Proposed Wireless Telecommunications Facility

Washington North

Two Alternative Site Locations:
6 Mountain Road
167 New Milford Turnpike
Washington, Connecticut

Prepared for verizon wireless

Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**
54 Tuttle Place
Middletown, CT 06457

March 2007

Visual Resource Evaluation

Cellco Partnership LLC (dba Verizon Wireless) seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need to construct a telecommunications Facility to be located within the Town of Washington, Connecticut. As part of the approval process, Verizon Wireless has selected two alternative sites for further evaluation that are referred to herein as Alternative 1 and Alternative 2. Alternative 1 is located on property at 6 Mountain Road and Alternative 2 is located on property at 167 New Milford Turnpike (Route 202) in Washington, Connecticut ("host properties"). The Alternative project sites are located approximately 0.46-mile apart. This "Visual Resource Evaluation" was conducted to approximate the visibility of a Facility at the proposed locations within a two-mile radius around the midway point between the two Alternative Sites ("Study Area") and present the results of the analysis in a comparative format.

Project Introduction

Development of either site location would include the construction of a 150-foot tall "monopine" tower designed to resemble an evergreen tree with associated ground equipment to be installed at the base of the tower structure. The monopine and ground equipment would be situated within a fenced-enclosed compound area. Simulated branches on the monopines, which act to conceal the proposed telecommunications antenna, would increase the total height of each tower structure by approximately seven feet. Based on information provided by the project engineers, NatComm, LLC, the Alternative 1 project area is located at approximately 693 feet Above Mean Sea Level (AMSL) and the Alternative 2 project area is located at approximately 643 feet AMSL. Access to either Facility would follow existing dirt paths currently located on each of the respective host properties.

Site Description and Setting

Identified in the Town of Washington Tax Assessors records as Map 7/Block 2/Lot 83, the Alternative 1 host property consists of approximately 32 acres of heavily wooded land. The proposed Facility would be situated on the eastern portion of the host property, just north of the existing dirt path. Access to this location passes through an adjacent parcel (16 Mountain Road). The Alternative 2 project area is located on a 1.25-acre parcel identified in the Town of Washington Tax Assessors records as Map 13/Block 3/Lot 66. The property is currently occupied by a single family residence located approximately 150 feet southwest of the proposed monopine and a detached garage located adjacent to the residence. The proposed Facility is located on the northeast corner of the host property. The Alternative Sites are located approximately 0.46-mile apart (see Photolog Documentation map contained in Attachment A). A photograph of each project area is also included in Attachment A. Land use within the general vicinity of the Alternative Sites is comprised of low-density residential parcels, roadside commercial uses along Route 202 and undeveloped woodlands. The New Preston Town Center is located further to the north/northeast along Main Street. The western half of the Study Area encompasses portions of the Towns of New Milford and Kent,

Connecticut. Segments of Route 202, Route 109, Route 47 and Route 45 are contained within the Study Area. In total, the Study Area features approximately 58 linear miles of roadways.

The topography within the Study Area is characterized by steep ridgelines and rolling hills that range in ground elevation from approximately 460 feet AMSL to just over 1,250 feet AMSL. Overall, the Study Area contains approximately 320 acres of surface water, dominated in large measure by portions of Lake Waramaug. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of mature evergreen trees. The tree canopy occupies approximately 5,948 acres of the 8,042-acre study area (74%). During the in-field activities associated with this analysis, an infrared laser range finder was used to accurately determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy established, in this case 65 feet.

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METHODOLOGY

In order to better represent the visibility associated with the Facility, Vanasse Hangen Brustlin, Inc. (VHB) uses a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model is employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A "balloon float" and Study Area drive-through reconnaissance are also conducted to obtain locational and height representations, back-check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

Visibility Analysis

Using ESRI's ArcView® Spatial Analyst, a computer modeling tool, the areas from where the proposed Facility is expected to be visible are calculated. This is based on information entered into the predictive computer model that includes the height of the proposed Facility, its ground elevation, the surrounding topography, existing vegetation and any significant structures/objects that may act to obstruct potential views such as tall buildings and/or elevated roadway infrastructure. Data incorporated in the model includes 7.5 minute digital elevation models (DEMs) and a digital forest layer for the Study Area. The DEMs were produced by the United States Geological Survey (USGS) in 1982 at a 30 meter resolution and serve as the topographic base underlying the model. The forest layer was derived through on-screen digitizing in ArcView® GIS. During this process, high-resolution, digital aerial photographs of the Study Area are incorporated into the computer model. The mature trees and woodland areas depicted on the aerial photos are manually traced in ArcView® GIS and then converted into a geographic data layer. The aerial photographs utilized during the digitizing were produced in 2004 and have a pixel resolution of 0.5 foot.

Once the data are entered, a series of constraints is applied to the computer model to achieve an estimate of where the Facility is likely to be visible. Initially, only topography was used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of these layers provides a reference for comparison once the tree canopy is established and also assists in the evaluation of potential seasonal visibility of the proposed Facility. The forested areas within the Study Area were then overlaid on the DEM with a measured tree height of 65 feet added. The visibility was subsequently calculated and incorporated into the map. The forested areas are then extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in these areas, it is assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing. Lastly, in order to calculate the approximate amount of the monopole structure that may be visible above the tree canopy, this process was repeated in 30-foot increments and the results combined into a single thematic data layer. This analysis is conducted in part to provide both a quantitative and qualitative measure of the potential visibility associated with a given tower structure(s).

Also included on the map is a data layer, obtained from the Connecticut State Department of Environmental Protection ("CTDEP"), which depicts various land and water resources such as state parks and forests, recreational facilities, dedicated open space and CTDEP boat launches among other categories. This layer is useful in identifying potential visual impacts to any sensitive receptors that may be located within the Study Area. In addition, based on a review of information published by the Connecticut Department of Transportation (ConnDOT) and discussions with municipal officials in Washington and New Milford, VHB has determined that there are several, designated scenic roadways contained within the Study Area. These roadways include portions of Route 45, Buffum Road, Cherniske Road, Walker Brook Road and Wheaton Road.

A preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is generated for use during the in-field activity in order to confirm that no significant land use changes have occurred since the aerial photographs used in this analysis were produced and to verify the results of the model in comparison to the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

Balloon Float and Study Area Reconnaissance

On March 18, 2007 Vanasse Hangen Brustlin Inc., (VHB) conducted a publicly-noticed "balloon float" at the Alternative Site locations from 9:00 AM to 3:00 PM to further evaluate the potential viewshed within the Study Area and to allow residents in Washington to have an opportunity to assess areas of likely visibility. Balloons at both Site locations were aloft prior to that time, beginning at approximately 7:30 AM. The balloon float consisted of raising

and maintaining approximate four-foot diameter, helium-filled weather balloons at the proposed site locations at heights of 150 feet AGL. A red balloon was used at the Alternative 1 Site and a black balloon was used at Alternative 2. Once the balloons were secured at 150 feet AGL, VHB personnel drove the public road system in the Study Area to inventory those areas where the balloons were visible. During the balloon float, the temperature ranged from approximately 20 to 35 degrees Fahrenheit with calm wind conditions in the early morning period when the Study Area reconnaissance and photographic documentation were conducted.

Photographic Documentation

Once the balloons were secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other potential sensitive receptors in order to evaluate the results of the preliminary viewshed map and to verify where the balloons were, and were not, visible above and/or through the tree canopy. The balloons were photographed from several vantage points to document the actual view towards the proposed Facility. The locations and orientations of the photos are described below:

1. Views from Route 202 at Mygatt Road.
2. Views from Route 202.
3. View from Mygatt Road adjacent to house #60.
4. View from Quarry Ridge condominiums adjacent to unit #60.
5. View from Scofield Hill Road adjacent to house #47.
6. Views from Baldwin Hill Road south of Christian Road North.
7. View from Preston Hill Road adjacent to house #38.
8. View from Main Street north of Route 202.
9. View from Main Street at Route 202.
10. View from Christian Road North.
11. View from Route 202 approaching Alternative Site 2.
12. View from Wheaton Road.

Photographs from the view points listed above were taken with a Nikon Digital Camera COOLPIX 5700, which has a lens focal length equivalent to a 35 mm camera with a 38 to 115 mm zoom. "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.[1]" The optical zoom lens for the Nikon COOLPIX was set at a range of 50 mm to 70 mm for the purposes of this Visual Resource Evaluation.

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

The locations of the photographic points are recorded in the field using a hand held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

Photographic Simulation

A photographic simulation was generated for each of the photo locations introduced above. The photographic simulations represent a scaled depiction of the proposed monopine from these locations. The height of the Facility is determined based on the location of the balloon in the photograph and a proportional monopine image is simulated into the photographs. The simulations are contained in Attachment A.

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CONCLUSIONS

Attachment B includes three maps: a comparative viewshed map depicting areas of visibility associated with each of the Alternative Sites; a viewshed map depicting the approximate percentage of the monopine's visibility for Alternative 1; and, a viewshed map depicting the approximate percentage of the monopine's visibility for Alternative 2.

Based on this analysis, areas from where the proposed monopines would be visible above the tree canopy comprise approximately 48 acres and 36 acres for Alternative 1 and Alternative 2, respectively (or less than one percent of the 8,042-acre Study Area for each Site). As depicted on the viewshed maps, the majority of the visibility associated with a proposed Facility at either location occurs along select portions of the Route 202 roadway corridor, generally between Mygatt Road and an area just over 0.25-mile northeast of Findley Road.

Other locations where the balloon representing Alternative 1 was observed include segments of Mygatt Road, Scofield Hill Road, Baldwin Hill Road, Preston Hill Road and select areas within the Quarry Ridge Condominiums, located off Mygatt Road. VHB also anticipates limited, year-round views of Alternative 1 from a small portion of Wheaton Road, a locally designated scenic roadway. This area is depicted on the attached viewshed maps and documented in View 12 of the Photographic Simulations contained in Attachment A. These locations typically stand at a relatively high ground elevation and feature open, unobstructed views in the direction of this Alternative Site area. VHB estimates that at least partial, year-round views of a monopine at Alternative Site 1 would be achieved from approximately 23 residential properties within the Study Area. This includes approximately 12 units within the Quarry Ridge Condominiums.

Additional areas of visibility for Alternative 2 (other than those along Route 202) are located along select portions of Main Street, just north of Route 202, Baldwin Hill Road and Christian Road North. VHB estimates that Alternative 2 would be at least partially visible from approximately five residential properties year-round.

Overall, the topography and extensive tree cover contained within the Study Area serve to minimize the year-round visibility associated with each of the Alternative Sites. Moreover, the design of the proposed Facility (monopine) would also act to significantly minimize potential visual effects of the structures to be generally consistent with the surrounding landscape and existing vegetation. This is particularly true for those views that would be set into the adjacent hillside (represented by Views 1, 3, and 5) and/or areas adjacent to existing evergreen trees (Views 6, 9 and 10).

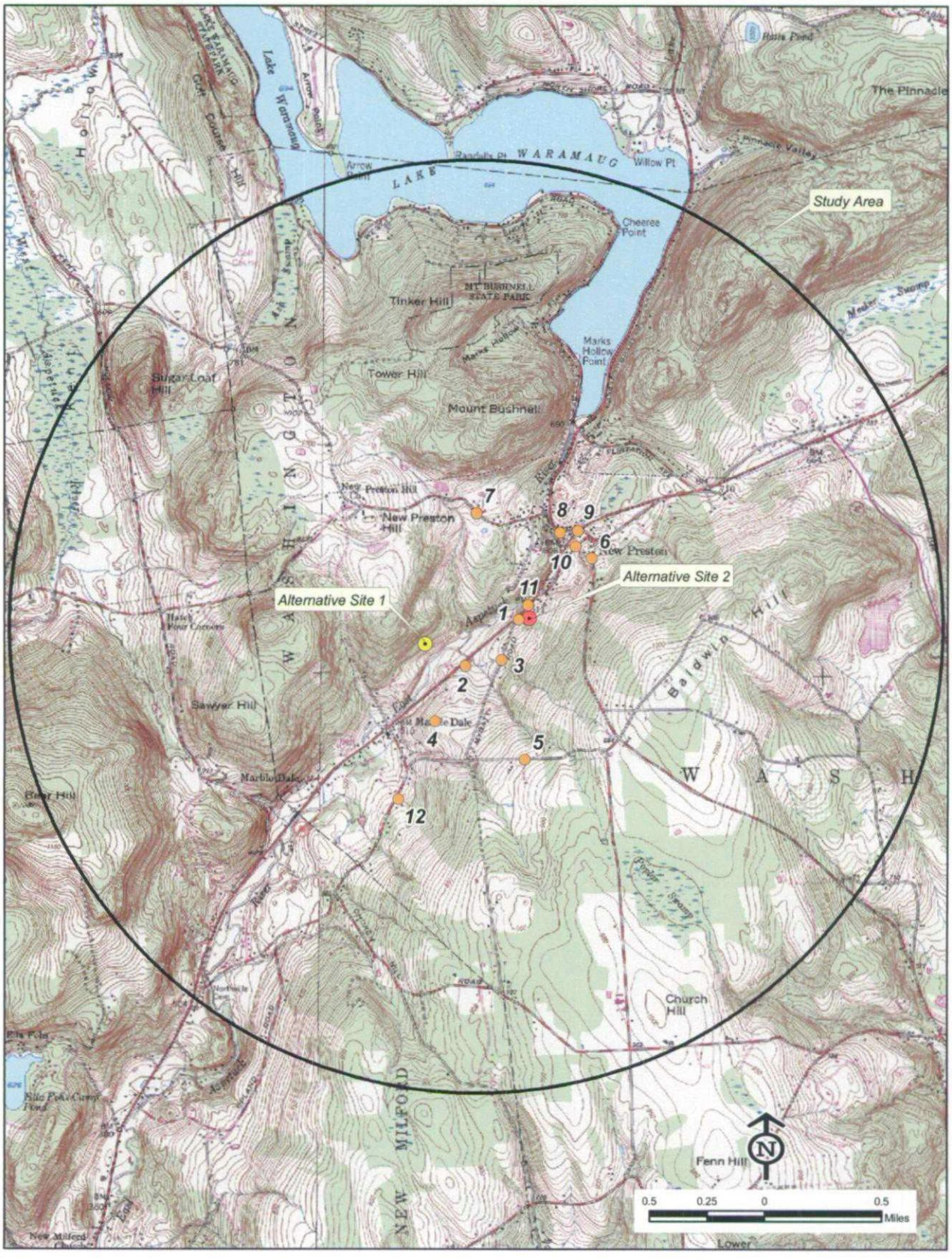
The viewshed maps also depict several additional areas where seasonal (i.e. during "leaf off" conditions) views are anticipated. These areas comprise approximately 13 acres and 12 acres for Alternative 1 and Alternative 2, respectively. Generally, these areas are limited to the immediate Site vicinities. VHB estimates that seasonal views of the proposed Alternative 1 location would be achieved from approximately six additional residential properties within the Study Area while Alternative 2 would be seasonally visible from approximately four additional residential properties.

Attachment A

Photolog Documentation Map, Project Area Photographs, and Balloon Float/ Photographic Simulations

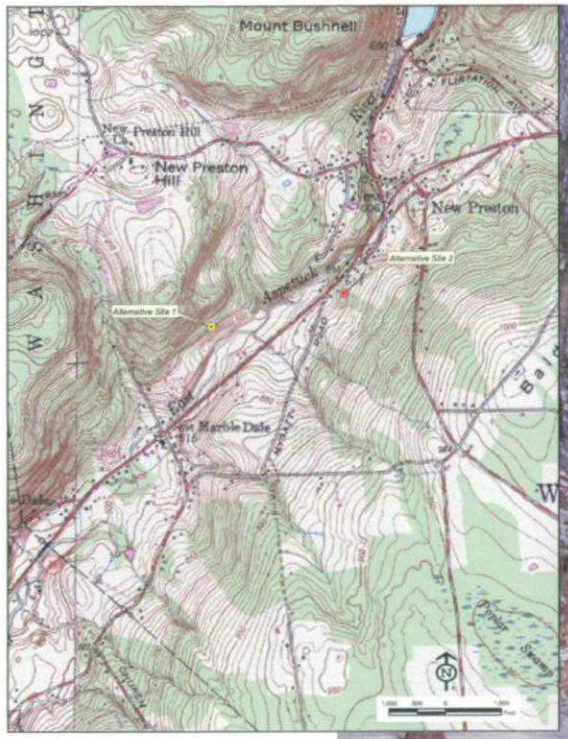
Photolog Documentation

Town of
Washington
Connecticut



Photographic Documentation and Simulation *Alternative Site 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turpike
Washington, CT

Monopine installation

PROPOSED ALTERNATIVE SITE 1 PROJECT AREA

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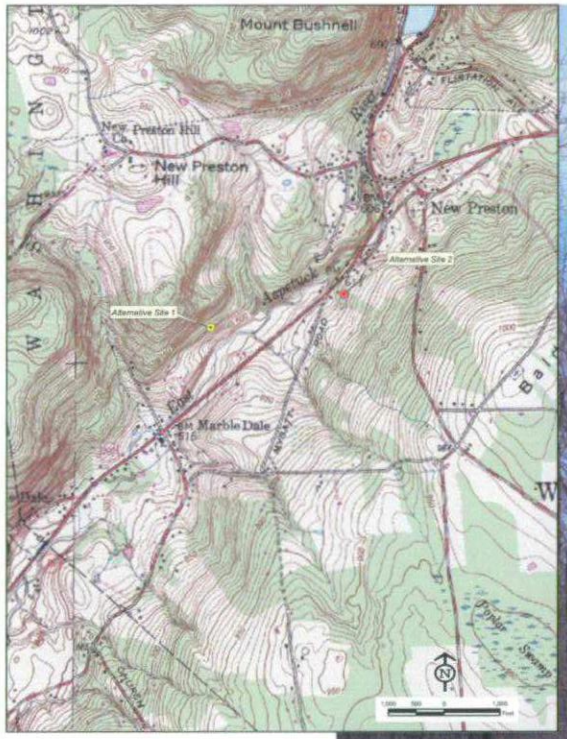
Photographic Documentation and Simulation *Alternative Site 2*

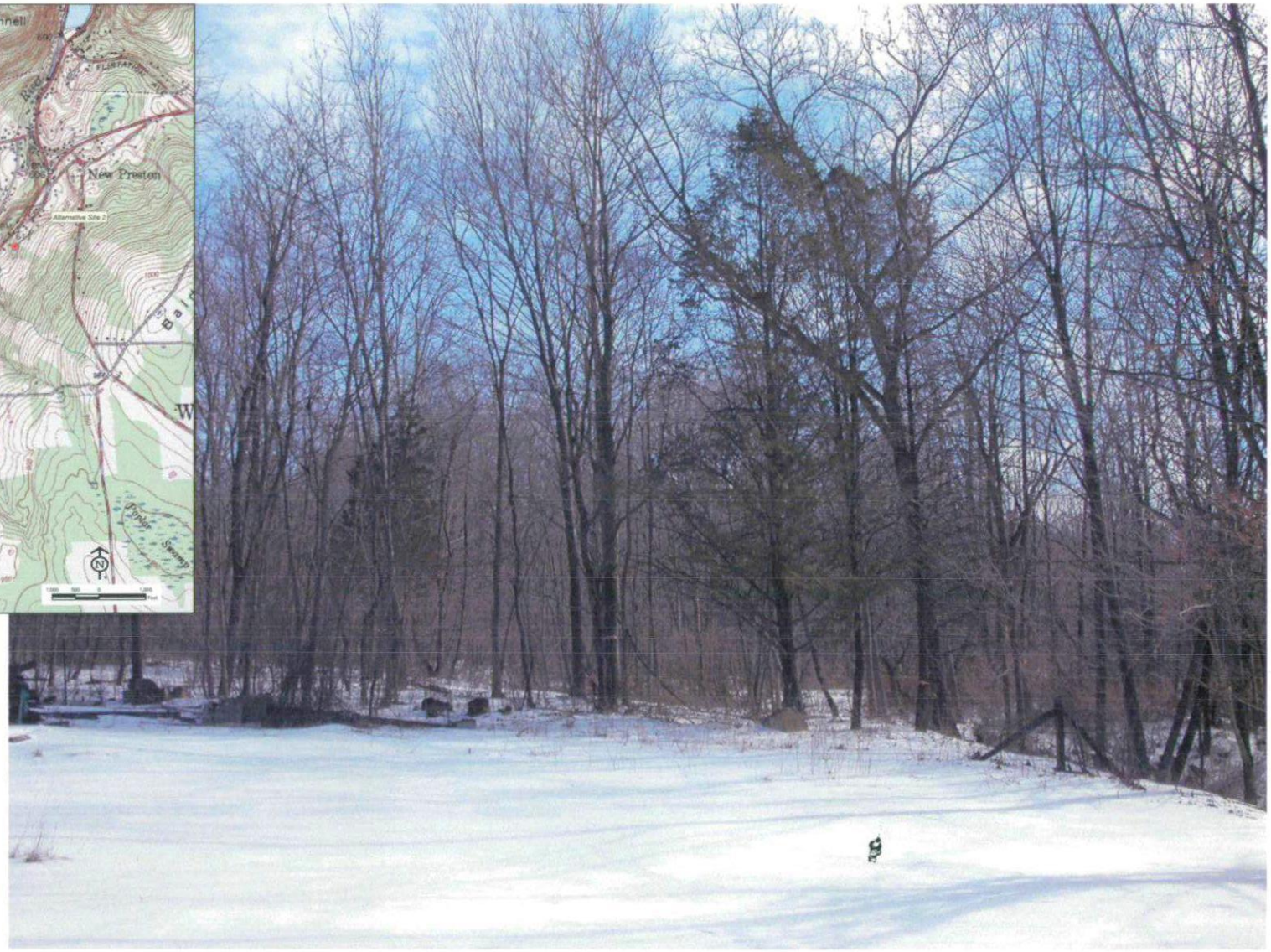
Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turpike
Washington, CT

Monopine installation



PROPOSED ALTERNATIVE SITE 2 PROJECT AREA

vertex

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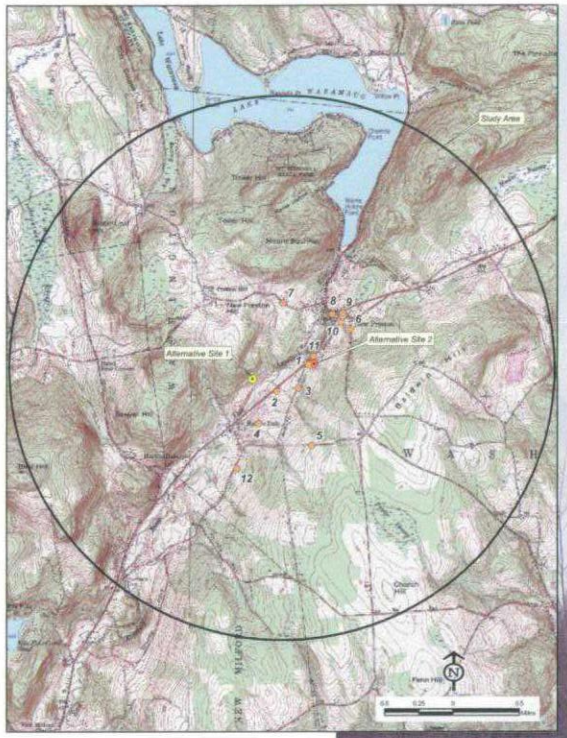
Photographic Documentation and Simulation *View 1 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

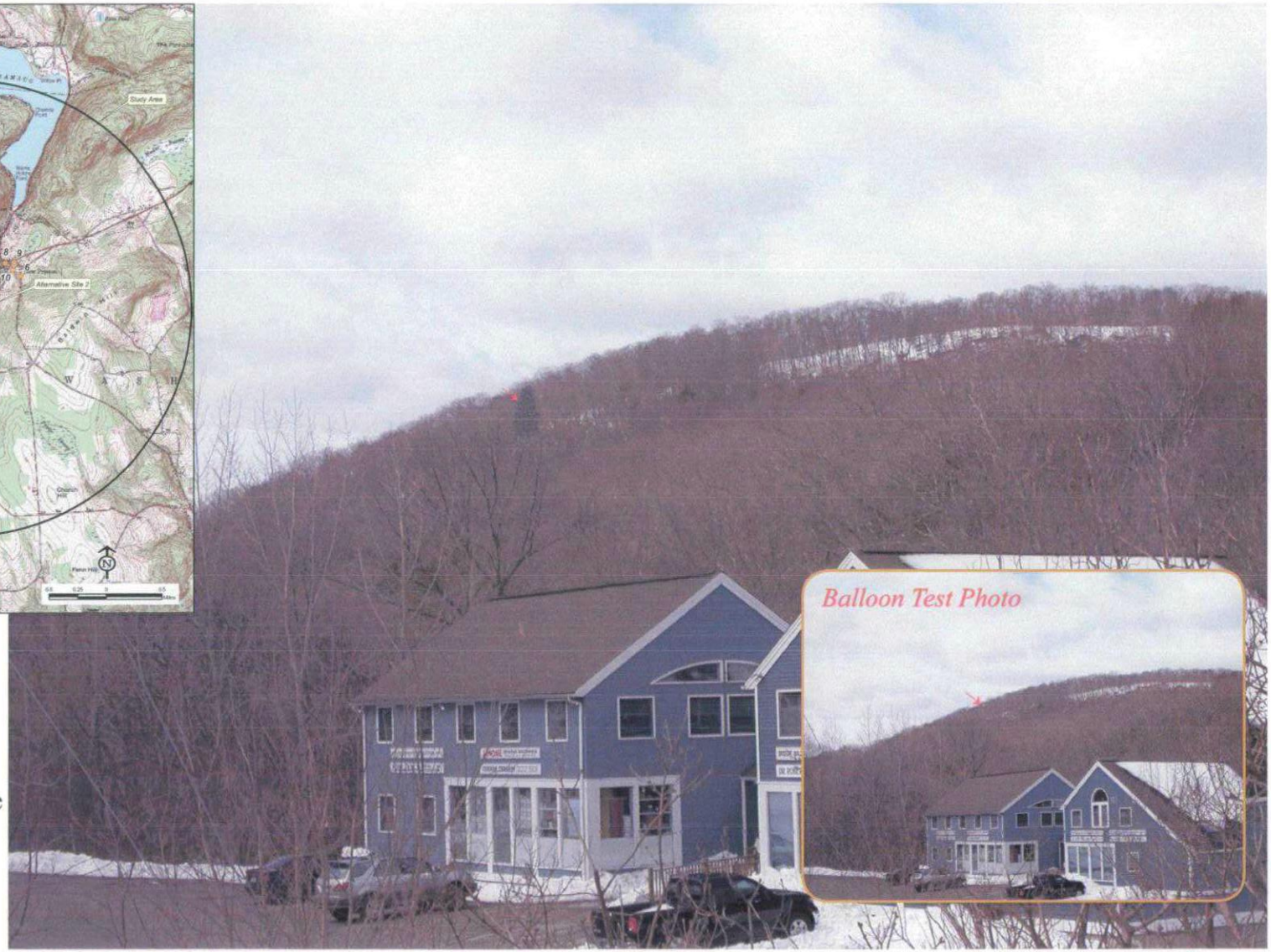


PHOTO TAKEN FROM ROUTE 202 AT MYGATT ROAD, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; PROPOSED ALTERNATIVE SITE 2 IS VISIBLE LOOKING NORTHEAST (SEE FOLLOWING PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.40 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.05 MILE +/-

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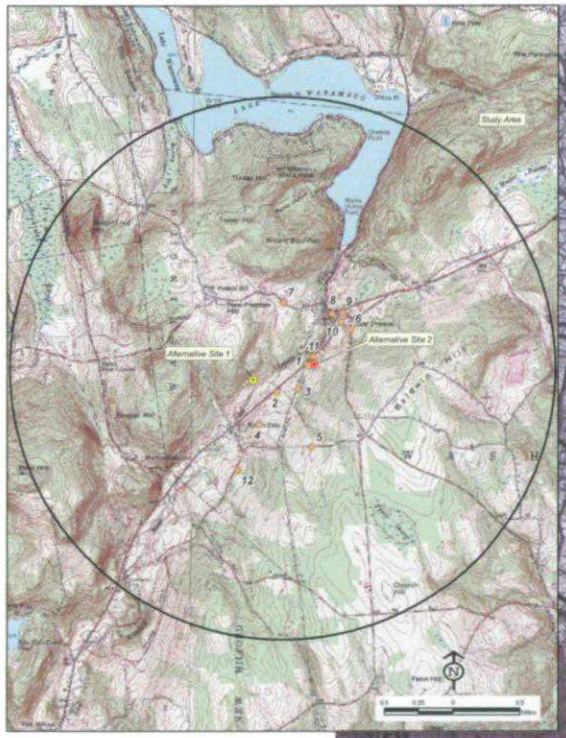
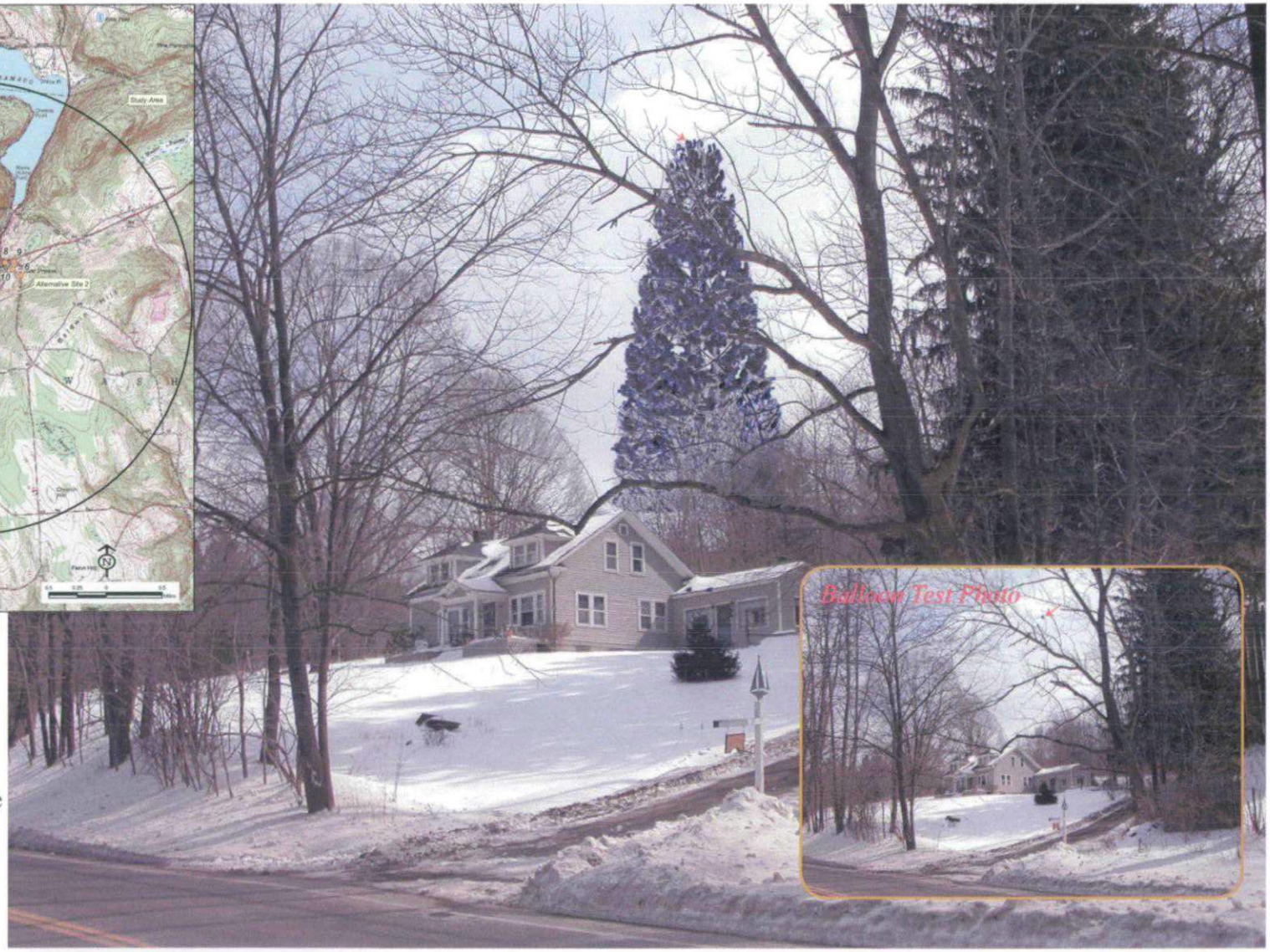
Photographic Documentation and Simulation *View 1 Alternative 2*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM ROUTE 202 AT MYGATT ROAD, LOOKING NORTHEAST - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; PROPOSED ALTERNATIVE SITE 1 IS VISIBLE LOOKING SOUTHWEST (SEE PREVIOUS PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.40 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.05 MILE +/-

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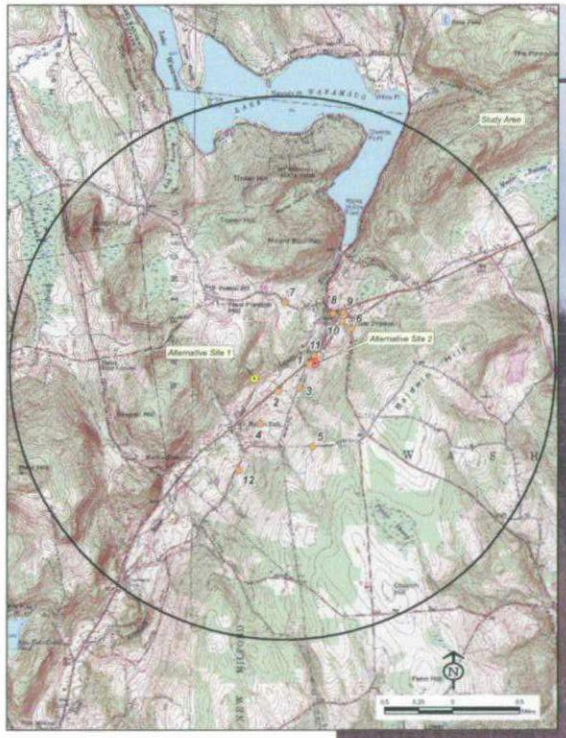
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 2 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM ROUTE 202, LOOKING NORTHWEST - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; PROPOSED ALTERNATIVE SITE 2 IS VISIBLE LOOKING NORTHEAST (SEE FOLLOWING PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.19 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.34 MILE +/-

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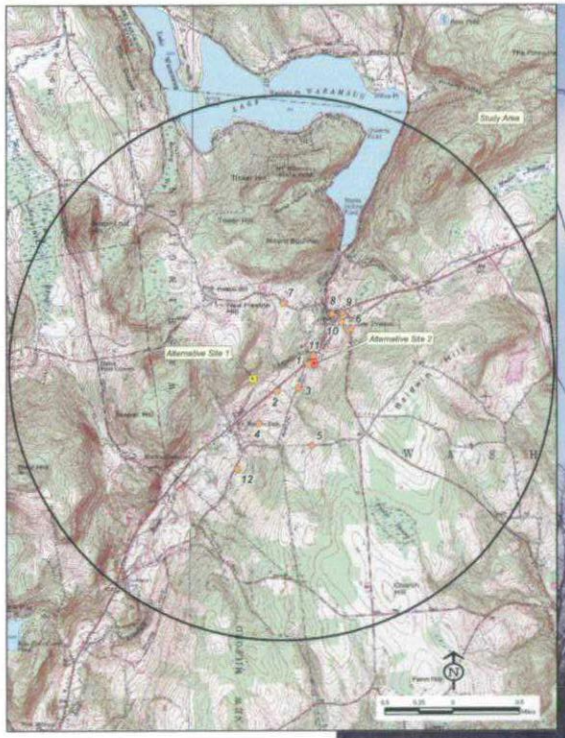
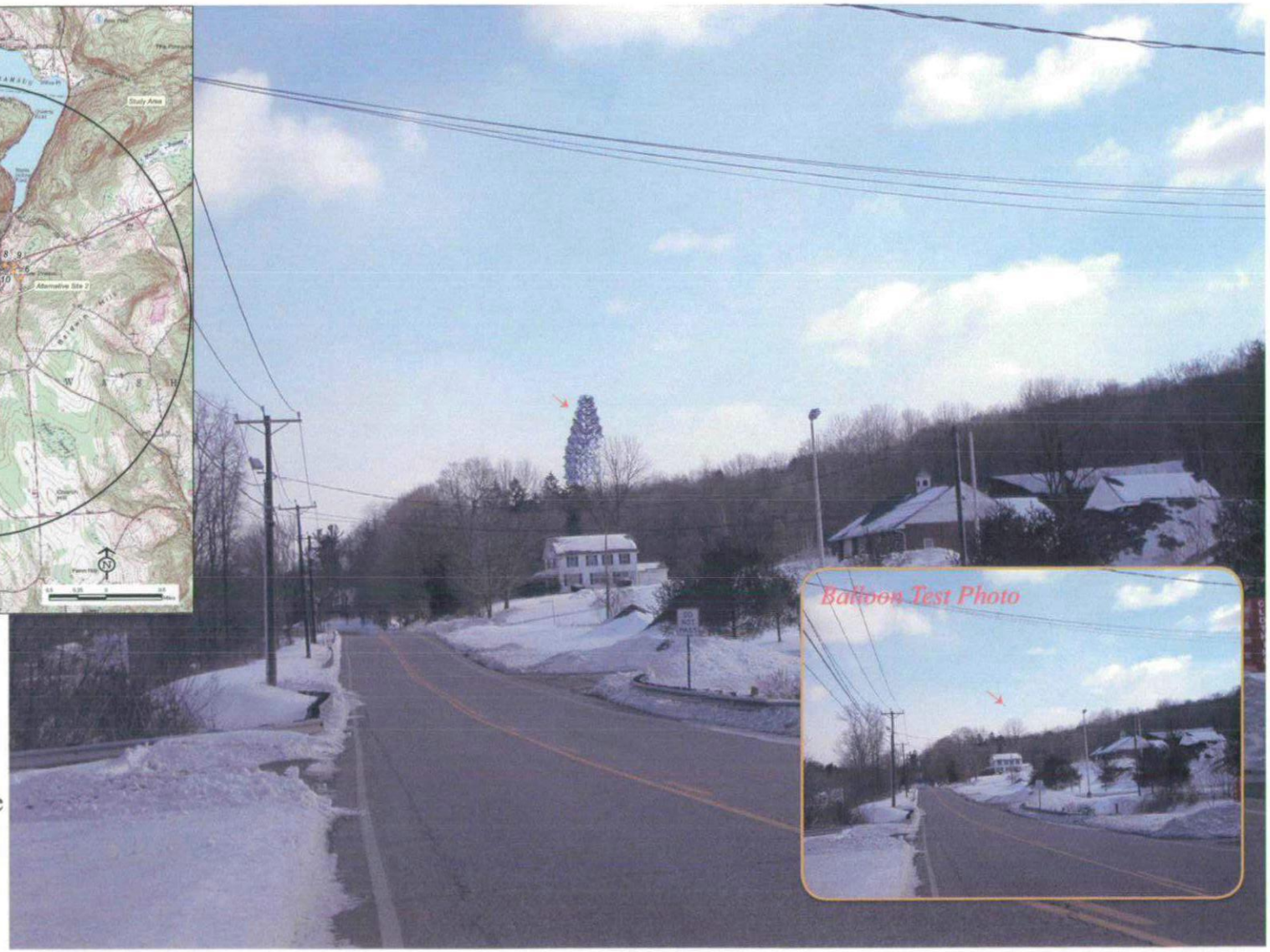
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 2 Alternative 2*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM ROUTE 202, LOOKING NORTHEAST - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; PROPOSED ALTERNATIVE SITE 1 IS VISIBLE LOOKING NORTHWEST (SEE PREVIOUS PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.19 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.34 MILE +/-

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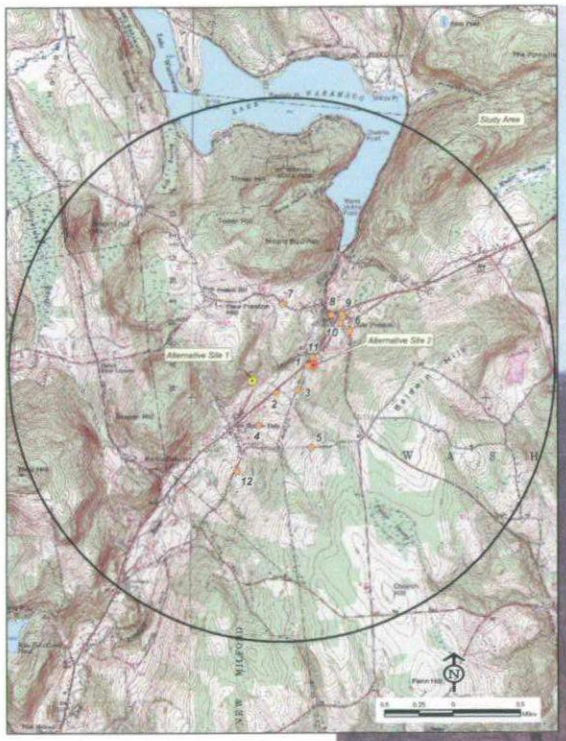
Photographic Documentation and Simulation *View 3 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM MYGATT ROAD ADJACENT TO HOUSE #60, LOOKING NORTHWEST - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; PROPOSED ALTERNATIVE SITE 2 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.34 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.21 MILE +/-

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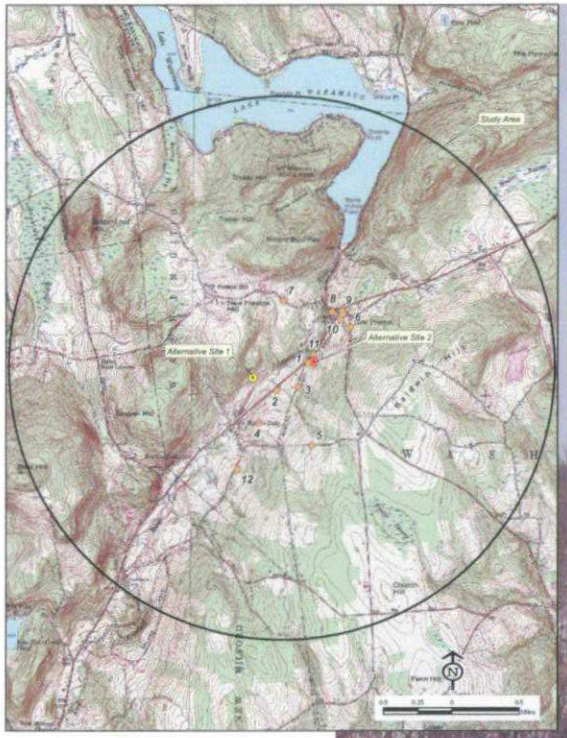
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 4 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM QUARRY RIDGE CONDOMINIUMS (OFF MYGATT ROAD) ADJACENT TO UNIT #60, LOOKING NORTH - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; PROPOSED ALTERNATIVE SITE 2 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.33 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.60 MILE +/-

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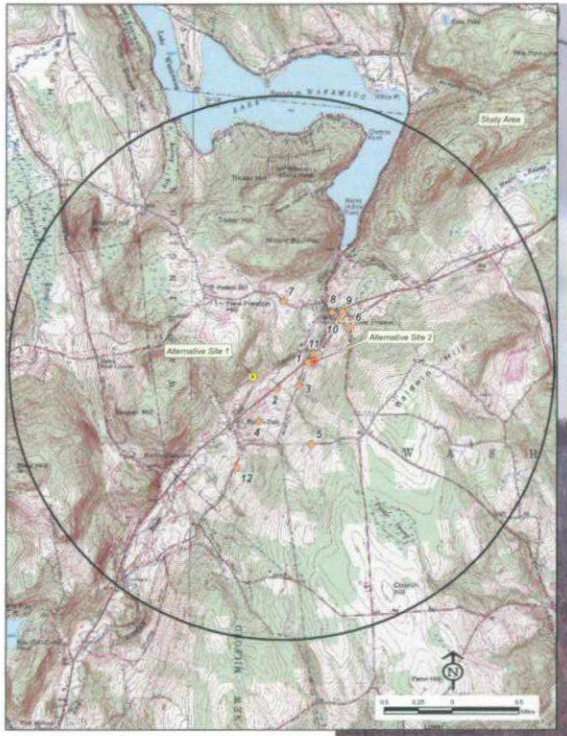
Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 5 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

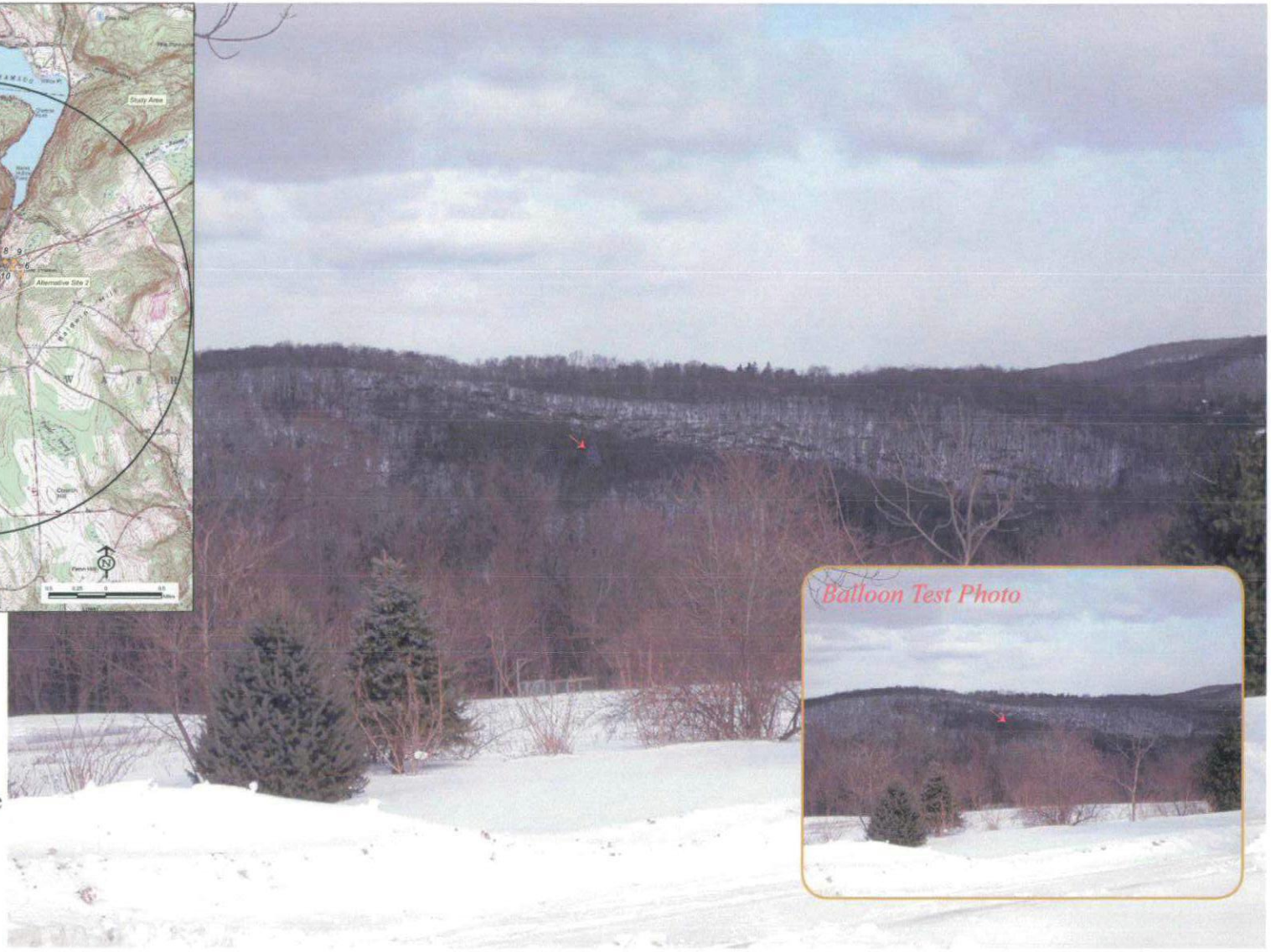


PHOTO TAKEN FROM SCOFIELD HILL ROAD ADJACENT TO HOUSE #47, LOOKING NORTHWEST - PROPOSED ALTERNATE SITE 1 IS VISIBLE; PROPOSED ALTERNATE SITE 2 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATE SITE 1 IS 0.66 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATE SITE 2 IS 0.61 MILE +/-

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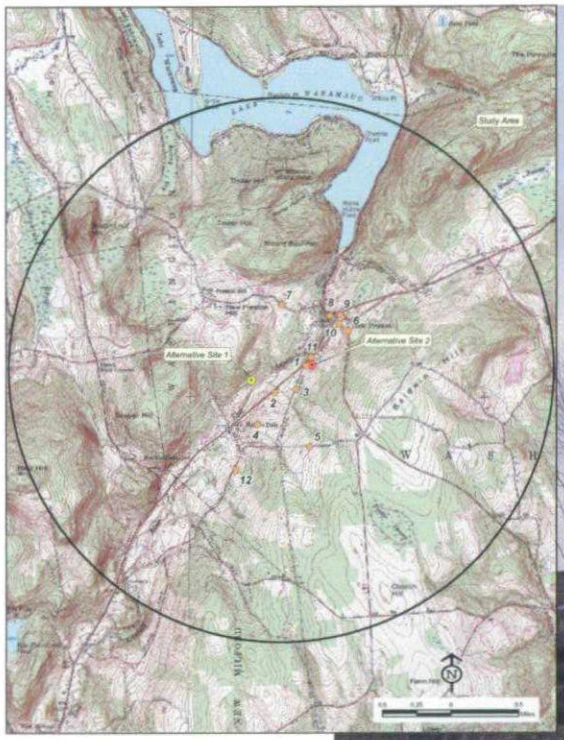
Photographic Documentation and Simulation *View 6 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

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Washington, CT

Monopine installation

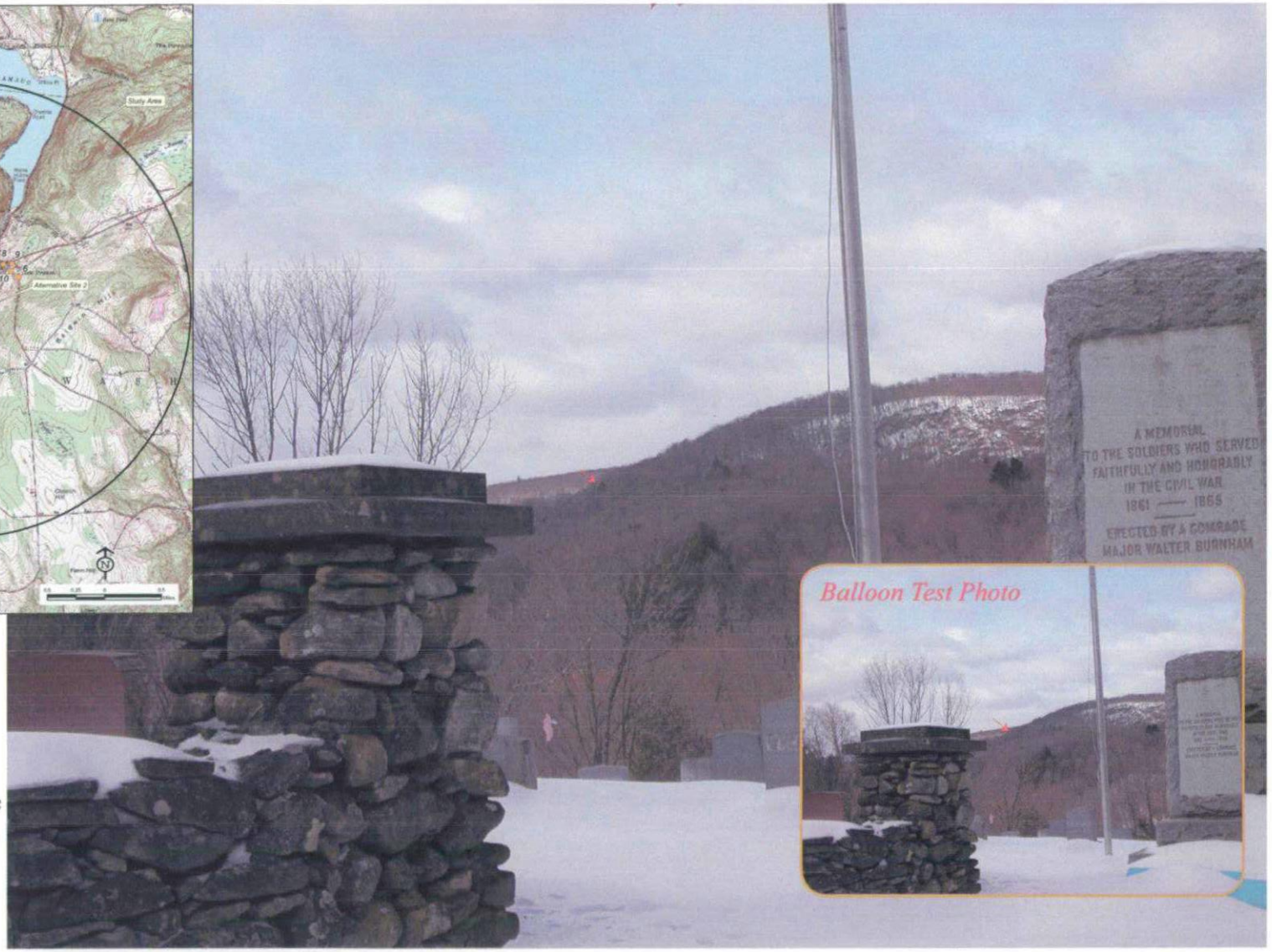

PHOTO TAKEN FROM BALDWIN HILL ROAD SOUTH OF CHRISTIAN ROAD NORTH, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 1 AND ALTERNATIVE SITE 2 ARE VISIBLE FROM THIS LOCATION (SEE FOLLOWING PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.80 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.37 MILE +/-

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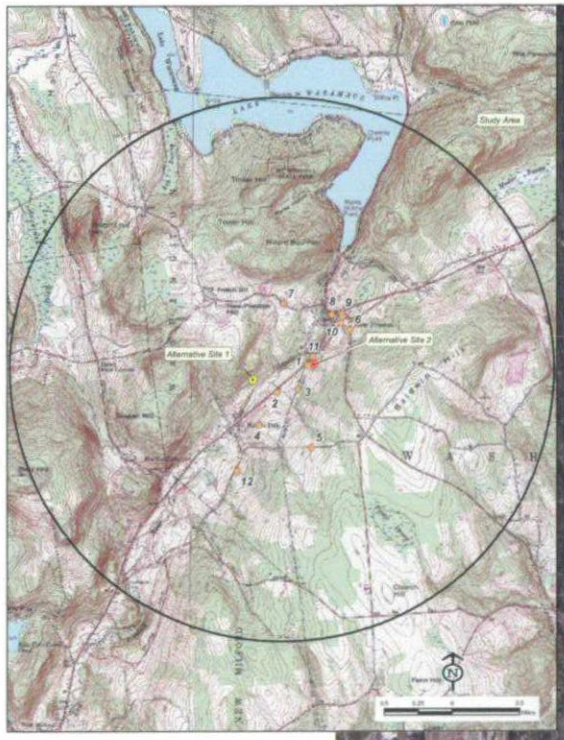
Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 6 Alternative 2*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM BALDWIN HILL ROAD SOUTH OF CHRISTIAN ROAD NORTH, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 1 AND ALTERNATIVE SITE 2 ARE VISIBLE FROM THIS LOCATION (SEE PREVIOUS PHOTOGRAPH)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.80 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.37 MILE +/-

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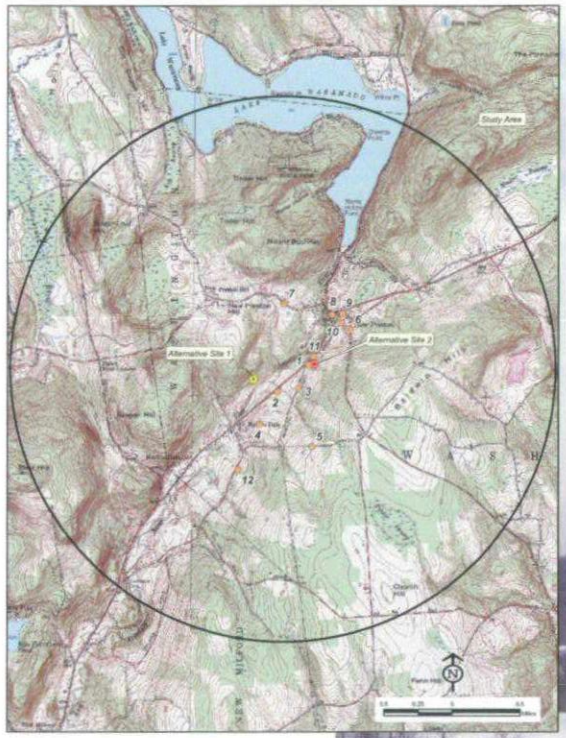
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 7 Alternative 1*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM PRESTON HILL ROAD ADJACENT TO HOUSE #38, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; ALTERNATIVE SITE 2 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.60 MILE +/-

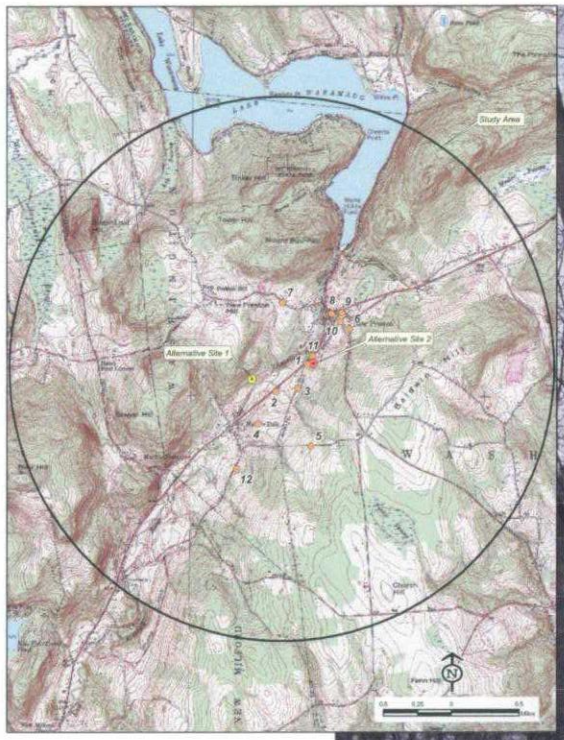
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.49 MILE +/-

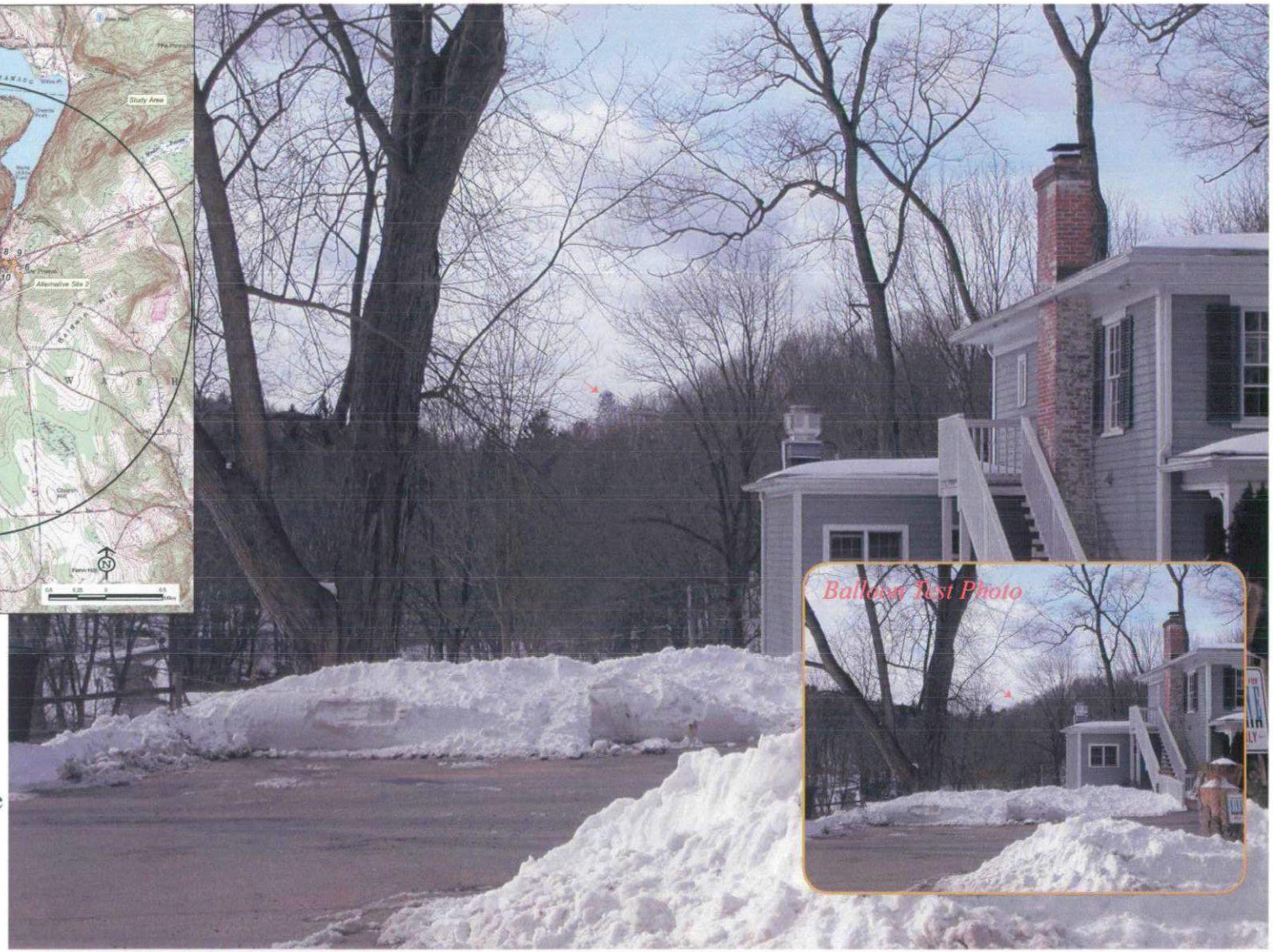
verizon wireless

VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 8 Alternative 2*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM MAIN STREET NORTH OF ROUTE 202, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; ALTERNATIVE SITE 1 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.81 MILE +/-

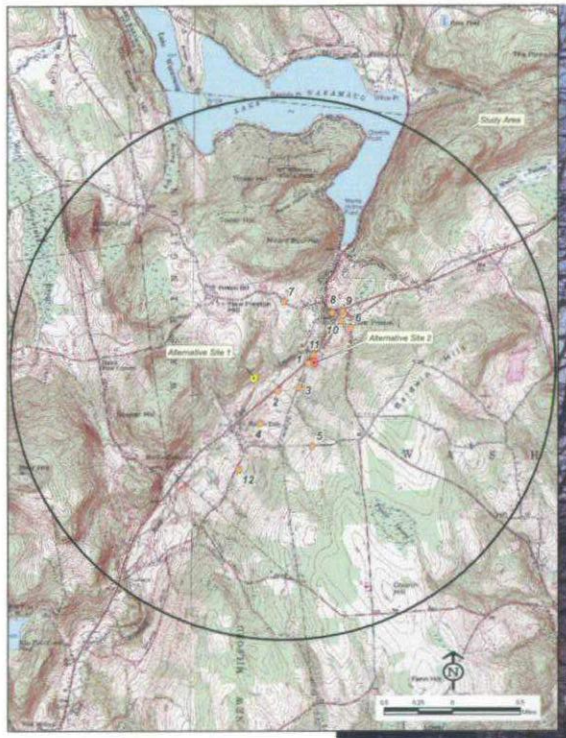
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.44 MILE +/-

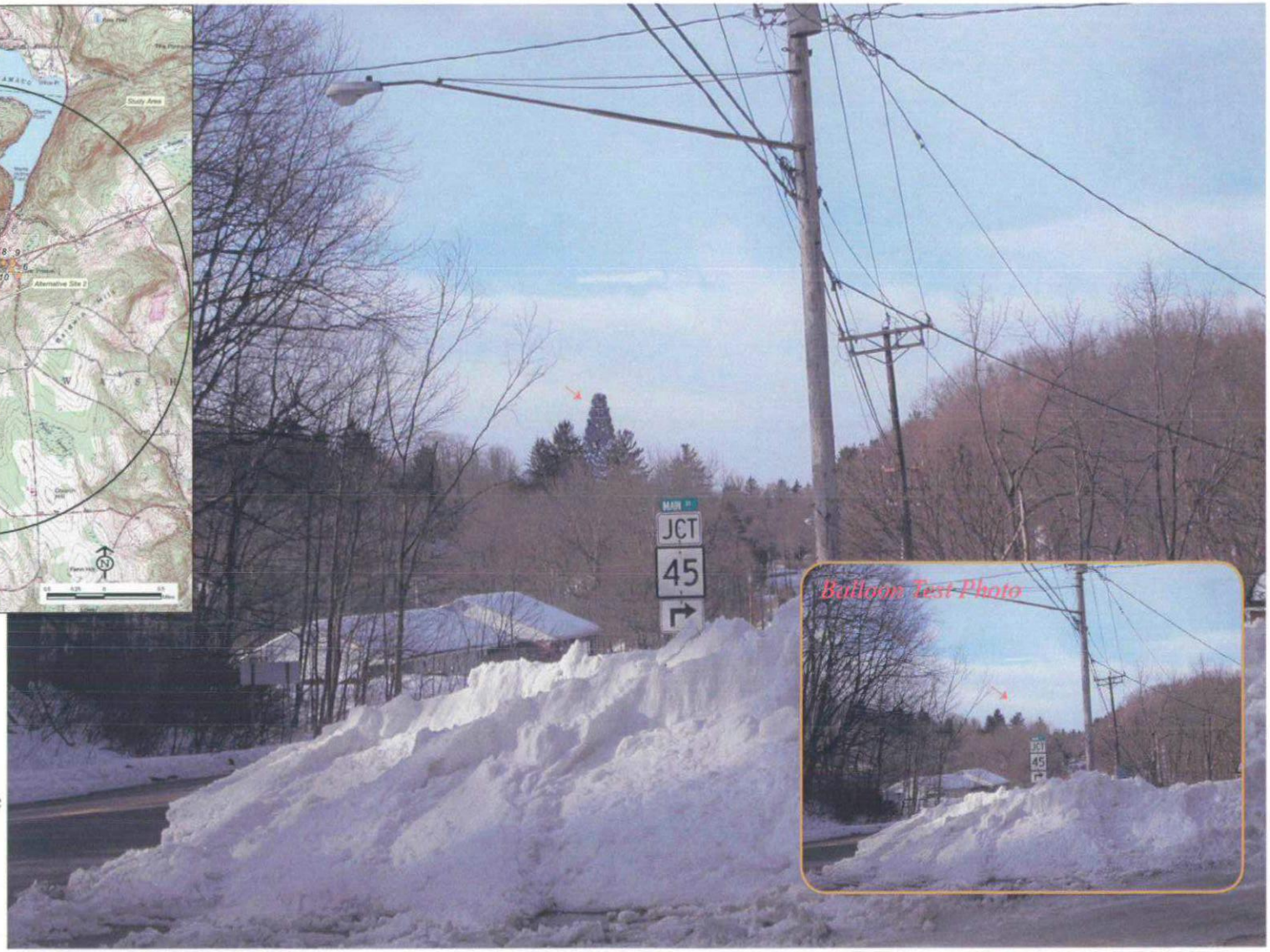
verizon wireless

VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 9 Alternative 2*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM MAIN STREET AT ROUTE 202, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; ALTERNATIVE SITE 1 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.80 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.43 MILE +/-

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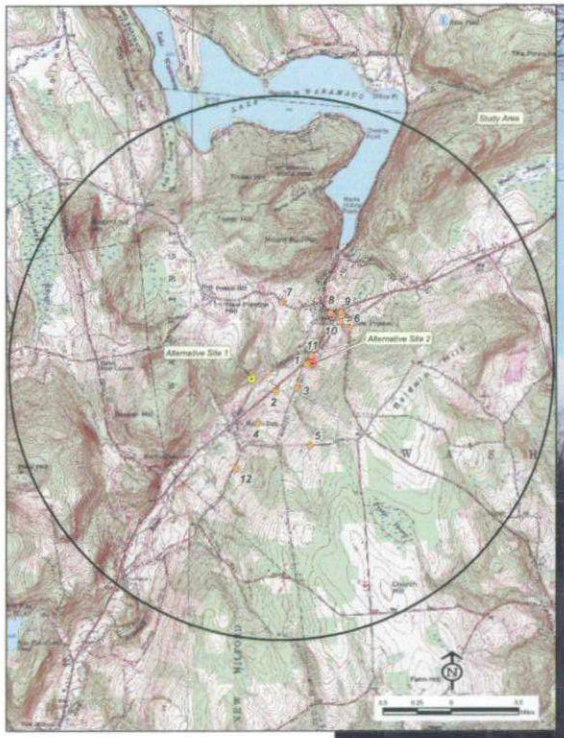
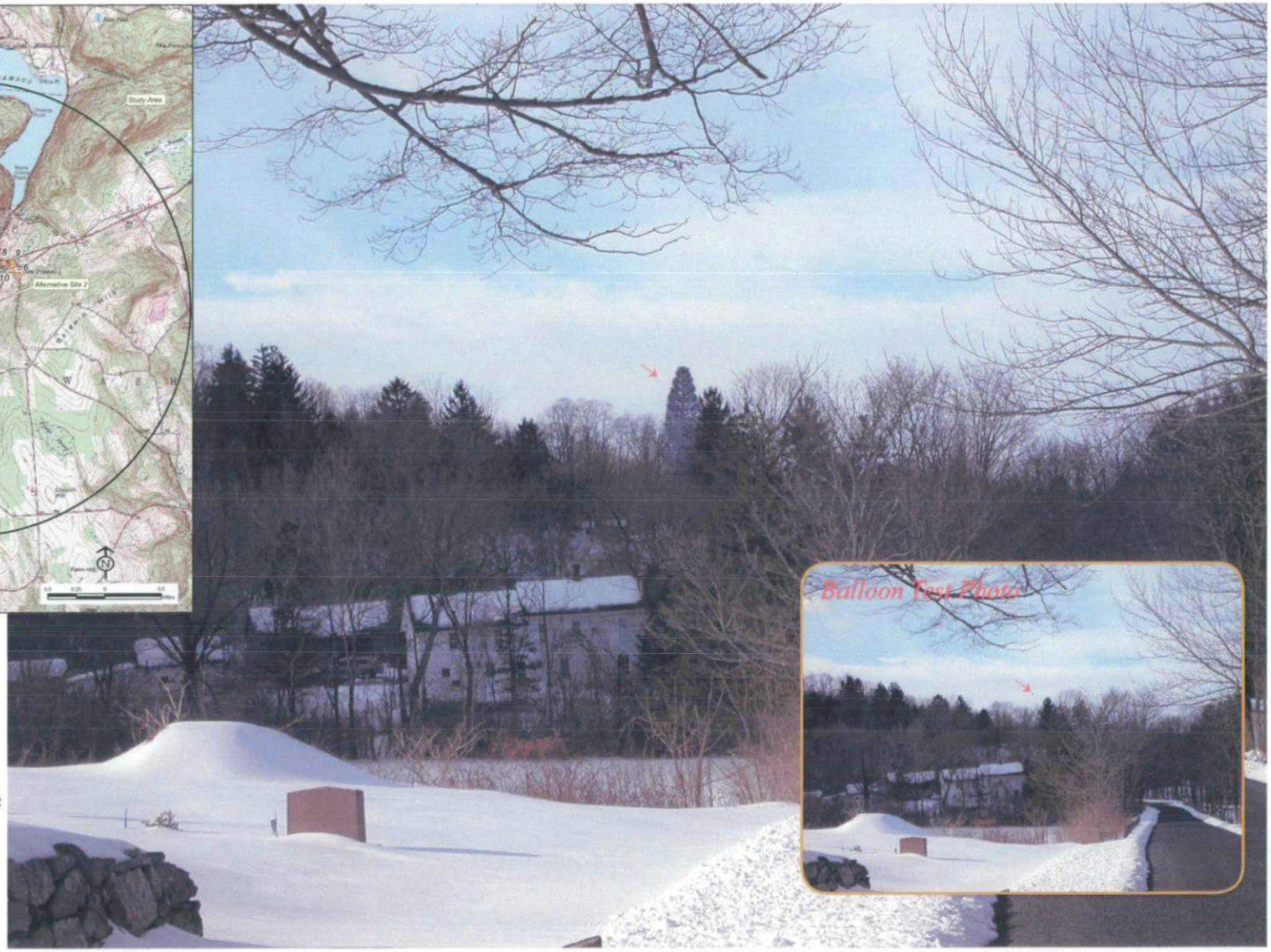
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 10 Alternative 2*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM CHRISTIAN ROAD NORTH, LOOKING SOUTHWEST - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; ALTERNATIVE SITE 1 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.76 MILE +/-

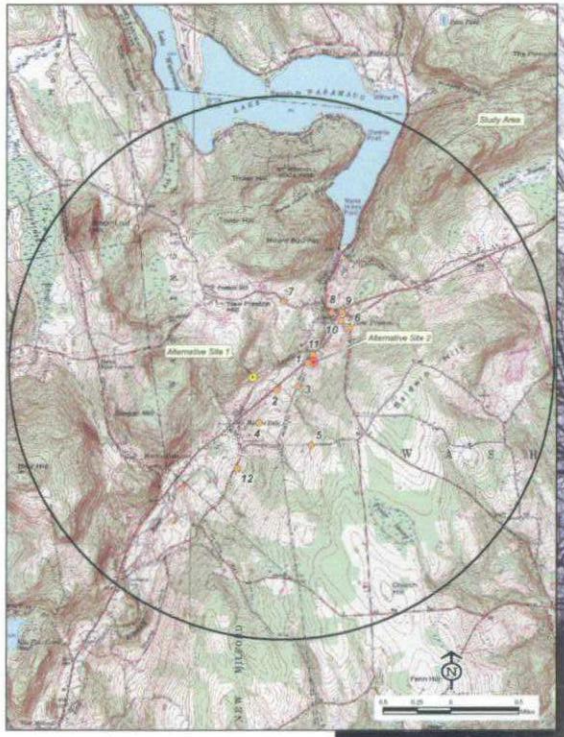
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.36 MILE +/-

verizon wireless

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 11 Alternative 2*

Town of
Washington
Connecticut



Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM ROUTE 202 APPROACHING PROPOSED ALTERNATIVE SITE 2, LOOKING SOUTH - PROPOSED ALTERNATIVE SITE 2 IS VISIBLE; ALTERNATIVE SITE 1 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.48 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.05 MILE +/-

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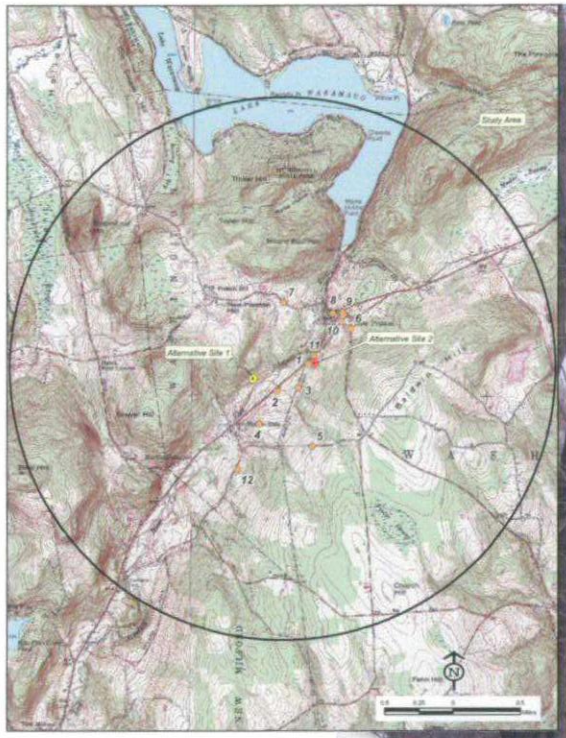
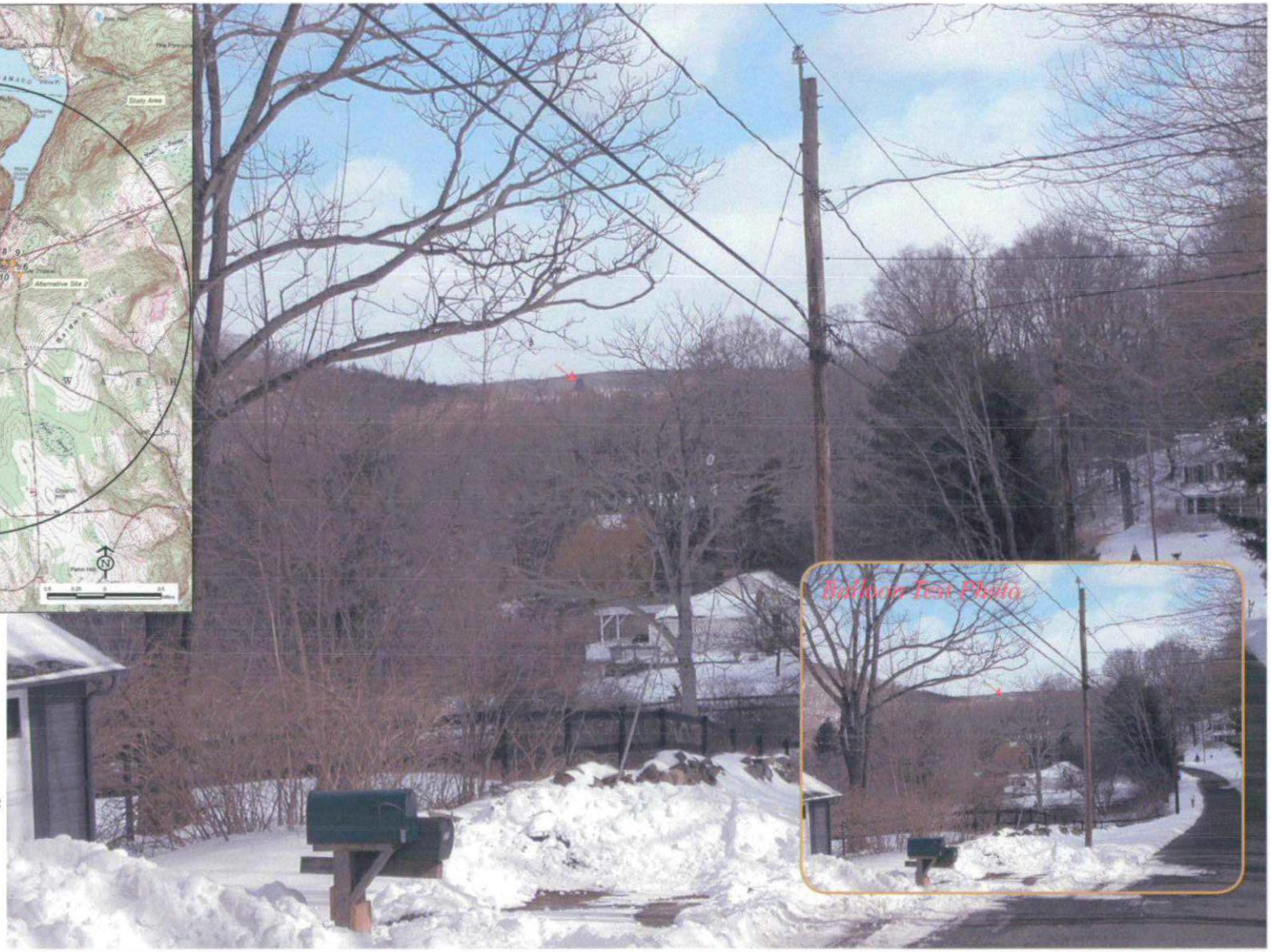
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 12 Alternative 1*

Town of
Washington
Connecticut





Washington North
Alternative 1
6 Mountain Road

Alternative 2
167 New Milford Turnpike
Washington, CT

Monopine installation

PHOTO TAKEN FROM WHEATON ROAD, LOOKING NORTHEAST - PROPOSED ALTERNATIVE SITE 1 IS VISIBLE; ALTERNATIVE SITE 2 IS NOT VISIBLE FROM THIS LOCATION

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 1 IS 0.67 MILE +/-

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED ALTERNATIVE SITE 2 IS 0.96 MILE +/-

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VHB Vanasse Hangen Brustlin, Inc.

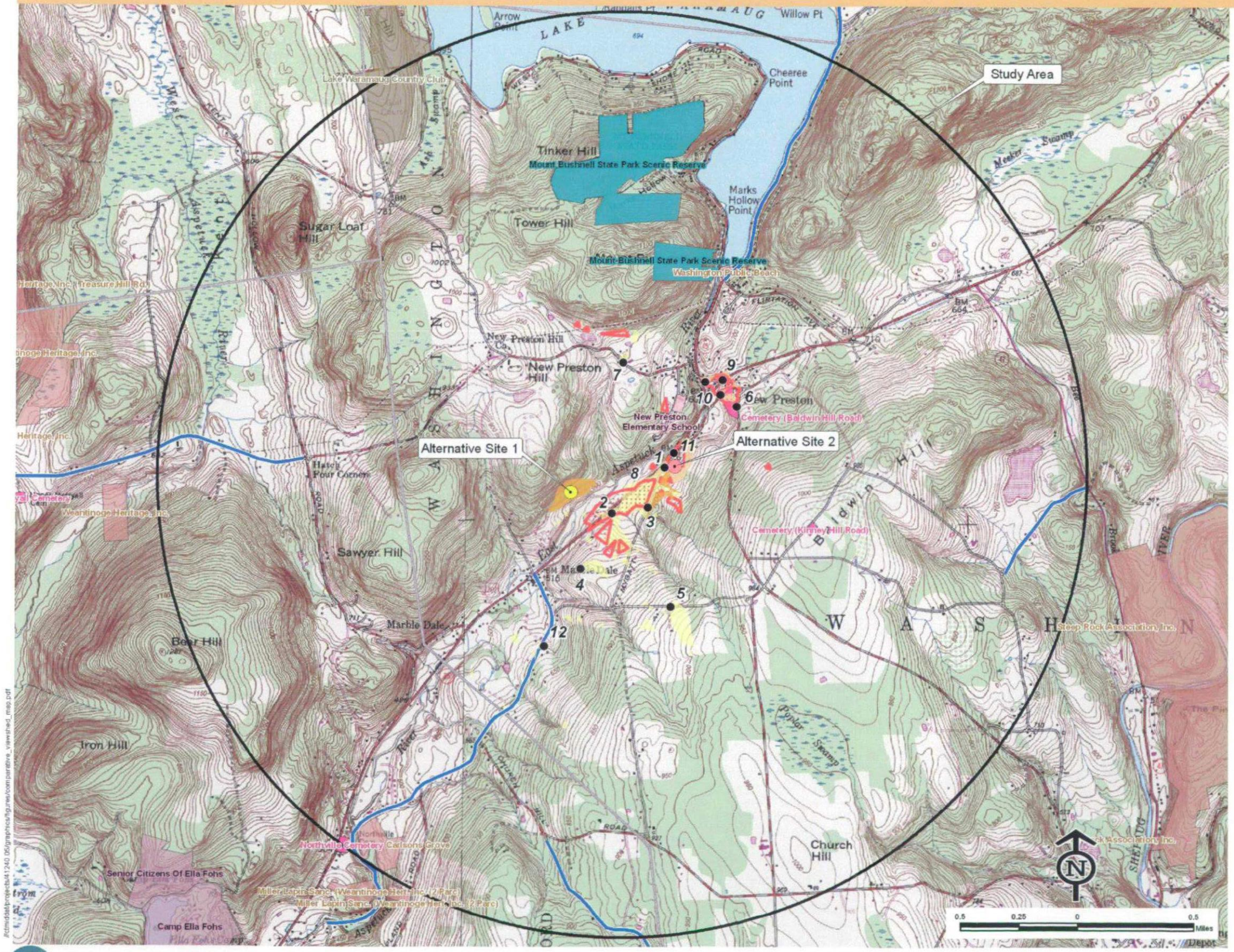
Attachment B

Viewshed Maps

Comparative Viewshed Map

Alternative Site Location 1 and Alternative Site Location 2

Town of Washington Connecticut



Proposed Verizon Wireless Telecommunications Facility

Alternative Site 1
6 Mountain Road
Washington, Connecticut

Alternative Site 2
167 New Milford Turnpike
Washington, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility heights are 150 feet (Alt. 1) and 150 feet (Alt. 2).
- Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of a two mile radius around the midway point between the two Alternative Site Locations and includes approximately 8,042 acres.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Kent and New Preston USGS Quadrangle Maps
- Protected properties data layer provided CTDEP, 2003
- Scenic Roads layer derived from available State and Local listings.

Map Compiled March 2007

Legend

Two Alternative Site Locations
- Alternative 1
- Alternative 2

Photographs - March 18, 2007
- Balloon visible above trees

- Anticipated Seasonal Visibility - Alternative 1 (Approximately 13 Acres)
- Anticipated Seasonal Visibility - Alternative 2 Approximately 12 Acres)
- Year-round Visibility - Alternative Site 1 (Approximately 48 Acres)
- Year-round Visibility - Alternative Site 2 (Approximately 36 Acres)

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized

Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

- DEP Boat Launches
- Scenic Road (State and Local)
- Town Line
- Protected Properties (Federal)

/tcm/data/projects/41240.05/graphics/figures/comparative_viewshed_map.pdf

VHB Vanasse Hangen Brustlin, Inc.
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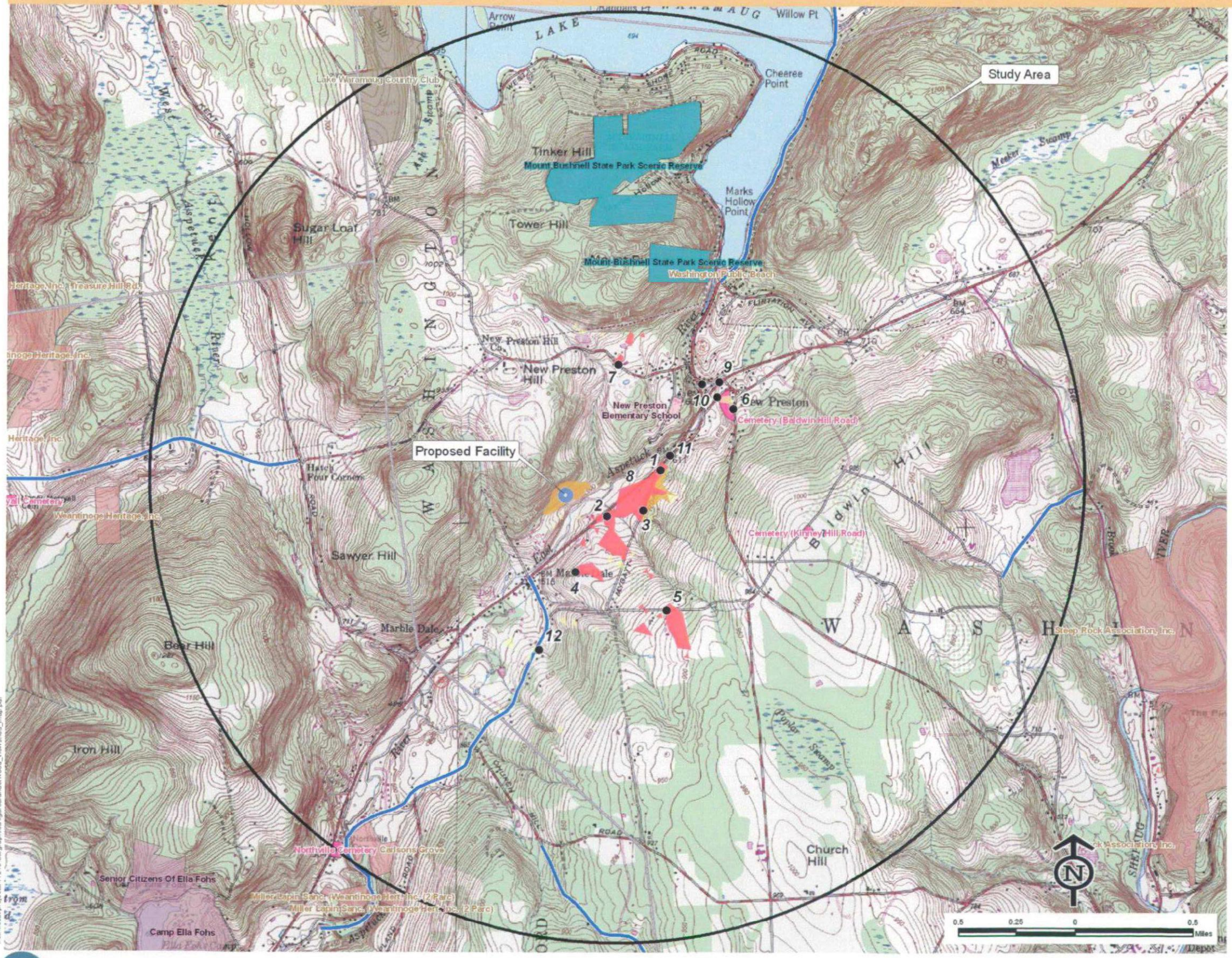
Viewshed Map

Alternative Site Location 1

Town of Washington Connecticut



Proposed Verizon Wireless Telecommunications Facility

Alternative Site 1
6 Mountain Road
Washington, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 150 feet
- Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of a two mile radius around the midway point between the two Alternative Site Locations and includes approximately 8,042 acres of land.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Kent and New Preston USGS Quadrangle Maps
- Protected properties data layer provided CTDEP, 2003
- Scenic Roads layer derived from available State and Local listings.

Map Compiled March 2007

Legend

Proposed Monopine Location

Photographs - March 18, 2007
- Balloon visible above trees

Anticipated Seasonal Visibility (Approximately 13 Acres)

Approx. % of Monopine Visible (Year-Round)
- Upper 25% Visible - 7 Acres
- 50% Visible - 40 Acres
- Entire Facility Visible - 1 Acre

Total Year-Round Visibility Approximately 48 Acres

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized

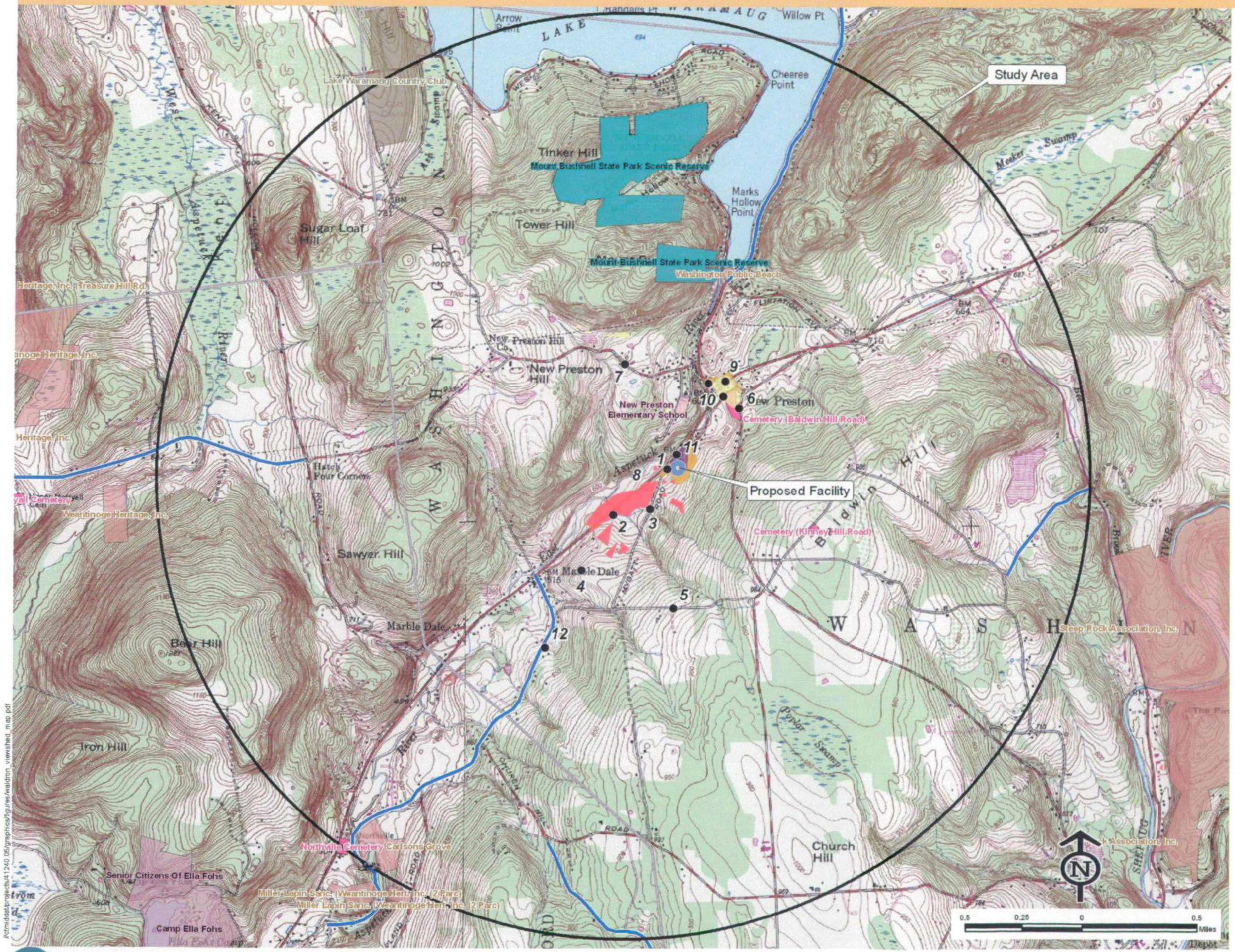
Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

- DEP Boat Launches
- Scenic Road (State and Local)
- Town Line
- Protected Properties (Federal)

Viewshed Map

Alternative Site Location 2

Town of Washington Connecticut



Proposed Verizon Wireless Telecommunications Facility

Alternative Site 2
167 New Milford Turnpike
Washington, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 150 feet
- Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of a two mile radius around the midway point between the two Alternative Site Locations and includes approximately 8,042 acres of land.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Kent and New Preston USGS Quadrangle Maps
- Protected properties data layer provided CTDEP, 2003
- Scenic Roads layer derived from available State and Local listings.

Map Compiled March 2007

Legend

Proposed Monopine Location

Photographs - March 18, 2007
- Balloon visible above trees

Anticipated Seasonal Visibility (Approximately 12 Acres)

Approx. % of Monopine Visible (Year-Round)
- Upper 25% Visible - 15 Acres
- 50% Visible - 17 Acres
- 75% Visible - 3 Acres
- Entire Facility Visible - 1 Acre

Total Year-Round Visibility Approximately 36 Acres

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized

Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

DEP Boat Launches
Scenic Road (State and Local)
Town Line
Protected Properties (Federal)

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