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November 5, 2009

Mr. Jacob Lamme
McNamee, Lochner, Titus & Williams, P.C.
677 Broadway
Albany, New York 12207

RE: Spiegel Residence Visual Simulations
EDR Project No. 09076

Dear Mr. Lamme:

Environmental Design & Research, Landscape Architecture, Planning, Environmental Services, Engineering and Surveying, P.C. (EDR) was retained to prepare visual simulations of two alternate treatments to the partially-built Spiegel residence in the Town of Elba (near Lake Placid), Essex County, New York (see Site Location Map in Attachment 1). This letter report documents the methodology and results of this undertaking.

BACKGROUND

Our understanding is that the Adirondack Park Agency (APA) has determined that the Spiegel residence does not comply with applicable restrictions on building height and proximity to steep slopes. To remedy this situation, the APA has recommended that the house be reduced in height by 13 feet (to a total height no greater than 30 feet), and relocated back (upslope, toward Algonquin Drive) at least 20 feet from the 1,946 foot contour line, which defines the edge of the steep slope on the Spiegel property. The homeowners have proposed an alternative that would leave the house in its current location, but reduce its height by 9 feet (to a total height of 34 feet) and install landscape plantings to provide additional screening.

EDR was asked to prepare visual simulations of these two alternatives (referred to here-after as Alternatives 1 and 2, respectively) to provide a comparison of the visual effects of each.

METHODOLOGY

On October 26, 2009 EDR staff traveled to Lake Placid and obtained photos of the Spiegel residence from nearby public vantage points. Existing views of the house were documented from 15 viewpoints (see Viewpoint Location Map and Photo Log in Attachment 1). Photos were obtained using a Nikon D-200 digital SLR camera (10 megapixels) with a variety of lens setting ranging from approximately 50 to 180 mm (as measured on an equivalent SLR film camera). At each location where photos were taken, a hand-held global positioning system (GPS) unit (Garmin Etrex) was used to determine the latitude and longitude coordinates of the viewpoint. In addition, the field crew visited the Spiegel property to obtain close-up photos of the house and site, along with GPS coordinates of various site features, including the house corners, the 1,946 foot contour line (as

identified by the building contractor), and the proposed alternate location of the house 20 feet back from the 1,946 foot contour line.

Upon completion of the fieldwork, photos and GPS coordinates were down loaded, and candidate viewpoints were identified for the development of visual simulations. A total of four viewpoints (Viewpoints 5, 7, 10, and 13) were identified as the best candidates for simulation based on 1) visibility of the Spiegel residence, 2) the presence of multiple identifiable landscape features in the view that could be used to assure accurate camera alignment, 3) a view that was representative of the existing landscape setting and 4) a public location that was used by a significant number of viewers. From the four candidate viewpoints, Viewpoint 13 was selected for the development of simulations because it best represented a well used and identifiable public vantage point, and accurately illustrated the context/setting within which the house can be viewed.

To show anticipated visual changes associated with the two alternative house treatments, high-resolution computer-enhanced image processing was used to create realistic photographic simulations of Alternative 1 and 2 from the selected viewpoint. The photographic simulations were developed by constructing a simple three-dimensional computer model of the existing house based on architectural plans and elevations prepared by CVI Landscape Design. EDR also created a computer model of the house with a 9 foot reduction in height (34 feet tall), and the home with a total height of 30 feet. The computer models used in this VIA and a Site Plan showing the house relocation in Alternative 1 are illustrated in Attachment 2.

The next step in the simulation process involved utilizing aerial photographs and GPS data collected in the field to create an AutoCAD 2004® drawing. The three dimensional AutoCAD data was then imported into AutoDesk 3ds MAX 2010® and three-dimensional components (cameras, modeled house, etc.) were added. These data were superimposed over the photograph from Viewpoint 13, and minor camera changes (height, roll, precise lens setting) made to align all known reference points within the view. This process ensures that project elements are shown in proportion, perspective, and proper relation to the existing landscape elements in the view. Consequently, the alignment, elevations, dimensions and locations of the two alternative house treatments will be accurate and true in their relationship to other landscape elements in the photo.

At this point, a "wire frame" model of the facility and known reference points is shown on the photograph. The exterior color/finish of the home (assumed to the same as the existing structure) was then added to the model and the appropriate sun angle was simulated based on the specific date, time and location (latitude and longitude) at which the photo was taken. This information allows the computer to accurately illustrate highlights, shading and shadows for the modeled elements shown in the view. No landscaping or ground treatment was shown in the simulations because camera alignment revealed that views of these elements would be completely screened by existing forest vegetation around the site.

RESULTS

Simulations of the two alternate house treatments are presented in Attachment 3. The simulation of Alternative 1 shows that the house is now well settled into the surrounding forest vegetation. The roof line no longer is visible against the sky and trees behind the house define the horizon line. The dark brown color of the house continues to blend well with the surrounding vegetation, with only the windows presenting noticeable color contrast. The simulation of Alternative 2 shows much the same thing. Although the roof surfaces and roof edges are more visible in this view, the roof no longer breaks the tree line and the house appears well settled in the surrounding vegetation. As with Alternative 1, the house's dark color blends well with its surroundings, with the primary element of contrast being the windows. Comparing the two alternatives indicates that visibility and contrast of the house is more substantially reduced by Alternative 1. This is due primarily to the fact that the contrasting color and straight lines of the roof are less visible than in Alternative 2. However, both alternatives substantially reduce the visibility and visual contrast of the house by bringing the roof line down below the tree line and allowing the trees behind the house to present an unbroken line of natural vegetation along the skyline. The house's dark color minimizes contrast in both alternatives, and without benefit of the magnified insets in each simulation, visibility of both alternative house treatments is very limited.

Please contact me if you have any questions or require additional information regarding the simulations prepared by EDR.

Sincerely,

John D. Hecklau
Environmental Division Manager

ATTACHMENT 1

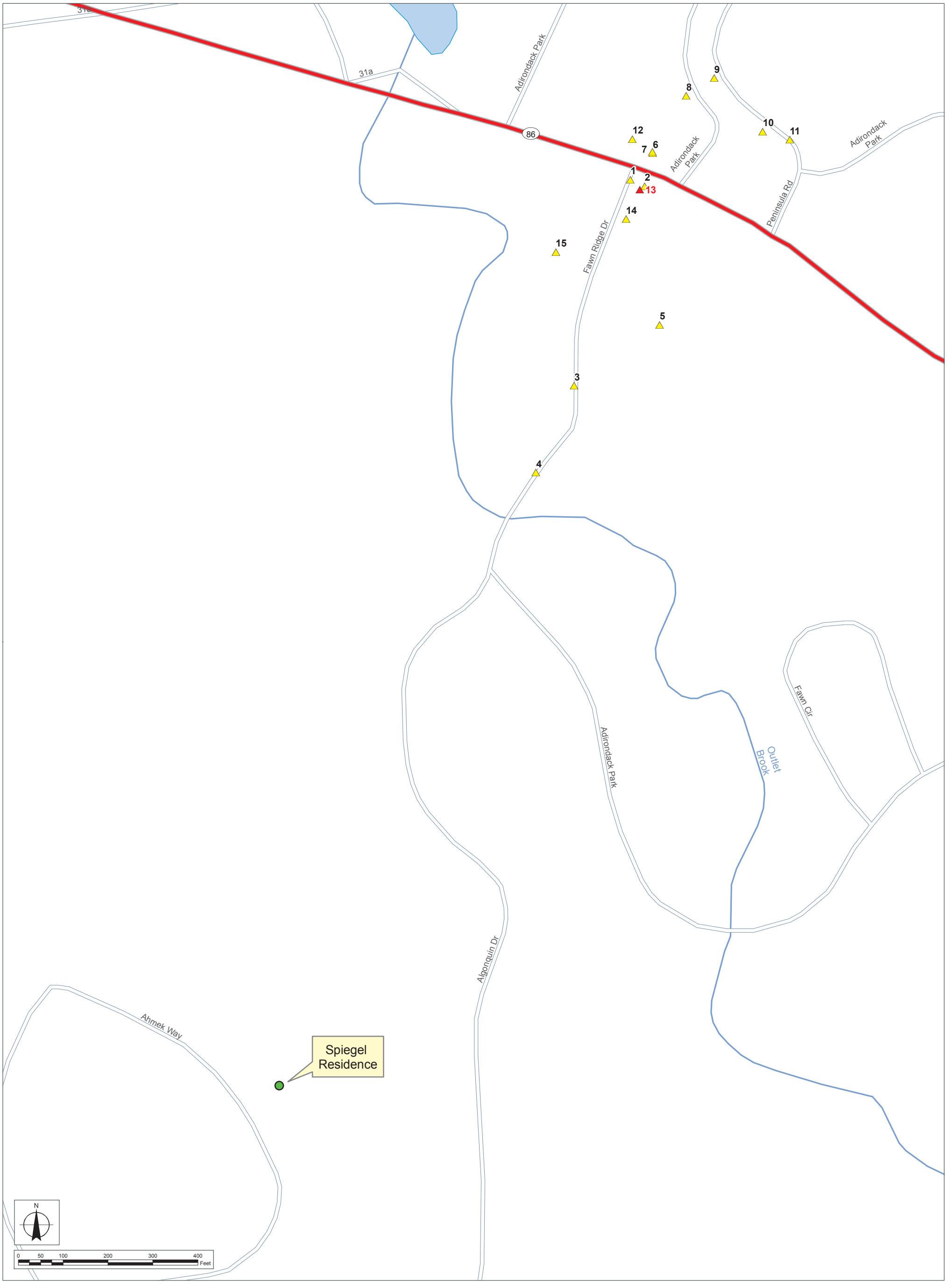
Viewpoint Location Map and Photo Log

ATTACHMENT 2

House Models and Site Plan

ATTACHMENT 3

Simulations of House Treatment Alternatives



Spiegel Residence Visual Simulations

Town of North Elba - Essex County, New York

Viewpoint Location Map

△ Viewpoint Location

▲ Simulated Viewpoint

October 2009

Notes:
Base Map: ESRI StreetMap North America 2008.

EDR

Spiegel Residence Visual Simulations

Town of North Elba - Essex County, New York

Site Location

Spiegel Residence

5 Mile Buffer

3.5 Mile Buffer

.5 Mile Buffer

October 2009

Notes:
Base Map: USGS 1:24000 Lake Placid, McKenzie Mountain
Street Mountain, and North Elba Quadrangles.

EDR