FCC Rule 1.1307 NEPA Investigation

Manchester
93 Lake Street
Manchester, Connecticut

Prepared for:
Optasite Towers, LLC
One Research Drive Suite 201
Westborough, MA, 01581

January 7, 2008

KLEINFELDER
99 Lamberton Road, Suite 201 Windsor, CT 06095 (860) 683-4200 (860) 683-4206 fax www.kleinfelder.com

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FCC NEPA CHECKLIST
(47 CFR Subpart1, Chapter 1 Sections 1.1301-1.1319)

Client: Optasite Towers,LLC	**Site Name: Optasite Manchester**
Location: 93 Lake Street Manchester, CT	**KA Project No: 88653**

Category	NEPA Special Interest Item	Potential Effect	
		Yes	No
1	**Wilderness Areas** Is the antenna structure located in an officially designated wilderness area?		X
2	**Wildlife Preserves** Is the antenna structure located in an officially designated wildlife preserve?		X
3a	**Threatened and Endangered Species** Will the antenna structure likely affect threatened or endangered species or designated critical habitats?		X
3b	**Threatened and Endangered Species** Will the antenna structure jeopardize the continued existence of any proposed endangered or threatened species?		X
3c	**Threatened and Endangered Species** Will the antenna structure result in the destruction or adverse modification of proposed critical habitats?		X
4	**Historic Places** Will the antenna structure affect districts, sites, building, structures or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP)?		X
5	**Indian Religious Sites** Will the antenna structure affect Indian religious site(s)?		X
6	**Floodplains** Will the antenna structure be located in a flood plain?		X
7	**Surface Features** Will construction of the antenna structure involve significant change in surface features (e.g. wetlands, deforestation, or water diversion)?		X
8	**High Intensity White Lights** Is the antenna structure located in a residential neighborhood and required to be equipped with high intensity white lights?		X
9	a.) Will the antenna structure equal or exceed total power (of all channels) of 2000 Watts EPR (3280 Watts EIRP) and have antenna located less than 10 meters above ground level? ***Responsibility of Client**		NA
	b.) Will the roof-top antenna project equal or exceed total power (of all channels of 2000 Watts ERP (3280 Watts EIRP)? ***Responsibility of Client**		NA

Preparer's Signature: 2008.01.07 09:52:06 -05'00'	Date: January 7, 2008
Printed Name and Title: Jeffrey Shamas, Program Manager	

TABLE OF CONTENTS

I. Introduction

The National Environmental Policy Act (NEPA) was enacted to provide federal agencies with uniform national guidance for the protection of the human environment. Under NEPA guidelines, federal agencies are required to review the potential impacts of major federal actions on natural, cultural, and socioeconomic resources.

The Federal Communications Commission (FCC), as a federal agency, requires licensees to review their proposed actions to ensure NEPA compliance. The FCC's rules for implementing NEPA are detailed in Title 47 of the Code of Federal Regulations, Part 1, Subpart I, rule sections 1.1301 to 1.1319. Section 1.1307 lists eight actions with potentially environmentally sensitive effects that, if significant, would require the preparation of an Environmental Assessment. These potential actions include:

- Actions that occur within an officially designated wilderness area.
- Actions that occur in an officially designated wildlife preserve.
- Actions that (i) May affect listed threatened or endangered species or designated critical habitats; or (ii) are likely to jeopardize the continued existence of any proposed endangered or threatened species or likely resulting the destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973.
- Actions that may affect districts, sites, buildings, structures or objects that are significant in American history, architecture, archeology, engineering or culture and that are listed or are eligible for listing in the National Register of Historic Places.
- Actions that may affect Indian religious sites.
- Actions that occur in a floodplain.
- Actions that will involve significant change in surface features, such as through wetland fill, deforestation, or water diversion.
- Antenna towers and/or supporting structures that are to be equipped with high intensity white lights and that are to be located in residential neighborhoods, as defined by the applicable zoning law.

If these effects are found to be insignificant, the project may be considered in compliance with NEPA and requires no further investigation.

II. Environmental Investigation

The Manchester project site is situated at 93 Lake Street in Manchester, Hartford County, Connecticut. It is located approximately 435 feet east of the nearest residence within a wooded area dominated by white oak (*Quercus alba*) with some black oak (*Quercus velutina*) and sugar maple (*Acer saccharum*). Land use within the vicinity of the project consists of residential housing and roads. In conjunction with the proposed 110-foot monopole telecommunication tower and equipment shelter, a 20-foot wide and approximately 1,100-foot long access and utility easement will be constructed to allow for ease of access to the location for site work and maintenance activities. In addition, an 8-foot high chain link fence is proposed to enclose the 70- by 70-foot compound and lease area. Please refer to Appendices A and B for site location maps and proposed site plans.

On behalf of Optasite Towers, LLC, Kleinfelder East, Inc. performed a NEPA investigation to determine whether the proposed Manchester telecommunications tower facility may potentially have environmentally sensitive effects through any of the eight defined actions. This was achieved through communication with multiple agencies and organizations, and by a review of publicly available databases, literature, and maps.

A. Wilderness Areas

Based on a review of National Atlas and USGS topographic maps, the proposed project area is not located in an officially designated wilderness area. These maps include lands owned by the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Department of Agriculture Forest Service, and National Park Service. Please refer to Appendix C for supporting documentation.

B. Wildlife Preserves

Based on a review of National Atlas and USGS topographic maps the proposed project area is not located in an officially designated wildlife preserve. These maps include lands owned by the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Department of Agriculture Forest Service, and National Park Service. Please refer to Appendix C for supporting documentation.

C. Threatened and Endangered Species

A review of the Connecticut Natural Diversity Database map for the Town of Manchester showed that there are no state or federally listed species or significant natural communities located in or in the immediate vicinity of the proposed project area.

A request for a threatened and endangered species review was submitted to the United States Fish and Wildlife Service (USFWS) on October 15, 2007. According to a letter from the USFWS on November 16, 2007, the bald eagle (*Haliaeetus leucocephalus*), dwarf wedge mussel (*Alasmidonta heterodon*), puritan tiger beetle (*Cicindela puritana*), and sandplain gerardia (*Agalinus acuta*) are known to occur in Hartford County, Connecticut. However, the proposed project does not occur in habitats known to support these species. Based upon this data, the proposed project will not impact listed or proposed threatened or endangered species or their critical habitats. Please refer to Appendix D for supporting documentation.

D. Historic Places

To determine the potential impacts of the proposed project on historic, architectural, or archaeological resources, a report was submitted to the Connecticut State Historic Preservation Office (CTSHPO) on December 21, 2007. The CTSHPO responded on January 3, 2008 that 'the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the Nation Register of Historic Places.' Please refer to Appendix E for supporting documentation.

E. Indian Religious Sites

Tribal Consultation was initiated through the FCC's electronic Tower Construction Notification System (TCNS) on October 5, 2007 to determine the potential impacts of the proposed project on Indian religious sites. This consultation was assigned Notification ID No. 31955. The Mashantucket Pequot Tribe and Narragansett Indian Tribe were identified as having a geographic preference that includes the proposed project site. The two tribes were also notified in writing on October 15, 2007 with a request to respond by November 5, 2007.

The Mashantucket Pequot Tribe responded through TCNS on October 11, 2007 to request details about the project. Upon receipt of the requested attachments, the Tribe stated through TCNS on October 22, 2007 that the Tribe had no knowledge of religious or culturally significant properties that would be affected by the proposed project, but recommended a Phase I Archeological Reconnaissance Survey and requested copies of any work performed on the project. The Phase I Cultural Resources Reconnaissance Survey, prepared by Heritage Consultants, LLC, was forwarded to the Tribe on January 4, 2008. To date, no response has been received.

The Narragansett Indian Tribe responded through TCNS on October 25, 2007 to formally initiate consultation and review of the proposed project. The requested materials were distributed to the Tribe on October 31, 2007. To date, no response has been received.

After consultation with the two Tribes, it is concluded that the proposed project will have no significant impact on any Indian religious sites. Please refer to Appendix F for copies of all correspondence.

F. Floodplains

In order to determine the potential impacts of the proposed project on floodplains, the Federal Insurance Rate Map (Map Panel 0900310004D) was reviewed. According to the Federal Emergency Management Agency, the proposed project area not located within the 100-year floodplain. Please refer to Appendix G for supporting documentation.

G. Surface Features

According to the National Wetlands Inventory, USGS maps and site observations, no wetlands or watercourses are present within the proposed site location or adjacent area. Therefore, we do not expect the proposed facility will adversely impact surface water features. Please refer to Appendix H for supporting documentation.

H. High Intensity Lighting

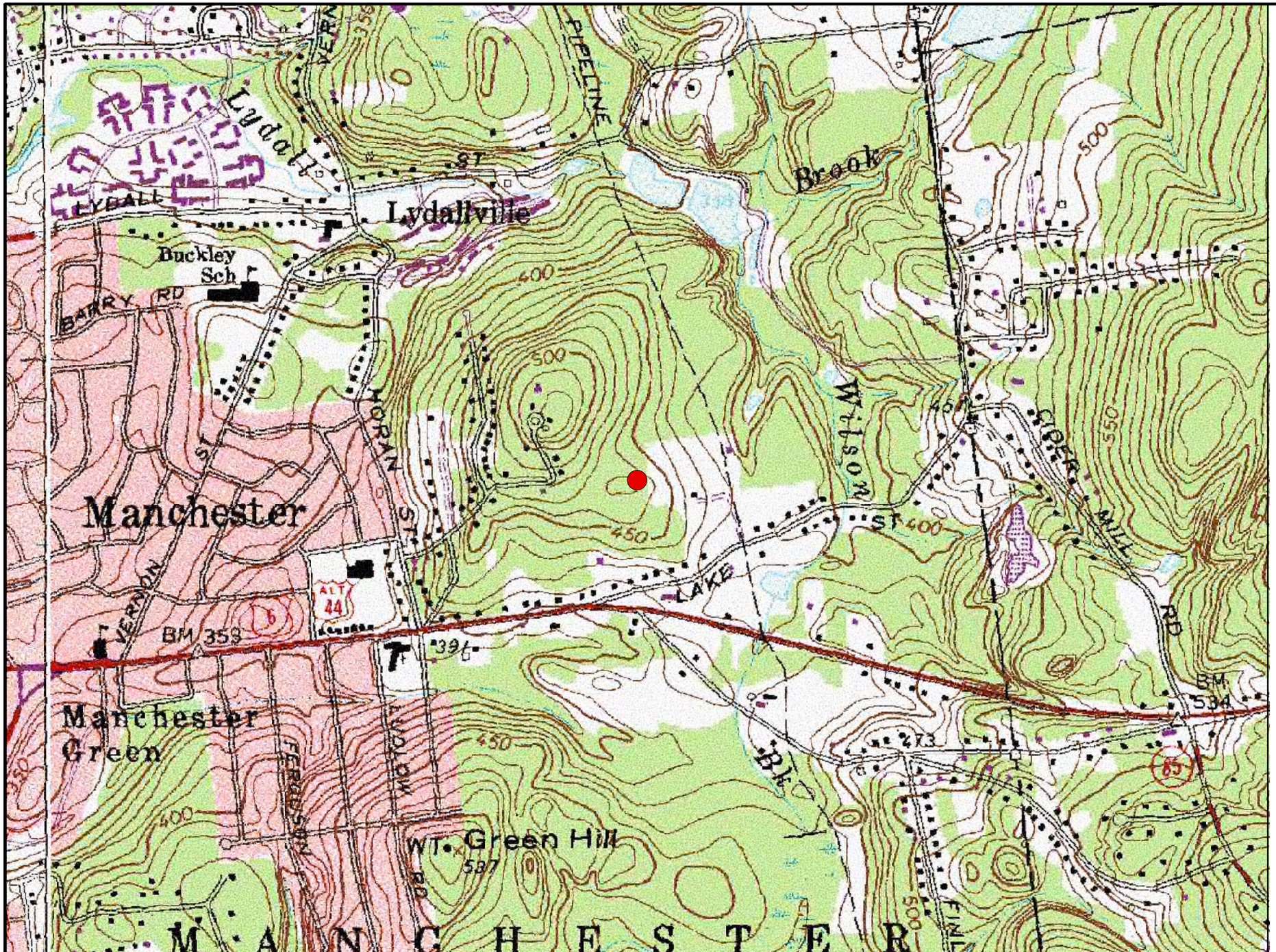
High intensity lighting is not planned for this project and will therefore not have a significant impact on residential neighborhoods.

III. Conclusions

Based on the above review, it is the professional opinion of Kleinfelder East, Inc. that the proposed facility will not have a significant environmental impact on any of the previously mentioned resources and will therefore not require further actions to comply with the requirements of the National Environmental Policy Act.

Appendix A

Project Location Maps



0 250 500 1,000 1,500 2,000 2,500

SCALE IN FEET

0 75 150 300 450 600 750

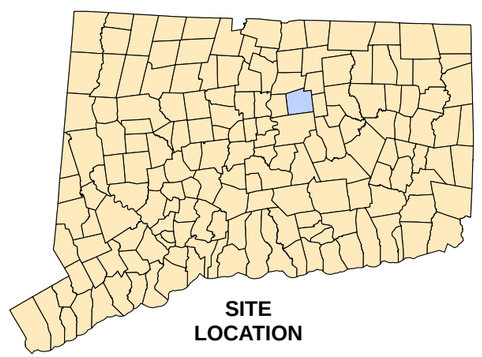
SCALE IN METERS

LEGEND

SITE LOCATION

N

CONNECTICUT



SITE LOCATION

SOURCE:
CTDEP TOPOGRAPHIC MAPS DATA SET (7.5' TOPOGRAPHIC MAP, MANCHESTER AND ROCKVILLE, CONNECTICUT)

DRAWN BY: CTH	
REVISED BY:	
CHECKED BY:	
DATE: 10-15-07	APPROVED BY:

SITE LOCATION MAP

OPTASITE
93 LAKE STREET
MANCHESTER, CONNECTICUT

PROJ NO.: 88653 | FILE NAME: FIGURE 1

KLEINFELDER
99 LAMBERTON ROAD, SUITE 201
WINDSOR, CONNECTICUT
PH. 860-683-4200 FAX 860-683-4206
www.kleinfelder.com

FIGURE: 1

0 250 500 1,000 1,500 2,000 2,500

SCALE IN FEET

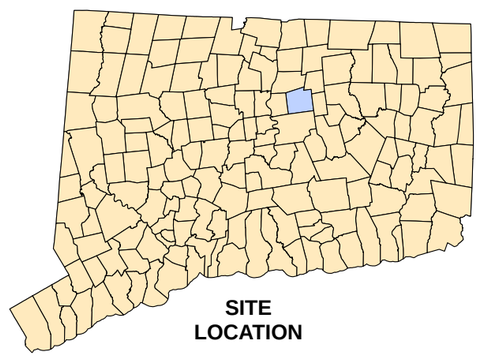
0 75 150 300 450 600 750

SCALE IN METERS

LEGEND

SITE LOCATION

CONNECTICUT



SITE LOCATION

SOURCE:
CTDEP GIS AERIAL PHOTO DATA SET

DRAWN BY: CTH	
REVISED BY:	
CHECKED BY:	
DATE: 10-15-07	APPROVED BY:

SITE LOCATION MAP

OPTASITE
93 LAKE STREET
MANCHESTER, CONNECTICUT

PROJ NO.: 88653 | FILE NAME: FIGURE 1

KLEINFELDER

99 LAMBERTON ROAD, SUITE 201
WINDSOR, CONNECTICUT
PH. 860-683-4200 FAX 860-683-4206
www.kleinfelder.com

FIGURE:

1

Appendix B

Site Plans

SURVEY NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

2. PROPERTY LINE SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.

3. BASE MAPPING PREPARED BY CLOUGH HARBOUR & ASSOCIATES LLP FROM AN MAY 2007 FIELD SURVEY.

4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY.

5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR TO ANY AND ALL CONSTRUCTION.

6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.

7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.

8. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED UTILIZING NGS CORS BASE STATION NAMED "CTNE". LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION.
INFORMATION SHOWN BASED ON FAA 2C CERTIFICATION ACCURACY LEVEL DEFINED AS;
HORIZONTAL: ±50 FEET / 15 METERS
VERTICAL: ±20 FEET / 6 METERS

9. SITE FALLS WITHIN ZONE "X" DEFINED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF MANCHESTER, CONNECTICUT, HARTFORD COUNTY, COMMUNITY PANEL NUMBER 090031 0004 D, REVISED MAY 2, 1991.

MAP REFERENCES:

1. MAP ENTITLED "PROPERTY OF ALFRED L. ROSSETTO" AS PREPARED BY EVERETT O. GARDNER L.S. , DATED JAN 22, 1971 AND FILED AS MAP 62-37.

2. MAP ENTITLED "PROPERTY SURVEY FOR ALFRED L. ROSSETTO" AS PREPARED BY KENNETH R. BOUD, DATED NOV 11, 1977 AND FILED AS MAP 63-20.

3. MAP ENTITLED "PLAN PREPARED FOR PHOEBE S. McCLELLAND" AS PREPARED BY HOLMES AND HENRY ASSOCIATES, DATED 8-11-95 FILED AS MAP 33-26.

File: L:\15363\DATSVY\05_MANCHESTER ALTERNATE\20MANCHESTER-1 ABUTTERS MAP.DWG Saved: 6/14/2007 3:46:06 PM Plotted: 6/14/2007 3:46:11 PM User: tuolsen, Paul

Optasite

OPTASITE TOWERS LLC
1 RESEARCH DRIVE, SUITE 200C
WESTBOROUGH, MA 01581

CLOUGH HARBOUR & ASSOCIATES LLP
2139 Silas Deane Highway, Suite 212 - Rocky Hill, CT 06067-2336
Main: (860) 257-4557 · www.cloughharbour.com

CHA PROJECT NO:
15363 – 1025 – 1601

NO.	SUBMITTAL		
0	06/15/07	ISSUED FOR REVIEW	
	BY: PAL	CHK: PAL	APP'D: JPS

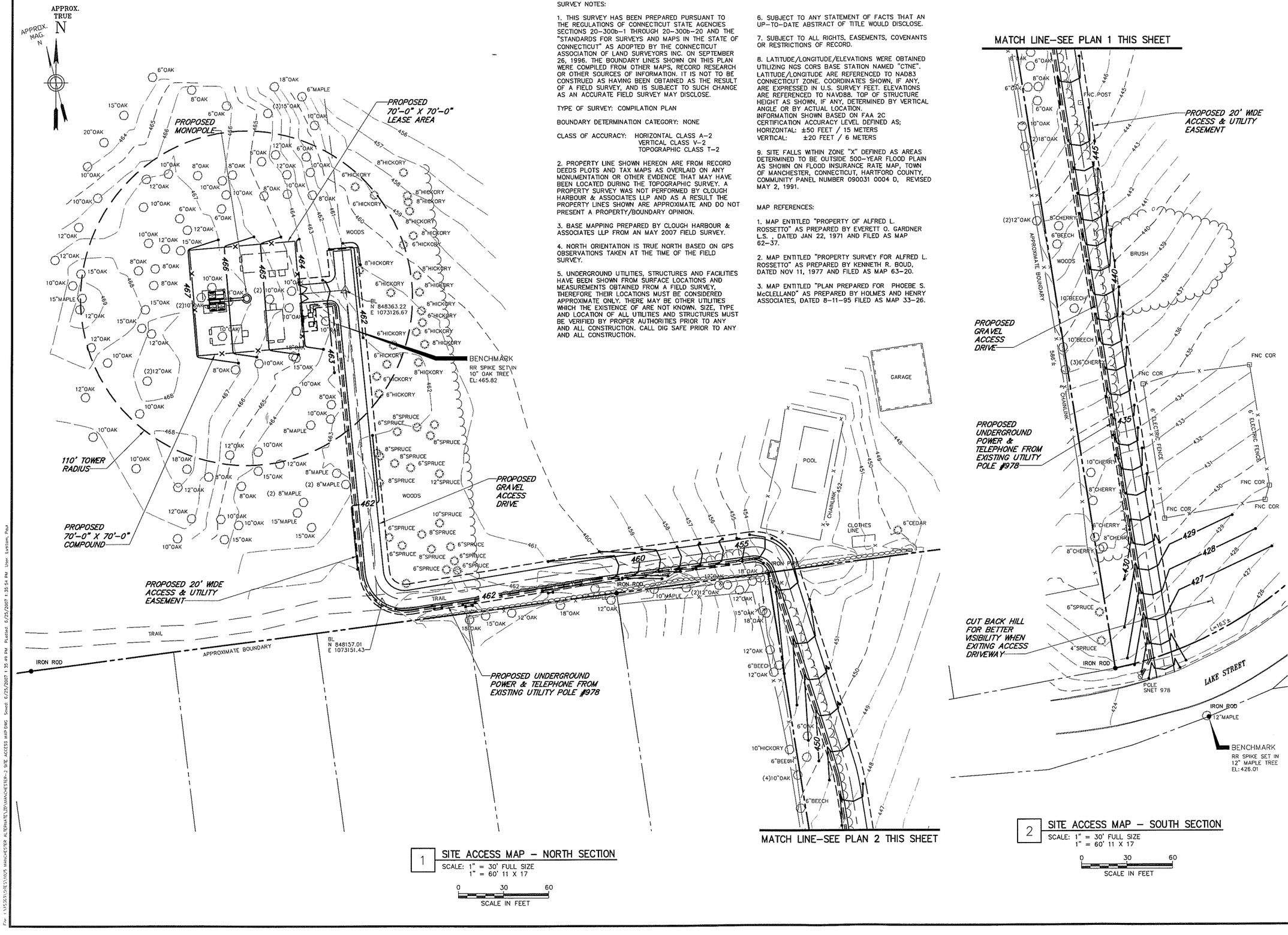
SITE ID:
CT-999-0074

SITE NAME:
MANCHESTER

SITE ADDRESS:
93 LAKE STREET
MANCHESTER, CT
06042
HARTFORD COUNTY

SHEET TITLE
ABUTTERS MAP

SHEET NUMBER
A01



1 SITE ACCESS MAP - NORTH SECTION
SCALE: 1" = 30' FULL SIZE
1" = 60' 11 X 17
0 30 60
SCALE IN FEET

2 SITE ACCESS MAP - SOUTH SECTION
SCALE: 1" = 30' FULL SIZE
1" = 60' 11 X 17
0 30 60
SCALE IN FEET

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TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

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CHA
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Main: (860) 257-4557 - www.cloughharbour.com

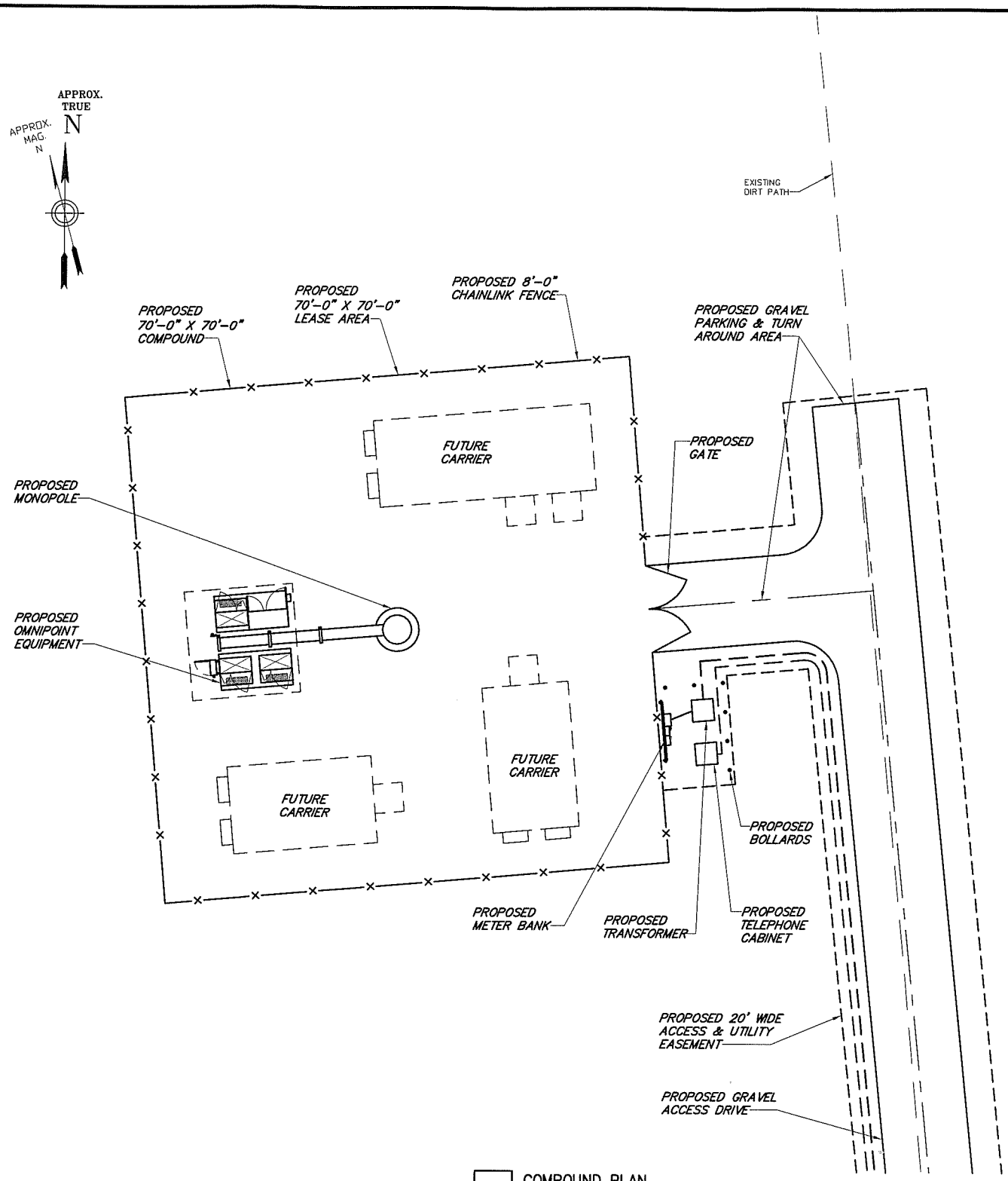
CHA PROJECT NO:
15363 - 1025 - 1601

NO.	SUBMITTAL		
0	06/15/07	ISSUED FOR REVIEW	
	BY: PAL	CHK: PAL	APP'D: JPS
1	06/25/07	CHANGED TOWER HEIGHT	
	BY: PAL	CHK: PAL	APP'D: JPS

SITE ID:
CT-999-0074
SITE NAME:
MANCHESTER
SITE ADDRESS:
93 LAKE STREET
MANCHESTER, CT
06042
HARTFORD COUNTY

SHEET TITLE
SITE ACCESS MAP

SHEET NUMBER
A02



1 COMPOUND PLAN
SCALE: 1" = 20'

0 10 20
SCALE IN FEET

BASEMAP NOTES:
1. BASEMAP INFORMATION OBTAINED FROM A SURVEY PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP IN MAY 2007.

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CHA PROJ. NO. – 15363-1025

OPTASITE TOWERS LLC
1 RESEARCH DRIVE, SUITE 200C
WESTBOROUGH, MA 01581

SITE ID:
CT-999-0074
SITE NAME:
MANCHESTER
SITE ADDRESS:
93 LAKE STREET
MANCHESTER, CT 06042
HARTFORD COUNTY

SHEET TITLE:
COMPOUND PLAN

DATE:
06/15/07

REVISION:
0

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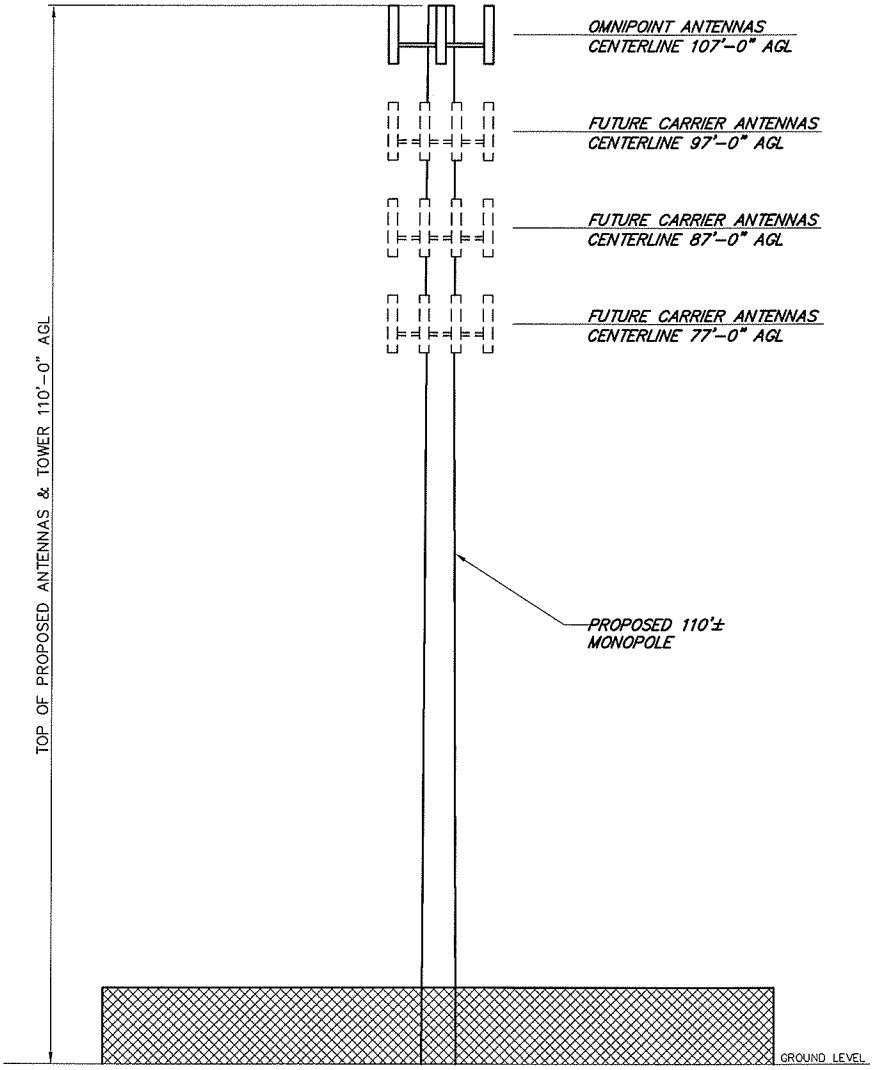

1 TOWER ELEVATION
SCALE: 1" = 20'

0 10 20
SCALE IN FEET

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CHA PROJ. NO. - 15363-1025

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SITE ID:
CT-999-0074
SITE NAME:
MANCHESTER
SITE ADDRESS:
93 LAKE STREET
MANCHESTER, CT 06042
HARTFORD COUNTY

SHEET TITLE:
TOWER ELEVATION

DATE:
06/25/07

REVISION:
1

File: I:\15363\SITES\1025 MANCHESTER ALTERNATE\2D\MANCHESTER-4 TOWER ELEVATION.DWG Saved: 6/25/2007 1:38:06 PM PLotted: 6/25/2007 1:38:11 PM User: Lusitani, Paul

Appendix C

Wilderness Area and Wildlife Preserve Supporting Materials

nationalatlas.gov™
Where We Are

CONNECTICUT

FEDERAL LANDS AND INDIAN RESERVATIONS

- Bureau of Indian Affairs
- Department of Defense (includes Army Corps of Engineers lakes)
- Fish and Wildlife Service / Wilderness
- Bureau of Prisons

Some small sites are not shown, especially in urban areas.

MILES
0 5 10 15 20

Albers equal area projection

MASSACHUSETTS

Colebrook River Lake

Barkhamsted Reservoir

Site Location

Torrington

Hartford

Mansfield Hollow Lake

NEW YORK

New Britain

Connecticut River

Lake Candlewood

Waterbury

Norwich

Mashantucket Pequot Indian Reservation

Danbury Federal Correctional Institution

Danbury

New London Submarine Base

New London

RI

New Haven

Bridgeport

Stewart B. McKinney National Wildlife Refuge

Norwalk

Stamford

Long Island Sound

NEW YORK

U.S. Department of the Interior
U.S. Geological Survey

The National Atlas of the United States of America®

pagefed_ct6.pdf INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-2003

Appendix D

Threatened and Endangered Species Supporting Materials

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October 16, 2007

Mr. Anthony Tur
United States Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

RE: Threatened and Endangered Species Review
Optasite Towers, LLC – Manchester Site
93 Lake Street
Manchester, Hartford County, Connecticut
KA Project No. 88653

Dear Mr. Tur:

On behalf of Optasite Towers, LLC (Optasite), Kleinfelder is performing a National Environmental Policy Act (NEPA) site assessment for the Optasite Manchester Site located on Lake Street in Manchester, Hartford County, Connecticut. A USGS location map taken from the Manchester and Rockville Quadrangles, Connecticut is attached. The purpose of the review is to determine whether site construction activity will impact environmental resources. As a regulated utility licensed by the Federal Communications Commission (FCC), Optasite is required to consider the effects of proposed actions as identified in the FCC regulations implementing NEPA (47 CFR 1.1307).

Optasite is proposing to construct a 70- by 70-foot fenced compound, within a 70-foot by 70-foot lease area, containing a 110-foot tall monopole telecommunications tower and associated equipment. The proposed site will be situated within a lease area that currently consists of undeveloped woodland. The compound will also include a proposed 12-foot wide by approximately 1,100-foot long gravel access drive extending from Lake Street to provide access to the site.

Land use at the site currently consists of an undeveloped wooded area, with a canopy consisting primarily of white oak (*Quercus alba*), black oak (*Quercus velutina*) and sugar maple (*Acer saccharum*) ranging in size from 30 to 40 feet tall with a diameter of 8 to 15 inches at breast height. Land use within the vicinity of the site consists primarily of local roads, and private residences.

Kleinfelder is requesting information regarding potential threatened or endangered species or designated critical habitats at the site. Please contact me concerning the results of your search via mail, fax, or telephone. Thank you for your assistance in this matter.

Sincerely,

Kleinfelder East, Inc.

Ashley G Hawes 2007.10.16 14:00:50 -04'00'

Ashley G. Hawes
Project Scientist

Enclosures

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

November 16, 2007

Ashley Hawes
Kleinfelder East, Inc.
99 Lamberton Road, Suite 201
Windsor, CT 06095

Dear Ms. Hawes:

We are in receipt of your recent letter requesting our endangered species review with regard to your proposed telecommunications projects in Glastonbury (2 sites), Manchester, and Taftville, Connecticut; and Wilbraham, Massachusetts.

Earlier this year, we distributed a letter (enclosed) which we hope will streamline the consultation process.

Please review our letter. We're confident that it will adequately respond to your request. If you have any questions, please contact me at 603-223-2541.

Sincerely yours,

Anthony P. Tur
Endangered Species Specialist
New England Field Office

Enclosure

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

March 6, 2007

To Whom It May Concern:

The U.S. Fish and Wildlife Service's (Service) New England Field Office has determined that individual project review for certain types of activities associated with communication towers **is not required.** These comments are submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Due to the rapid expansion of the telecommunication industry, we are receiving a growing number of requests for review of **existing** and **new** telecommunication facilities in relation to the presence of federally-listed or proposed, threatened or endangered species, critical habitat, wilderness areas and/or wildlife preserves. We have evaluated our review process for proposed communications towers and believe that individual correspondence with this office is not required for the following types of actions relative to **existing** facilities:

1. the re-licensing of existing telecommunication facilities;
2. audits of existing facilities associated with acquisition;
3. routine maintenance of existing tower sites, such as painting, antenna or panel replacement, upgrading of existing equipment, etc.;
4. co-location of new antenna facilities on/in existing structures;
5. repair or replacement of existing towers and/or equipment, provided such activities do not significantly increase the existing tower mass and height, or require the addition of guy wires.

In order to curtail the need to contact this office in the future for individual environmental review for **existing** communication towers or antenna facilities, please note that we are not aware of any federally-listed, threatened or endangered species that are being adversely affected by any existing communication tower or antenna facility in the following states: Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts. Furthermore, we are not aware of any **existing** telecommunication towers in federally-designated critical habitats, wilderness areas or wildlife preserves. Therefore, no further consultation with this office relative to the impact of the above referenced activities on federally-listed species is required.

Future Coordination with this Office Relative to **New** Telecommunication Facilities

We have determined that proposed projects are not likely to adversely affect any federally-listed or proposed species when the following steps are taken to evaluate new telecommunication facilities:

1. If the facility will be installed within or on an existing structure, such as in a church steeple or on the roof of an existing building, no further coordination with this office is necessary. Similarly, new antennas or towers in urban and other developed areas, in which no natural vegetation will be affected, do not require further review.

2. If the above criteria cannot be met, your review of the attached lists of threatened and endangered species locations within Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts may confirm that no federally-listed endangered or threatened species are known to occur in the town or county where the project is proposed.

3. If a listed species is present in the town or county where the project is proposed, further review of our enclosed lists of threatened and endangered species may allow you to conclude that suitable habitat for the species will not be affected. Based on past experiences, we anticipate that there will be few, if any, projects that are likely to impact piping plovers, roseate terns, bog turtles, Jesup's milkvetch or other such species that are found on coastal beaches, riverine habitats or in wetlands because communication towers typically are not located in these habitats.

For projects that meet the above criteria, there is no need to contact this office for further project review. A copy of this letter should be retained in your file as the Service's determination that no listed species are present, or that listed species in the general area will not be affected. Due to the high workload associated with responding to many individual requests for threatened and endangered species information, we will no longer be providing response letters for activities that meet the above criteria. This correspondence and the enclosed species lists remain valid until January 1, 2008.

Thank you for your cooperation, and please contact me at 603-223-2541 for further assistance.

Sincerely yours,

Anthony P. Tur
Endangered Species Specialist
New England Field Office

Enclosures

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN CONNECTICUT

Common Name	Species	Status	County/General Distribution
Sturgeon, shortnose[1]	*Acipenser brevirostrum*	E	Atlantic coastal waters and Connecticut River
Bat, Indiana	*Myotis sodalis*	E	New Haven/hibernaculum
Eagle, bald	*Haliaeetus leucocephalus*	T	**Nesting**: Hartford, Litchfield **Wintering**: entire state, major rivers
Plover, piping	*Charadrius melodus*	T	**Nesting**: Fairfield, Middlesex, New Haven, New London (coastal beaches) **Migratory:** Atlantic Coast
Tern, Roseate	*Sterna dougallii dougallii*	E	**Nesting**: New Haven (coastal island) **Migratory:** Atlantic Coast
Turtle, bog	*Clemmys muhlenbergii*	T	Fairfield, Litchfield
Wedge mussel, dwarf	*Alasmidonta heterodon*	E	Hartford
Beetle, Puritan tiger	*Cicindela puritana*	T	Hartford, Middlesex (Connecticut River floodplain)
Beetle, Northeastern beach	*Cicindela dorsalis dorsalis*	T	Coastal beaches/Extirpated
Small whorled pogonia	*Isotria medeoloides*	T	Litchfield, New Haven
Sandplain gerardia	*Agalinus acuta*	E	Hartford
Chaffseed	*Scwalbea Americana*	E	New London/Historic

[1] Principal responsibility for this species is vested with the National Marine Fisheries Service.

Updated 2/22/07

0 250 500 1,000 1,500 2,000 2,500

SCALE IN FEET

0 75 150 300 450 600 750

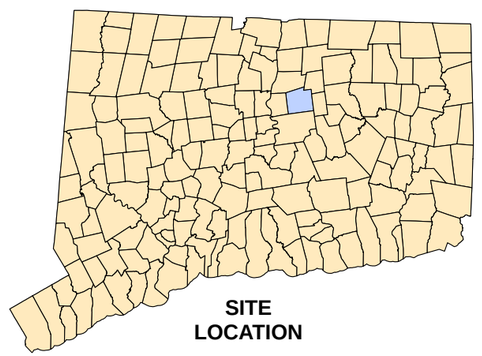
SCALE IN METERS

LEGEND

SITE LOCATION

NATURAL DIVERSITY DATABASE AREA

CONNECTICUT



SITE LOCATION

SOURCE:
CTDEP GIS AERIAL PHOTO DATA SETS

DRAWN BY: CTH	
REVISED BY:	
CHECKED BY:	
DATE: 10-15-07	APPROVED BY:

NATURAL DIVERSITY DATABASE MAP

OPTASITE
93 LAKE STREET
MANCHESTER, CONNECTICUT

PROJ NO.: 88653 | FILE NAME: FIGURE 1

KLEINFELDER

99 LAMBERTON ROAD, SUITE 201
WINDSOR, CONNECTICUT
PH. 860-683-4200 FAX 860-683-4206
www.kleinfelder.com

FIGURE:

1

Appendix E

Historic Places Supporting Materials

Connecticut Commission on Culture & Tourism

Historic Preservation
and Museum Division

One Constitution Plaza
Second Floor
Hartford, Connecticut
06103

860.256.2800
860.256.2763 (f)

January 3, 2008

Ms. Ashley G. Hawes
Kleinfelder
99 Lamberton Road
Windsor, CT 06095

Subject: Telecommunications Facilities
Optasite Towers LLC
93 Lake Street
Manchester, CT
Project No. 88653

Dear Ms. Hawes:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

This comment is provided in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information, please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Karen Senich
Deputy State Historic Preservation Officer

cc: Ms. Catherine Labadia/HC

Appendix F

Indian Religious and Archeological Supporting Materials

Tower Construction Notification

Tower Construction Notification
New Notification

Notifications Home

Your Notification has been successfully submitted to the FCC. The date for this Notification is 10/05/2007. Your Notification ID number is **31955**. Please make a note of this Notification ID — print out this page for your records. A confirmation of this submitted notification will also be emailed to the email address specified in your notification.

This system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act by providing early notification of proposed construction to Tribes and State Historic Preservation officers. This system is not to be used in place of Section 106 consultation, and use of this notification system in itself does not satisfy parties' obligations with respect to historic preservation review under the Commission's rules.

Please note: the submission of this notification is NOT to be considered a submission for Antenna Structure Registration.
Tower Structures that require antenna structure registration based on FCC Rules 47 C.F.R. Part 17 must complete FCC Form 854 after FAA clearance is obtained.

From: <towernotifyinfo@fcc.gov>
To: <ahawes@kleinfelder.com>
Date: 10/5/2007 6:37 PM
Subject: Proposed Tower Structure Info - Email ID #1668772

Dear Ashley G Hawes,

Thank you for submitting a notification regarding your proposed structure via the Tower Construction Notification Application. Note that the FCC has assigned a unique Notification ID number for this proposed structure.
You will need to reference this Notification ID number when you update your project's Status with us.
Below are the details you provided for the tower you have proposed to construct:

Notification Received: 10/05/2007

Notification ID: 31955
Tower Owner Individual or Entity Name: Kleinfelder East, Inc on behalf of Optasite Towers, LLC
Consultant Name: Ashley G Hawes
Street Address: Kleinfelder
99 Lamberton Road Suite 201
City: Windsor
State: CONNECTICUT
Zip Code: 06095
Phone: 860-683-4200
Email: ahawes@kleinfelder.com

Structure Type: POLE - Any type of Pole
Latitude: 41 deg 47 min 20.7 sec N
Longitude: 72 deg 28 min 55.5 sec W
Location Description: 93 Lake Street
City: Manchester
State: CONNECTICUT
County: HARTFORD
Ground Elevation: 142 meters
Support Structure: 33.5 meters above ground level
Overall Structure: 33.5 meters above ground level
Overall Height AMSL: 175.5 meters above mean sea level

From: <towernotifyinfo@fcc.gov>
To: <ahawes@kleinfelder.com>
CC: <kim.pristello@fcc.gov>, <diane.dupert@fcc.gov>
Date: 10/12/2007 3:01 AM
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #1670143

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. THPO Kathleen Knowles - Mashantucket Pequot Tribe - Mashantucket, CT - electronic mail
Exclusions: For every tower construction this Tribe requires a site location map, site plans for every project that will result in ground disturbance, and a detailed description of the proposed site. If the proposed tower construction is on an already existing building, the Tribe would like to be informed of that as well.

2. Cell Tower Coordinator Sequahna Mars - Narragansett Indian Tribe - Wyoming, RI - electronic mail and regular mail

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These

Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

3. SHPO John W Shannahan - Connecticut Historical Commission - Hartford, CT - electronic mail

4. SHPO Cara Metz - Massachusetts Historical Commission - Boston, MA - electronic mail

5. Deputy SHPO Brona Simon - Massachusetts Historical Commission - Boston, MA - electronic mail

6. Director Ruth L Pierpont - Bureau of Field Services, NY State Parks &* Hist. Pres. - Waterford, NY - electronic mail

7. SHPO Frederick C Williamson - Rhode Island Historic Preservation & Heritage Comm - Providence, RI - regular mail

8. Deputy SHPO Edward F Sanderson - Rhode Island Historic Preservation & Heritage Comm - Providence, RI - electronic mail

"Exclusions" above set forth language provided by the Tribe, NHO, or SHPO. These exclusions may indicate types of tower notifications that the Tribe, NHO, or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribes, NHOs, and SHPOs that have an expressed interest in the geographic area of a proposal, as well as Tribes and NHOs that have not limited their geographic areas of interest. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribe, NHO, or SHPO. Exclusions may also set forth policies or procedures of a particular Tribe, NHO, or SHPO (for example, types of

information that a Tribe routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 10/05/2007
Notification ID: 31955
Tower Owner Individual or Entity Name: Kleinfelder East, Inc on behalf of Optasite Towers, LLC
Consultant Name: Ashley G Hawes
Street Address: Kleinfelder
99 Lamberton Road Suite 201
City: Windsor
State: CONNECTICUT
Zip Code: 06095
Phone: 860-683-4200
Email: ahawes@kleinfelder.com

Structure Type: POLE - Any type of Pole
Latitude: 41 deg 47 min 20.7 sec N
Longitude: 72 deg 28 min 55.5 sec W
Location Description: 93 Lake Street
City: Manchester
State: CONNECTICUT
County: HARTFORD
Ground Elevation: 142.0 meters
Support Structure: 33.5 meters above ground level
Overall Structure: 33.5 meters above ground level
Overall Height AMSL: 175.5 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

http://wireless.fcc.gov/outreach/notification/contact-fcc.html.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission

From: <towernotifyinfo@fcc.gov>
To: <ahawes@kleinfelder.com>
CC: <towernotifyinfo@fcc.gov>, <KKnowles@mptn-nsn.gov>
Date: 10/11/2007 12:20 PM
Subject: Reply to Proposed Tower Structure (Notification ID #31955) - Email ID #1673361

Dear Ashley G Hawes,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Kathleen Knowles of the Mashantucket Pequot Tribe in reference to Notification ID #31955:

Dear Ms Hawes,
Regarding Notification ID # 31955, please send requested attachments, and will this project result in ground disturbance ?
Kathleen Knowles,
Tribal Historic Preservation Officer
Mashantucket Pequot Tribe

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/05/2007
Notification ID: 31955
Tower Owner Individual or Entity Name: Kleinfelder East, Inc on behalf of Optasite Towers, LLC
Consultant Name: Ashley G Ashley
Street Address: Kleinfelder
99 Lamberton Road Suite 201
City: Windsor
State: CONNECTICUT
Zip Code: 06095
Phone: 860-683-4200
Email: ahawes@kleinfelder.com

Structure Type: POLE - Any type of Pole
Latitude: 41 deg 47 min 20.7 sec N
Longitude: 72 deg 28 min 55.5 sec W
Location Description: 93 Lake Street
City: Manchester
State: CONNECTICUT
County: HARTFORD
Ground Elevation: 142.0 meters
Support Structure: 33.5 meters above ground level
Overall Structure: 33.5 meters above ground level
Overall Height AMSL: 175.5 meters above mean sea level

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October 15, 2007

Kathleen Knowles, Tribal Historic Preservation Officer
Mashantucket Pequot Tribe
Mashantucket Pequot Museum and Research Center
110 Pequot Trail
Mashantucket, CT 06338-3180

RE: Invitation to Comment Under Section 106: Proposed Monopole Communications Tower
Optasite Towers, LLC – Manchester Site
93 Lake Street
Manchester, Hartford County, Connecticut
KA Project No. 88653

Dear Ms. Knowles:

On behalf of Optasite Towers, LLC (Optasite), Kleinfelder is performing a National Environmental Policy Act (NEPA) site assessment for the Optasite Manchester Site located on Lake Street in Manchester, Hartford County, Connecticut. Kleinfelder is submitting this correspondence as a follow-up to the Tower Construction Notification System (TCNS) filing No. 31955 submitted to you on October 5, 2007 requesting whether you have any interest in consulting on this project.

Optasite is proposing to construct a 70- by 70-foot fenced compound, within a 70-foot by 70-foot lease area, containing a 110-foot tall monopole telecommunications tower and associated equipment. The proposed site will be situated within a lease area that currently consists of undeveloped woodland. The compound will also include a proposed approximately 1100-foot long gravel access drive extending from Lake Street to provide access to the site. The requested attachments are included for your reference.

Please respond by November 5, 2007 with an opinion of interest or no interest.

Thank you for your attention in this matter. If you have any questions I can be reached at (860)683-4200, ext. 140.

Very truly yours,
Kleinfelder East, Inc.

Ashley G. Hawes 2007.10.15 14:58:53 -04'00'

Ashley G. Hawes
Project Scientist

From: <towernotifyinfo@fcc.gov>
To: <ahawes@kleinfelder.com>
CC: <towernotifyinfo@fcc.gov>, <KKnowles@mptn-nsn.gov>
Date: 10/22/2007 3:09 PM
Subject: Reply to Proposed Tower Structure (Notification ID #31955) - Email ID #1680196

Dear Ashley G Hawes,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Kathleen Knowles of the Mashantucket Pequot Tribe in reference to Notification ID #31955:

Dear Ms Hawes,
Regarding Notification ID # 31955, after reviewing the information provided, we have no knowledge of properties of religious and cultural importance to the Mashantucket Pequot Tribe. However, we recommend a Phase I Archaeological Reconnaissance Survey be conducted to identify previously unknown properties of cultural and religious importance. We would appreciate a copy of any work performed on this project.
Kathleen Knowles,
Tribal Historic Preservation Officer
Mashantucket Pequot Tribe

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/05/2007
Notification ID: 31955
Tower Owner Individual or Entity Name: Kleinfelder East, Inc on behalf of Optasite Towers, LLC
Consultant Name: Ashley G Ashley
Street Address: Kleinfelder
99 Lamberton Road Suite 201
City: Windsor
State: CONNECTICUT
Zip Code: 06095
Phone: 860-683-4200
Email: ahawes@kleinfelder.com

Structure Type: POLE - Any type of Pole
Latitude: 41 deg 47 min 20.7 sec N
Longitude: 72 deg 28 min 55.5 sec W
Location Description: 93 Lake Street
City: Manchester
State: CONNECTICUT
County: HARTFORD
Ground Elevation: 142.0 meters
Support Structure: 33.5 meters above ground level
Overall Structure: 33.5 meters above ground level
Overall Height AMSL: 175.5 meters above mean sea level

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January 4, 2008

Kathleen Knowles, Tribal Historic Preservation Officer
Mashantucket Pequot Tribe
Mashantucket Pequot Museum and Research Center
110 Pequot Trail
Mashantucket, CT 06338-3180

RE: Phase I Cultural Resources Reconnaissance Survey
Optasite Towers, LLC – Manchester Site
93 Lake Street
Manchester, Hartford County, Connecticut
KA Project No. 88653

Dear Ms. Knowles:

As you are aware, Kleinfelder East, Inc. is performing a National Environmental Policy Act (NEPA) site assessment on behalf of Optasite Towers, LLC (Optasite) for the Optasite Manchester Site located on Lake Street in Manchester, Hartford County, Connecticut. Kleinfelder is submitting this Phase I Cultural Resources Reconnaissance Survey as a requested in your email dated October 29, 2007, in response to the Tower Construction Notification System (TCNS) filing No. 31955 submitted to you on October 5, 2007 requesting whether you have any interest in consulting on this project.

As a brief review, Optasite is proposing to construct a 70- by 70-foot fenced compound, within a 70-foot by 70-foot lease area, containing a 110-foot tall monopole telecommunications tower and associated equipment. The proposed site will be situated within a lease area that currently consists of undeveloped woodland. The compound will also include a proposed 1,100-foot long gravel access drive extending from Lake Street to provide access to the site. The Phase I Cultural Resources Reconnaissance Survey, performed by Heritage Consultants, LLC, concludes that **"no cultural material was identified during the survey and no impacts to cultural resources are anticipated."**

If you have any questions I can be reached at (860)683-4200, ext. 140.

Very truly yours,
Kleinfelder East, Inc.

Ashley Hawes
2008.01.03
15:52:13 -05'00'

Ashley G. Hawes
Project Scientist

KLEINFELDER
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October 15, 2007

Sequahna Mars
Cell Tower Coordinator
Narragansett Indian Tribe
P.O. Box 268
Charlestown, Rhode Island 02813

RE: Invitation to Comment Under Section 106: Proposed Monopole Communications Tower
Optasite Towers, LLC – Manchester Site
93 Lake Street
Manchester, Hartford County, Connecticut
KA Project No. 88653

Dear Sequahna Mars:

On behalf of Optasite Towers, LLC (Optasite), Kleinfelder is performing a National Environmental Policy Act (NEPA) site assessment for the Optasite Manchester Site located on Lake Street in Manchester, Hartford County, Connecticut. Kleinfelder is submitting this correspondence as a follow-up to the Tower Construction Notification System (TCNS) filing No. 31955 submitted to you on October 5, 2007 requesting whether you have any interest in consulting on this project.

Optasite is proposing to construct a 70- by 70-foot fenced compound, within a 70-foot by 70-foot lease area, containing a 110-foot tall monopole telecommunications tower and associated equipment. The proposed site will be situated within a lease area that currently consists of undeveloped woodland. The compound will also include a proposed approximately 1100-foot long gravel access drive extending from Lake Street to provide access to the site. A USGS topographical map is attached for your reference.

Please respond by November 5, 2007 with an opinion of interest or no interest.

Thank you for your attention in this matter. If you have any questions I can be reached at (860)683-4200, ext. 140.

Very truly yours,
Kleinfelder East, Inc.

Ashley G. Hawes 2007.10.15 14:59:20 -04'00'

Ashley G. Hawes
Project Scientist

From: <towernotifyinfo@fcc.gov>
To: <ahawes@kleinfelder.com>
CC: <towernotifyinfo@fcc.gov>, <sequahna@yahoo.com>
Date: 10/25/2007 6:11 PM
Subject: Reply to Proposed Tower Structure (Notification ID #31955) - Email ID #1684931

Dear Ashley G Hawes,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Cell Tower Coordinator Sequahna Mars of the Narragansett Indian Tribe in reference to Notification ID #31955:

On behalf of the Narragansett Indian Tribe, the Narragansett Indian Tribal Historic Preservation Office is hereby formally initiating consultation and review of cell tower site designated by TCNS # 31955, located in Manchester, CT. Follow-up on behalf of the cell tower carrier should be initiated by contacting Sequahna Mars, at sequahna@yahoo.com, or Doug Harris, at 401-742-4035, or dh@nithpo.com. Thank you.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/05/2007
Notification ID: 31955
Tower Owner Individual or Entity Name: Kleinfelder East, Inc on behalf of Optasite Towers, LLC
Consultant Name: Ashley G Ashley
Street Address: Kleinfelder
99 Lamberton Road Suite 201
City: Windsor
State: CONNECTICUT
Zip Code: 06095
Phone: 860-683-4200
Email: ahawes@kleinfelder.com

Structure Type: POLE - Any type of Pole
Latitude: 41 deg 47 min 20.7 sec N
Longitude: 72 deg 28 min 55.5 sec W
Location Description: 93 Lake Street
City: Manchester
State: CONNECTICUT
County: HARTFORD
Ground Elevation: 142.0 meters
Support Structure: 33.5 meters above ground level
Overall Structure: 33.5 meters above ground level
Overall Height AMSL: 175.5 meters above mean sea level

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October 31, 2007

Sequahna Mars
Cell Tower Coordinator
Narragansett Indian Tribe
228 Carolina Nooseneck Road
Wyoming, Rhode Island 02898

RE: Invitation to Comment Under Section 106: Proposed Monopole Communications Tower
Optasite Towers, LLC – Manchester Site
93 Lake Street
Manchester, Hartford County, Connecticut
KA Project No. 88653

Dear Sequahna Mars:

As you are aware, Kleinfelder East, Inc. (Kleinfelder) is performing a National Environmental Policy Act (NEPA) assessment on behalf of Optasite Towers, LLC (Optasite) for the Manchester Site located on Lake Street in Manchester, Hartford County, Connecticut. Kleinfelder is submitting this correspondence as a follow-up to the Tower Construction Notification System (TCNS) filing No. 31955 submitted to the Narragansett Indian Tribe on October 5, 2007 requesting whether there is interest in consulting on this project. A follow-up letter and USGS topographic map were sent October 16, 2007. Per our telephone discussion on October 29, 2007, I am forwarding you the materials you requested for review.

As a brief review, Optasite is proposing to construct a 70- by 70-foot fenced compound, within a 70-foot by 70-foot lease area, containing a 110-foot tall monopole telecommunications tower and associated equipment. The proposed site will be situated within a lease area that currently consists of undeveloped woodland. The compound will also include a proposed approximately 1100-foot long gravel access drive extending from Lake Street to provide access to the site. A USGS topographical map, site plans, and photo-documentation are attached for your reference.

Thank you for your timely attention in this matter. If you have any questions I can be reached at (860)683-4200, ext. 140.

Very truly yours,
Kleinfelder East, Inc.

Ashley G. Hawes
Ashley Hawes
2007.10.30 16:36:35
-04'00'

Ashley G. Hawes
Project Scientist

HERITAGE
CONSULTANTS, LLC

INTEGRATED HISTORIC PRESERVATION PLANNING

November 13, 2007

Ashley Hawes
Kleinfelder, Inc.
99 Lamberton Road
Windsor, CT 06095

RE: Preliminary Archeological Assessment of Proposed Telecommunications Tower CT-999-0074 Located in Manchester, Connecticut

Ms. Hawes:

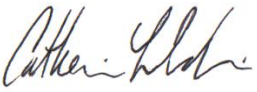
Heritage Consultants, LLC, is pleased to have this opportunity to provide Kleinfelder, Inc., with the following preliminary archeological assessment of proposed telecommunications tower CT-999-0074 located at 93 Lake Street in Manchester, Connecticut (Figure 1). The current project entailed completion of an existing conditions cultural resources summary based on the examination of GIS data obtained from the Connecticut State Historic Preservation Office, as well as historic maps, aerial photographs, and topographic quadrangles maintained by Heritage Consultants, LLC. This investigation did not consider the effects of the proposed construction upon built resources, and it is based upon project location information provided to Heritage Consultants, LLC by Kleinfelder, Inc. The objectives of this study were: 1) to gather and present data regarding previously identified cultural resources situated within the vicinity of the Areas of Potential Effect; 2) to investigate the proposed project parcel in terms of its natural and historical characteristics; and 3) to evaluate the need for completing additional cultural resources investigations.

Figures 2 through 5 (historic map dating from 1849, 1855, 1869, and 1880) depict a moderate amount of settlement activity across the project region with a well-developed network of roads that had been established by the mid to late nineteenth century. The project parcel itself, however, appears to have been outside of the cnter of Manchester and sparsely unsettled. Aerial imagery from the early to mid twentieth century confirms this interpretation and depicts the project area as largely agricultural in nature (Figures 6 and 7). Despite an increase in residential growth, evidenced in aerial photographs from the late twentieth century (Figures 8 and 9), the proposed project area remains undeveloped to the current time (Figure 10). Finally, a review of previously recorded cultural resources on file with the Connecticut State Historic Preservation Office revealed two prehistoric archeological sites, as well as a portion of Rochambeau's historic march route are situated within 0.8 km (0.5 mi) of the Areas of Potential Effect (Figures 11 and 12). Although no previously recorded archaeological sites are situated within the proposed project area, it is the professional opinion of Heritage Consultants, LLC that a Phase I Cultural Resources Reconnaissance Survey of the Area of Potential Effect associated with the proposed telecommunications tower be completed because it is located within relatively undisturbed soil contexts and previously recorded cultural resources are located in the project region. Finally, the project parcel contains fine sandy loamy soils on level terrain and it is situated in the vicinity of several freshwater sources; these variables are known to be associated with the prehistoric archaeological sites.

877 Main Street • Newington, Connecticut
Phone (860) 667-3001 • Fax (860) 667-3008
Email: info@heritage-consultants.com

If you have any questions regarding this Technical Memorandum, or if we may be of additional assistance with this or any other projects you may have, please do not hesitate to call us at 860-667-3001 or email us info@heritage-consultants.com. We are at your service.

Sincerely,



Catherine M. Labadia, M.A.
President & Principal Investigator

877 Main Street • Newington, Connecticut
Phone (860) 667-3001 • Fax (860) 667-3008
Email: info@heritage-consultants.com

Figure 1. Excerpt from a recent USGS 7.5' series topographic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

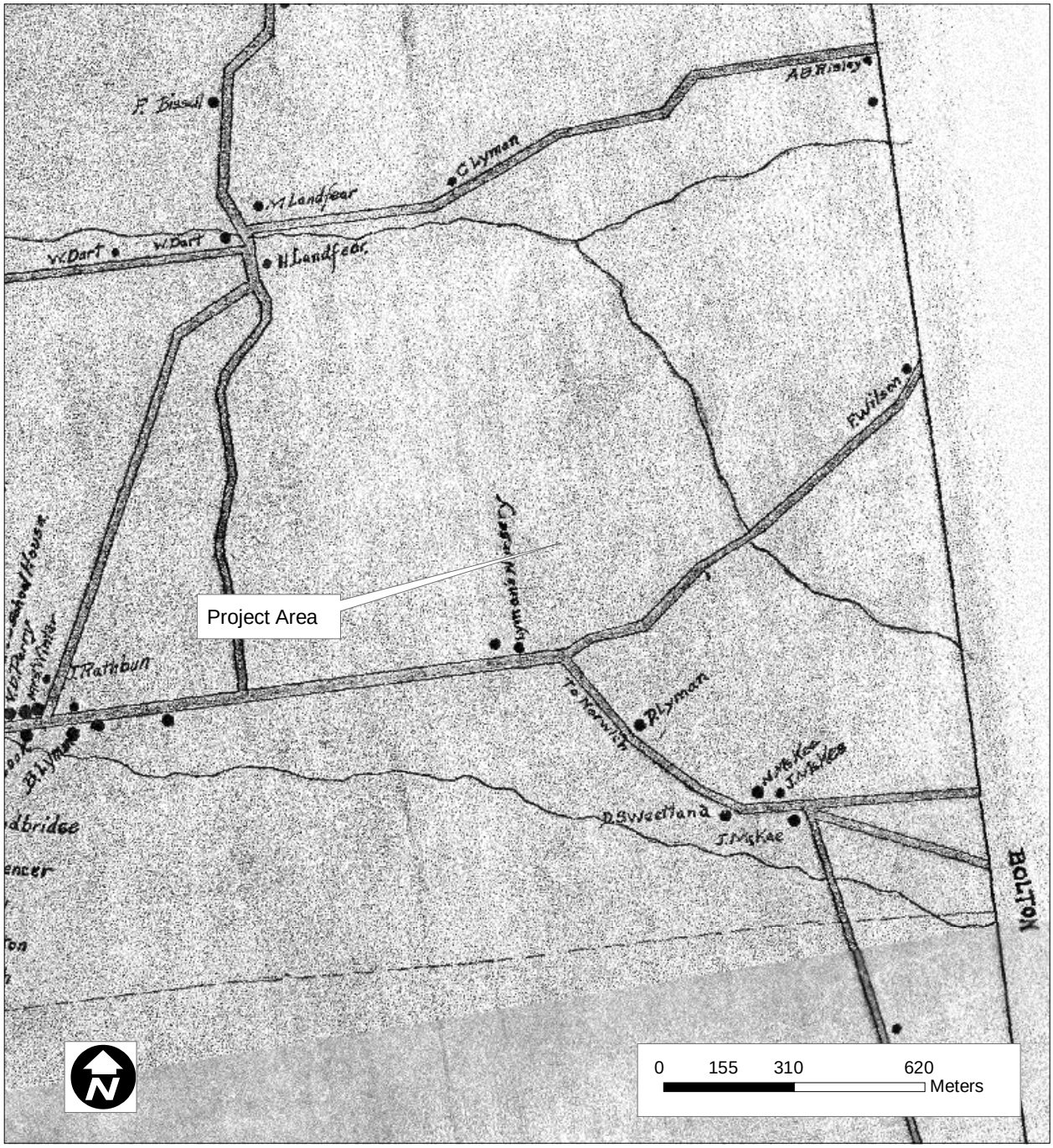


Figure 2. Excerpt from an 1849 historic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

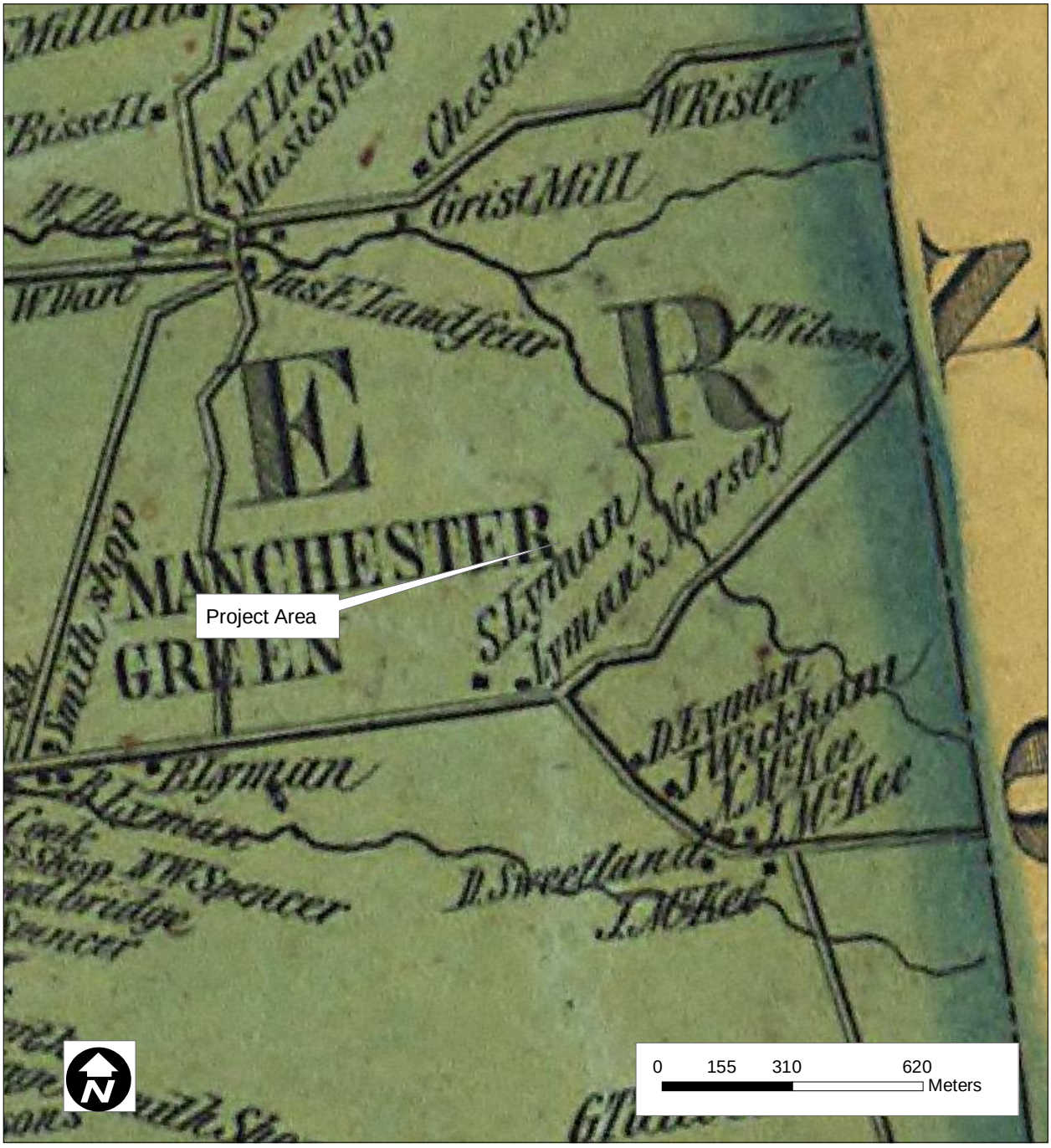


Figure 3. Excerpt from an 1855 historic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

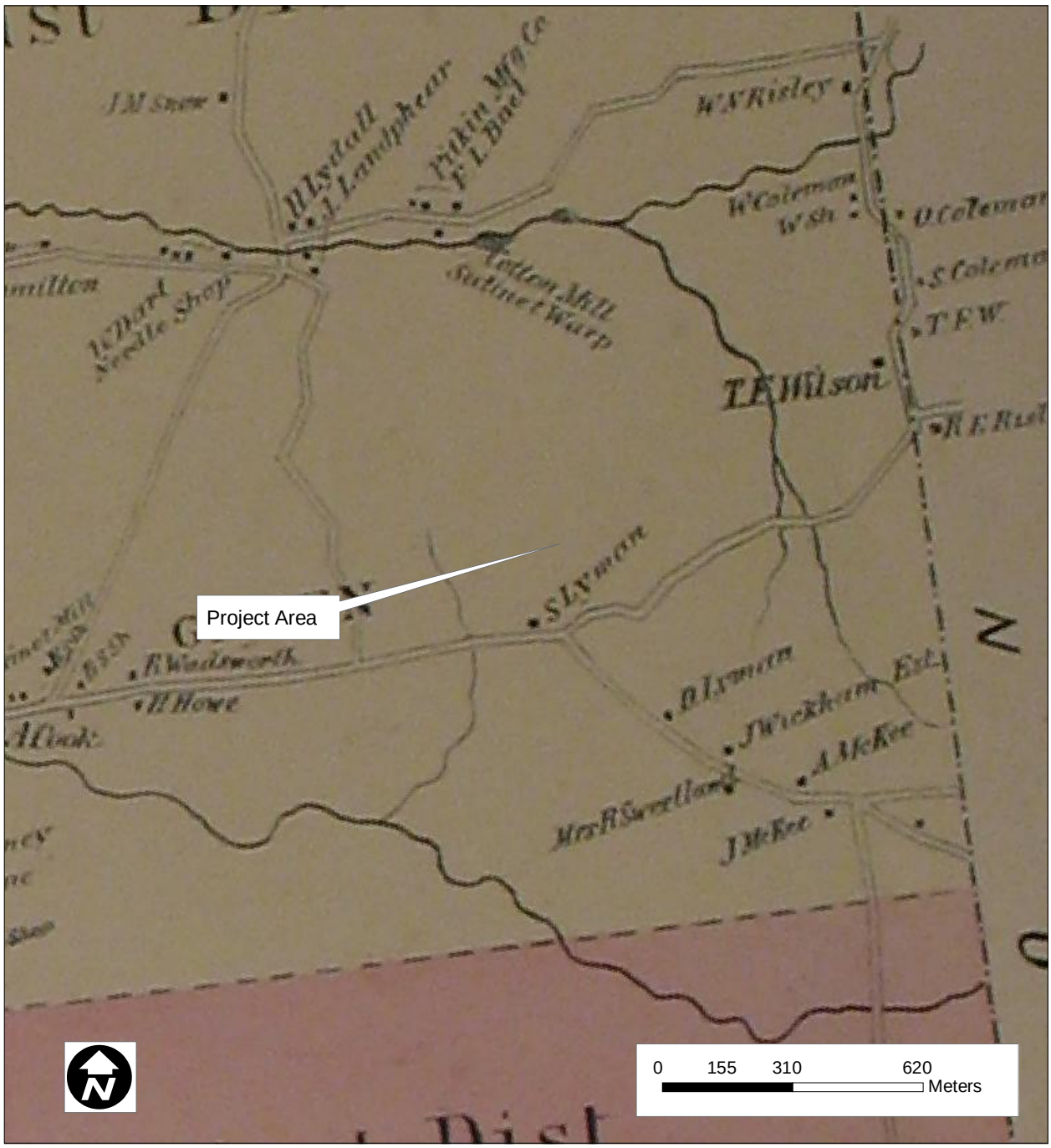


Figure 4. Excerpt from an 1869 historic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

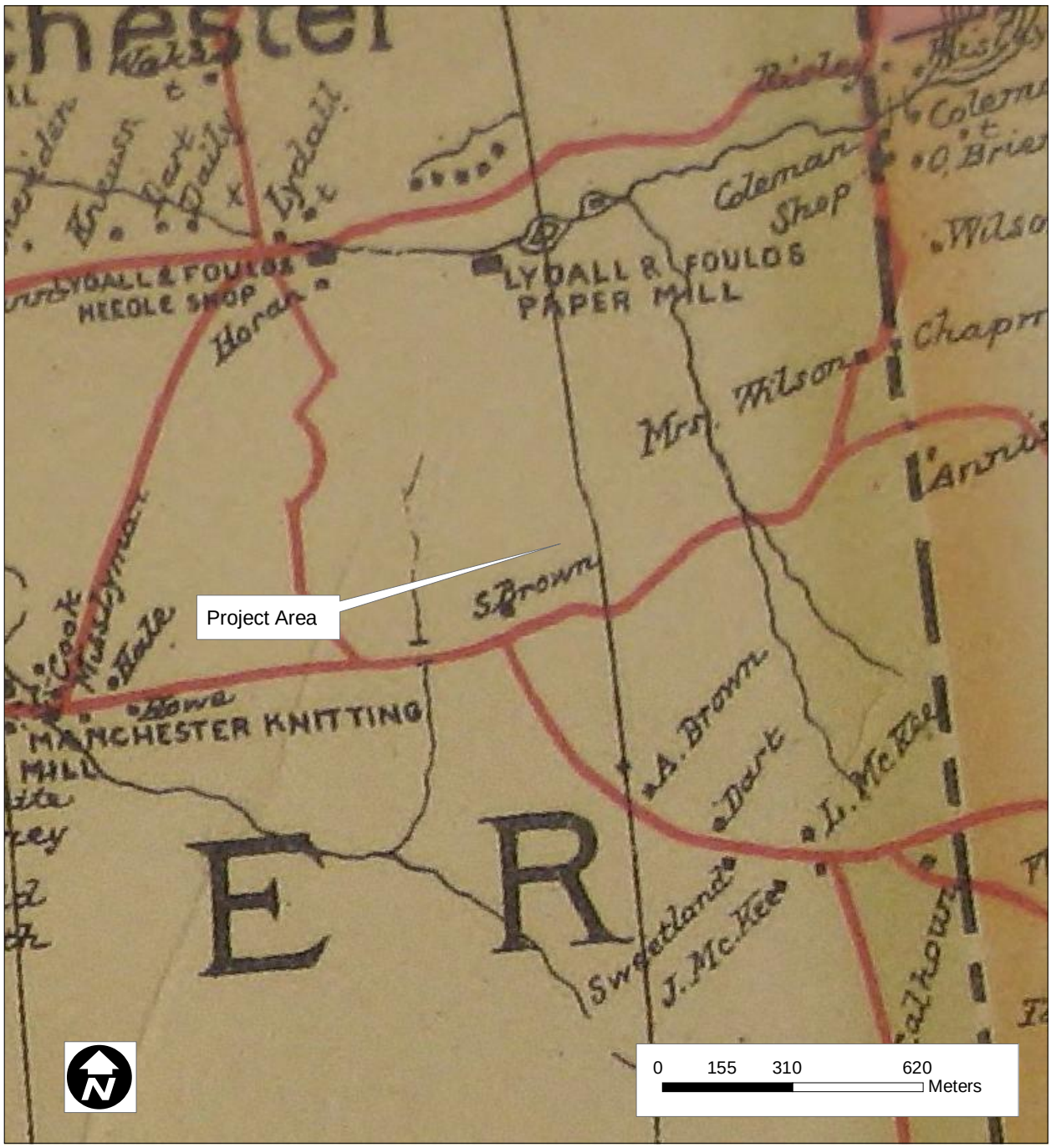


Figure 5. Excerpt from an 1880 historic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

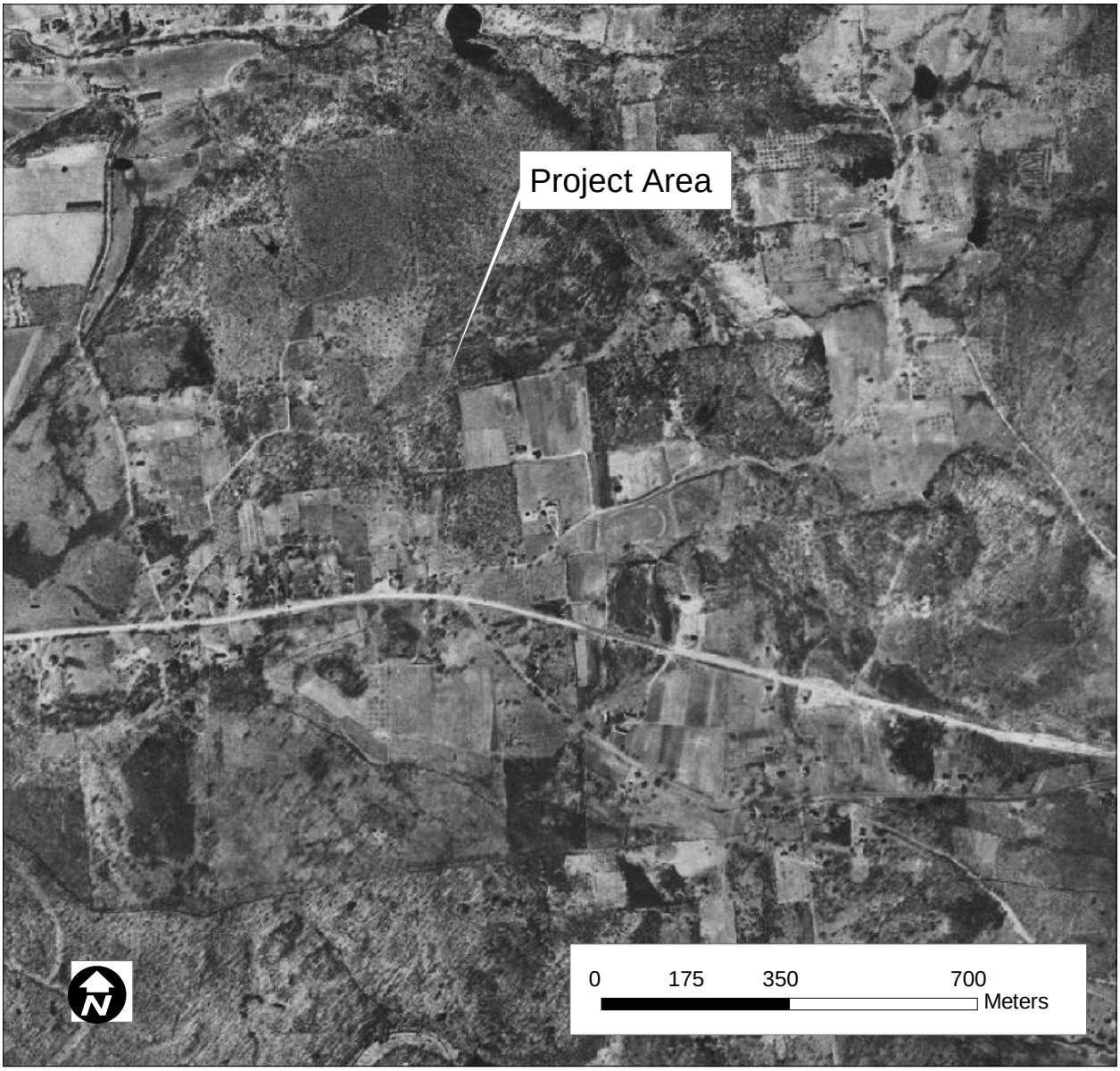


Figure 6. Excerpt from a 1934 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

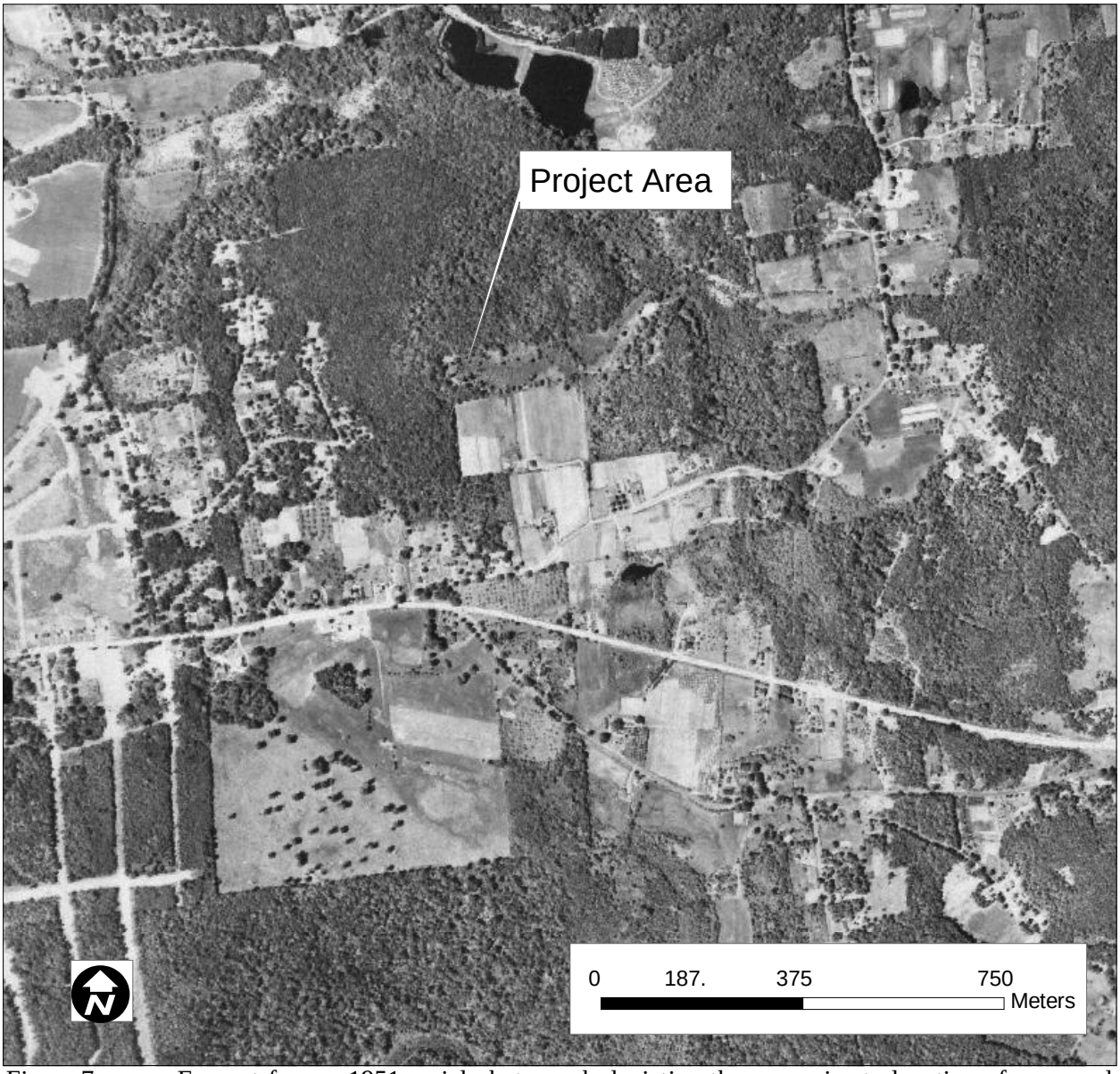


Figure 7. Excerpt from a 1951 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

Figure 8. Excerpt from a 1970 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

Figure 9. Excerpt from a 1986 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

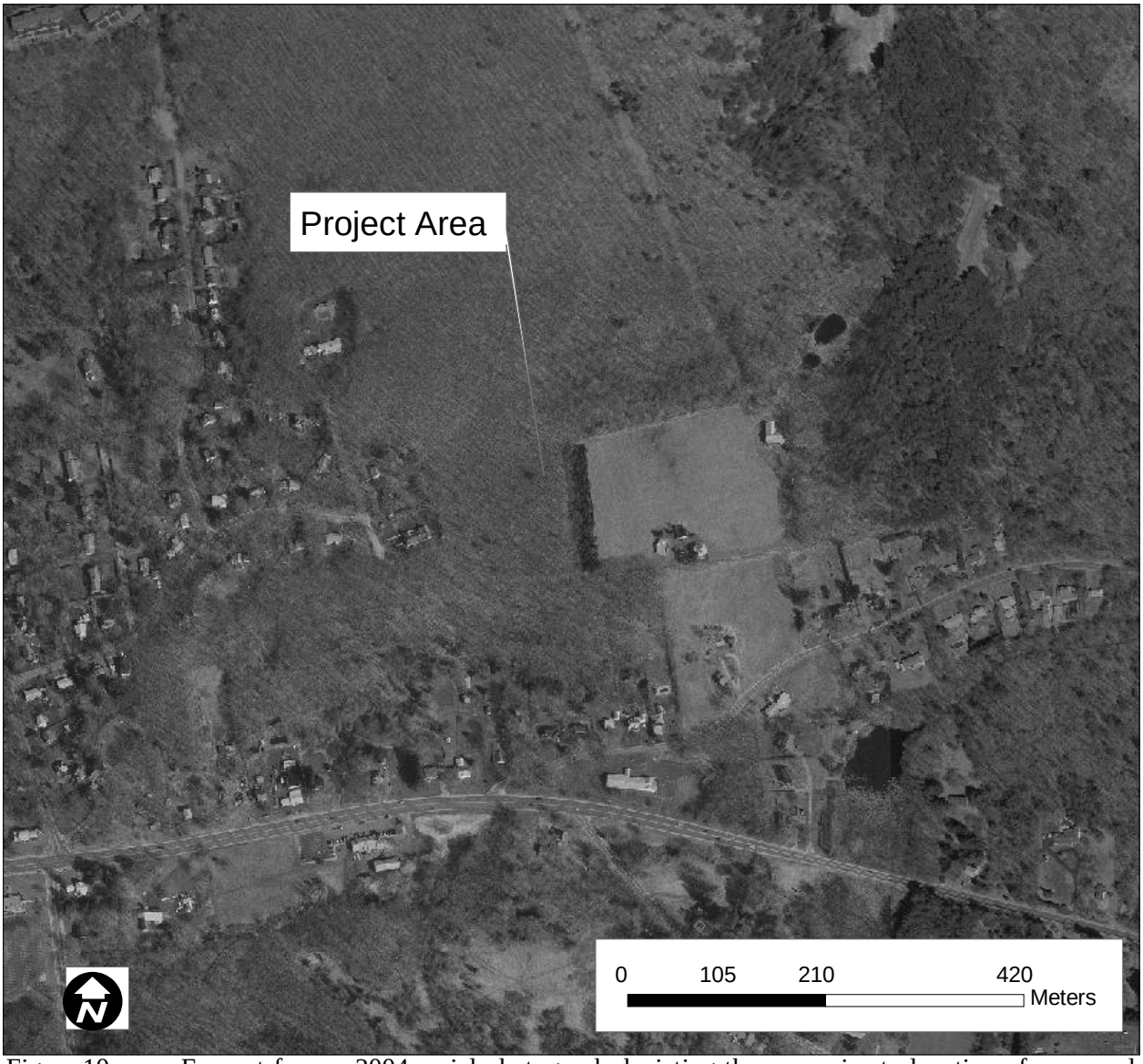


Figure 10. Excerpt from a 2004 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

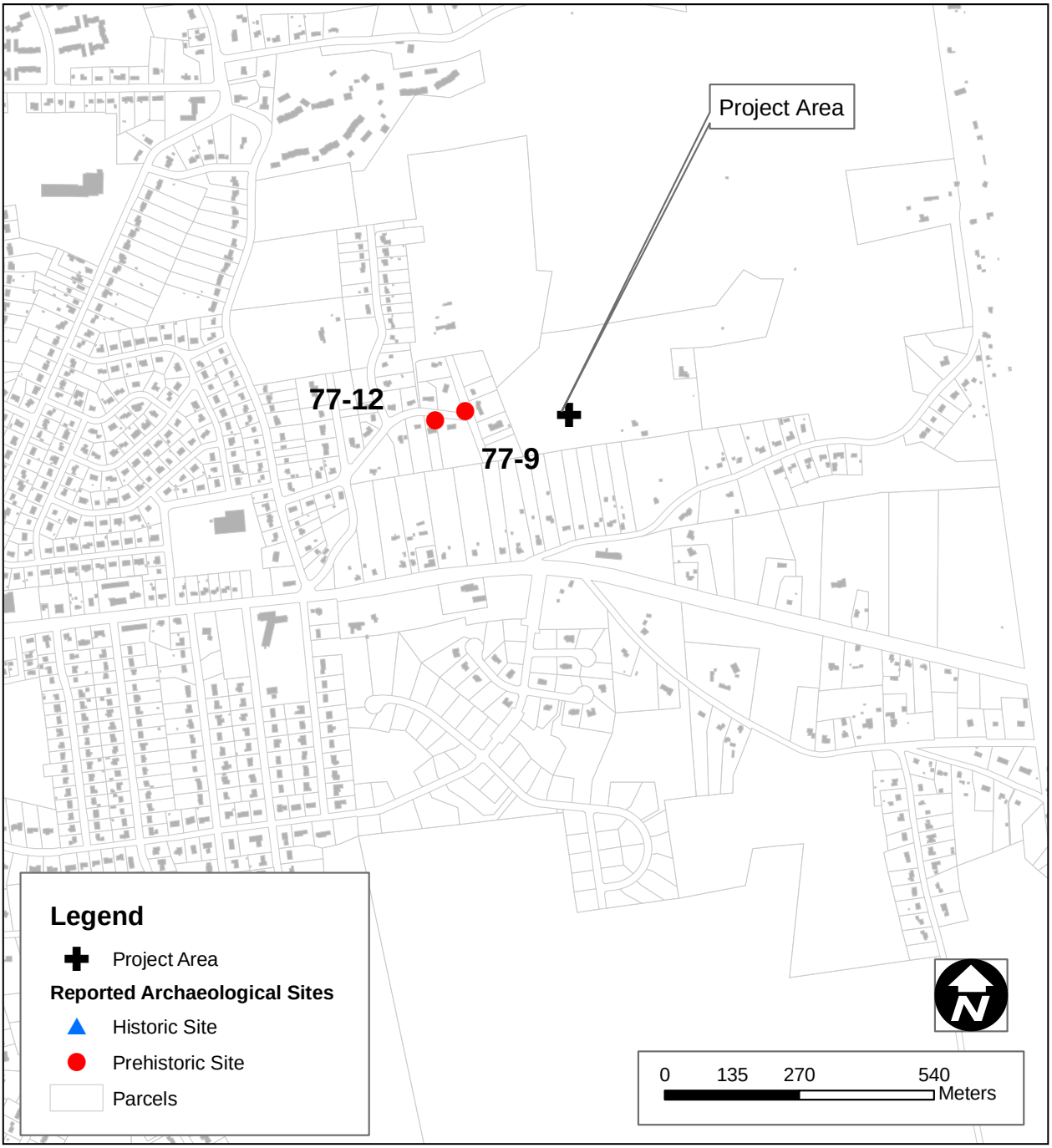


Figure 11. Map of previously identified archeological sites situated in the vicinity of a proposed cellular communication tower in Glastonbury, Connecticut.

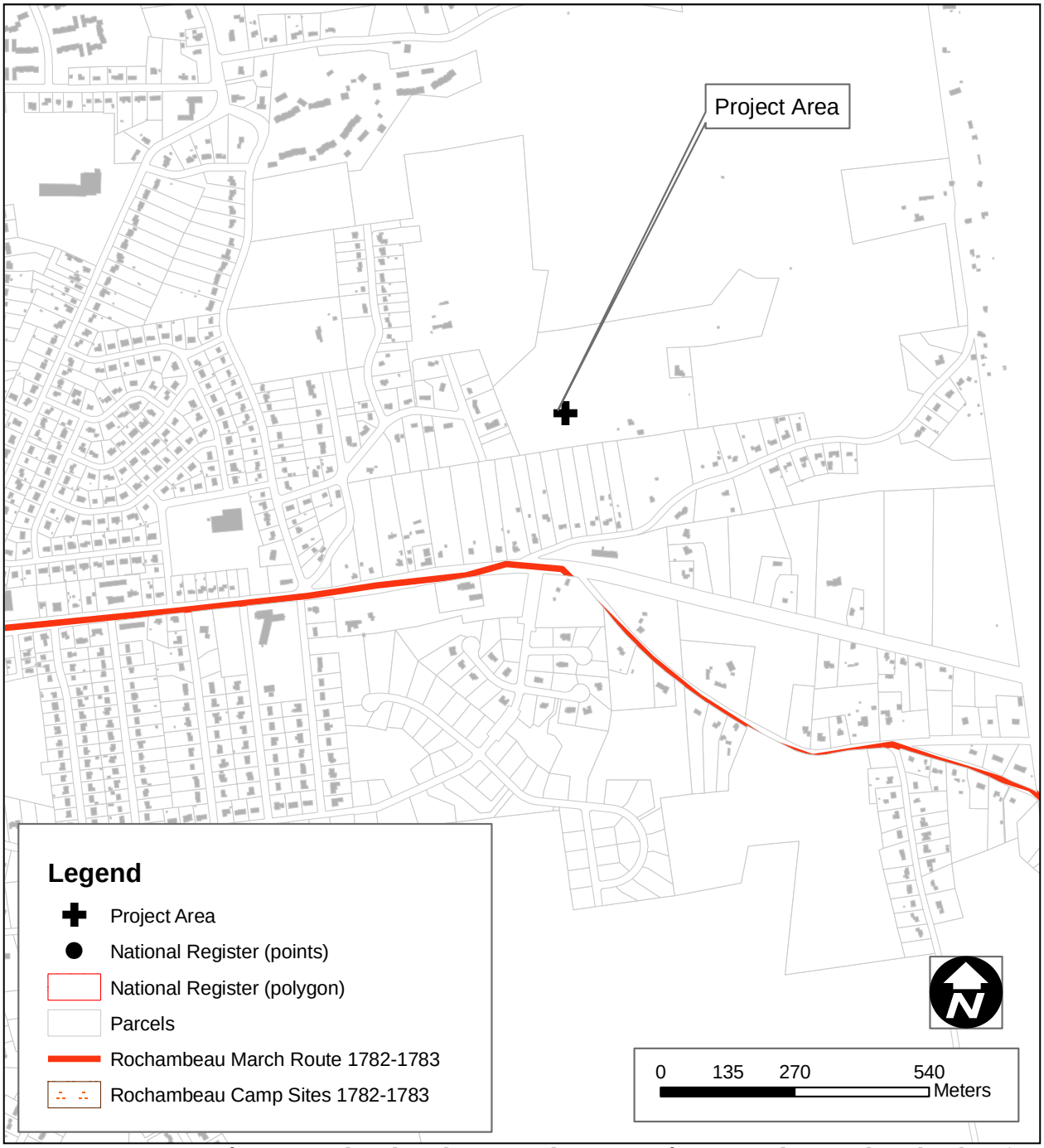


Figure 12. Map of properties listed on the National Register of Historic Places and Rochambeau's march route situated in the vicinity of a proposed cellular communication tower in Glastonbury, Connecticut.

FINAL REPORT **DECEMBER 2007**

PHASE I CULTURAL RESOURCES RECONNAISSANCE SURVEY OF PROPOSED CELLULAR COMMUNICATIONS FACILITY CT-999-0074, MANCHESTER, CONNECTICUT

PREPARED FOR:

KLEINFELDER, INC.
99 LAMBERTON ROAD
WINDSOR. CT 06095

HERITAGE CONSULTANTS, LLC
877 MAIN STREET
NEWINGTON, CONNECTICUT 06111

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1.0 Introduction

This report summarizes the results of a Phase I cultural resources reconnaissance survey of proposed cellular communications facility CT-999-0074 to be constructed within a wooded area located at 93 Lake Street in Manchester, Connecticut. Heritage Consultants, LLC, completed the field investigation portion of this project, performed on behalf of Kleinfelder, Inc., in December of 2007. All work was conducted in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; and the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987). The remainder of this document presents a description of the Areas of Potential Effect, information used as project context, the methods by which the current Phase I cultural resources reconnaissance survey was completed, results of the investigation, and management recommendations for the project.

2.0 Project Description

As mentioned above, the proposed cellular communications facility will be located in Manchester, Connecticut (Figure 1). The Areas of Potential Effect are situated at an approximate elevation of 139 m (460 ft) NGVD; they are bounded to the north, south, and west by mixed wooded lots and to the east by an existing dirt path and residential property with manicured lawns. The Areas of Potential Effect consist of a proposed lease area measuring approximately 21 x 21 m (70 x 70 ft) in size and be associated with a single proposed access road measuring approximately 303 m (1000 ft) in length; the latter will border existing residential housing lots, and extend to Lake Street (Figure 2). The proposed lease area will house a 33 m (110ft) monopole type cellular communications tower and equipment shelters within a chain link fence. Immediately adjacent to this enclosure are proposed protective bollards, a transformer,telephone cabinet, and meter bank.

During survey, the Areas of Potential Effect were characterized by mixed forests, and residential lots with large, open lawns (Figures 3 through 6). Field methodologies employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing. The details of the field methods, as well as the results of this field effort, are reviewed below.

3.0 Background Research

The current Phase I cultural resources reconnaissance survey was completed using a three-step approach. The first step consisted of historic research and records review that focused on the area of Manchester encompassing the Areas of Potential Effect. This was followed by a review of all previously recorded archeological sites situated within the vicinity of the project area in an effort to determine the archeological context of the region. Finally, this approach entailed the completion of the current Phase I cultural resources reconnaissance survey.

Background research included analysis of readily available historic maps and aerial imagery depicting the area encompassing the proposed project area; an examination of the pertinent 1983 USGS 7.5' series topographic quadrangle; and a review of all archeological data maintained by the Connecticut State Historic Preservation Office and digital records archived by Heritage Consultants, LLC. The intent of this review was to identify all previously recorded archaeological sites situated within and/or immediately adjacent to the Areas of Potential Effect. This information was used to develop the archeological context for assessing cultural resources that may be identified during survey.

4.0 Project Context: Previous Investigations, Natural & Prehistoric Settings, and Historic Overview

The following sections provide an overview of the region's natural and prehistoric settings, historic backdrop, and previous cultural resources investigations completed within the vicinity of the Areas of Potential Effect. These brief discussions are included in an effort to provide contextual information relative to the location of the Areas of Potential Effect, its natural characteristics, and their prehistoric and

historic use and occupation. It concludes with an overview of the previous cultural resources investigations that have taken place in the area and a discussion of their results.

4.1 Natural Setting

The Northeast Hills ecoregion consists of a hilly upland terrain located between approximately 40.2 and 88.5 km (25 and 55 mi) to the north of Long Island Sound (Dowhan and Craig 1976). It is characterized by streamlined hills bordered on either side by local ridge systems, as well as broad lowland areas situated near large rivers and tributaries (Dowhan and Craig 1976). Physiography in this region is composed of a series of north-trending ridge systems, the western-most of which is referred to as the Bolton Range and the eastern-most as the Mohegan Range (Bell 1985:45). Elevations in the Northeast Hills range from 121.9 to 243.8 m (400 to 800 ft) above sea level, reaching a maximum of nearly 304.8 m (1,000 ft) above sea level near the Massachusetts border (Bell 1985). The bedrock of the region is composed of Schist and gneiss created during the Paleozoic and well as gneiss and granite created during the Precambrian period (Bell 1985). Soils uplands areas have been deposited on top of glacial till and in the in the valley they consist of stratified deposits of sand, gravel, and silt (Dowhan and Craig 1976). Vegetation located within the immediate vicinity of the Areas of Potential Effect consists of mixed deciduous forests. Finally, local fauna include rainbow trout, largemouth bass, sucker, rabbit, fox, raccoon, opossum, squirrel, white tailed deer, and a wide variety of terrestrial and aquatic bird species.

4.2 Prehistory of Connecticut

The earliest inhabitants of Connecticut, referred to as Paleo-Indians, probably arrived in the area after ca. 14,000 B.P. (Gramly and Funk 1990; Snow 1980). While there have been numerous finds of Paleo-Indian projectile points throughout Connecticut, only two sites, the Templeton Site (6-LF-21) and the Hidden Creek Site (72-163), have been studied in detail (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut on a terrace overlooking the Shepaug River. Carbon samples recovered during excavation of the site area produced a radiocarbon date of 10,190±300 B.P., for the occupation. In addition to a single large and two small fluted points, the Templeton Site produced gravers, drills, core fragments, scrapers, and channel flakes, indicating that the full range of lithic reduction took place within the site area (Moeller 1980). Moreover, use of both exotic and local raw materials was documented in the recovered lithic assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant lithic sources.

The only other Paleo-Indian site studied in detail is the Hidden Creek Site (72-163) (Jones 1997). Paleo-Indian artifacts recovered from this site include bifaces, side scrapers, a fluted preform, gravers, and end scrapers. While no direct date for the Paleo-Indian assemblage yet has been obtained, Jones (1997:76) argues that based on typological considerations the artifacts likely date from ca., 10,000 to 9,500 years ago. Further, based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represents a short-term occupation. Excavation of both sites suggest that the Paleo-Indian settlement pattern consisted of a high degree of mobility, with groups moving regionally in search of seasonal food resources, as well as for high quality lithic materials.

The Archaic Period began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980). Later, Griffin (1967) and Snow (1980) divided the Archaic Period into three subperiods: the Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). To date, very few Early Archaic sites have been identified in southern New England. Like Paleo-Indian sites, Early Archaic sites tend to be very small and produce few artifacts, most of which are not diagnostic. Sites of this age are identified based on the recovery of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by their characteristic bifurcated base, and they generally are made from high quality lithics, though some quartz and quartzite specimens have been recovered. Current archeological evidence suggests that Early Archaic groups became more focused on locally available and

smaller game species. Occupations of this time period are represented by camps that were moved periodically to take advantage of seasonal resources (McBride 1984).

By the onset of the Middle Archaic Period, increased numbers and types of sites are noted in the region (McBride 1984). The most well known Middle Archaic site in New England is the Neville Site (Dincauze 1976). Analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. These sites are associated with the recovery of Neville, Stark, and Merrimac projectile points. McBride (1984) noted that Middle Archaic sites in the lower Connecticut River Valley tend to be represented by moderate density artifact scatters representing a "diversity of site types, with both large-scale occupations and small special purpose present" (McBride 1984:96). Thus, based on the available archeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96).

The Late Archaic Period in southern New England is divided into two major cultural traditions: the Laurentian and Narrow-Stemmed Traditions (Funk 1976 McBride 1984; Ritchie 1969a and b). Laurentian artifacts include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights and scrapers. The diagnostic projectile point forms of this time period include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). Current archeological evidence suggests that Laurentian populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been identified and studied, they generally encompass less than 500 m^2 in area. These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1984:252).

The latter portion of the Late Archaic is represented the Narrow-Stemmed Tradition. It is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). In general, the Narrow-Stemmed Tradition corresponds to when Late Archaic populations in southern New England began to "settle into" well-defined territories. Further, Narrow-Stemmed Tradition settlement patterns are marked by an increase in the types of sites utilized. That is, the Narrow-Stemmed Tradition witnessed the introduction of large base camps supported by small task-specific sites and temporary camps. The increased number of Narrow Stemmed Traditions temporary and task specific sites indicates frequent movements out of and back into base camps for the purpose of resource procurement; however, the base camps were relocated seasonally to position groups near frequently used, but dispersed, resources (McBride 1984:262).

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 B.P., is represented by the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. Temporally diagnostic projectile points of this tradition include the Snook Kill, Susquehanna Broad, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). In addition, the material culture of the Terminal Archaic includes soapstone vessels, chipped and ground stone adzes, atlatl weights, drills, net sinkers, plummets and gorgets (Lavin 1984; McBride 1984; Ritchie 1969a and 1969b; Snow 1980). Susquehanna Tradition settlement patterns are centered around large base camps located in on terrace edges overlooking floodplains. Acting as support facilities for the large Terminal Archaic base camps were numerous task specific sites and temporary camps. Such sites were used as extraction points for the procurement of resources not found in the immediate vicinity of the base camps, and they generally were located adjacent to upland streams and wetlands (McBride 1984:282). Finally, there also are a large number of Terminal Archaic cremation cemeteries with burials that have produced broadspear points and radiocarbon dates between 3,700 and 2,700 B.P. (Pfeiffer 1990). Among the grave goods are ritually "killed" (intentionally

broken) steatite vessels, as well as ground stone and flaked stone tools (Snow 1980:240); however, this represents an important continuation of traditions from the Late Archaic and it should not be regarded as a cultural trait unique to the Susquehanna Tradition (Snow 1980:244).

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been commonly divided into three subperiods: Early, Middle, and Late Woodland. The Early Woodland period of the northeastern United States dates from ca., 2,700 to 2,000 B.P. In his study of the lower Connecticut River Valley, McBride (1984) described Early Woodland sites as "characterized by a quartz cobble lithic industry, narrow-stemmed points, an occasional Meadowood projectile point, thick, cord-marked ceramics, and perhaps human cremations" (McBride and Soulsby 1989:50). Early Woodland sites tend to be located in a variety of different ecozones; however, the largest settlements associated with this period were focused on floodplain, terrace, and lacustrine environments (McBride 1984:300), suggesting "population aggregations along major rivers, interior lakes, and wetlands" (McBride and Soulsby 1989:50). In sum, archeological evidence indicates that Early Woodland populations consisted a mobile hunter/gatherers that moved seasonally throughout a diversity of environmental zones in search of available plant and animal resources.

The Middle Woodland Period of southern New England prehistory is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). In Connecticut, the Middle Woodland Period is represented archeologically by the use of narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types indicative of the Middle Woodland period include Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200). In terms of settlement patterns, the Middle Woodland period is characterized by the occupation of village sites by large co-residential groups. These sites were the principal place of occupation, and they were positioned in close proximity to major river valleys, tidal marshes, estuaries, and the nearby coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains.

The Late Woodland period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of maize in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1973, 1974; McBride 1984; Snow 1980). Late Woodland lithic assemblages typically contain up to 60 to 70 percent exotic lithics. Finished stone tools include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools (McBride 1984; Snow 1980). In addition, ceramic assemblages recovered from Late Woodland sites include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised types (Lavin 1980; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947).

Finally, McBride (1984:323-329) characterized Late Woodland settlement patterns as more nucleated than the preceding Middle Woodland ones, with fewer, larger sites situated in estuarine and riverine ecozones. Both river confluences and coastal zones were favored areas for the establishment of large

village sites that contain numerous hearths, storage pits, refuse pits, ceramic production areas, house floors, and human and dog burials (Lavin 1988b; McBride 1984). McBride (1984:326) has argued that these sites certainly reflect multi-season use, and were perhaps occupied on a year-round basis (see also Bellantoni 1987). In addition to large village sites, McBride (1984:326) identified numerous temporary and task-specific sites in the uplands of the lower Connecticut River Valley and along the coastline. These sites likely were employed for the collection of resources such as plant, animal, and lithic raw materials. These sites tend to be very small, lack internal organizational structure, and usually contain a limited artifact assemblage and few cultural features, suggesting that they were occupied from only a few hours to perhaps overnight. Temporary camps, on the other hand reflect a longer stay than task-specific camps, perhaps on the order of a few days to a week, and they contain a more diverse artifact assemblage indicative of more on-site activities, as well as more features (McBride 1984:328-329). In sum, settlement patterns of the Late Woodland period are characterized by "1) aggregation in coastal/riverine areas; 2) increasing sedentism, and; 3) use of upland areas by small task groups of individuals organized for specific tasks" (McBride 1984:326).

In sum, the prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence pattern, and land use strategies. For the majority of the prehistoric era, local Native American groups practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland period that incontrovertible evidence for the use of maize horticulture as an important subsistence pursuit is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project parcel, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

4.3 History of the Proposed Project Region

The Town of East Hartford was separated from its parent town Hartford in 1783, and it included the present town of Manchester until the latter was established in 1823. At the time of the white colonists' arrival, the future Manchester is believed to have lain within the territory of the Podunk Indians, which ran from the Connecticut River eastward to the ridge of hills in Bolton. The Podunks' main villages at that time were located closer to the Connecticut River in East Hartford, but they, as well as their more prehistoric ancestors, also had occupied various sites in Manchester (Spiess and Bidwell 1924). A review of the historical records revealed that the Podunk Indians are best known for becoming embroiled in a bitter dispute with Sequassen, the sachem of Mattatuck Indians who lived in the vicinity of what is now Middletown. This dispute erupted in 1656-1657, and it was centered around the murder of a Mattatuck Indian by a member of the Podunk Tribe. In order to settle the disagreement, Sequassen petitioned Uncas, sachem of the Mohegan Indians and the most prominent Native American in Connecticut at the time, as well as the governor of the Connecticut Colony in an attempt to mediate the dispute. Unfortunately, he met with little success. According to reports by local colonists, the Podunks and the Mohegans seem to have been approximately equal in manpower at that time so a threat of a direct assault by the Mohegans carried little weight. Instead, Uncas secured the surrender of the Podunk murderer by convincing the Podunks that the Mohegans had entered into an alliance with the much more dangerous Mohawks to destroy the Podunk tribe (Barber 1836). While this dispute was apparently resolved, the Podunk Indians continued to experience episodes of discord with their European neighbors and problems with Uncas. Also in 1657, a commission appointed by the colony ordered Uncas to allow the Podunks to return to their homes unmolested, which they apparently had fled (Goodwin 1879).

As a result of a Podunk request in 1659, the General Court of Connecticut specifically ordered that the colonists of the region were not to "molest" the Podunks in the peaceable enjoyment of their lands (Public Records of the Colony of Connecticut, Vol. 1, Pg. 344). This also represented an attempt by the government

to prevent colonists from encroaching on Indian lands and causing further conflicts. Still, disagreements continued and the Podunks appeared before the Colony magistrates several times throughout the 1660s, at which time they were described as being "restless." It is likely not a coincidence that at about that time the colony took on the task of mediating a boundary settlement between the Podunks and the Mohegans. In addition, a complex dispute among one Thomas Burnham, the Podunks, and the colony government over a sale or lease of land from the sachem Tantinomo to Burnham continued to simmer during this period; unfortunately, it is not known where this land was located (Goodwin 1879). Thus, in this context, the restlessness may have referred to the Podunks' feeling it was time to move their main villages, to which the colony was strongly opposed. Because of the possibility of violent reaction to colonial policy, the colonial authorities felt it necessary to try to settle these problems.

In sheer numbers, the Podunks were a substantial group up to the time of King Philip's War in 1675-1676. Although DeForest claimed the group supplied only 60 warriors to the war campaign against the colonists, other historical sources contemporary to the war claim that 200 to 300 Podunk warriors were fielded. Extrapolating from the number of warriors recorded at the time, Spiess suggested that the overall Podunk population may have been as high as 1,500 during the latter decades of the seventeenth century (Spiess 1937). With a colonial victory over King Philip and his allies, the Podunks were largely dispersed. This dispersal is most likely related to fleeing colonial vengeance, which in many instances resulted in capture and sale into slavery. According to Goodwin (1879:34), a "ragged remnant" of the Podunk Tribe remained in 1677, when a dispute about their surviving lands came before the General Assembly. The last mention of a Podunk Indian in the colonial records was in 1722 (Goodwin 1879:34). From an ethnohistorical perspective, however, it should be noted that these assertions of their immediate disappearance rest in large part on patriarchal assumptions; that is, because most of the men did not return from the war, pre-twentieth century observers believed the group effectively ceased to exist at that time, no matter how many women and children remained in the area. DeForest (1852:363) reported that "[a] remnant of the Podunk nation, living on the Hockanum River, remained in East Hartford as late as 1745, but in 1760 had entirely disappeared." During the eighteenth century, most surviving Native Americans in central and eastern Connecticut, denied access to adequate lands and suffering from severe discrimination, moved westward and joined with other tribes. Goodwin reports, also, that "within the memory of some of our older citizens" in East Hartford there were some Indians living in the Burnside section of town, with a "chief" named Tobias or Toby, and in 1793 a doctor was compensated for medical treatment for an Indian woman there (1879:37). In Manchester, similarly, there were several families still living in the south-east part of town in the early nineteenth century, but they left town after an incident of domestic violence within the group (Spiess and Bidwell 1924). Thus, there may have been a few Native Americans still in the town at the time of the Revolutionary War and in the early nineteenth century. This is not unusual in the history of Connecticut, as many towns have reports of a small number of Native Americans still living within their borders even into the late nineteenth century, often reported as 'local character' anecdotes in antiquarian histories.

The area that would become Manchester was purchased from the Indians in 1672, when John Talcott of Hartford bought a tract five miles square from the Mohegan Chief Joshua. The historical record does note explain why it was a Mohegan and not a Podunk who sold this land, but it is a fact that the Mohegans, closely allied with the white colonists, had become much more powerful than the Podunks. This purchase shortly thereafter became entangled in the matter of Joshua's will and estate, which dragged on through the courts and the General Assembly for years. Finally, in 1681, the town of Hartford voted to pay off Talcott's claim, and in 1682 the estate's executors deeded the land to them. Aside from the payment, however, nothing was done with the land until 1731, when the Town of Hartford began the process of dividing it for distribution among its inhabitants. The proposed project parcel is located in what was called the "first tier" or series of lots, which abutted the Bolton town line. Even before the 1672 purchase, however, the General Court had made some grants to individuals that were laid out in the area that eventually would become Manchester, which was not an uncommon action by the legislature. As a result, a tavern was set up in the

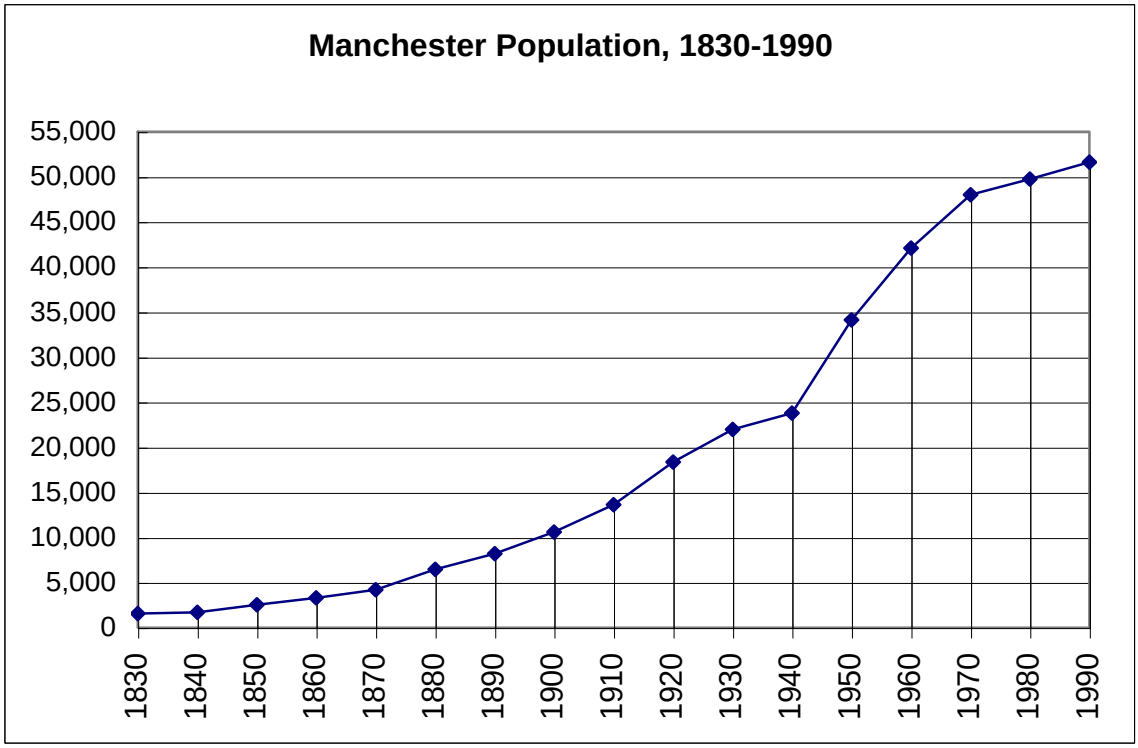
"Five Miles," as it was called, in 1713. Indeed, one record indicates that a significant number of people had moved there by 1731, many of them with no legal claim to the land they had improved, and were attempting to organize themselves as a separate town; the Hartford government resolved to oppose this vigorously, though it is not clear what the specific results of this decision were (Spiess and Bidwell 1924).

During the Revolutionary War, the East Hartford (and hence the Manchester) participants were still counted with those representing Hartford, as the towns were still one. At the close of the war in 1783, East Hartford finally was incorporated as a separate town, having made its first such petition nearly 60 years earlier in 1726. In a 1769 petition, which was signed by 156 people, local leaders indicated that the town's property was worth £17,000. By the time of the 1774 petition, the town's population was listed at 2,000 people with a total property value of £19,000. The first town meeting was held in November of 1783 (Goodwin 1879). Throughout the latter portion of the eighteenth century and the first half of the nineteenth century, East Hartford was typical of most towns located in the Connecticut River valley. That is, its population was dispersed for the most part and constituted largely of farming families that made their living from the land. In addition to these families, the town possessed several mercantile operations, including saw mills, grist mills, and small manufactories of all sorts.

The process of division between Manchester and East Hartford was initiated in 1758, when the resident there received permission from the General Assembly to have what was called a "winter Parish," a separate ecclesiastical society during the winter months, when travel was difficult. The first such privilege was for five months, from December to the end of April. In 1763, the "Five Miles" inhabitants requested and received a seven months' privilege. In 1767 and 1770 they asked for a separate society and were denied because the investigating committee thought they could not support a separate society. The third request, in 1772, was granted, and the new society was given the name Orford. All of this was important because the ecclesiastical societies were official government entities, empowered to lay taxes on all the inhabitants in their boundaries to support the church and ministry. It was also an important sign that a distinct and self-supporting community was forming. First, however, the separation of East Hartford from Hartford occurred in 1783, after much resistance from Hartford. Beginning in 1813, the town's regular meetings were held alternately in the East Hartford and Orford meetinghouses. Undoubtedly this was in part because in 1812 members of Orford Society had asked the town meeting to support a petition asking the General Assembly to make it a new town. It took another decade for the goal to be achieved, but in 1823 the General Assembly incorporated the town of Manchester, which had the same boundaries as the parish of Orford (Spiess and Bidwell 1924).

In 1830, the year of the first federal census after Manchester's creation, the town had 1,576 inhabitants. After 1840, the population began a steady rise that saw it pass 5,000 by 1880 and 10,000 by 1900, as can be seen in Chart1 (CT DEP 1996). Part of the 1840-1850 increase was, however, caused by the addition of two square miles of East Windsor land to Manchester. Overall, this trend reflected the increase in manufacturing work in the town, and a consequent immigration of workers and their families from the region and from overseas. Sawmills were first built in the Five Miles at Hilliardville and Hop Brook during the 1670s, while in 1747 an iron slitting mill was built at Woodland, but shortly closed down because of the English government's ban on iron manufactures in the colonies.

In the late eighteenth century snuff was manufactured in town, and one of the first paper mills in the state was built before 1775 at Union Village. In addition, in the 1780s two more paper mills appeared in Manchester, while in 1783 a glass factory was built at Manchester Green. Hilliardville also saw a cotton mill built in 1794, the first successful one in the state. Small shops for making cast iron plows, wooden clocks, and blinds and sashes were also present by that time. These were only the earliest beginnings of manufacturing in the town, however, and many of them did not survive long. The true industrialization process did not begin to take off until after 1830. In 1819, the cotton mills at Union Village were re-started



and became extremely productive; a new woolen mill at Buckland was built in 1824, and the paper mill at Union Village also was re-opened around 1830, with to additional ones built in town in 1832. By 1845, the town had seven paper mills, two cotton mils, five woolen mills, and two silk mills, all of which employed approximately 400 people. During the nineteenth century, however, the Manchester's chief claim to manufacturing fame was the Cheney silk mills. Sericulture, the raising of silkworms, had begun in the state after the Revolutionary War, and once machinery for making silk thread was developed after 1820, factory production began. In 1835, the Cheney brothers established the mulberry trees and silkworm populations necessary to support such manufacture, and in 1838 began to produce sewing silk on Hop Brook. During the 1830s, a strange episode of speculation in mulberry trees led to escalating prices and high profits, which crashed in 1840. Finally, a blight destroyed surviving trees in 1844. Thereafter, raw silk had to be imported, but this did not prevent the Cheney Brothers operation from becoming the largest and most promising business in town, one that remained in business well into the twentieth century (Spiess and Bidwell 1924).

The 1850 opening of the Hartford, Providence and Fishkill Railroad through Manchester gave the town a further advantage in the manufacturing business, as rail transport of goods and raw materials was less expensive than road transport. A railroad had been planned since 1833, by a Manchester Railroad Company, but it was taken over in 1849 and the road finally built. The paper manufacturing facilities, which had been present in Manchester for many years, increased after 1840 and became an even larger business after 1850, continuing to be important through the late nineteenth century. Other industries of the late nineteenth and early twentieth centuries included wool and knitted goods, soap, small engines, and machine tools. As of 1924, there were at least 5,270 manufacturing employees living in Manchester, of whom 4,400 worked for Cheney Brothers. (Spiess and Bidwell 1924).

As mentioned above, the proposed project parcel is located north of the route of the Middle Turnpike, which also was known as the Boston Turnpike. This route existed at the time of the Revolutionary War,

going from Boston to New York and passing through Manchester on its way to Hartford. Count Rochambeau's army and President Washington both took this road during the Revolutionary War, known as the "middle" way because the two other routes went along the shoreline and through Massachusetts to Springfield. Road maintenance in Connecticut was normally the province of the individual towns; in Manchester's case, there was great difficulty in securing the funds and manpower required to maintain properly. A common solution to this problem was privatization of roads in the form of the incorporation of turnpike companies, which were permitted to charge tolls in exchange for building, improving, and maintaining roads. In 1797, the Boston Turnpike Company was established to improve the old route from Hartford to the Massachusetts line in Thompson. Such projects were frequently opposed, however, and East Hartford managed to block it until 1812, even after which no toll gates were built there. The nearest tollgate was located at Bolton Notch. The portion of the road in Manchester remained a toll road until 1879, when the company's toll rights were canceled (Wood 1919).

The above-referenced population chart shows the dramatic rise in East Hartford's population after 1940. Although substantial businesses continued to exist in Manchester, much of this growth was also because of the growth in commuting for employment as a way of life, with East Hartford and Manchester drawing many Manchester residents to work there. The 1934 aerial photograph shows a landscape with agricultural fields, forests, and a scattering of houses (Figure 7). Note also the appearance of New Bolton Road to the north of the Areas of Potential Effect, which provided a straight, widened course for the old Middle Turnpike, at present better known as Route 44. The 1951 aerial photographs likewise show a largely rural landscape, though there were some more houses than before (Figure 8). By 1970, residential subdivisions were visible in the area around the Areas of Potential Effect (Figure 9). In 1986, even more such residential development had occurred, though relatively little additional changes had been made by 2004 (Figures 10 and 11). Through all of this, however, the proposed project parcel itself remained an agricultural field, a remnant of the town's agricultural past.

4.4 Previous Investigations

As mentioned above, the current effort also involved an examination of the Connecticut State Historic Preservation Office records as they pertain to archeological sites and National Register Properties situated within 0.8 km (0.5 mi) of the Areas of Potential Effect. In addition, the electronic site files maintained by Heritage Consultants, LLC also were examined during the course of this investigation. The results of this literature search revealed that only a single cultural resources investigation has been completed previously within 0.8 km (0.5 mi) of the proposed project parcel. In addition, two prehistoric archeological sites (Sites 77-9 and 77-12), as well as a portion of Rochambeau's historic march route are situated within 0.8 km (0.5 mi) of the Areas of Potential Effect (Figures 12 and 13). Site 77-9, the Kog's Hill Site, was identified by Mathias Spiess in 1937. At that time, he attributed the sate to the Late Woodland or Contact Period. He described it as a special activity site yielding hammerstones, pitted stones and 20 hearths. Its current condition is unknown. Site 77-12 also likely identified by Mathias Spiess. Very little information is recorded about the site. It was described as a small scatter of prehistoric artifacts. The single previously completed archaeological survey is discussed briefly below.

During May of 2002, Marc Banks, Ph.D., LLC completed a cultural resources investigation of a then-proposed project cellular communications facility on behalf of Tectonic Engineering Consultants P.C. (Figure 16). During that investigation, a total of 8 shovel tests were excavated within the footprint of the proposed cellular communications tower and its associated access road (CHPC 1094; 2002). The test pits measured approximately 50 x 50 cm (19.7 x 19.7 in) in size, and each was excavated in arbitrary 10 cm levels. The shovel tests were terminated upon reaching glacial till or large obstructions, or after extending 20 cm into sterile subsoil. The subsurface testing regime resulted in the recovery of 15 pieces of cultural material, all of which represented a twentieth century component of activity. The recovered cultural material included coal fragments, glass shards, and plastic. No prehistoric artifacts, or evidence of cultural features were noted during the investigation. As a result of the field investigation, Marc Banks, Ph.D.,

LLC (2002) concluded that the proposed cellular communications facility would have no impact on cultural resources; thus, no additional testing was recommended.

5.0 Field Methods

Following the completion of the background research, the Areas of Potential Effect were subjected to a Phase I cultural resources reconnaissance survey utilizing pedestrian survey, subsurface testing, mapping, and photo-documentation. The sampling strategy was designed to provide thorough coverage of all portions of the Areas of Potential Effect, including the proposed lease area and associated access road. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the Areas of Potential Effect, as well as photo-documentation of the proposed project area and its immediate surroundings. The subsurface testing portion of this investigation involved the excavation of shovel tests in the four corners and the center of the lease area, as well as the excavation of shovel tests at 30 m (100 ft) intervals along the centerline of the proposed access road.

During survey, each shovel test measured 50 cm (19.7 in) in diameter and each was excavated to a depth of 50 cmbs (19.7 inbs) or until sterile subsoil, glacial till, or immovable objects (e.g., boulders) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archeological recordation process.

6.0 Curation

Following the completion and acceptance of the Final Report of Investigations, all project drawings, maps, photographs, and field notes will be curated with Dr. Nicholas Bellantoni, Office of Connecticut State Archaeology, Box U-1023, University of Connecticut, Storrs, Connecticut 06269.

7.0 Results of the Investigation and Management Recommendations

During survey, 9 of 9 (100 percent) planned shovel tests were excavated successfully throughout the Areas of Potential Effect associated with the proposed lease area and access road (Figure 2). A typical shovel test profile contained two strata and it extended to a depth of 50 cmbs (19.7 inbs). Stratum I, which extended from 0 to 25 cmbs (0 to 9.8 inbs), consisted of a layer of dark brown (10YR 3/3) sandy loam. Stratum II reached from 25 to 50 cmbs (9.8 to 19.7 inbs) and it was characterized as a deposit of dark yellowish brown (10YR 4/6) loamy sand with gravel. A total of four shovel test pits exhibited mottled stratigraphy, suggesting previous disturbances to portions of the Areas of Potential Effect. Furthermore, no evidence of cultural features was identified within the excavated shovel tests, and no cultural material, either prehistoric or historic in origin, was recovered. Since no cultural material was identified during survey and no impacts to cultural resources are anticipated, no additional fieldwork is recommended.

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Figure 1. Excerpt from a recent USGS 7.5' series topographic map depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

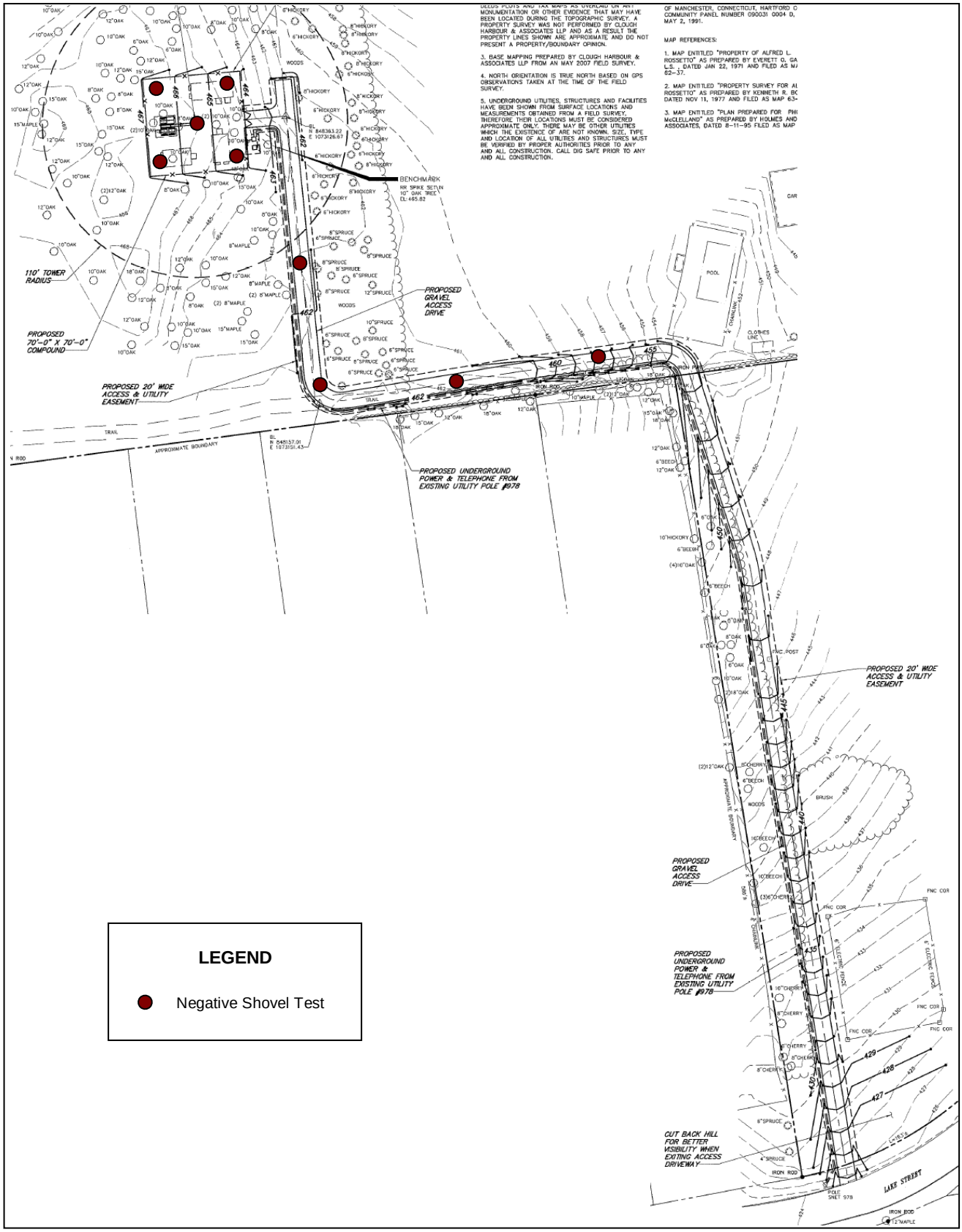


Figure 2. Plan view of the Areas of Potential Effect depicting locations of shovel tests.

Figure 3. Overview photo of the proposed tower location, facing northwest.

Figure 4. Overview photo of the proposed tower location, facing southeast.

Figure 5. Overview photo of the proposed access road, facing east. Note the existing dirt path and residential dwelling.

Figure 6. Overview photo of the proposed access road, facing north. Note this photo was taken along Lake Street.

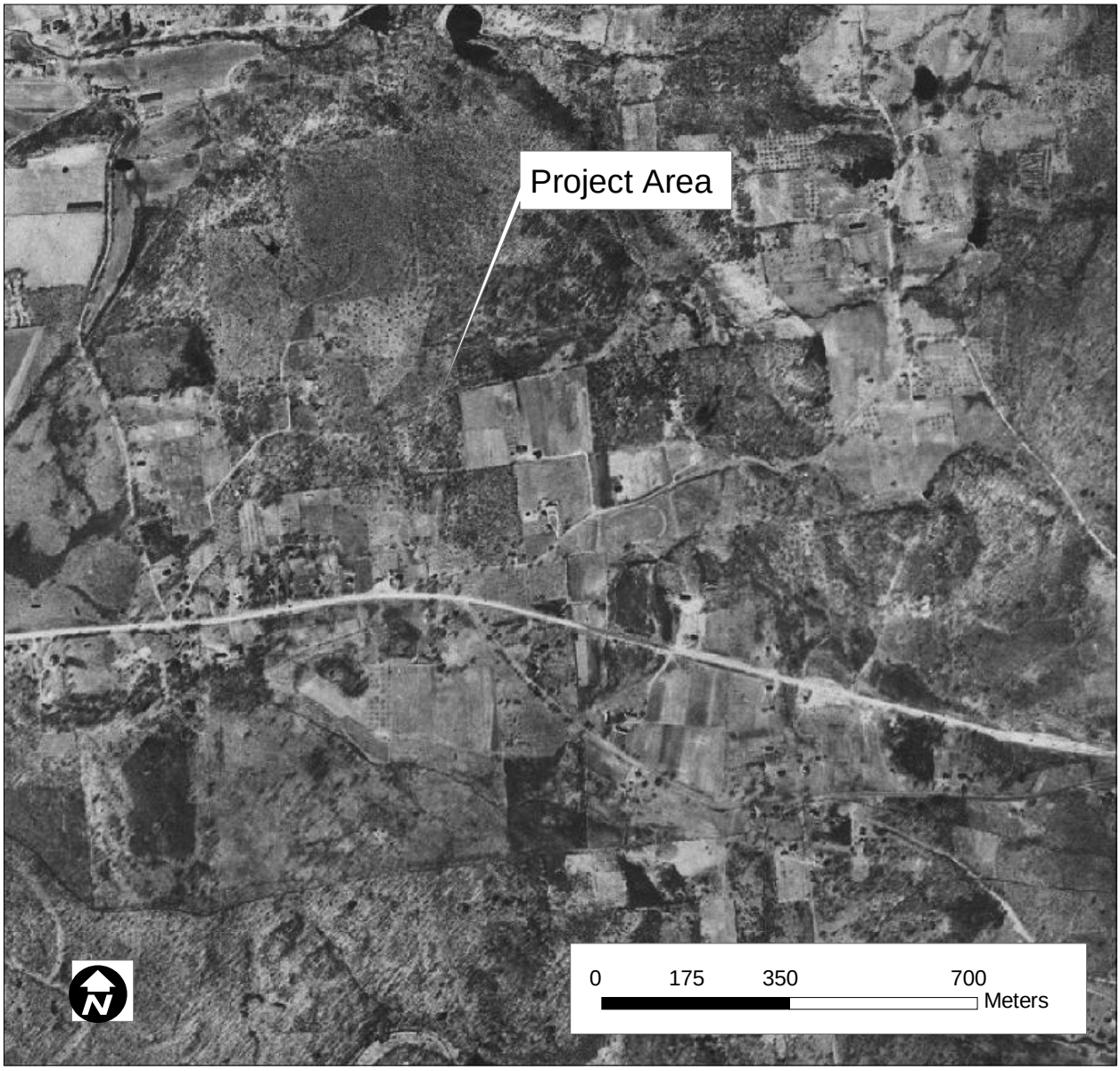


Figure 7. Excerpt from a 1934 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

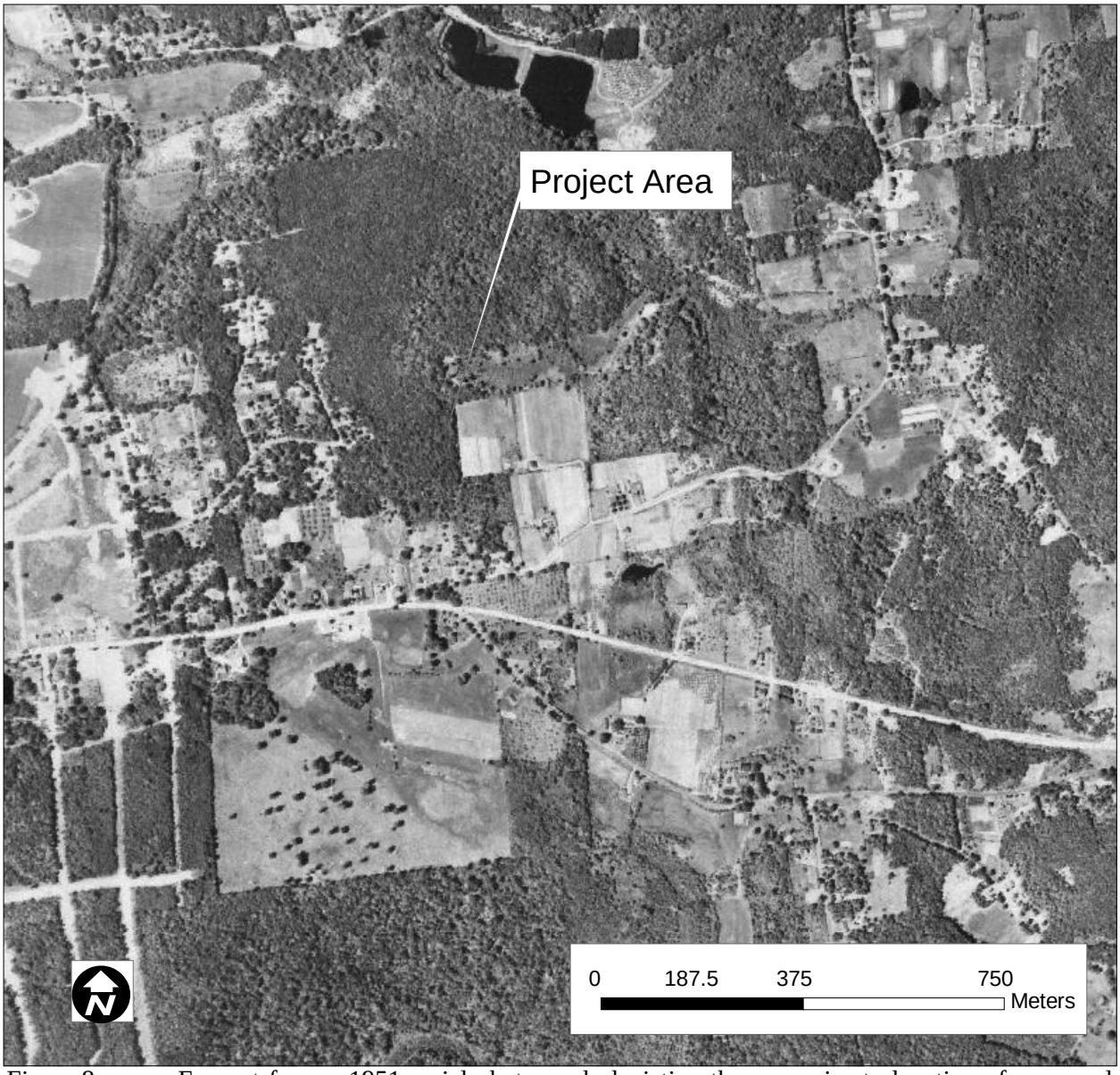


Figure 8. Excerpt from a 1951 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

Figure 9. Excerpt from a 1970 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

Figure 10. Excerpt from a 1986 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

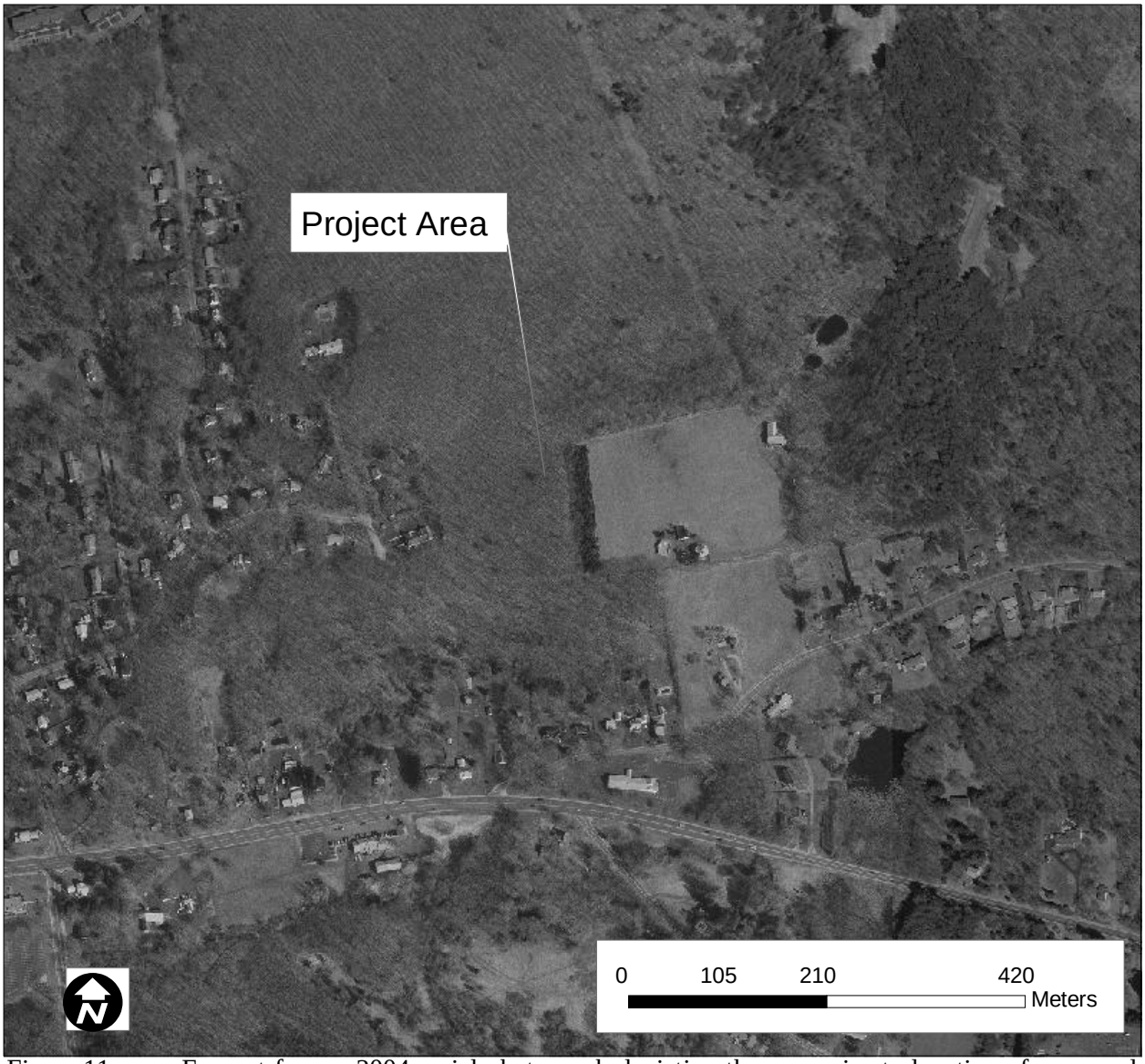


Figure 11. Excerpt from a 2004 aerial photograph depicting the approximate location of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

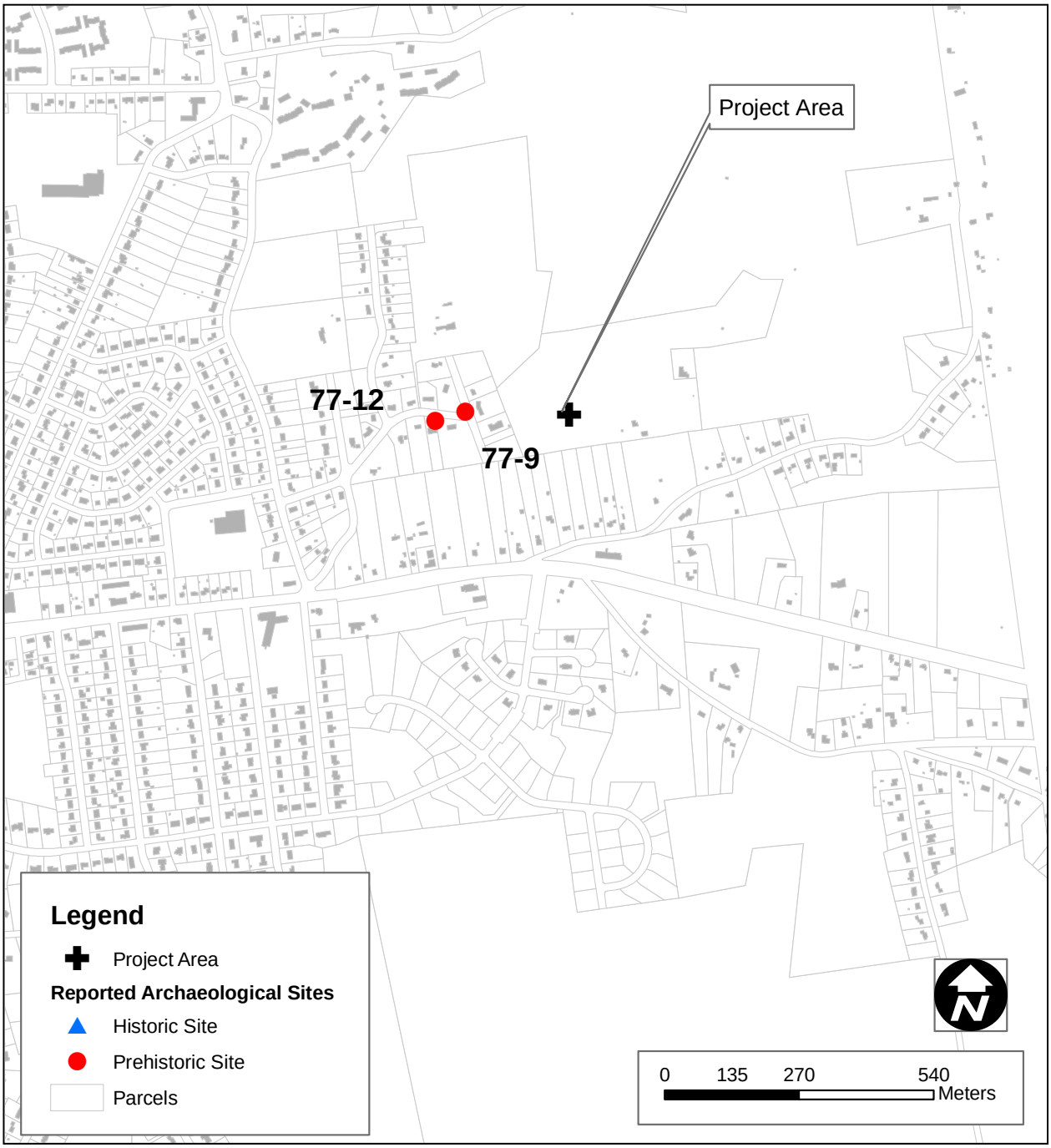


Figure 12. Map of previously identified archeological sites situated in the vicinity of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

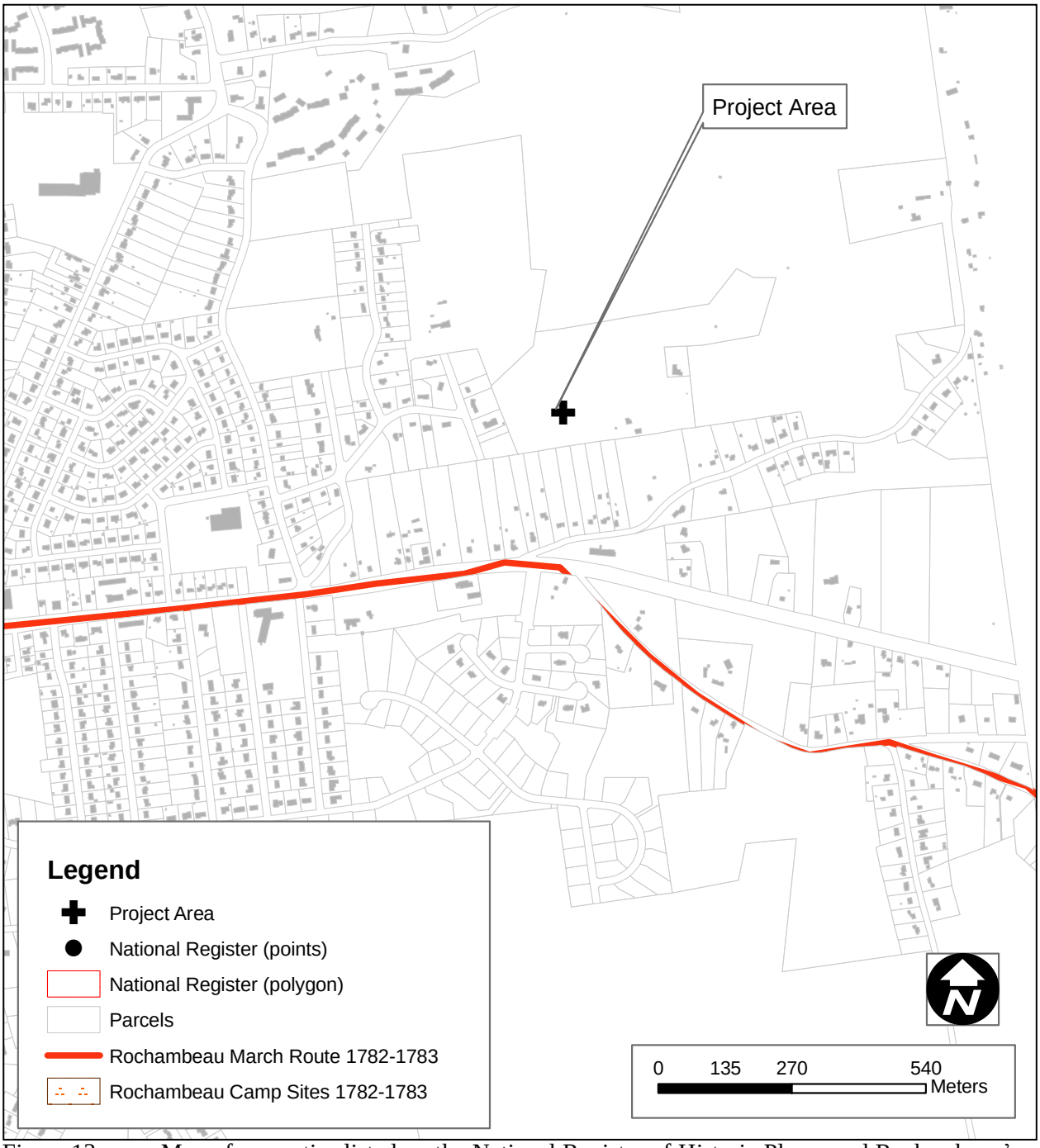
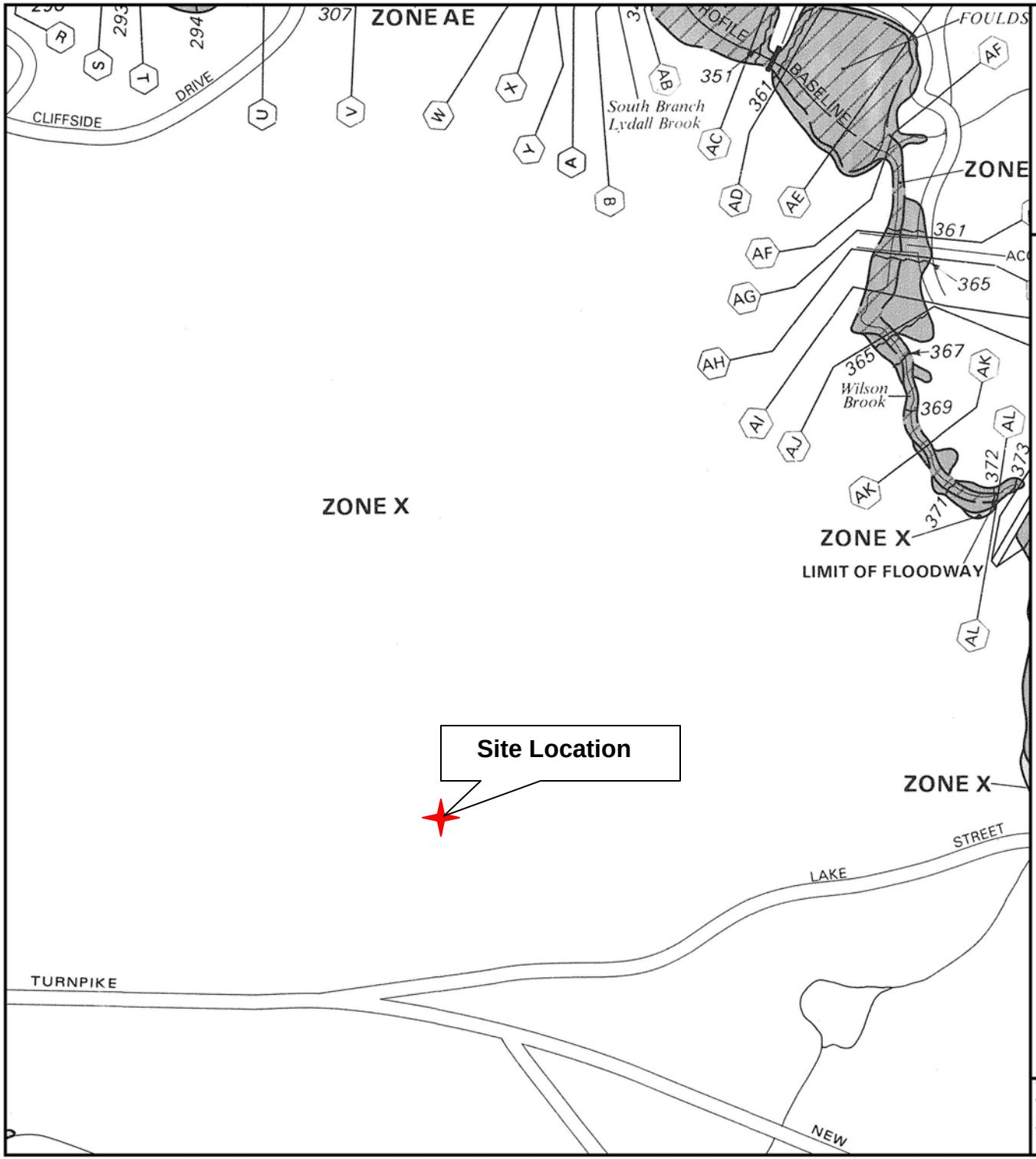


Figure 13. Map of properties listed on the National Register of Historic Places and Rochambeau's march route situated in the vicinity of proposed cellular communications CT-999-0074 tower in Manchester, Connecticut.

Appendix G

FEMA Floodplain Map



N

APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
MANCHESTER,
CONNECTICUT
HARTFORD COUNTY

PANEL 4 OF 6
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION

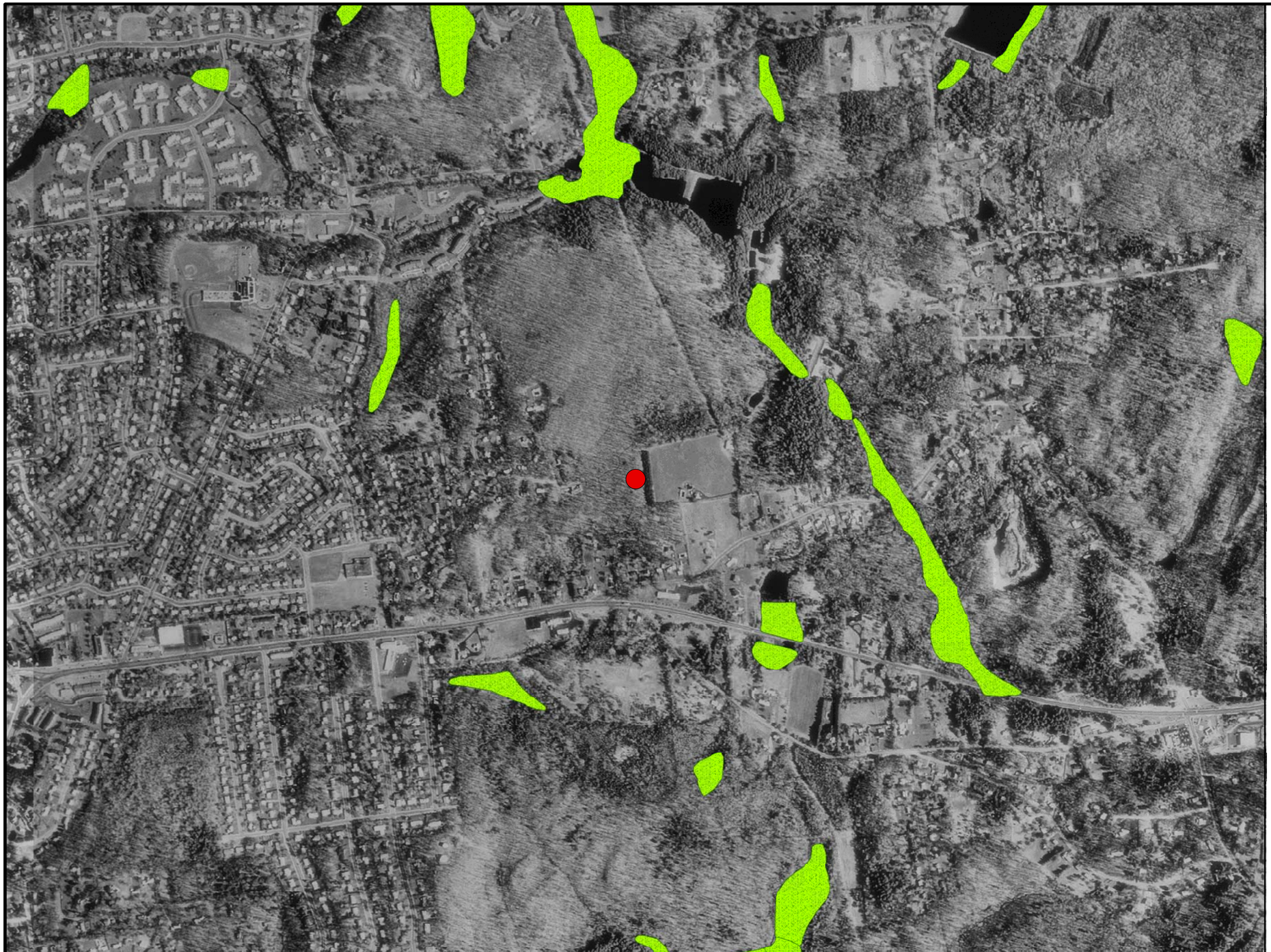
COMMUNITY-PANEL NUMBER
090031 0004 D

MAP REVISED:
MAY 2, 1991

Federal Emergency Management Agency

Appendix H

Wetlands Map



0 250 500 1,000 1,500 2,000 2,500

SCALE IN FEET

0 75 150 300 450 600 750

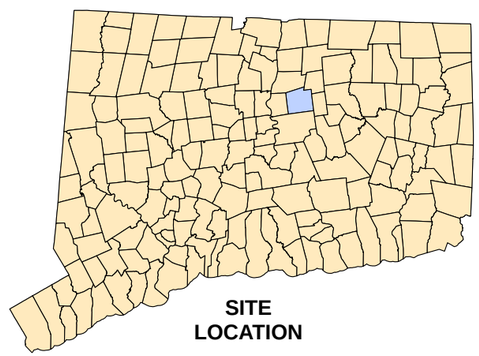
SCALE IN METERS

LEGEND

SITE LOCATION

WETLANDS

CONNECTICUT



SITE LOCATION

SOURCE:
1. CTDEP GIS AERIAL PHOTO DATA SET

2. FISH AND WILDLIFE NATIONAL WETALNDS INVENTORY GIS DATA LAYER.

DRAWN BY: CTH	
REVISED BY:	
CHECKED BY:	
DATE: 10-15-07	APPROVED BY:

NATIONAL WETLAND INVENTORY LOCATION MAP

OPTASITE
93 LAKE STREET
MANCHESTER, CONNECTICUT

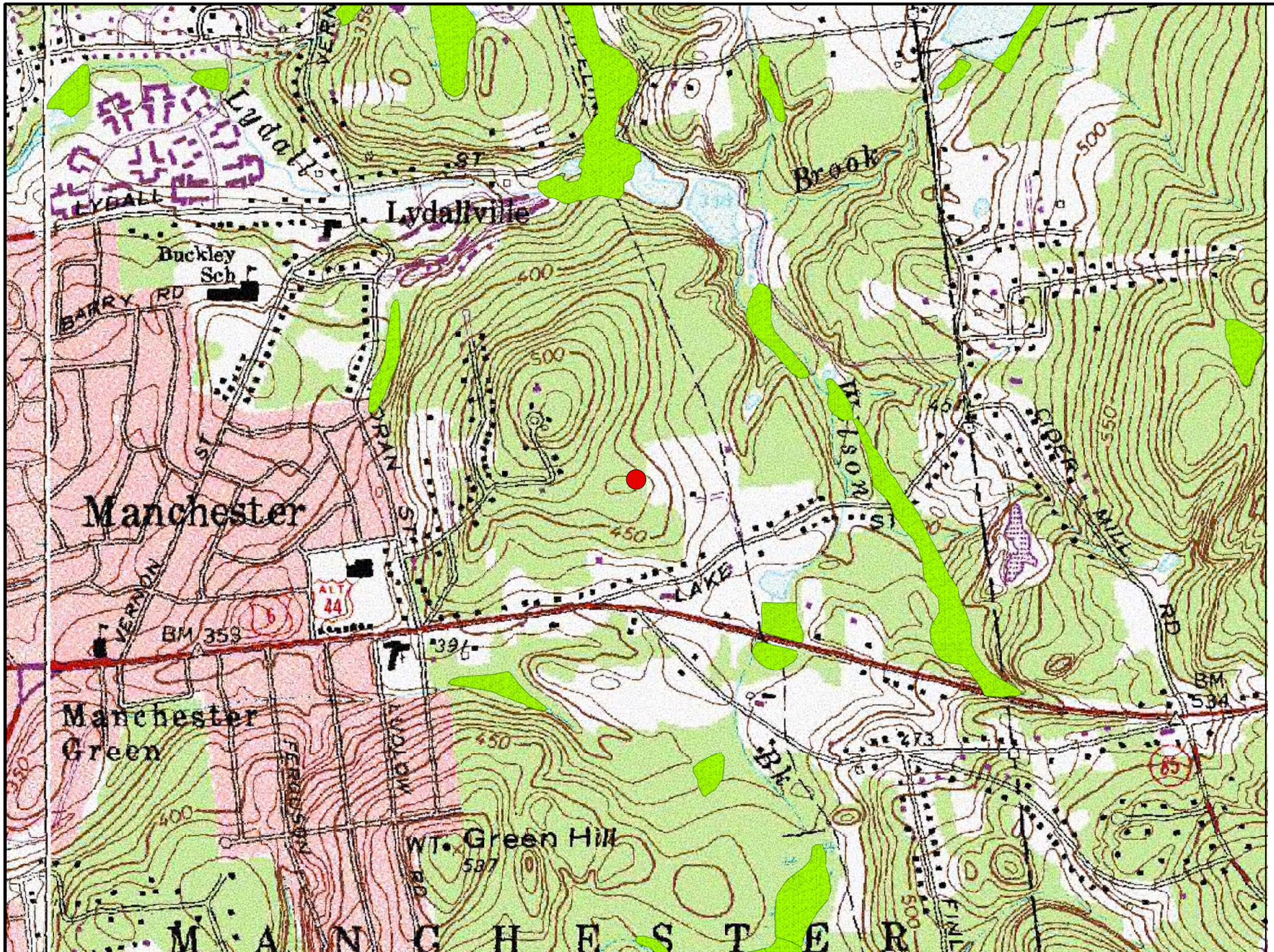
PROJ NO.: 88653 | FILE NAME: FIGURE 1

KLEINFELDER

99 LAMBERTON ROAD, SUITE 201
WINDSOR, CONNECTICUT
PH. 860-683-4200 FAX 860-683-4206
www.kleinfelder.com

FIGURE:

1



0 250 500 1,000 1,500 2,000 2,500

SCALE IN FEET

0 75 150 300 450 600 750

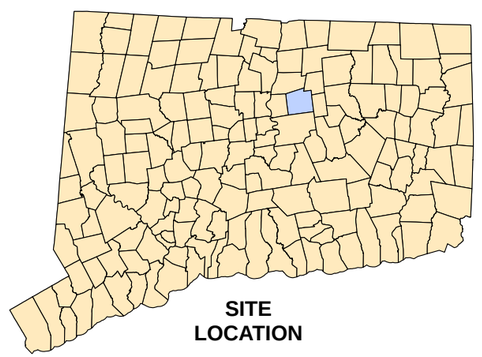
SCALE IN METERS

LEGEND

SITE LOCATION

WETLANDS

CONNECTICUT



SITE LOCATION

SOURCE:
1. CTDEP TOPOGRAPHIC MAPS DATA SET (7.5' TOPOGRAPHIC MAP, MANCHESTER AND ROCKVILLE, CONNECTICUT)

2. FISH AND WILDLIFE NATIONAL WETALNDS INVENTORY GIS DATA LAYER.

DRAWN BY: CTH	NATIONAL WETLAND INVENTORY LOCATION MAP
REVISED BY:	
CHECKED BY:	
DATE: 10-15-07 / APPROVED BY:	OPTASITE 93 LAKE STREET MANCHESTER, CONNECTICUT
PROJ NO.: 88653	FILE NAME: FIGURE 1

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FIGURE: 1