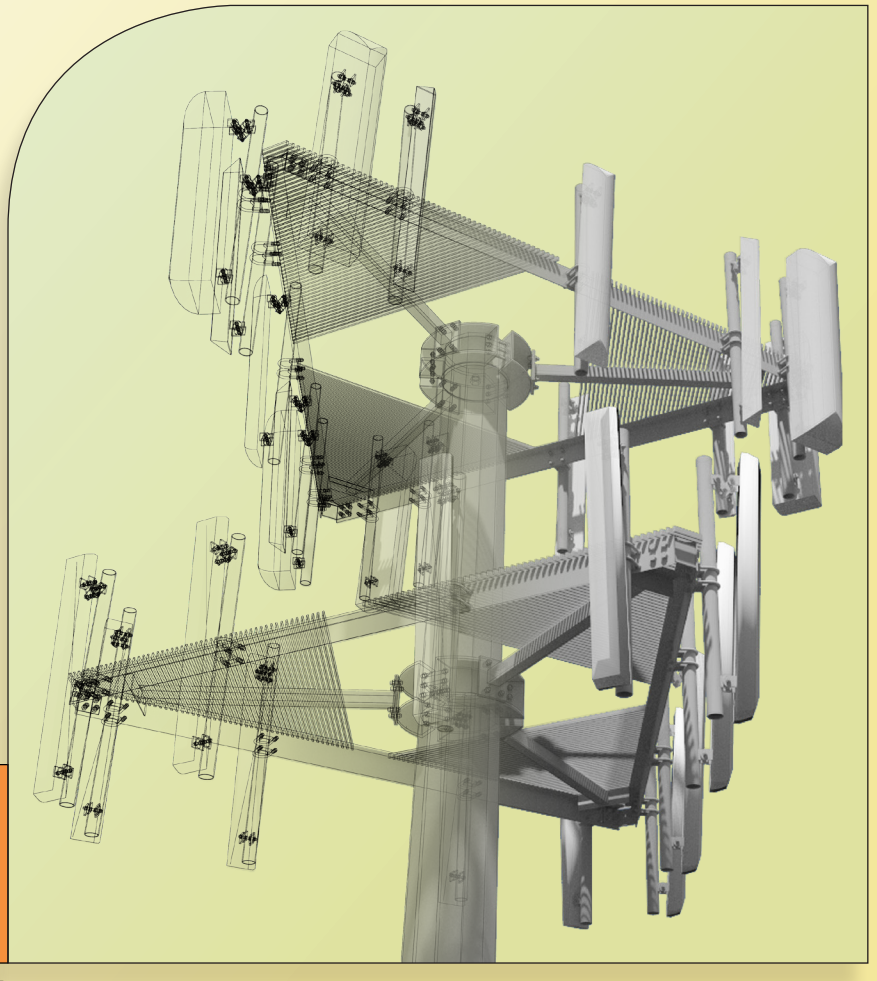
Attachment 5

Visibility Analysis

Washington Depot
10 Blackville Road
Washington, CT



Prepared in August 2013 by:
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ALL-POINTS
TECHNOLOGY CORPORATION

Project Introduction

Homeland Towers proposes to construct and operate a wireless telecommunications facility ("Facility") at 10 Blackville Road (State Route 109) in the Town of Washington, Litchfield County, Connecticut (identified herein as the "host property"). All-Points Technology Corporation, P.C. ("APT") prepared this Visibility Analysis to evaluate views associated with the proposed Facility.

Site Description and Setting

The host property, identified in Washington Tax Assessor records as Map 8, Block 7, Lot 23, consists of approximately 17.3 acres of municipal-owned land currently used by the Town's Highway Department. The central and northern portions of the host property rise steadily off Route 109 and gain substantial elevation above the road and surrounding areas to the south and east. The host property is bounded to the north by undeveloped woodlands, part of the Hidden Valley Preserve. Residential properties adjoin the host property to the west and south, across Blackville Road. A commercial office building and residential property abut the host property to the east.

The proposed Facility would be located in the north central portion of the host property ("site"), at a ground elevation of approximately 598 feet above mean sea level ("AMSL"). The Facility would include a 135-foot tall monopole disguised as a pine tree (commonly referred to as a "monopine") to conceal antennas and supporting apparatus. An additional 5-foot extension would be added to the top of the monopine to assist in camouflaging future antenna arrays and create a tapered tree-top shape. The resultant 140-foot Facility would be surrounded by a 6-foot tall, 65-foot wide by 67-foot long fence-enclosed compound area. The 4,355± square foot, gravel-base compound would allow sufficient room for multiple equipment shelters and supporting equipment. Access to the Facility would be gained over the existing driveway that serves the Highway Department garage property.

Land use within the immediate vicinity of the host property is comprised of a mix of woods, sparse residential development, and commercial establishments along Route 47 to the east. The Town of Washington's commercial business center (located in the Village of Washington Depot) is located approximately one-half mile south-southeast of the host property. Multiple transportation corridors extend through the area, including State Routes 47, 109, and 199, as well as the network of local roads. Topography ranges in ground elevations from approximately 430 feet AMSL to just over 1,060 feet AMSL and is generally characterized as hilly to steep terrain rising to the east and west of Washington Depot and the Shepaug River valley. The tree cover with the Study Area consists mainly of mixed deciduous hardwood species interspersed with large stands of conifers.

METHODOLOGY

APT used the combination of a predictive computer model and in-field analysis to evaluate the visibility associated with the proposed Facility. The predictive model provides an assessment of potential visibility throughout the entire Study Area, including private properties and other areas inaccessible for direct observations. The in-field analyses included a reconnaissance of the Study Area to record existing conditions and to verify results of the model, inventory visible and nonvisible locations, and to provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

Two computer modeling tools are used to calculate those areas from which at least the top of the proposed Facility is estimated to be visible: IDRISI image analysis program (developed by Clark Labs, Clark University) and ArcGIS®, developed by Environmental Systems Research Institute, Inc. Project- and Study Area-specific data were incorporated into the computer model, including the Facility's location, height, and ground elevation, as well as the surrounding topography and existing vegetation which are two primary features that can block direct lines of sight. Information used in the model included LiDAR[1]-based digital elevation data and customized land use data layers developed specifically for this analysis. The LiDAR-based Digital Elevation Model ("DEM") represents topographic information for the state of Connecticut that was derived through the spatial interpolation of airborne LiDAR-based data collected in the year 2000 and has a horizontal resolution of ten (10) feet. In addition, multiple land use data layers were created from National Agricultural Imagery Program (USDA) aerial photography (1-meter resolution, flown in June and July of 2011) using IDRISI image processing tools. The IDRISI tools implement light reflective classes defined by statistical analysis of individual pixels, which are then grouped based on common reflective values such that distinctions can be made automatically between deciduous and coniferous tree species, as well as grassland, impervious surface areas, water and other distinct land use features. This information is manually cross-checked with the recent USGS topographic land characteristics to quality assure the imaging analysis.

The Study Area established for this analysis measures two miles in all directions from the site, representing approximately 8,042 acres. The tree canopy occupies approximately 5,325 acres of the Study Area (66%). In addition, the Study Area features a total of approximately 250 acres of surface water and 40± linear miles of paved roads and drives.

Once the data layers were entered, image processing tools were applied and overlaid onto USGS topographic base maps and aerial photographs to achieve an estimate of locations where the Facility might be visible. First, only the topography data layer (DEM) was incorporated to evaluate potential visibility with no intervening vegetative screening. The initial omission of the forest cover data layer results in an excessive over-prediction, but provides an opportunity to identify and evaluate those areas with potentially direct sight lines toward the Facility.

[1] LiDAR is an acronym for Light Detection and Ranging. It is a technology that utilized lasers to determine the distance to an object or surface. LiDAR is similar to radar, but incorporates laser pulses rather than sound waves. It measures the time delay between transmission and reflection of the laser pulse.

Eliminating the tree canopy altogether, as performed in the preliminary analysis by assigning a 1-foot height value to this data layer, exaggerates areas of visibility because it assumes unobstructed sight lines everywhere but in those locations where intervening topography rises above the height of the proposed Facility. However, using this technique not only allows for an initial identification of direct sight lines, but also to gain some insight regarding seasonal views when the leaves are not on the trees[2]. This preliminary mapping is especially useful during the in-field activities (described below) to further evaluate "leaf-off" scenarios. A purposely low average tree canopy height of 50 feet was incorporated into the forest data layer and added to the DEM for a second iteration of the visibility map, thus providing a conservative assessment of intervening vegetation for use during the in-field activities to compare the outcomes of the initial computer modeling with direct observations of the balloon float.

Additional data was reviewed and incorporated into the visibility analysis, including protected private and public open space, parks, recreational facilities, hiking trails, schools, and historic districts. Multiple walking trails are located within the Study Area, including those contained within Hidden Valley and Steep Rock Preserves. Based on a review of publicly-available information, no State-designated scenic roadways are present within the Study Area. One locally-designated scenic road, Buffum Road, is located within the Study Area, approximately 1.5 miles northwest of the site.

In-Field Activities

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation.

Balloon Float and Field Reconnaissance

A balloon float and field reconnaissance were conducted on Saturday March 9, 2013. The balloon float consisted of raising an approximately four-foot diameter, red helium-filled balloon tethered to a string height of 135 feet above ground level ("AGL") at the proposed Facility site (the proposed top height of the Facility at that time). Weather conditions were favorable for the in-field activities and included sunny skies and calm winds (less than 5 miles per hour for the majority of the day). Once the balloon was secured, APT conducted a Study Area reconnaissance by driving along the local and State roads and other publicly accessible locations to document and inventory where the balloon could be seen above/through the tree mast and canopy. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling. In addition to assessing views from the roads, APT personnel hiked trails leading to prominent vista locations in the Hidden Valley Preserve, Steep Rock Preserve and Macricostas Preserve to evaluate potential visibility of the proposed Facility from these areas.

[2] Visibility varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Each individual Study Area includes mature vegetation with a unique composition and density of woodlands, with mast or pole timber and branching providing the majority of screening in leafless conditions. Because tree spacing, dimensions and branching patterns as well as the understory differ greatly over even small areas, creating an accurate Study Area-specific "leaf-off" tree density data layer covering a two-mile radius becomes unmanageable. Considering that a given Study Area has its own discrete forest characteristics, modeling for seasonal variations of visibility is problematic and, in our experience, even when incorporating conservative constraints into the model, the results tend to over-predict visibility in "leaf-off" conditions.

During the balloon float and in-field activities, several trees were randomly surveyed using a Suunto Tandem clinometer to ascertain their heights. The heights of trees adjacent to the site were field measured to document the surrounding canopy elevation. Numerous off-site locations were also selected to obtain tree canopy heights, including along roadways, wooded lots, and high- and low-lying areas to provide for the irregularities associated with different land characteristics and uses found within the Study Area. The average canopy height was developed based on these measurements and comparative observations, in this case approximately 65 feet AGL. Information obtained during the balloon float was subsequently incorporated into the computer model to refine the visibility map.

Photographic Documentation

During the field reconnaissance, observations of the balloon were recorded and photo-documented to inventory those areas where it was and was not visible. Photographs were obtained from several vantage points to document the view towards the Facility.

At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") equipment. Photographs were taken with a Nikon D-3000 digital camera body and Nikon 18 to 135 mm zoom lens, with the lens set to 50 mm. A 50 mm focal length best approximates the relation of sizes between objects similar to what the human eye might perceive.

> *"The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."*[3]

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the balloon float, the photo locations, areas that experienced recent land use changes and those places where the initial model was found to over-predict visibility. The revised average tree canopy height data using a conservative value of 65 feet AGL was merged with the DEM and added to the base ground elevations of the forested areas data layer. Once the additional data was integrated into the model, APT re-calculated the visibility of the proposed Facility from within the Study Area to produce the final visibility map.

Photographic Simulations

Photographic simulations were generated to portray scaled renderings of the proposed Facility from 18 representative locations where the proposed Facility would be visible. Using field data, site plan information and 3-dimension (3D) modeling software, spatially referenced models of the site area and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D

[3] Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs[4].

Photo-documentation of the balloon float and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The balloon float photos provide visual reference points for the approximate height and location of the proposed Facility relative to the scene. Note that the balloon was flown at a string height of 135 feet, the proposed height of the Facility at that time. The overall structure height was increased to 140 feet at a later date. The simulations presented herein account for this 5 foot increase and represent the Facility at 140 feet AGL. For presentation purposes in this report, the photographs were taken with a 50 mm focal length and produced in an approximate 7-inch by 10.5-inch format. The simulations provide a representation of the Facility under similar settings as those encountered during the balloon float and reconnaissance. Views of the Facility can change substantially throughout the season and are dependent on weather, light conditions, and the viewer location.

The table below summarizes characteristics of the photographs and simulations presented in the attachment to this report including a description of each location, view orientation, the distance from where the photo was taken relative to the proposed Facility, as well as the types of views expected under proposed conditions. The photo locations are depicted on the photolog map and the visibility analysis maps provided as attachments to this report.

View	Location	Orientation	Dist. To Site	Visibility
1	Parsonage Lane	Northwest	±0.79 Mile	Seasonal
2	Moody Bridge Road West	Northeast	± 0.85 Mile	Seasonal
3	Washington Primary School	Northeast	± 0.76 Mile	Year-round
4	Steeples Road	Northeast	± 0.82 Mile	Year-round
5	Bee Brook Road (Route 47)	Northeast	± 0.28 Mile	Year-round
6	Intersection of Route 47 & Blackville Road (Rte 109)	North	± 0.18 Mile	Year-round
7	Blackville Road adjacent to host property	Northwest	± 0.17 Mile	Seasonal
8	Bee Brook Road	Southeast	± 0.28 Mile	Year-round
9	Bee Brook Road	Southeast	± 0.37 Mile	Year-round
10	Bee Brook Road	Southeast	± 0.46 Mile	Year-round
11	Bee Brook Road	Southeast	± 0.55 Mile	Year-round
12	Calhoun Street	Southeast	± 0.63 Mile	Year-round
13	Calhoun Street	Southeast	± 0.68 Mile	Year-round
14	Calhoun Street	Southeast	± 0.76 Mile	Seasonal
15	Ives Road	Southeast	± 0.87 Mile	Seasonal
16	Calhoun Street	Southeast	± 0.81 Mile	Seasonal
17	Calhoun Street	Southeast	± 0.91 Mile	Seasonal
18	Hidden Valley Preserve - Pinnacle	South	± 0.60 Mile	Seasonal

[4] As a final step, the accuracy and scale of select simulations are tested against photographs of similar existing facilities with recorded camera position, focal length, photo location, and tower location.

Visibility Analysis Results

Results of this analysis are graphically displayed on the visibility analysis maps provided in the attachments at the end of this report. Areas from where the proposed Facility would be visible above the tree canopy year-round comprise a total of approximately 95 acres. When the leaves are off the trees, seasonal views through intervening tree mast and branches are anticipated to occur over 75± additional acres. The shoulder of the ridge upon which the host property lies is prominent to nearby locations south (within approximately 0.2 mile), and to the west and northwest (sporadically, up to 0.75 mile away). As a result, the majority of views would occur from select locations within this general vista.

No views of the monopine are anticipated from locations east/northeast of the site. To the southeast, visibility would be limited to seasonal views (during "leaf-off" conditions) from select locations on elevated private properties, which for the most part consist of open agricultural fields, between Parsonage Way, Mallory Brook Road and Sabbaday Lane; at distances of approximately 0.75 mile to one mile away. These views would be restricted to upper portions of the monopine, which would be set into the valley where its profile does not break the tree line (see photo 1 in the attachments as an example). Year-round views of the top of the monopine may be achieved on portions of the athletic fields at the Washington Primary School approximately 0.75 mile from the site (see photo 3). Seasonal views extend another few hundred feet farther south to select locations along Moody Bridge Road West (Photo 2). Views to the west are limited to the eastern end of Steeples Road, over 0.75 mile from the site (photo 4).

Near-range year-round views (within approximately 0.5 mile of the site) would be achieved from select locations along Bee Brook Road. Northbound motorists would attain views of the monopine above the tree line for a short length beginning just south of the Shepaug River crossing and the road's intersection with Blackville Road (see photo 5) and extending several hundred feet north through the intersection (photo 6). The top of the monopine would also be visible to southbound travelers beginning at a point just south of the Shepaug River's northerly crossing of Route 47 and extending south past the Washington Fire House (109 Bee Brook Road), commercial shops and bus depot, for a length of approximately 0.3 mile (photos 8 through 11).

Year-round views may also be achieved from Calhoun Street as it rises from its intersection with Baldwin Hill Road, approximately 0.6 mile northwest of the site (photos 12 and 13) to a point where the road takes a 90-degree turn to the west and the views become seasonal in nature (photos 14, 16 and 17). From these vantage points, the monopine would again be settled into the valley, with rising hills as backdrops, such that its profile would not be silhouetted against the sky. The open fields east of the lower end of Calhoun Road would also have similar year-round views of the monopine.

During the reconnaissance, APT personnel hiked approximately 10 miles of local hiking trails and accessed prominent outlooks to determine if the Facility might be visible. These locations included:

- Portions of the Hidden Valley Preserve trail system, including the Pinnacle, where seasonal views of the very top of the monopine may be achieved during leaf-off conditions (see photo 18).
- Portions of the Steep Rock Preserve, including Steep Rock Summit. No views of the Facility would be achieved from this area.

- Portions of the Maricostas Preserve, including the Lookout and Waramaug's Rock. Although this area is located outside the Study Area, at a distance of over three miles, the two referenced features do have sweeping views to the south towards Washington Depot. The Facility will not be visible from these locations.

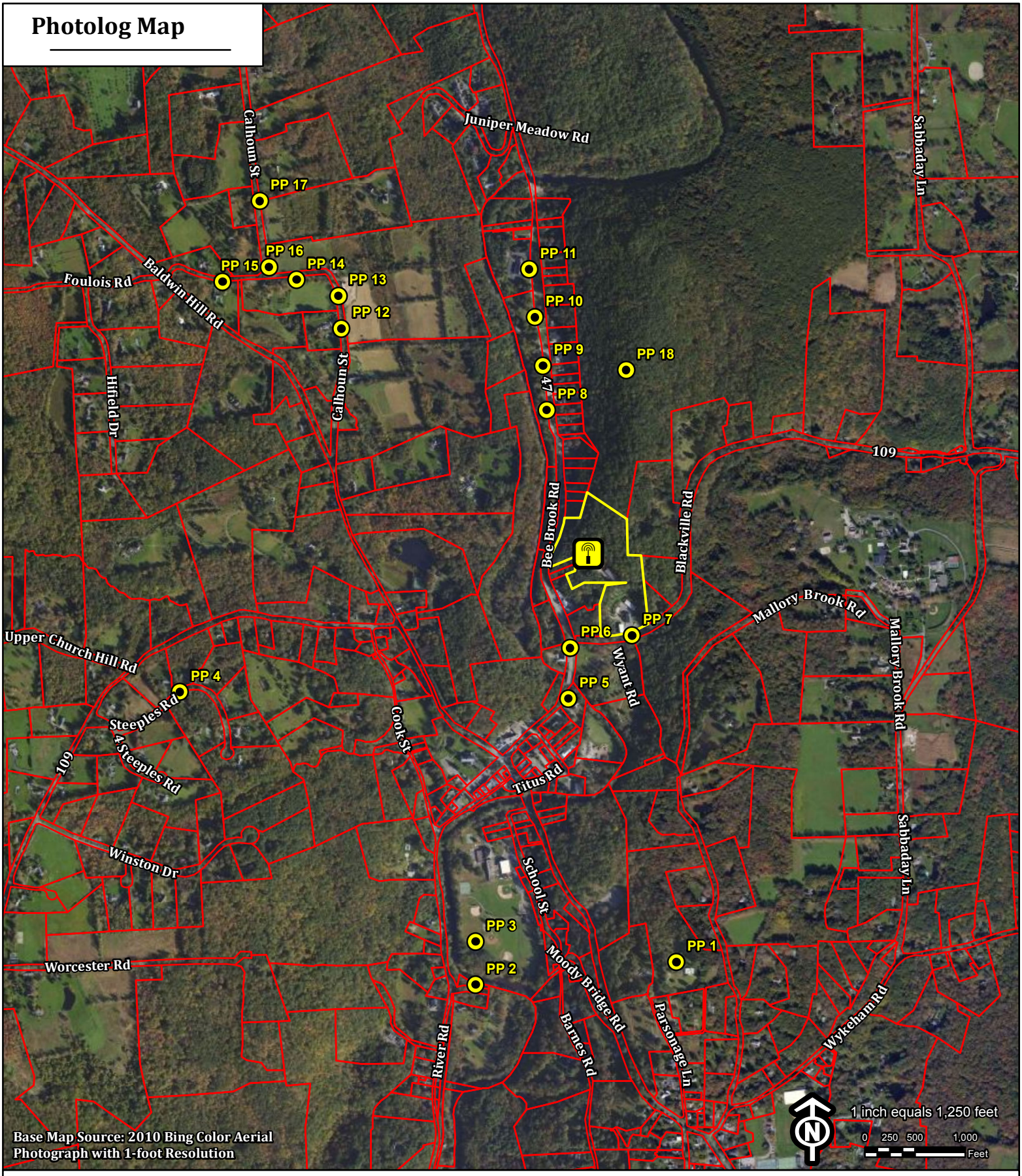
The combination of rugged terrain, mature forest and the relative short height of the Facility result in minimal overall visibility throughout the Study Area. In two locations along Route 47, portions of the Facility would be visible above the trees for short stretches travelling in either direction. The remaining views have a backdrop of trees and ridgelines. Incorporating a monopine design into this project substantially reduces any visual intrusions. In the majority of instances where there may be views, the Facility would be surrounded by other trees (several that are conifers) and therefore not easily differentiated by the naked eye.

Proximity to Schools And Commercial Child Day Care Centers

No schools or commercial child day care centers are located within 250 feet of the host property. Two schools (Washington Primary School on School Street and Devereux Glenholme School on Sabbaday Lane) are located approximately 0.5 mile to the southwest and southeast, respectively. The nearest commercial child day care center (Judea Nursery School) is located at 6 Kirby Road, approximately 1.1 miles to the south. As previously discussed, year-round views of the monopine may be achieved from the athletic fields at the Washington Primary School. Neither of the other two locations would have views of the Facility.

ATTACHMENTS

Photolog Map



Legend

- Proposed Tower Location
- Photo Point (PP)
- Subject Property
- Connecticut Parcel

10 Blackville Road
Washington, Connecticut

Sunday, March 17, 2013

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**PARSONAGE LANE**	**NORTHWEST**	**+/- 0.79 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**PARSONAGE LANE**	**NORTHWEST**	**+/- 0.79 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**MOODY BRIDGE ROAD WEST**	**NORTHEAST**	**+/- 0.85 MILES**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**MOODY BRIDGE ROAD WEST**	**NORTHEAST**	**+/- 0.85 MILES**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**WASHINGTON PRIMARY SCHOOL**	**NORTHEAST**	**+/- 0.76 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**WASHINGTON PRIMARY SCHOOL**	**NORTHEAST**	**+/- 0.76 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**STEEPLES ROAD**	**NORTHEAST**	**+/- 0.82 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**STEEPLES ROAD**	**NORTHEAST**	**+/- 0.82 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**BEE BROOK ROAD (STATE ROUTE 47)**	**NORTHEAST**	**+/- 0.28 MILE**	**YEAR ROUND**

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**BEE BROOK ROAD (STATE ROUTE 47)**	**NORTHEAST**	**+/- 0.28 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**INTERSECTION OF BEE BROOK ROAD (STATE ROUTE 47) AND BLACKVILLE ROAD (STATE ROUTE 109)**	**NORTH**	**+/- 0.18 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**INTERSECTION OF BEE BROOK ROAD (STATE ROUTE 47) AND BLACKVILLE ROAD (STATE ROUTE 109)**	**NORTH**	**+/- 0.18 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**BLACKVILLE ROAD (STATE ROUTE 109) ADJACENT TO HOST PROPERTY**	**NORTHWEST**	**+/- 0.17 MILE**	**SEASONAL**

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**BLACKVILLE ROAD (STATE ROUTE 109) ADJACENT TO HOST PROPERTY**	**NORTHWEST**	**+/- 0.17 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.28 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.28 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.37 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.37 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.46 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.46 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.55 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

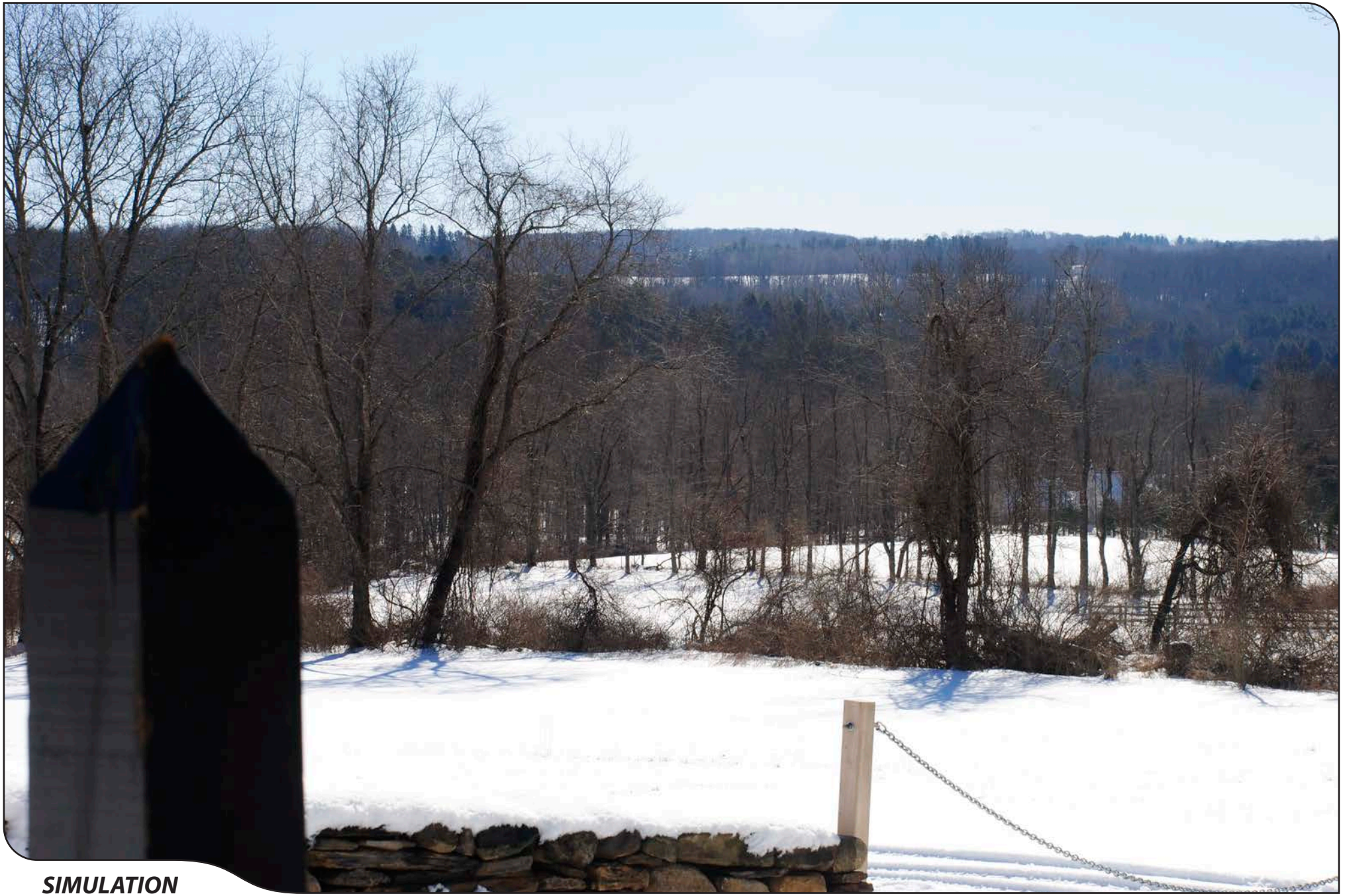
PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**BEE BROOK ROAD (STATE ROUTE 47)**	**SOUTHEAST**	**+/- 0.55 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.63 MILE**	**YEAR ROUND**



SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.63 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.68 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.68 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.76 MILE**	**SEASONAL**

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.76 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**IVES ROAD**	**SOUTHEAST**	**+/- 0.87 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**IVES ROAD**	**SOUTHEAST**	**+/- 0.87 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.81 MILE**	**SEASONAL**

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.81 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	**CALHOUN STREET**	**SOUTHEAST**	**+/- 0.91 MILE**	**SEASONAL**

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**HIDDEN VALLEY PRESERVE - PINNACLE**	**SOUTH**	**+/- 0.60 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

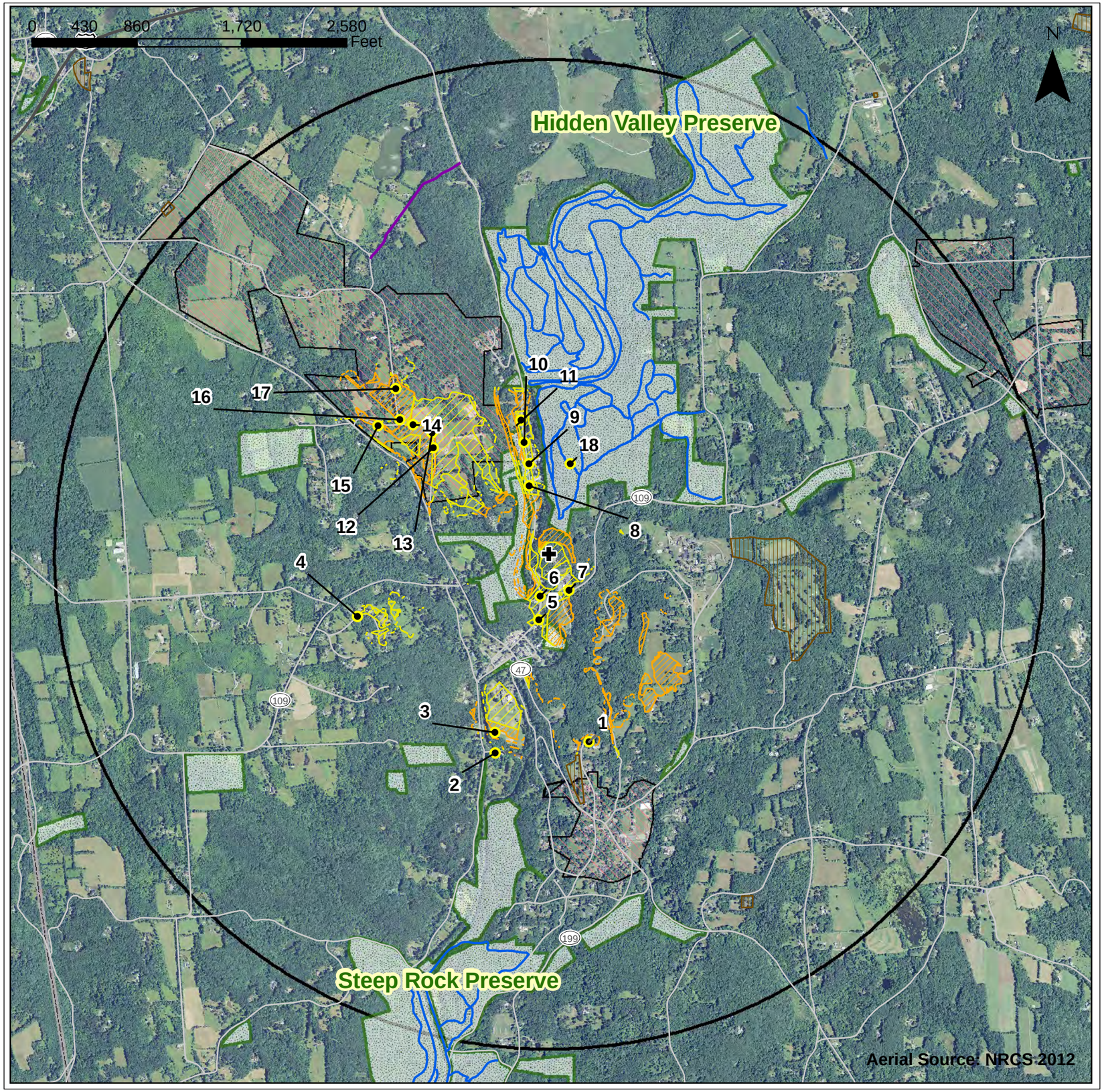
HOMELAND TOWERS

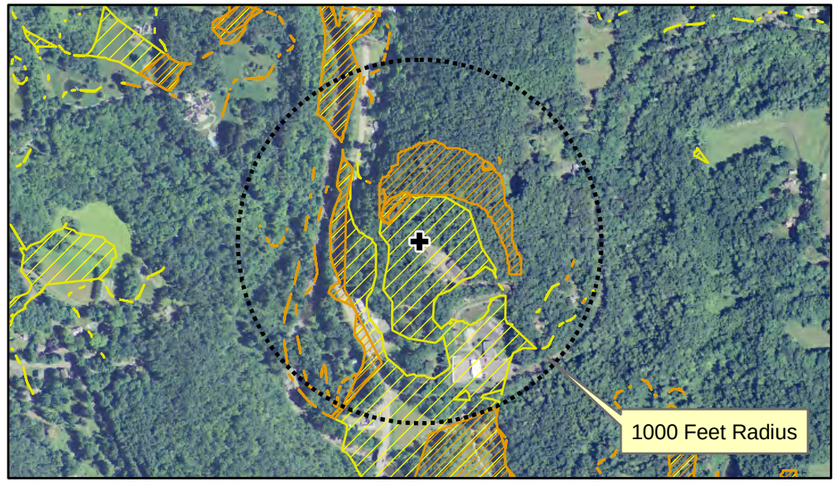
SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**HIDDEN VALLEY PRESERVE - PINNACLE**	**SOUTH**	**+/- 0.60 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS





VISIBILITY ANALYSIS

Proposed Wireless Telecommunications Facility
Highway Department Property
10 Blackville Road
Washington, CT

Proposed facility height is 140 feet AGL
Existing tree canopy height estimated as 65 feet
Study area includes 8,042 acres of land

Map compiled 8/27/2013

Map information field verified by APT on 3/9/13

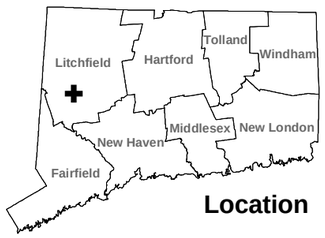
Only those resources located within the Study Area are depicted. For a complete list of data sources consulted for this analysis, please refer to the Documentation Page.

Legend

- Proposed Tower
- Photo Points
- Predicted Year-Round Visibility
- Predicted Seasonal Visibility

Municipal Private Open Space

- Trails
- Protected Open Space
- 2-Mile Study Area
- Town
- National Register Historic Districts
- Scenic Highways



Location

HOMELAND TOWERS

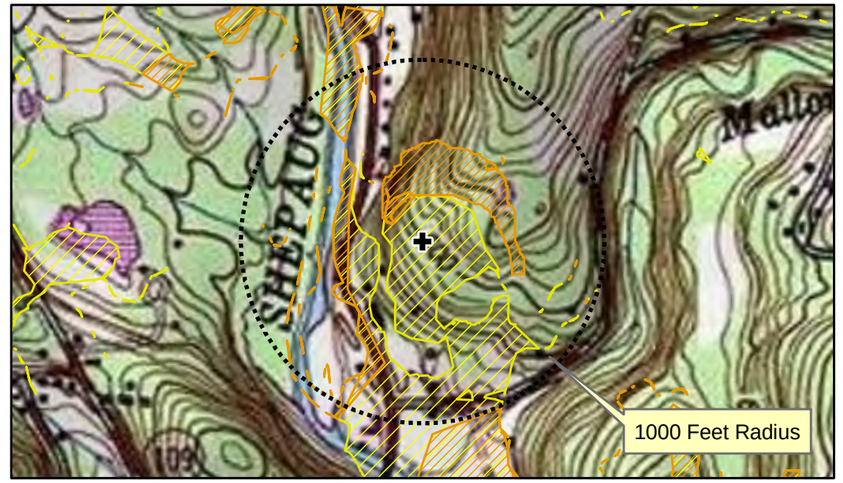
ALL-POINTS
TECHNOLOGY CORPORATION
3 Saddlebrook Drive Killingworth, CT 06419
www.allpointstech.com

0 437.5 875 1,750 2,625 Feet

N

Hidden Valley Preserve

Steep Rock Preserve



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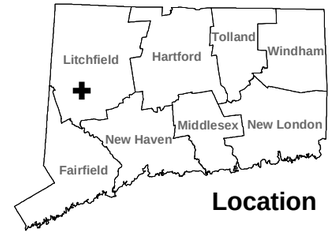

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DOCUMENTATION

SOURCES CONSULTED FOR VISBILITY ANALYSIS

Washington, CT

Physical Geography / Background Data

Center for Land Use Education and Research, University of Connecticut (http://clear.uconn.edu)
- *Land Use / Land Cover (2006)
- *Coniferous and Deciduous Forest (2006)
- *LiDAR data – topography (2000)

United States Geological Survey
- *USGS topographic quadrangle maps - New Preston and Roxbury (1946, 1965, 1984, 2012)

National Resource Conservation Service
- *NAIP aerial photography (2006, 2008, 2010, 2012)

Heritage Consultants
- ^State Scenic Highways (based on Department of Transportation data, updated monthly)
- ^Municipal Scenic Roads (by website, phone and/or email/fax - current)

Cultural Resources

Heritage Consultants
- ^National Register
- ^ Local Survey Data

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP)
- *DEEP Property (May 2007)
- *Federal Open Space (1997)
- *Municipal and Private Open Space (1997)
- *DEEP Boat Launches (1994)

Connecticut Forest & Parks Association
- ^Connecticut Walk Book West – The Guide to the Blue-Blazed Hiking Trails of Western Connecticut including the Metacomet and Mattabesett Trails, 19th Edition, 2006.

Steep Rock Association (http://steeprockassoc.org)
- ^Map of Steep Rock Preserve
- ^Map of Hidden Valley Preserve
- ^ Map of Macricostas Preserve

Other
- ^ConnDOT Scenic Strips (based on Department of Transportation data)

*Available to the public in GIS-compatible format (some require fees).

^ Data not available to general public in GIS format. Reviewed independently and, where applicable, GIS data later prepared specifically for this Study Area.