - GLASTONBURY

63-80 Woodland Street

Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	12:12pm
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.63174' N 72° 34.94562' W
Distance:	1,950 Feet

Top of Tower 150 feet above ground level

Antenna Centerline 146 fee above ground level

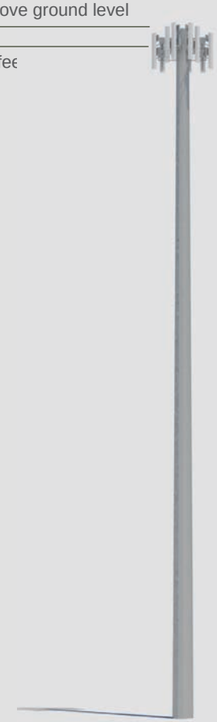


Figure 10a

Existing Condition

VP20 - Bittersweet Lane (near #30)

SARATOGA ASSOCIATES

Visual Resource Assessment

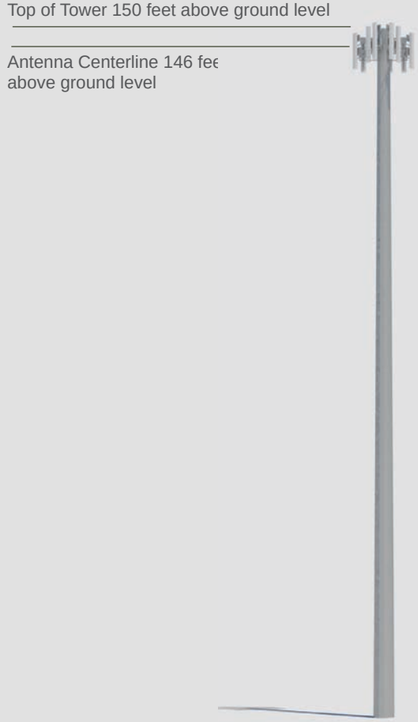
ECO-SITE - GLASTONBURY

63-80 Woodland Street

Glastonbury, CT 06073

Photograph Information

Date:	January 11,, 2017
Time:	12:12pm
Focal Length:	50mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.63174’ N 72° 34.94562’ W
Distance:	1,950 Feet



The above photograph is intended to be viewed 18 inches from the reader’s eye when printed on 11”x17” paper.

Figure 10b

Simulated Condition
VP20 - Bittersweet Lane (near #30)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	12:19pm
Focal Length:	48mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.04962' N 72° 34.54398' W
Distance:	3,650 Feet

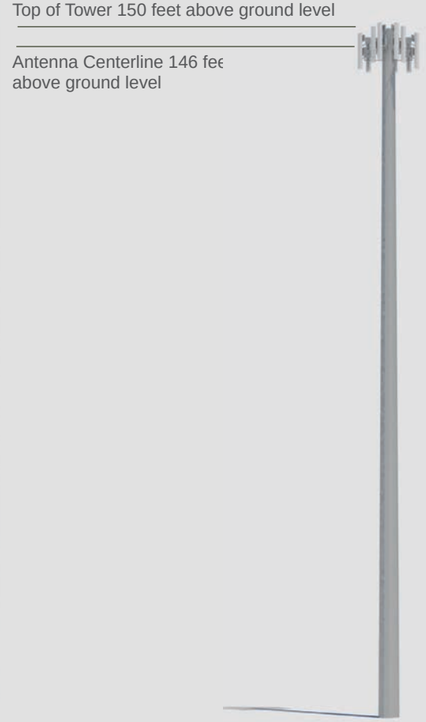


Figure 11a

Existing Condition
VP21 - Matson Hill Road (near #519)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	12:19pm
Focal Length:	48mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.04962' N 72° 34.54398' W
Distance:	3,650 Feet

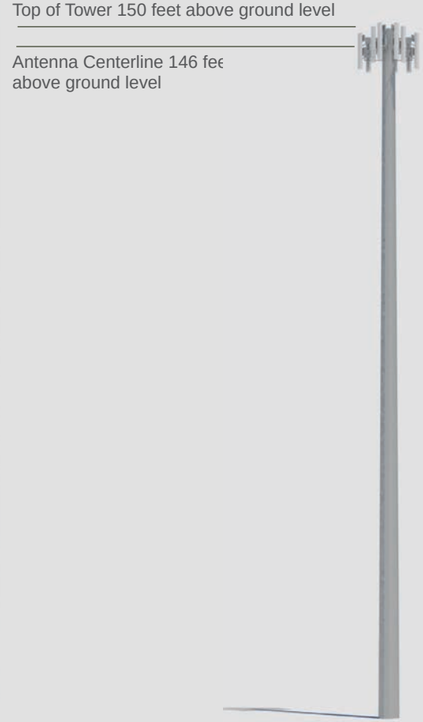


Figure 11b

Simulated Condition
VP21 - Matson Hill Road (near #519)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	12:38pm
Focal Length:	45mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.37302' N 72° 34.88088' W
Distance:	2,350 Feet

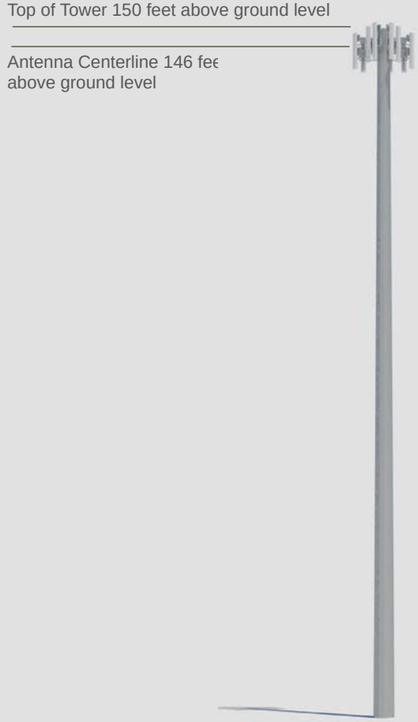


Figure 12a

Existing Condition
VP26 -Matson Hill Road (near #297)

SARATOGA ASSOCIATES

Visual Resource Assessment
ECO-SITE - GLASTONBURY
63-80 Woodland Street
Glastonbury, CT 06073

The above photograph is intended to be viewed 18 inches from the reader's eye when printed on 11"x17" paper.

Photograph Information

Date:	January 11,, 2017
Time:	12:38pm
Focal Length:	45mm (film equivalent)
Camera:	14.2mp Nikon D3100
Photo Location:	41° 39.37302' N 72° 34.88088' W
Distance:	2,350 Feet

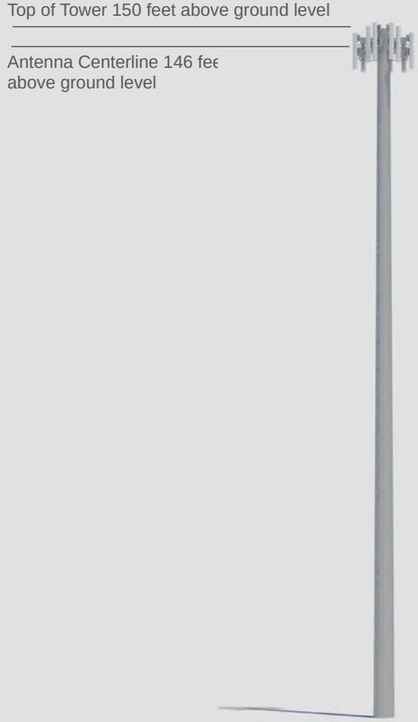


Figure 12b

Simulated Condition

VP26 -Matson Hill Road (near #297)

SARATOGA ASSOCIATES

Visual Resource Assessment

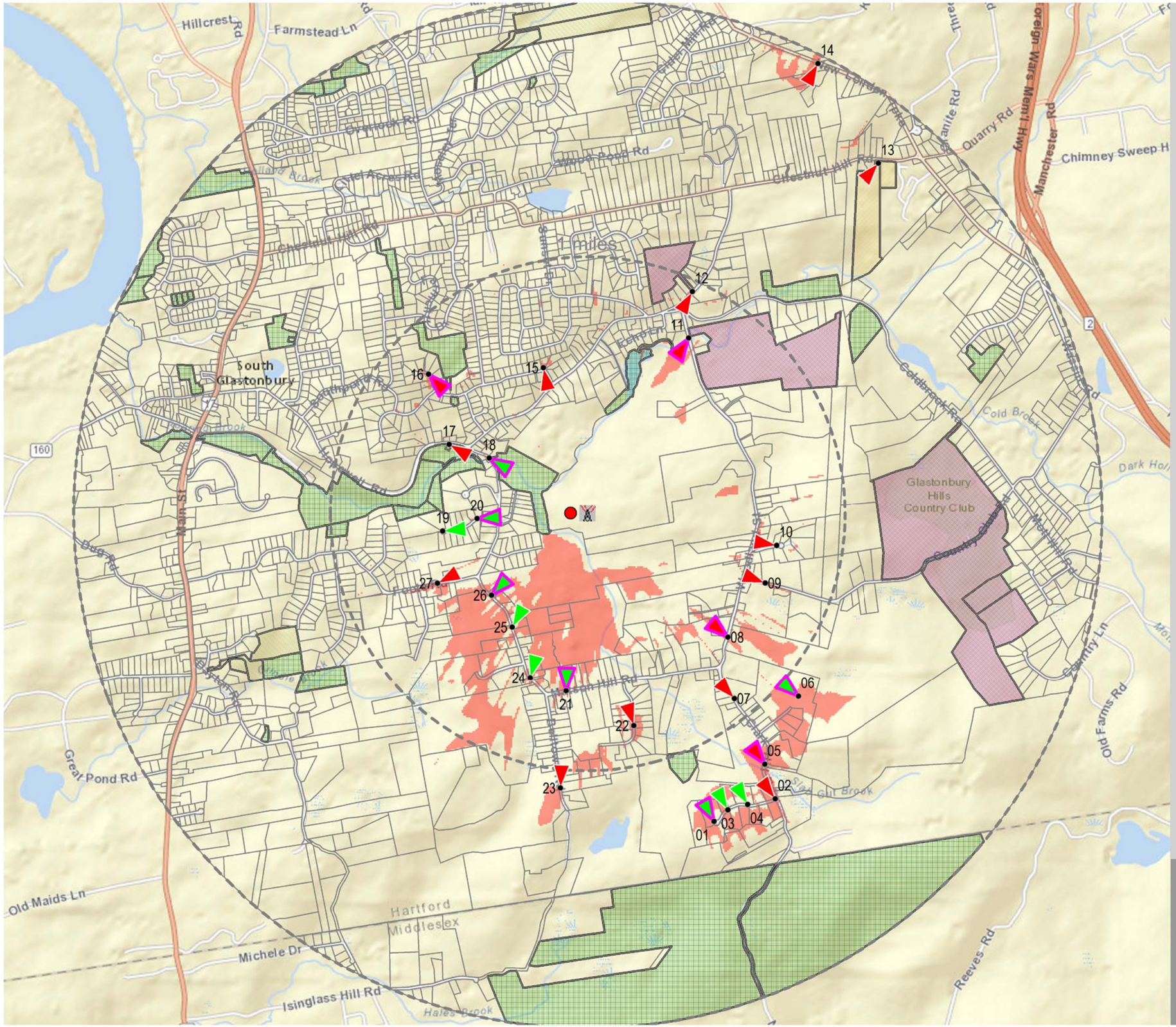
ECO-SITE - GLASTONBURY

63-80 Woodland Street

Glastonbury, CT 06073

Appendix A

Appendix A – Photo Log



LEGEND

- Cultural/Recreational Facilities
- Land Trust Properties
- Municipal Park/Open Space
- Schools

- Tower Viewshed (including existing forest cover and buildings)
- Balloon Location
- Tower Location

- ID # Photo Location - Balloon Not Visible
- ID # Photo Location - Balloon Visible
- ID # Photo Simulation Location

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

This "land cover condition" viewshed map includes the screening effect of intervening vegetation and buildings. Vegetated areas and buildings were manually digitized from 2011 one-foot resolution digital orthoimagery. All digitized tree cover is assumed to be 50 feet tall and all digitized buildings are assumed to be 25 feet tall.

0 mi 0.5 mi 1 mi

FIGURE 1A
Photo Log - Photo Location Map
Visual Resource Assessment
Eco-Site Glastonbury
63-80 Woodland Street
Glastonbury, CT 06073

Viewpoint 01 - Crystal Ridge at cul-de-sac (Balloon Visible)

Viewpoint 02 - Crystal Ridge at Clark Hill Road (Balloon not Visible)

FIGURE A2

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 03 - Crystal Ridge (near #81) (Balloon Visible)

Viewpoint 04 - Crystal Ridge (near #51) (Balloon Visible)

Viewpoint 05 - Clark Hill Road (near #222) (Balloon Not Visible)

Viewpoint 06 - Accornero Lane at cul-de-sac (Balloon Visible)

FIGURE A4

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 07 - Clark Hill Road (near #51) (Balloon Not Visible)

Viewpoint 08 - Woodland Street (near #713) (Balloon Not Visible)

FIGURE A5

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 09 - Country Club Road (near #735) (Balloon Not Visible)

Viewpoint 10 - Acorn Ridge Road at cul-de-sac (Balloon Not Visible)

Figure A6

Photo Log

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 11 - Woodland Street at Slab Cut Brook (Balloon Not Visible)

Viewpoint 12 - Hopewell Road (near #1003) (Balloon Not Visible)

Figure A7

Photo Log

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 13 - Hopewell School (Balloon Not Visible)

Viewpoint 14 - New London Turnpike (near #1950) (Balloon Not Visible)

Figure A8

Photo Log

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 15 - Leigh Gate (near #266) (Balloon Not Visible)

Viewpoint 16 - Leigh Gate (near #11) (Balloon Not Visible)

FIGURE A9

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 17 - Colton Hollow Preserve at Parking Lot (Balloon Not Visible)

Viewpoint 18 - Matson Hill Road at Roaring Brook (Balloon Visible)

Viewpoint 19 - Bittersweet Lane at cul-de-sac (Balloon Visible)

Viewpoint 20 - Bittersweet Lane (near #30) (Balloon Visible)

Viewpoint 21 - Matson Hill Road (near #519) (Balloon Visible)

Viewpoint 22 - Chatham Hill Road (near #100) (Balloon Not Visible)

FIGURE A12

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 23 - Belltown Hill Road (near #215) (Balloon Not Visible)

Viewpoint 24 - Matson Hill Road (near #452) (Balloon Visible)

FIGURE A13

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 25 - Matson Hill Road (near #370) (Balloon Visible)

Viewpoint 26 - Matson Hill Road (near #297) (Balloon Visible)

FIGURE A14

PHOTO LOG

Visual Resource Assessment

Eco-Site Glastonbury

63-80 Woodland Street

Glastonbury, CT 06073

SARATOGA ASSOCIATES

Viewpoint 27 - Foote Road (near #500) (Balloon Not Visible)