

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

**Petition of BNE Energy Inc. for a
Declaratory Ruling for the Location,
Construction and Operation of a 4.8 MW
Wind Renewable Generating Project on
Flagg Hill Road in Colebrook,
Connecticut (“Wind Colebrook South”)**

Petition No. 983

May 4, 2011

SUPPLEMENTAL PRE-FILED TESTIMONY OF GLENN CHALDER

Q10. Why are you filing this supplement to your Pre-filed Testimony dated April 7, 2011?

A10. I wanted to provide additional information to address questions asked by the Council during cross-examination in this petition and to address certain additional testimony provided by Michael Libertine, dated April 25, 2011.

Q11. What additional information do you wish to provide the Council in consideration of questions you received at the evidentiary hearing on this petition?

A11. At the hearing, Mr. Ashton posed several questions about the methodology we used to compose the visual simulations that accompanied my pre-filed testimony. Specifically, he asked questions related to how the digital renderings presented in my testimony would compare to a photograph taken at the relevant vantage point. I testified that the two were comparable, and I have developed a “view comparison” for a selection of vantage points (attached as **Exhibit 1**) – including the view from Route 44 that was discussed at the hearing – to demonstrate that conclusion.

As Exhibit 1 illustrates, the methodology used to formulate the visual simulations attached to my pre-filed testimony favorably compares with the “actual” view created by digitally siting the proposed turbines on a photograph of the site.

Q12. What methodology did you use to create the view comparison discussed in your answer?

A12. The methodology used was identical to that discussed in my pre-filed testimony. However, in addition to digitally rendering the view as was done in the exhibit to my earlier testimony, we also plotted the locations of the wind turbines on a photograph taken from the various vantage points. Additionally, for ease of reference, we color-coordinated the proposed turbines, with yellow representing the proposed turbines in 983 and red representing the proposed turbines in Petition 984.

Q13. In your original testimony, why did you choose to perform digital renderings rather than plotting the turbines on a photograph?

A13. We are quite comfortable with the use of digital simulations and felt that the digital renderings would be adequate to demonstrate the visibility of the turbines. As a result, we felt that we could provide the information to the Siting Council most expeditiously by submitting only the digital simulations.

Another consideration was cost. Ultimately, creating a visual simulation through use of a photograph simply takes more time, which obviously results in additional expense to the party requesting the simulations. In this case, I was informed that there were cost concerns on the part of the citizens group that hired me, and considering that digital renderings of the site provided an accurate assessment of the visibility of the proposed turbines, no further action was warranted.

However, at the hearing on this petition, Mr. Ashton made it clear that he thought photosimulations were more useful in assessing visual impacts from these petitions, so as a result, I also have prepared those simulations as well.

Q14. Is there any other additional information you wish to provide in this supplemental testimony?

A14. Yes, in addition to the view comparisons I discussed earlier, I also have prepared a new visual simulation with respect to views from particularly sensitive areas, including Rock Hall. These simulations, which include a demonstration of visual impacts related to both the proposed 983 and 984 turbines in order to illustrate the cumulative effect of those projects, are attached as **Exhibit 2**. A slide containing the same simulations, including only the proposed turbines subject to Petition 983, is attached as **Exhibit 3**.

Q15. Is the methodology you used the same as you have testified previously?

A15. Yes. In addition, however, I also added transparent “spin circles” in an effort to illustrate the visual effect of the rotation of the turbine blades. While motion itself is not demonstrated in the simulations, the circles represent an attempt to acknowledge that the turbine blades are not static.

Q16. What comments do you have on the rebuttal testimony submitted by Michael Libertine, dated April 25, 2011?

A16. As Mr. Libertine’s testimony states, the methodologies used by his firm, VHB, and by our firm, Planimetrics, are identical up until the point of presentation. Further, as I have discussed, the digital rendering that I used to create my visual simulation in this case is comparable to the presentation used by VHB. Contrary to Mr. Libertine’s statement, I visited the relevant site both before and after modeling the visibility of the proposed turbine and could therefore confirm the similarities between the visual simulation attached to my pre-filed testimony and what one would experience by physically standing at the relevant vantage point.

Ultimately, the fundamental difference between my visual simulations and those prepared by VHB lies not in the methodology but instead in the choice of vantage point. Indeed, it is clear from the testimony and simulations provided to the Council by VHB that VHB declined to

provide visual simulations from key locations (particularly sensitive locations) from where the proposed turbines would be visible. Ultimately, the accuracy of the VHB simulations (purportedly to within three feet of the physical location) matters little if those very locations are chosen to minimize the visibility of the turbines.

The statements above are true and accurate to the best of my knowledge.

May 4, 2011
Date

Glenn Chalder
Glenn Chalder, AICP

ATTACHMENTS

- Exhibit 1: View Comparisons
- Exhibit 2: Photo-simulations – Colebrook Cumulative
- Exhibit 3: Photo-simulations – Colebrook South

VERIFICATION

I, Glenn Chalder, being duly sworn, depose and say that I prepared the foregoing Supplemental Pre-filed Testimony of Glenn Chalder, dated May 4, 2011, and that the statements contained therein are true to the best of my knowledge.

By: *Glenn Chalder*
Glenn Chalder, AICP

Subscribed and sworn to before me this 4th day of May, 2011.

Virginia G. Moses
Notary Public / Commissioner of the Superior Court

My Commission Expires:

VIRGINIA G. MOSES
NOTARY PUBLIC
MY COMMISSION EXPIRES MAY 31, 2015

CERTIFICATION

I hereby certify that a copy of the foregoing document was delivered by first-class mail and e-mail to the following service list on the 6th day of May, 2011:

Lee D. Hoffman
Bonnie L. Heiple
Paul Corey
Thomas D. McKeon
David M. Cusick
Richard T. Roznoy
David R. Lawrence and Jeannie Lemelin
Walter Zima and Brandy L. Grant
Eva Villanova

and sent via e-mail only to:

John R. Morissette
Christopher R. Bernard
Joaquina Borges King



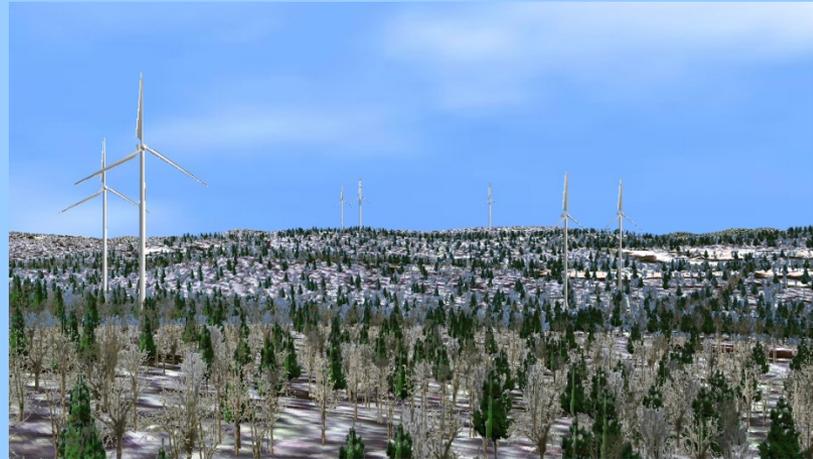
Emily A. Gianquinto

EXHIBIT 1

Colebrook

Visibility Comparison

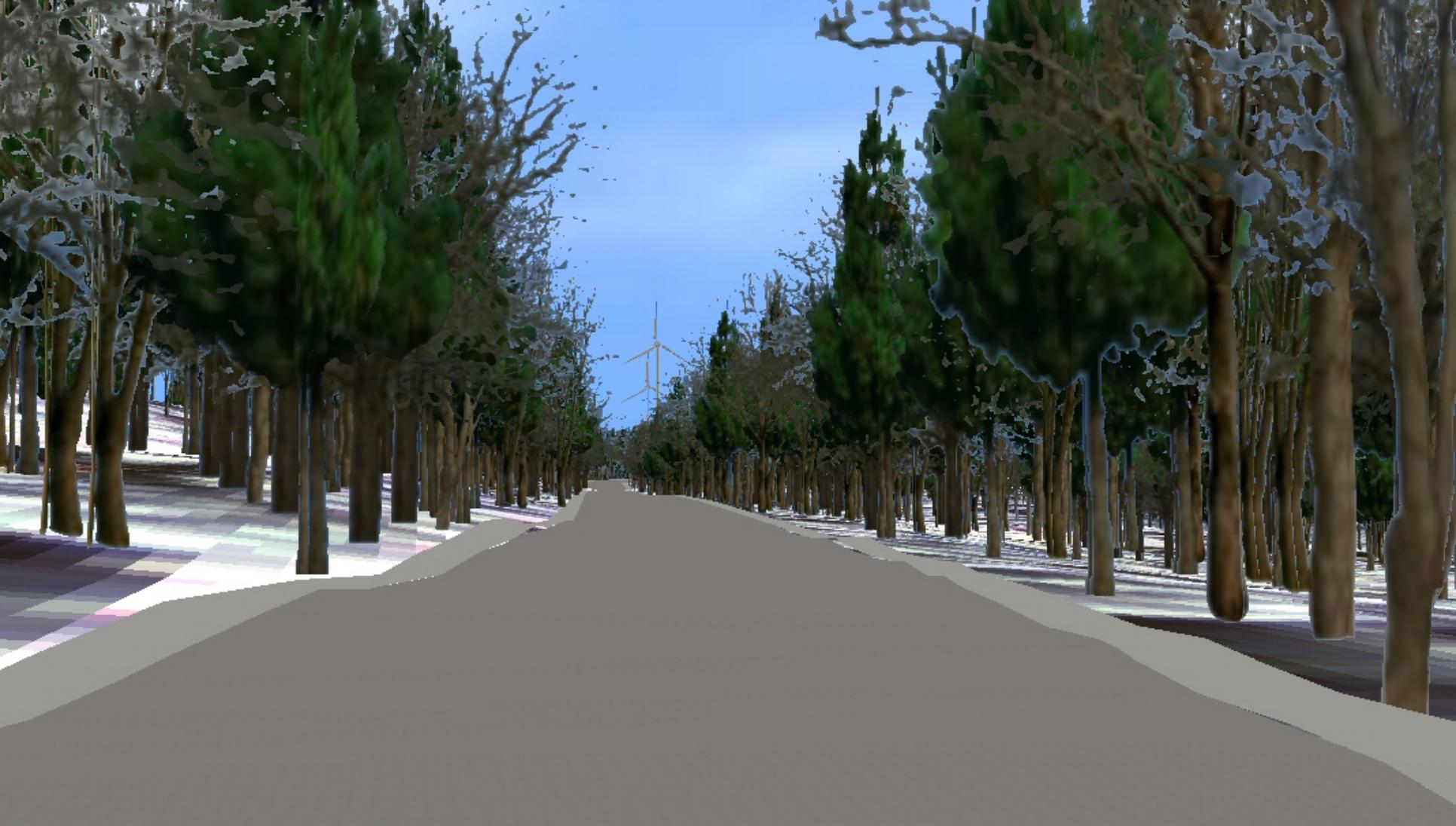
May 2011



Planimetrics

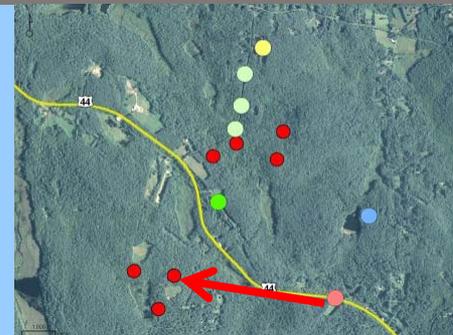
31 Ensign Drive, Avon, CT 06001

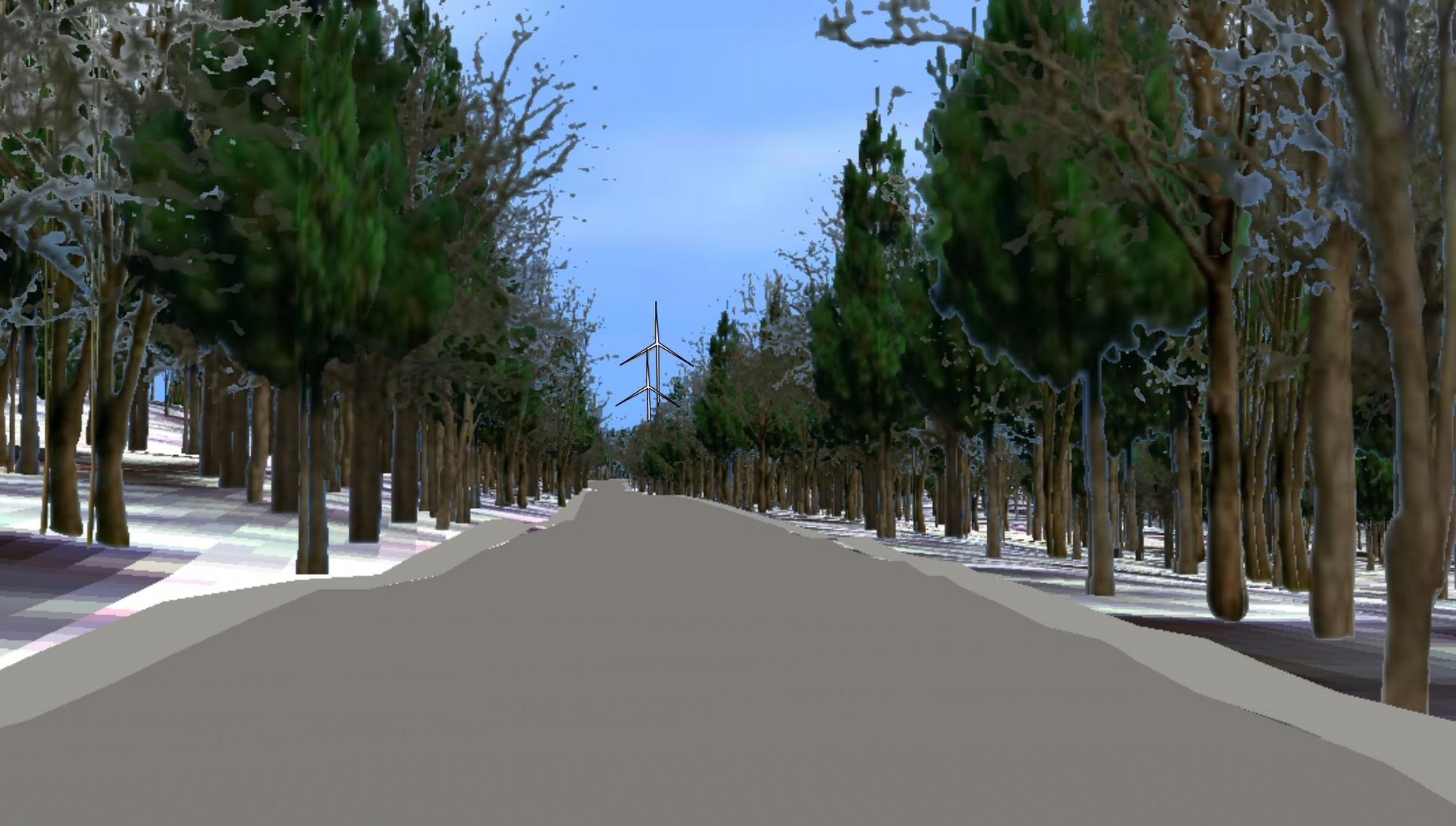
860-677-5267



**Figure 8 -
Route 44 Westbound**

View driving west (approximately 1.96 miles east of Rock Hall Road)
Turbine CS-2 approximately 0.93 miles away





**Figure 8 -
Route 44 Westbound**

**View driving west (approximately 1.96 miles east of Rock Hall Road)
Turbine CS-2 approximately 0.93 miles away**

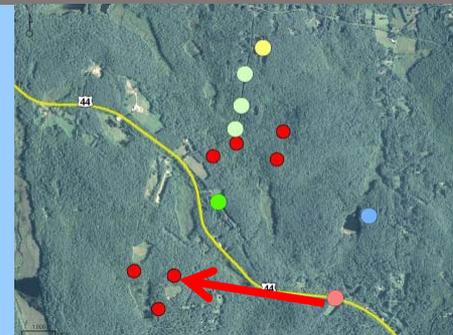
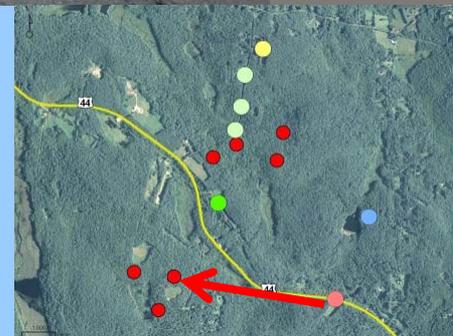




Figure 8 -
Route 44 Westbound

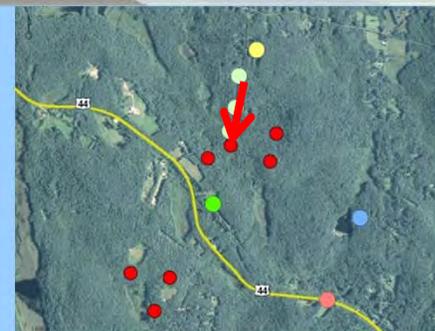
View driving west (approximately 1.96 miles east of Rock Hall Road)
Turbine CS-2 approximately 0.93 miles away





**Figure 5 -
Rock Hall Road #1**

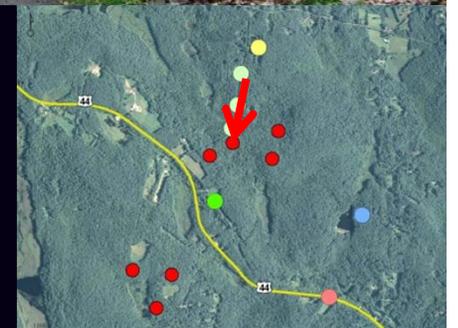
**View driving south on Rock Hall Road (0.7 miles from Route 44)
Turbine CN-1a approximately 0.40 miles away**





**Figure E -
Rock Hall Road #1**

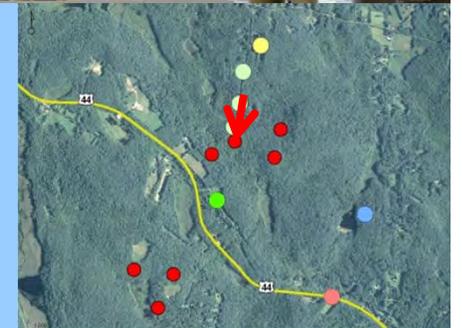
**View driving south on Rock Hall Road
(Turbines other than CN-1a not shown)**

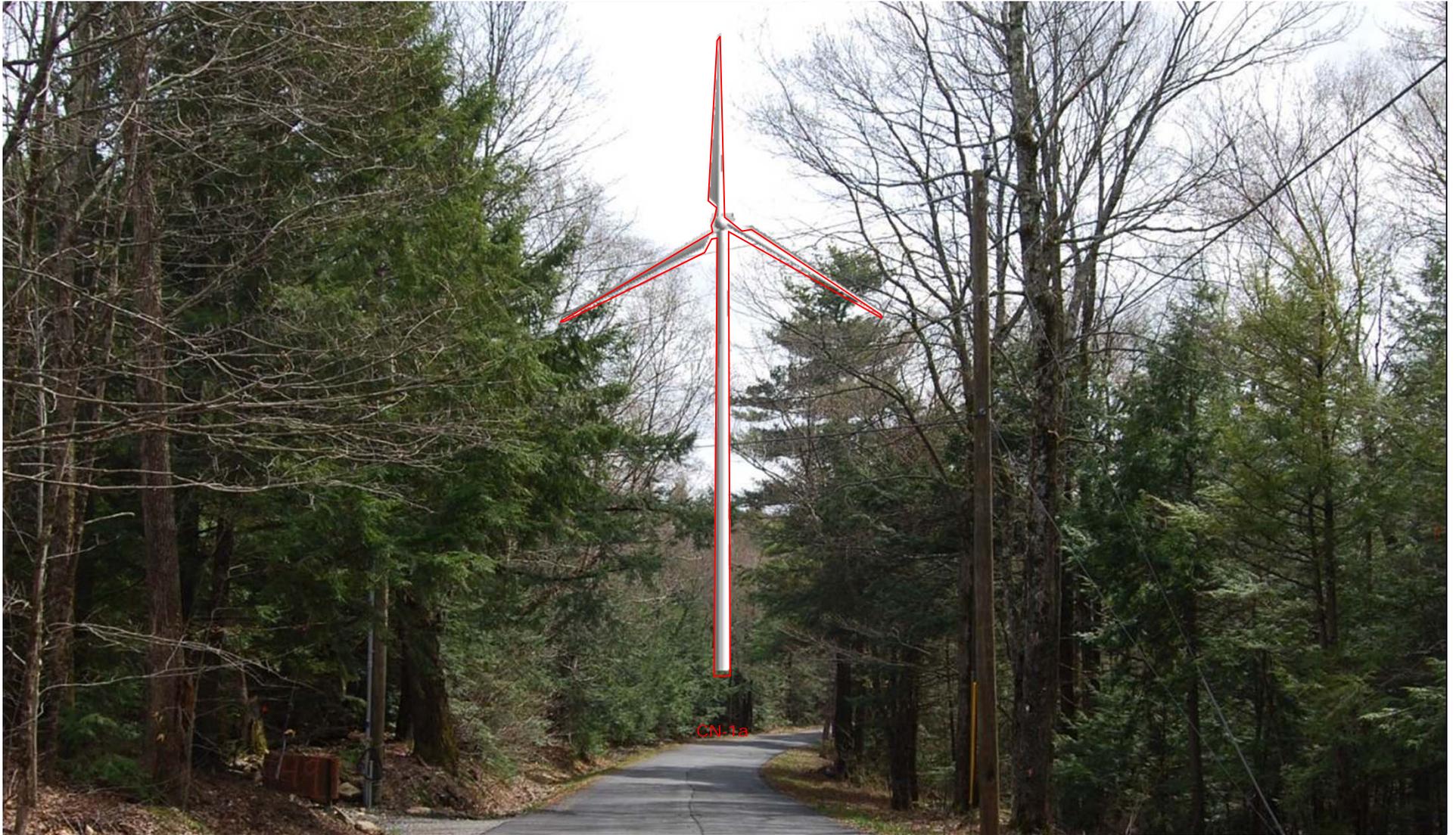




**Figure 6 -
Rock Hall Road #2**

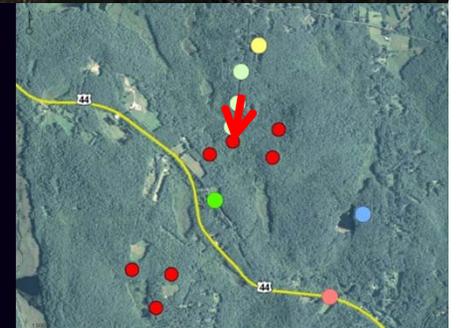
**View driving south on Rock Hall Road (0.5 miles from Route 44)
Turbine CN-1a approximately 0.22 miles away**





**Figure F -
Rock Hall Road #2**

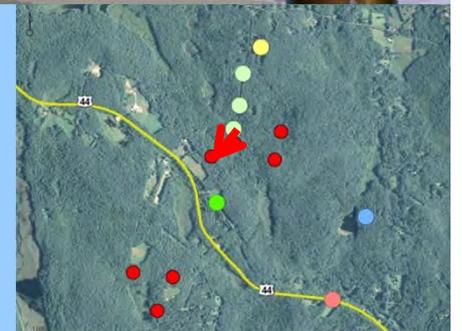
**View driving south on Rock Hall Road
(Turbines other than CN-1a not shown)**

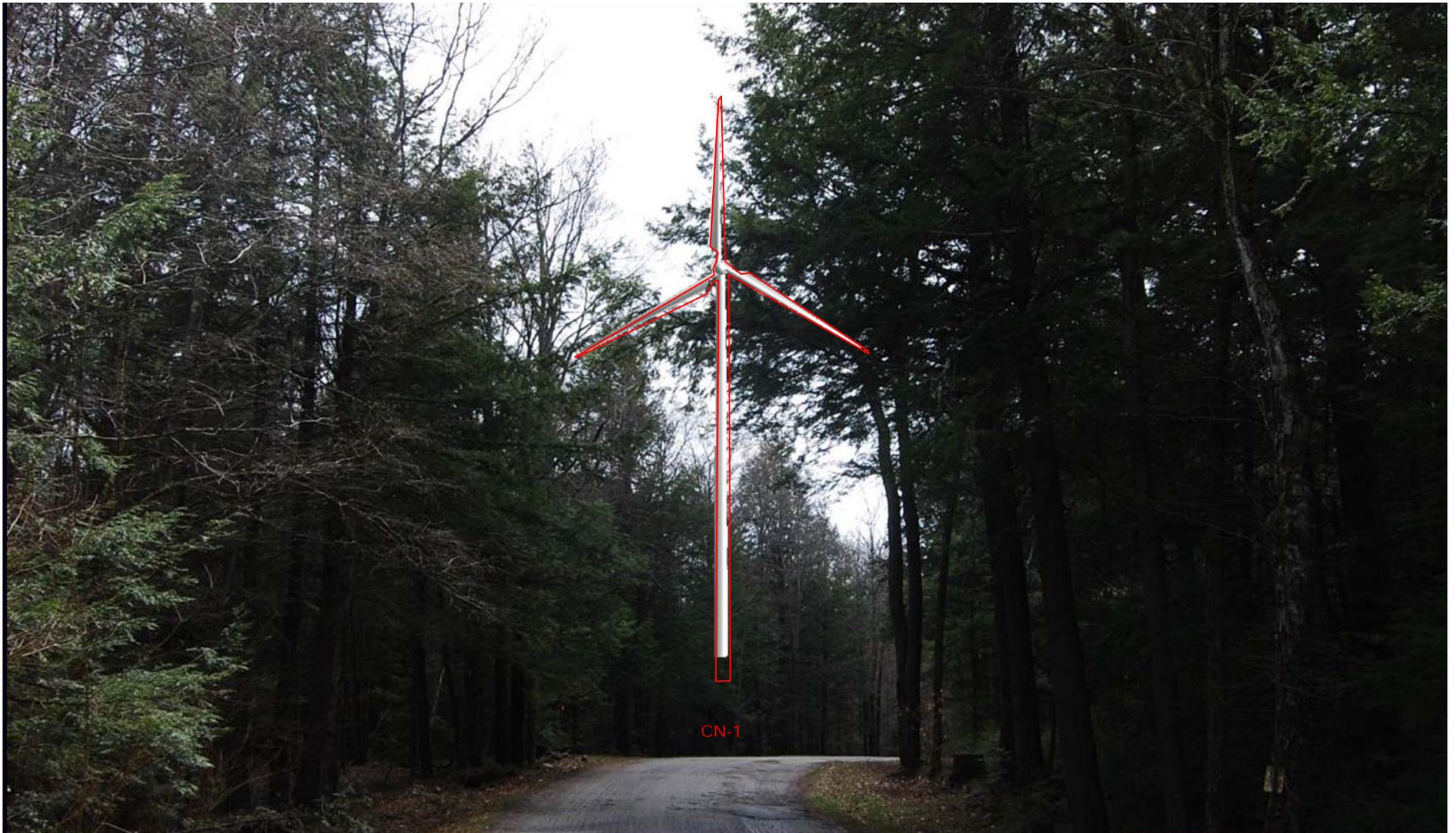




**Figure 7 -
Rock Hall Road #3**

**View driving south on Rock Hall Road (0.7 miles from Route 44)
Turbine CN-1 approximately 0.40 miles away**





CN-1

Figure G - Rock Hall Road #3

View driving south on Rock Hall Road
(Turbines other than CN-1 not shown)

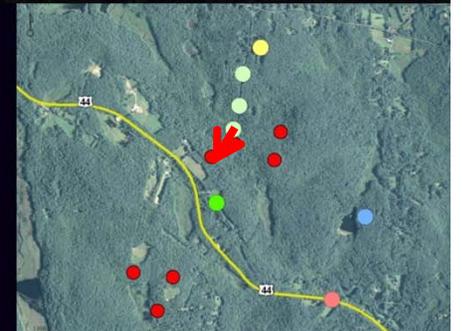
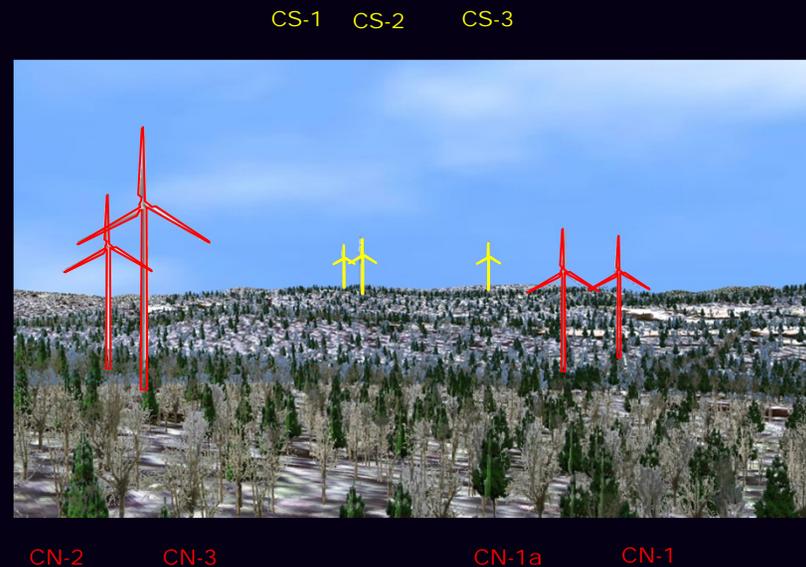


EXHIBIT 2

Colebrook

Wind Turbine Visibility Photo-Simulation

May 3, 2011



Planimetrics

31 Ensign Drive, Avon, CT 06001

860-677-5267

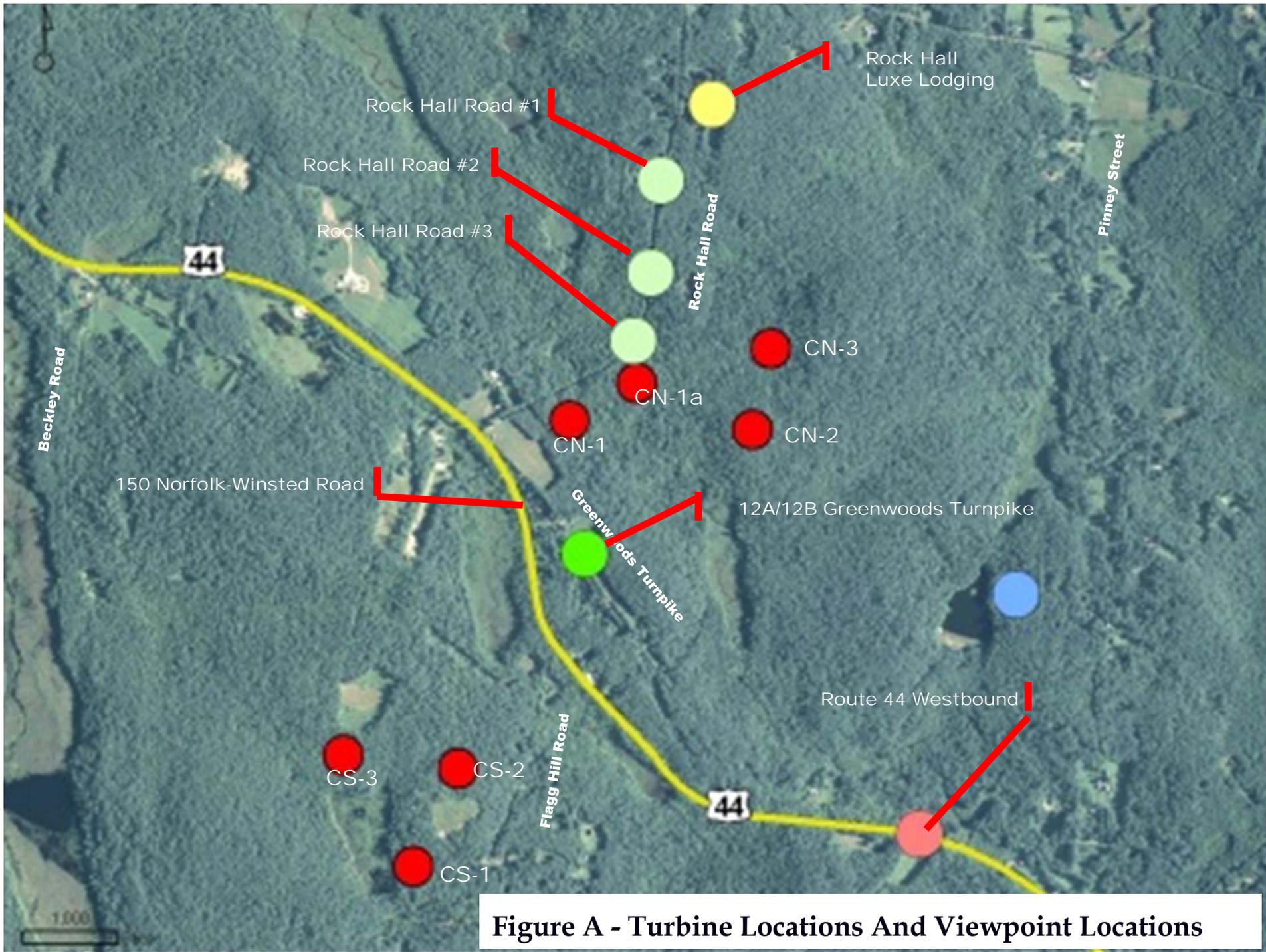
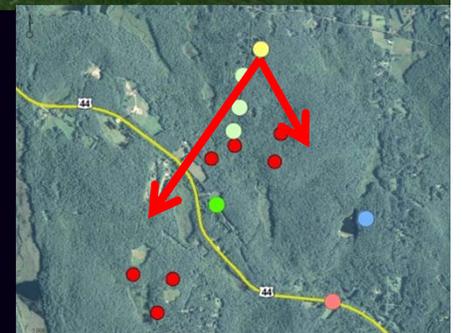


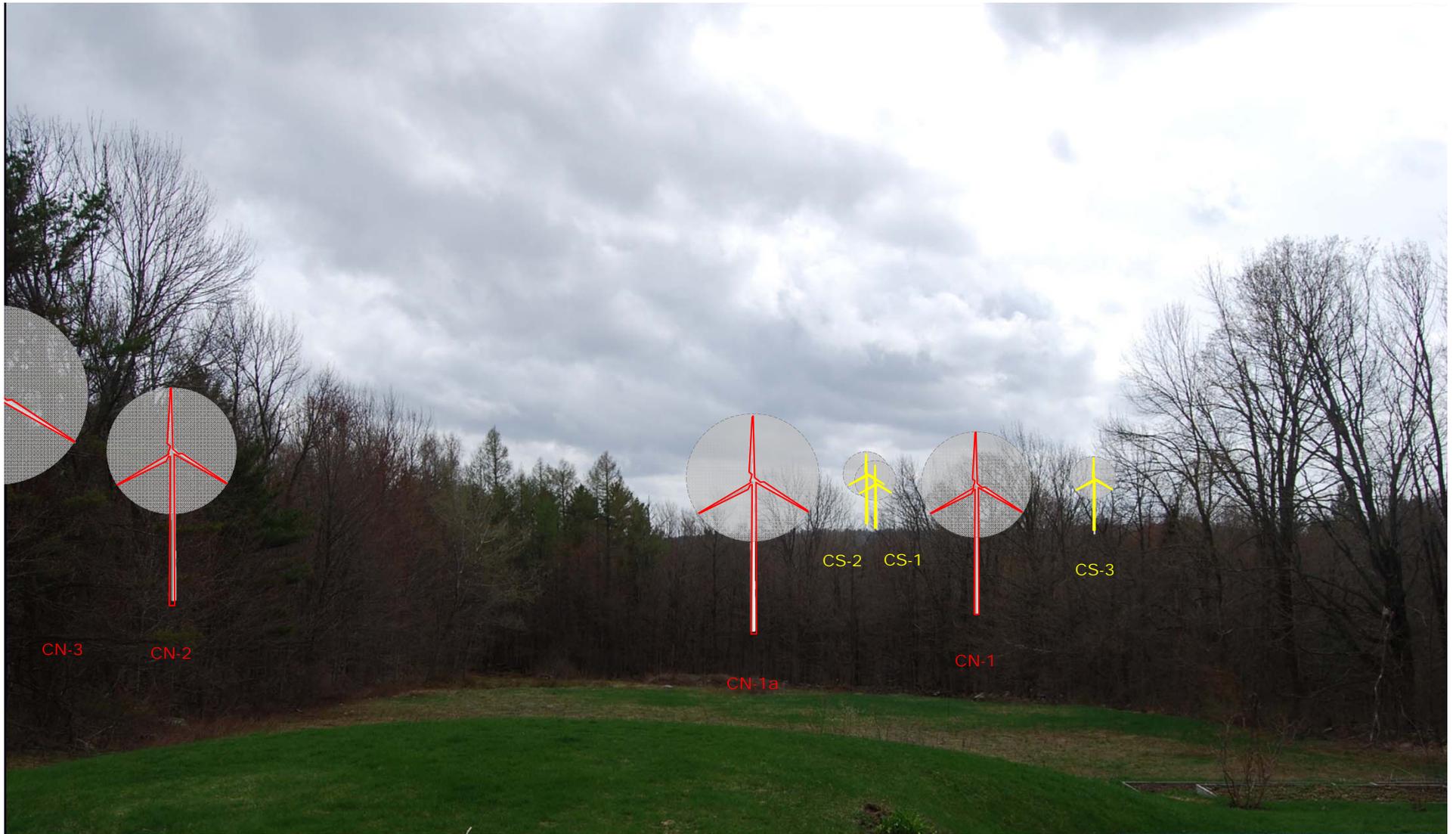
Figure A - Turbine Locations And Viewpoint Locations



**Figure B -
Rock Hall Luxe Lodging, 19 Rock Hall Road**

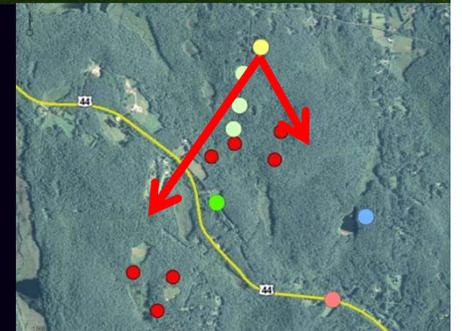
View from grill / picnic area at rear of residence (azimuth = 187)





**Figure C -
Rock Hall Luxe Lodging, 19 Rock Hall Road**

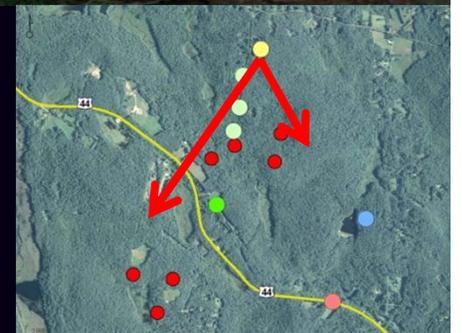
View from outside pool area at rear of residence (azimuth = 192)





**Figure D -
Rock Hall Luxe Lodging, 19 Rock Hall Road**

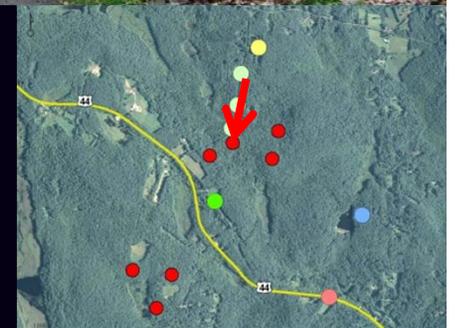
View from third floor balcony (azimuth = 181)





**Figure E -
Rock Hall Road #1**

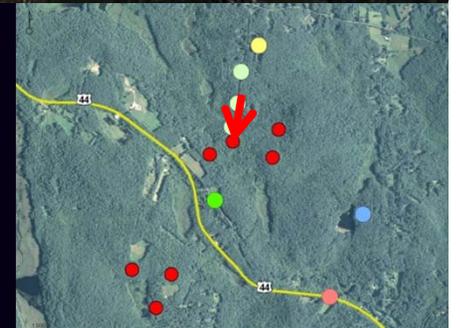
**View driving south on Rock Hall Road
(Turbines other than CN-1a not shown)**

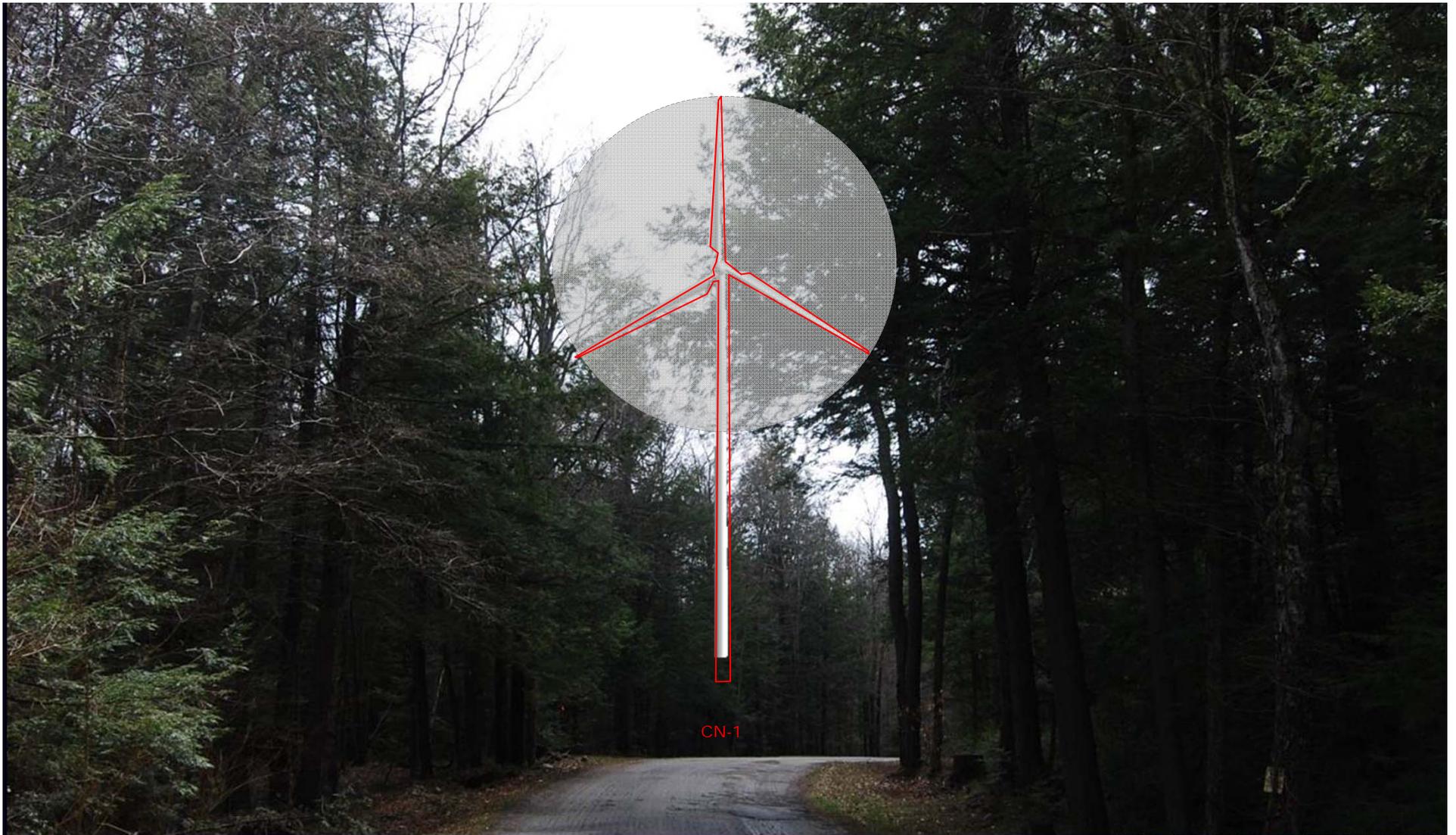




**Figure F -
Rock Hall Road #2**

**View driving south on Rock Hall Road
(Turbines other than CN-1a not shown)**





**Figure G -
Rock Hall Road #3**

**View driving south on Rock Hall Road
(Turbines other than CN-1 not shown)**

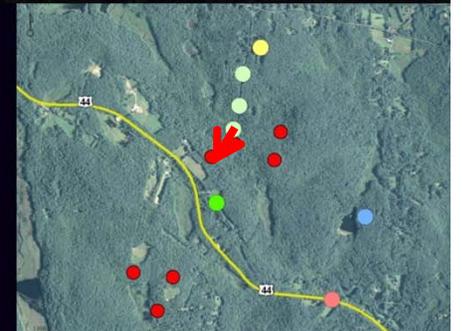
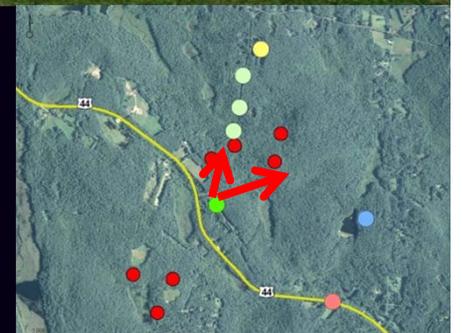




Figure H - 12A / 12B Greenwoods Turnpike

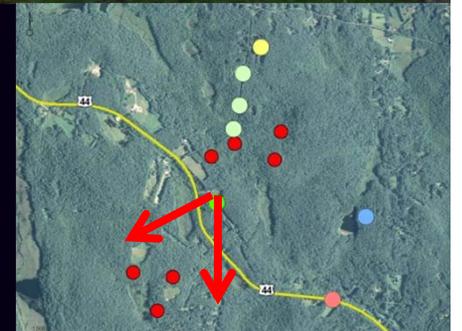
View from field (azimuth = 60)
(Turbine CN-1 to left of picture)





**Figure I -
12A / 12B Greenwoods Turnpike**

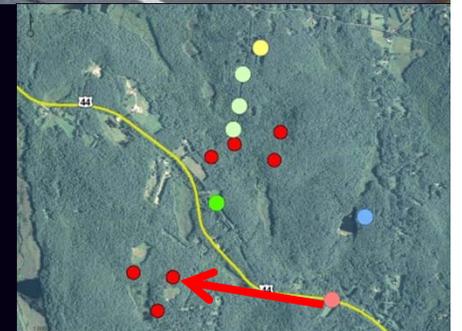
View from field (azimuth = 237)





**Figure J -
Route 44 Westbound**

View driving west on Route 44





**Figure K -
Route 44 - Near 150 Winsted-Norfolk Road**

View from edge of road (azimuth = 209)

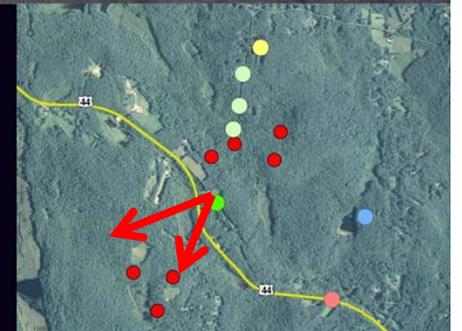
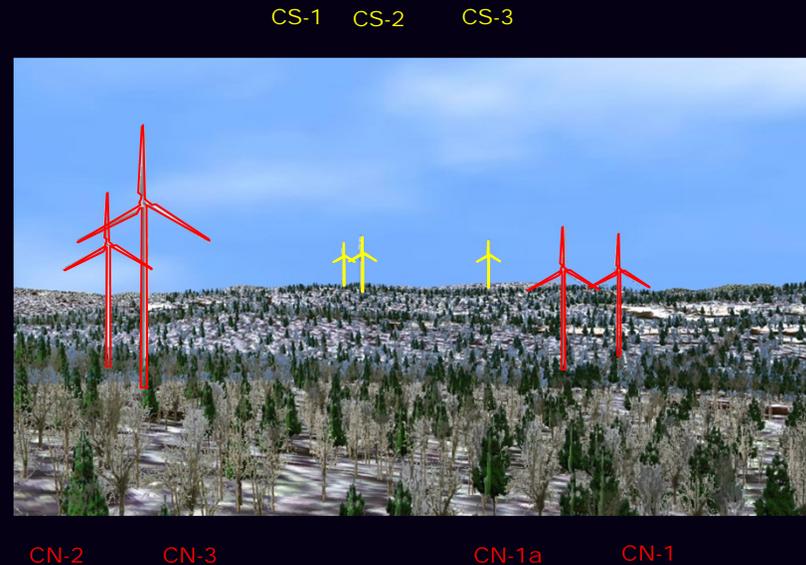


EXHIBIT 3

Colebrook

Wind Turbine Visibility Photo-Simulation Petition # 983

May 4, 2011



Planimetrics

31 Ensign Drive, Avon, CT 06001

860-677-5267

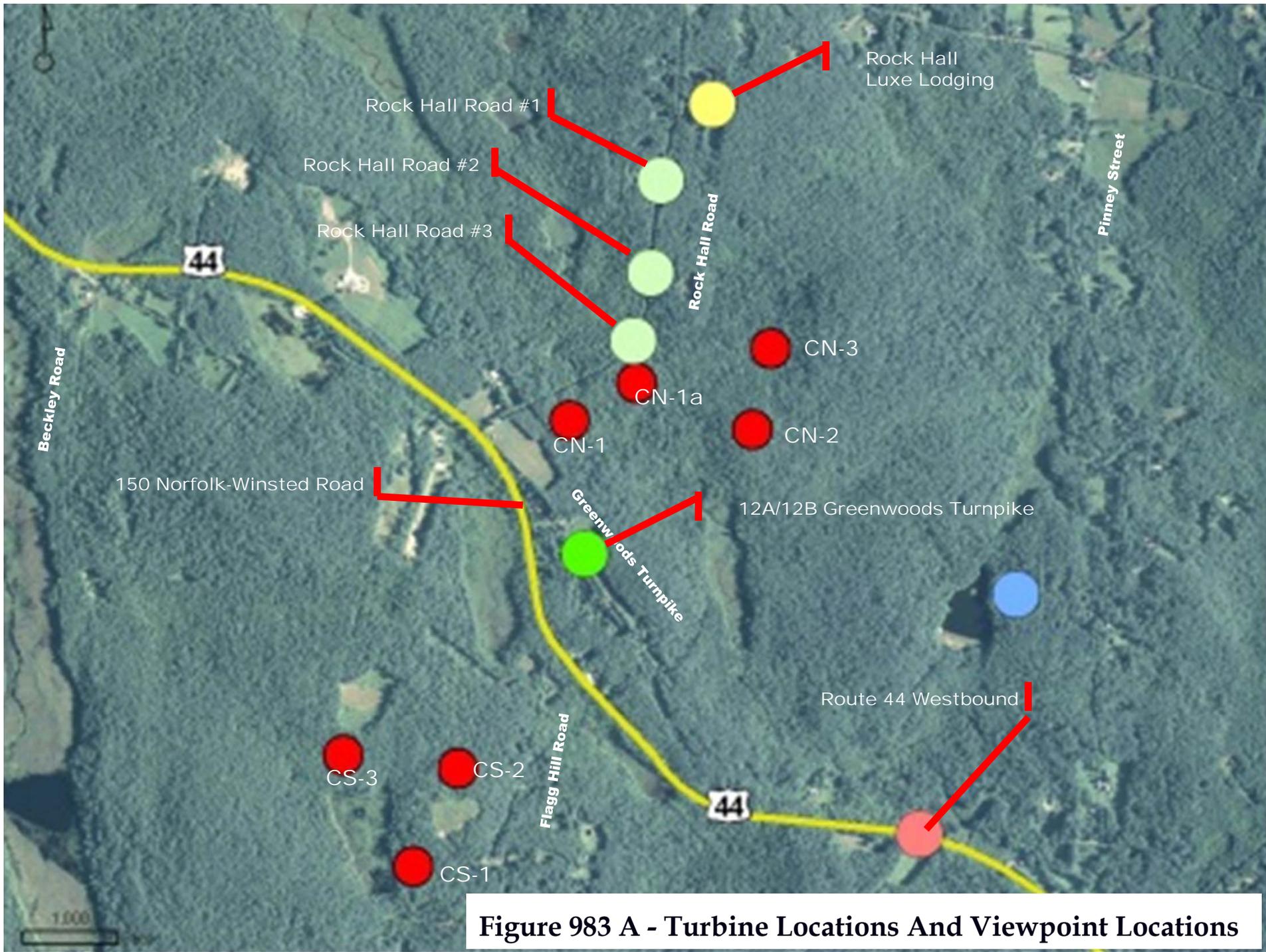
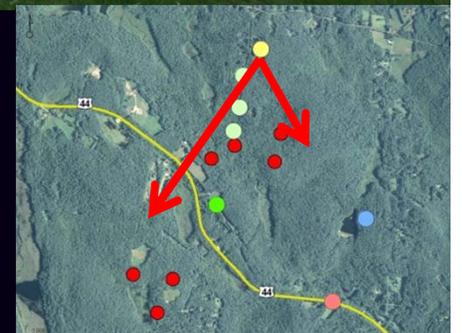


Figure 983 A - Turbine Locations And Viewpoint Locations



**Figure 983 B –
Rock Hall Luxe Lodging, 19 Rock Hall Road**

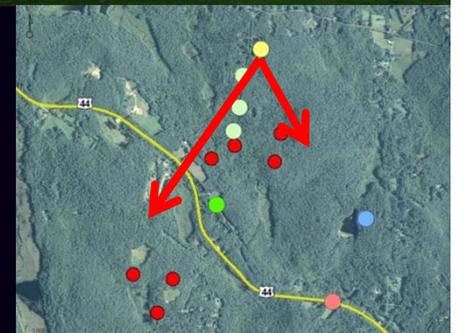
View from grill / picnic area at rear of residence (azimuth = 187)





**Figure 983 C -
Rock Hall Luxe Lodging, 19 Rock Hall Road**

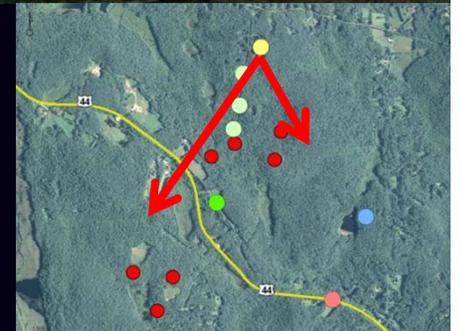
View from outside pool area at rear of residence (azimuth = 192)





**Figure 983 D -
Rock Hall Luxe Lodging, 19 Rock Hall Road**

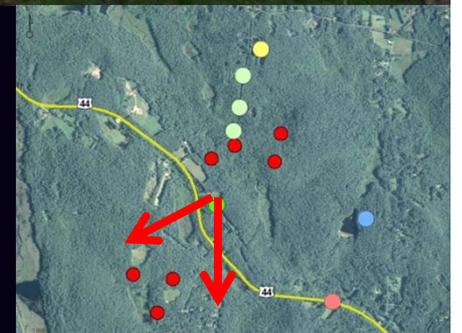
View from third floor balcony (azimuth = 181)





**Figure 983 E -
12A / 12B Greenwoods Turnpike**

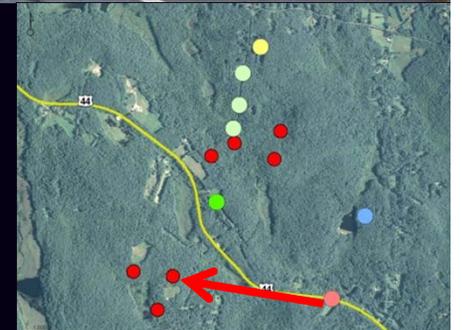
View from field (azimuth = 237)





**Figure 983 F -
Route 44 Westbound**

View driving west on Route 44





**Figure 983 G -
Route 44 - Near 150 Winsted-Norfolk Road**

View from edge of road (azimuth = 209)

