

# **Visual Analysis Report**

Proposed Telecommunications Facility  
140' Monopole

**Site A: Thompson 98**  
347 Riverside Drive  
North Grosvenordale, CT 06255

**Site B: Thompson 98**  
407 Riverside Drive  
North Grosvenordale, CT 06255

November 2007 - Revision 1

**Prepared for:**

MCF Communications, Inc.  
733 Turnpike Street, Suite 105  
North Andover, MA 01845

**Prepared by:**

Clough Harbour & Associates LLP  
2139 Silas Deane Highway, Suite 212  
Rocky Hill, CT 06067  
CHA Project 14957-1007-1601  
14957-1008-1601

## **INTRODUCTION:**

Clough Harbour & Associates LLP (CHA) conducted a visibility study for the proposed 140'-0" monopole located at both Site A and Site B in North Grosvenordale (Thompson), CT. The purpose of the study was to determine the visual impact, if any, that a proposed 140'-0" monopole would have on the surrounding community within a two mile radius study area of both Site A and Site B. Another purpose of the study was to compare the visual impact for both Site A and Site B to determine which location will have a more substantial impact on the surrounding community. Two techniques were utilized to determine the visual impact within the study area for both Site A and Site B: a computer model using topography and vegetation as constraints to estimate the visual limits and a field analysis to verify the visual limits determined from the computer model. The results of this analysis were then compared for the two sites. Research of the study area was also conducted to determine locations of sensitive visual receptors for both Site A and Site B.

## **SITE & STUDY AREA DESCRIPTION:**

The subject parcel for Site A is approximately 2.05 acres. A majority of the parcel is open land with a masonry business building on the west side of the parcel near Riverside Drive. The proposed facility is located at the approximate parcel center approximately 45' to the east of the existing masonry business building. The base of the tower will be 327' AMSL. The wooded area to the east of the parcel will act as a visual buffer to the adjacent properties to the east.

The subject parcel for Site B is approximately 3.43 acres. A majority of the parcel is wooded land with a residence on the west side of the parcel near Riverside Drive. The proposed facility is located on the east portion of the property in the wooded area. The proposed facility is located approximately 170' east of the existing residence. The base of the tower will be 370' AMSL. The wooded area surrounding the proposed facility will act as a visual buffer to the adjacent parcels.

For both Site A and Site B, the topography within the study area consists of hills ranging from 300' AMSL to 550' AMSL. Approximately 6,747 acres, or 84%, of the 8,053 acre study area is covered with vegetation. The rolling hills and vegetation in the study area will help screen the facility in the surrounding study area. Watercourses occupy approximately 390 acres, or 5%, of the study area. There are three historical sites, three parks/recreational areas, one school, and three cemeteries/churches within the study area. Three hiking trails were observed during the field analysis and site research. Also, no scenic roads were observed during the field visual analysis or listed on the CT DOT list of designated scenic roads.

## **COMPUTER MODEL VISUAL ANALYSIS:**

A computer model was developed using a proprietary AutoCAD-based application developed by our Technology Solutions Group to estimate how the surrounding topography and vegetation within a 2 mile radius may obstruct the monopole's visibility. The visibility calculations are completed using digital elevation models (DEM), which is a model of the earth's surface represented by a grid of elevations spaced 10 or 30 meters and is based on USGS topography maps. Each point in the DEM is independently tested for visibility based on the surrounding topography developed from the USGS maps. Once all points have been tested, a map is generated showing areas of visibility and areas screened by topography. Knowing which areas are screened by topography will assist in field determining which areas within the study area may have seasonal visibility. Next, vegetation within the study area is added to the map by digitizing it from 2004 aerial photographs. CHA's application utilizes a vegetation outline layer which is assigned the standard 65'

height. A new map is generated showing only areas of visibility based on topography and the vegetation constraint. The visible areas on the map based on the surrounding topography and vegetation will be verified during the field visual analysis.

### **VISUAL RECEPTOR RESEARCH:**

Research of the surrounding study area was conducted to determine the locations of sensitive visual receptors such as historic sites, historic districts, schools, churches, cemeteries, parks, playgrounds, recreational areas, beaches, and scenic roads. Historic sites and districts were determined from national and state registers. Surrounding schools, churches, cemeteries, parks, playgrounds, recreational areas, and beaches were determined from street maps and town GIS data. Scenic roads were determined from the CTDOT list of designated scenic roads. All of the above sensitive visual receptors were added to the viewshed map.

### **FIELD VISUAL ANALYSIS:**

On August 1, 2007 a field visual analysis was conducted to verify the sensitive visual receptors and the limit of visibility determined from our research and computer model. Weather conditions were favorable on the date of the visibility study as it was a clear and sunny day with winds between 5 and 7 MPH; therefore, visibility of the balloon from surrounding areas was not affected. In general, the field visibility study was conducted as follows: 60" diameter red balloons were flown at a height of 140'-0" above existing grade at each of the proposed site locations, two red balloons were flown at Site A and one red balloon was flown at Site B. Once the balloons were flown, CHA completed a field drive of the surrounding area to determine the visibility of the balloons, and thus the proposed tower. Visibility from the sensitive visual receptors was our primary focus so photos were taken from each of these locations. Photos were also taken from major streets, intersections, and residential areas; from key areas where the balloon was visible; and from key areas where it was not visible. The limits of visibility determined from the computer model were field verified and adjusted as needed. Areas of potential seasonal visibility were field determined and marked on the viewshed map. Finally, the number of residences within the seasonal and year round visible areas was determined.

### **CONCLUSION:**

The results of our visual study are summarized in the following attachments: Attachment A: Site A Viewshed Map, Attachment B: Site B Viewshed Map, Attachment C: Site A Photosims, and Attachment D: Site B Photosims. The results are also summarized in a comparative format in the below chart:

<b>VISUAL COMPARISON CHART</b>			
<b>ITEM</b>	<b>SITE A</b>	<b>SITE B</b>	<b>LEAST VISUAL IMPACT</b>
<b>1. RESIDENCE COUNT</b>			
YEAR ROUND VISIBILITY			
Riverside Drive	3	13	SITE A
West Side Drive	0	3	SITE A
SEASONAL VISIBILITY			
Riverside Drive	5	1	SITE B
West Side Drive	0	2	SITE A
<b>2. NON-VISIBLE AREAS</b>			
Screened by Topography	4,747 acres	4,564 acres	SITE A
Screened by Vegetation	3,277.9 acres	3,450 acres	SITE B
<b>3. VISIBLE AREAS</b>			
Year Round Visibility	22.5 acres	33 acres	SITE A
Seasonal Visibility	5.60 acres	6 acres	SITE A
<b>4. VISUAL RECEPTORS</b>			
Historic Sites	0	0	SAME
Parks/Recreational Areas	0	0	SAME
Schools	0	0	SAME
Churches / Cemeteries	0	0	SAME
Scenic Roads	0	0	SAME
Trails	0	0	SAME

As can be seen in the above table, the visibility for Site A and Site B is similar in all categories except the residential impact and year round visual impact. Site B impacts more residences since it is closer to the residential area on Riverside Drive and closer to the condominiums on Westside Drive. Site A will not impact the condos on Westside Drive; on the other hand, Site B will impact three condos year round and two condos seasonally on Westside Drive. Site B will impact ten more residences year round on Riverside Drive. Site B will impact four fewer residences seasonally on Riverside Drive, but only because most of the residences with a seasonal view for Site A have a year round view for site B. The residential impact is the main difference to take into consideration when determining which site offers the least visual impact.

Both sites have similar acreages screened by topography and vegetation: Site A has slightly more acreage screened by topography and Site B has slightly more acreage screened by vegetation. The total area screened by both vegetation and topography is very similar. The differences in areas screened by vegetation or topography are minimal and neither site is highly preferable to the other based on areas screened by vegetation and topography.

Both sites also have similar acreages with year round and seasonal visibility, but Site A offers the least visual impact in both categories. Site A has 10.5 less acres of year round visibility, and 0.40 less acres of seasonal visibility. The difference in seasonal visibility is minimal, but the 10.5 less acres of year round visibility makes Site A more preferred.

Both sites impact no sensitive visual receptors. Neither site is visible from historic sites, parks or recreational areas, schools, churches, cemeteries, scenic roads, or hiking trails. There is no advantage between the two sites when considering impact on surrounding visual receptors.

Overall, Site A seems to offer the least visual impact to the surrounding community. The difference in residential impact is a major benefit for Site A. Also, the 10.5 fewer acres of year round visibility is also another key difference which makes Site A more preferred. Site A is the preferred site when considering visual impact.

**ATTACHMENT A**  
**SITE A: THOMPSON 98**  
**VIEWSHED MAP**

**NOTES:**

1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be non-visible utilizing the process described in note 2.
2. Visible areas were estimated from aerial photos and ground surveys within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual survey.
3. Non-visible areas were estimated from a computer generated topography & vegetation analysis and field verification of vegetation & building screening within public R.O.W. and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65' high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W. or public properties was not field verified.
4. Historical areas were determined from national and state historical registers.
5. Parks, schools, cemeteries, and churches were determined from street maps and field observations.
6. Scenic roads, if any, were determined from the CDDOT list of designated scenic roads and field observations.

**Legend**

	APPROXIMATE LOCATION OF PROPOSED MONOPOLE		COMPUTER SIMULATION PHOTOGRAPH LOCATION
	APPROXIMATE LIMIT OF SEASONAL TOWER VISIBILITY		APPROXIMATE LIMIT OF YEAR ROUND TOWER VISIBILITY
	CHURCH/CEMETERY		PARK
	HISTORICAL SITE		SCHOOL
	TRAIL OR SCENIC ROAD		

**Visibility by Acreage**

ITEM	APPROXIMATE ACRES	% OF TOTAL AREA
2 MILE RADIUS AREA	8,053	100%
NOT VISIBLE DUE TO TOPOGRAPHY	4,747	59%
NOT VISIBLE DUE TO VEGETATION	3,277.90	40.65%
VISIBLE YEAR ROUND	22.50	0.28%
POTENTIAL SEASONAL VISIBILITY	5.60	0.07%

**Distances from Photo Locations to Tower**

PHOTO	DIST. (FT.)	PHOTO	DIST. (FT.)
01	2,165	10	8,150
02	2,270	11	9,900
03	1,940	12	12,500
04	430	13	10,700
05	4,300	14	10,900
06	2,100	15	1,700
07	6,000		
08	7,650		
09	3,200		

**Visibility by Residence**

STREET	RESIDENCES
RIVERSIDE DRIVE	3(0) 3(S)

(S) = SEASONAL VIEW  
(V) = YEAR ROUND VIEW

**2 MILE VIEWSHED ANALYSIS MAP**  
**THOMPSON 98A**  
**VISUAL IMPACT ASSESSMENT**

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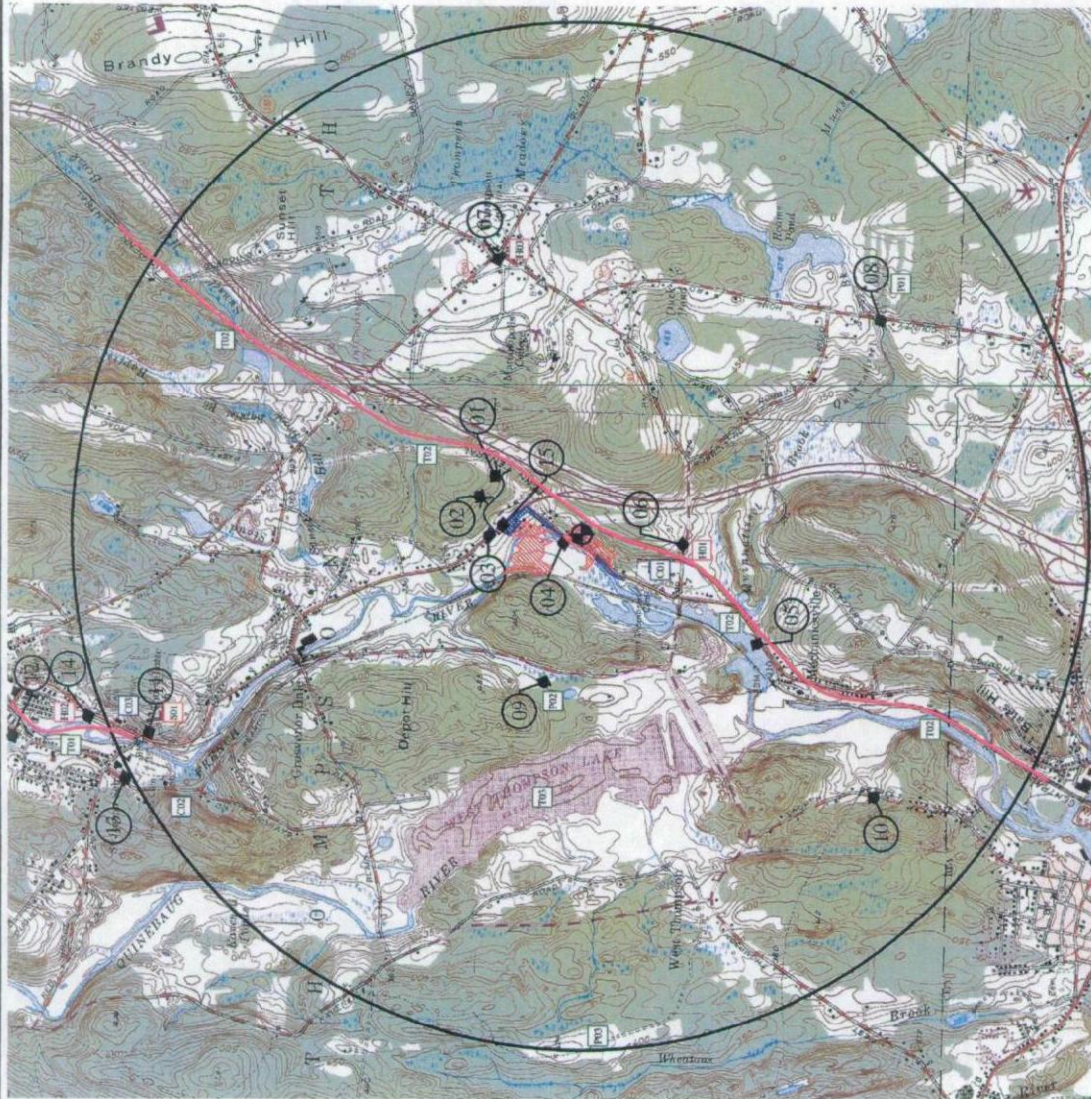
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AUGUST 2007  
0 625' 1250' 2500' 5000'

FIGURE VS-98A



- Historic Sites:**
- THOMPSON HILL HISTORIC DISTRICT (CHURCH & QUACKER ROAD)
  - GEORGE NICHOLS HISTORIC HOUSE AT THOMPSON ROAD
  - NORTH GROSVENORDALE RIVER WALK
  - MILL HISTORIC DISTRICT (BUCKLEY HILL RD, FLOWAL AVE, MARKET AVE, AND MARSHALL STS)
  - CENTRAL RIVER AND FLOWAL STS)
  - BELL HILL RECREATIONAL AREA
  - WEST THOMPSON DAM RECREATIONAL AREA
  - CHURCH/CEMETERY: WEST THOMPSON CEMETERY, ST. JOSEPH CEMETERY, SWISS CEMETERY
  - SCHOOLS: MIDDLEBORO SCHOOL
  - TRAILS: ARLINE TRAIL, ARMY CORPS OF ENGINEERS WEST THOMPSON LAKE TRAILS
- Parks & Recreational Areas:**
- QUINNABET COUNTRY CLUB
  - WEST THOMPSON DAM RECREATIONAL AREA
  - BELL HILL RECREATIONAL AREA
- Church/Cemetery:**
- WEST THOMPSON CEMETERY
  - ST. JOSEPH CEMETERY
  - SWISS CEMETERY
- Schools:**
- MIDDLEBORO SCHOOL
- Trails:**
- NORTH GROSVENORDALE RIVER WALK
  - ARLINE TRAIL
  - ARMY CORPS OF ENGINEERS WEST THOMPSON LAKE TRAILS
- Scenic Roads:**
- 1. Roads with a 2 mile viewshed are shown on the map. CDDOT list of scenic roads were observed during the field visual analysis.

**ATTACHMENT B**  
**SITE B: THOMPSON 98**  
**VIEWSHED MAP**

**NOTES:**  
 1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be non-visible utilizing the process described in note 3.  
 2. Seasonal and year round areas of visibility were determined from a field visual analysis within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual analysis.  
 3. Non-visible areas were estimated from a computer generated topography & vegetation analysis and field verification of vegetation & building screening within public R.O.W. and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65' high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W. or public properties was not field verified.  
 4. Historical areas were determined from national and state historical registers.  
 5. Parks, schools, cemeteries, and churches were determined from street maps and field observations.  
 6. Scenic roads, if any, were determined from the CTDPOT list of designated scenic roads and field observations.

**Legend**

APPROXIMATE LOCATION OF PROPOSED MONOPOLE  
 COMPUTER SIMULATION PHOTOGRAPH LOCATION  
 APPROXIMATE LIMIT OF SEASONAL TOWER VISIBILITY  
 APPROXIMATE LIMIT OF YEAR ROUND TOWER VISIBILITY  
 CHURCH/CEMETERY  
 HISTORICAL SITE  
 PARK  
 SCHOOL  
 TRAIL OR SCENIC ROAD

**Visibility by Acreage**

ITEM	APPROXIMATE ACRES	% OF TOTAL AREA
2 MILE RADIUS AREA	8,053	100%
NOT VISIBLE DUE TO TOPOGRAPHY	4,564	56.7%
NOT VISIBLE DUE TO VEGETATION	3,450	42.82%
VISIBLE YEAR ROUND	33	0.41%
POTENTIAL SEASONAL VISIBILITY	6	0.07%

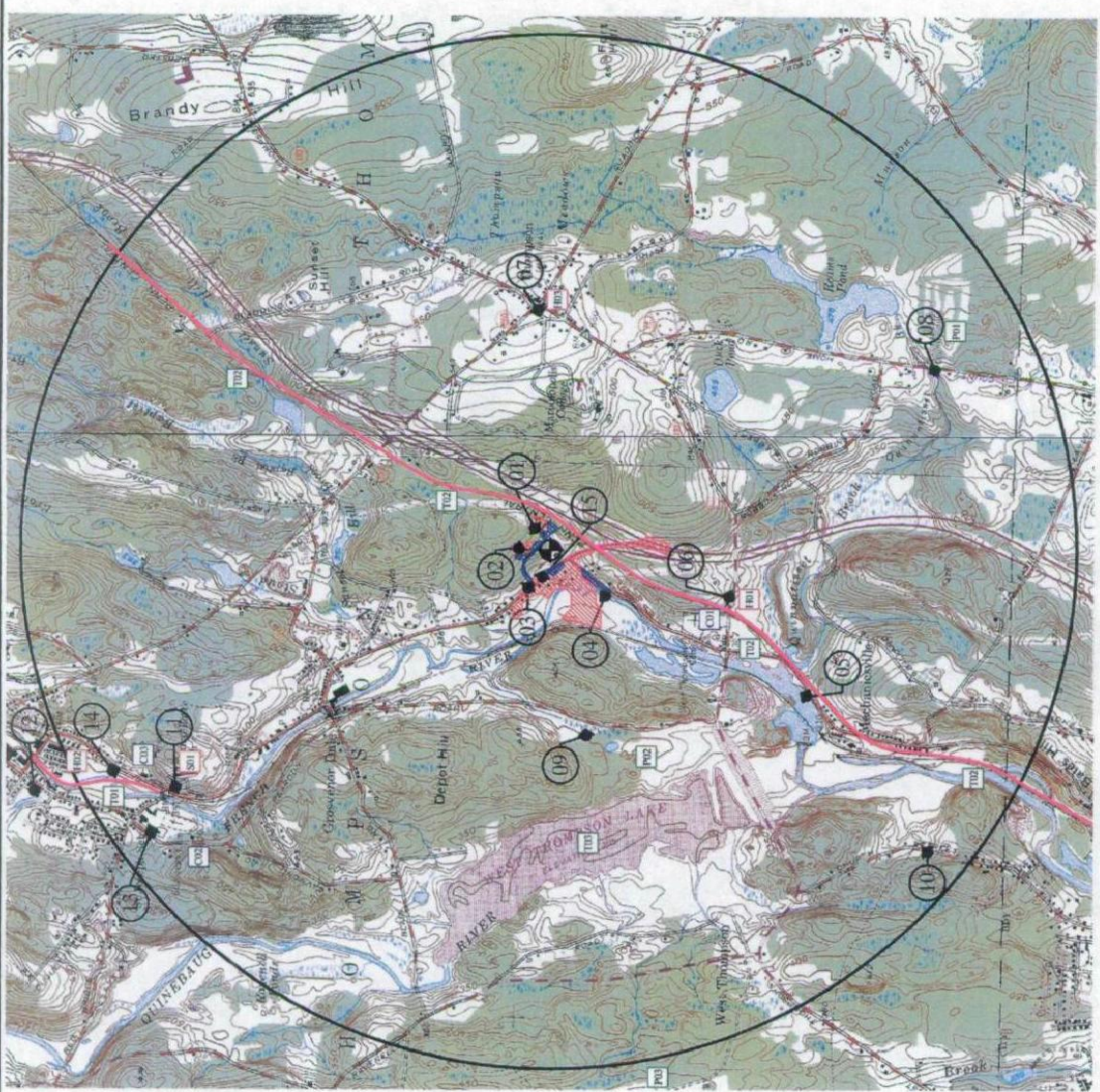
**Distances from Photo Locations to Tower**

PHOTO	DIST. (FT)	PHOTO	DIST. (FT)
01	540	10	9,800
02	640	11	8,900
03	900	12	11,400
04	1,450	13	9,800
05	6,000	14	9,800
06	3,700	15	580
07	5,000		
08	8,500		
09	3,900		

**Visibility by Residence**

STREET	RESIDENCES
RIVERSIDE DRIVE	13(Y) 1(S)
WESTSIDE DRIVE	3(Y) 2(S)

(S) = SEASONAL VIEW  
 (Y) = YEAR ROUND VIEW



**Scenic Roads:**

- No roads within the 2 mile radius were on the CTDPOT list of scenic roads.
- No scenic road age designations were observed during the field visual analysis.

**Trails:**

- NORTH GROSVENORDALE RIVER WALK
- AIRLINE TRAIL
- ARMY CORPS OF ENGINEERS WEST THOMPSON LAKE TRAILS

**Church/Cemetery:**

- WEST THOMPSON CEMETERY
- ST JOSEPH CEMETERY
- WEST CEMETERY

**Schools:**

- MIDDLEBORO MIDDLE SCHOOL

**Parks & Recreational Areas:**

- GUINNESS COUNTRY CLUB
- WEST THOMPSON DAM RECREATIONAL AREA
- BELL HILL RECREATIONAL AREA

**Historic Sites:**

- PROFESSOR JACOBUS HOUSE
- 43 THOMPSON ROAD
- NORTH GROSVENORDALE COUNTRY CLUB
- WEST THOMPSON DAM RECREATIONAL AREA
- BUCKLEY HILL AND LARKS LANE
- CENTRAL RIVER AND HOLLAGE STS.
- THOMPSON HILL (CHASE & GONDREK RD)

**2 MILE VIEWSHED ANALYSIS MAP**  
**THOMPSON 98B**  
**VISUAL IMPACT ASSESSMENT**

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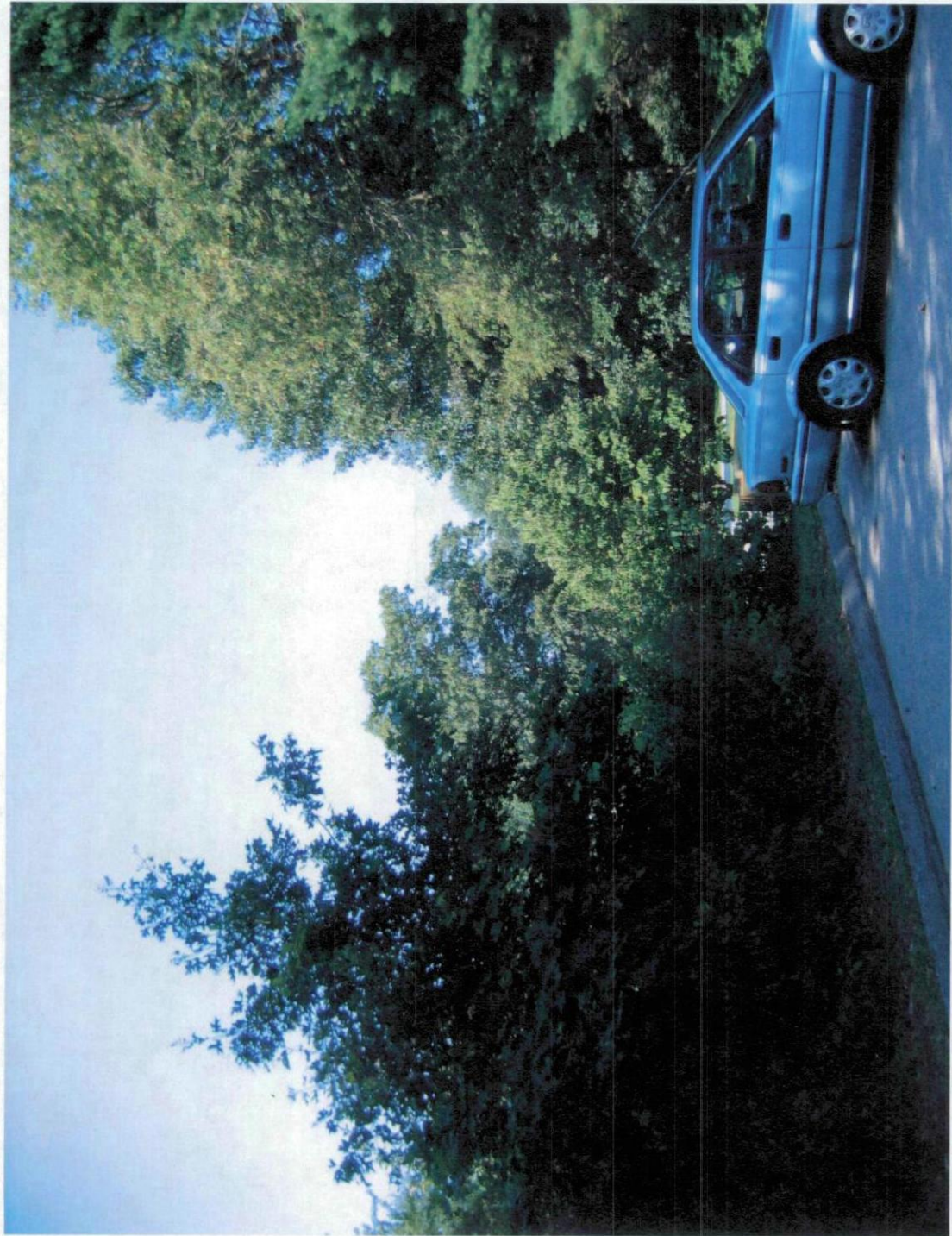
FIGURE VS-98B

AUGUST 2007





**ATTACHMENT C**  
**SITE A: THOMPSON 98**  
**PHOTOSIMS**



Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design



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DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 1 - NON VISIBLE  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

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VIEW 2 - NON-VISIBLE  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

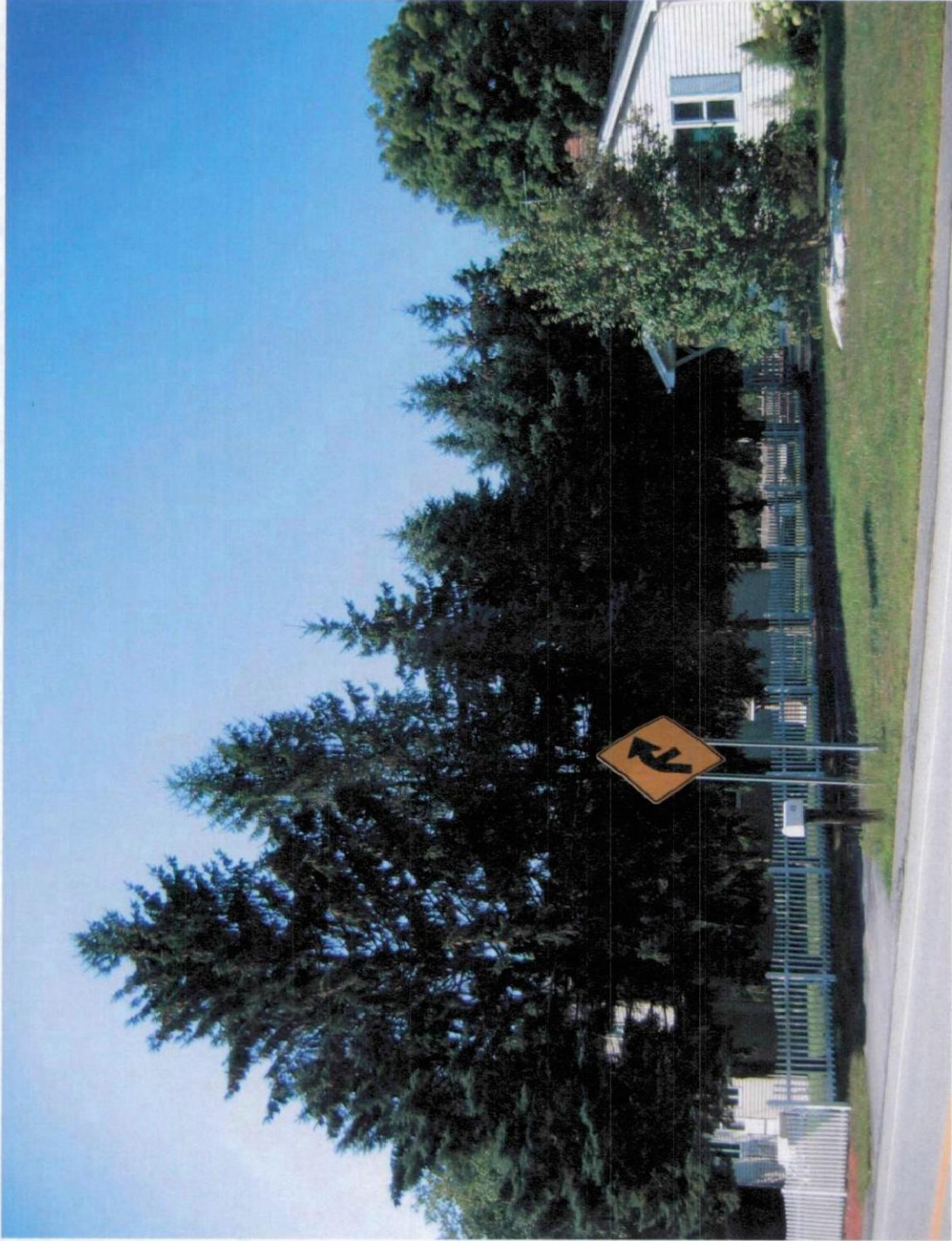


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DATE: AUGUST 2007

SITE: THOMPSON 98A



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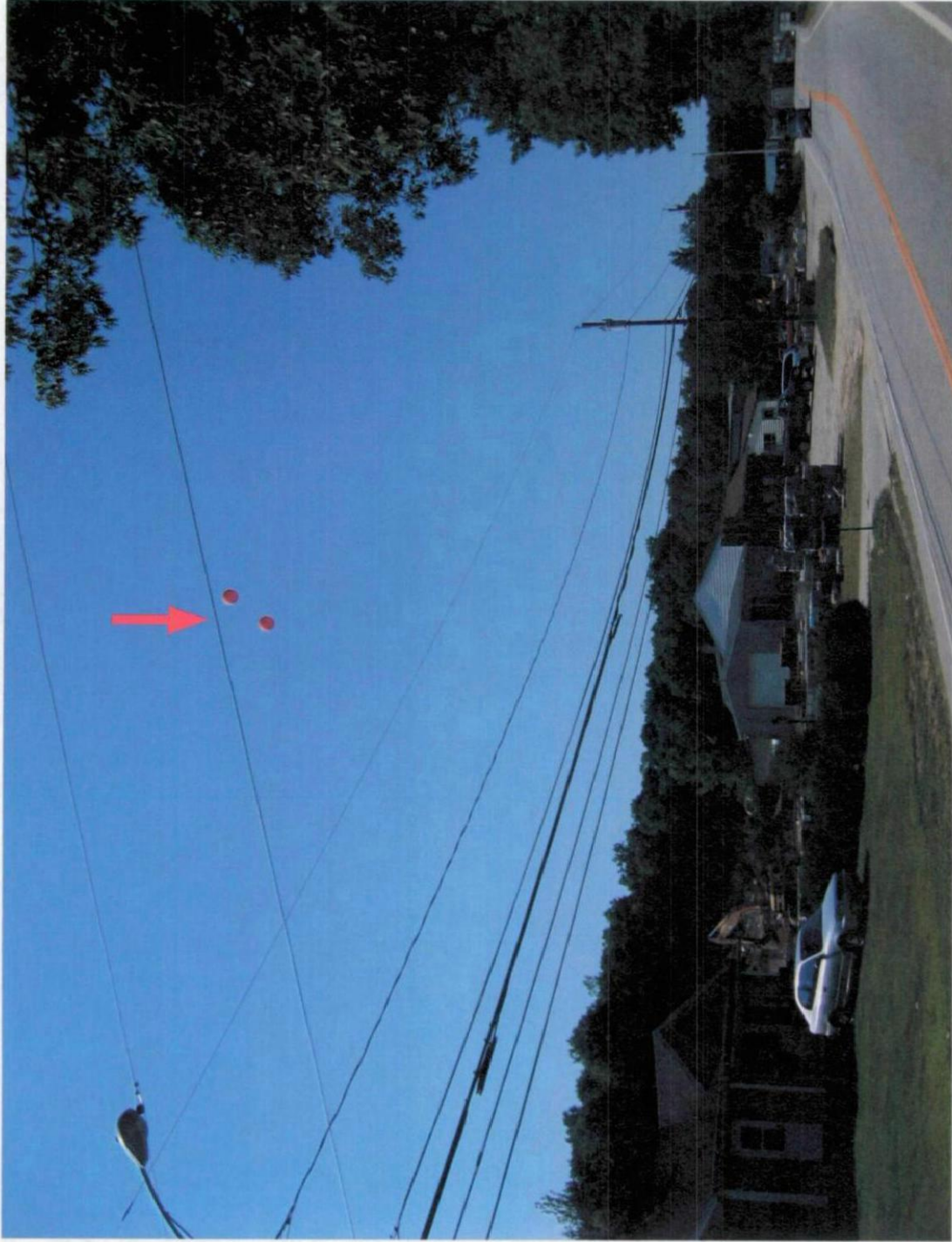
DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 3 - NON-VISIBLE  
FROM 430 RIVERSIDE DRIVE/ROUTE  
12 LOOKING SOUTH TOWARDS SITE

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DATE: AUGUST 2007

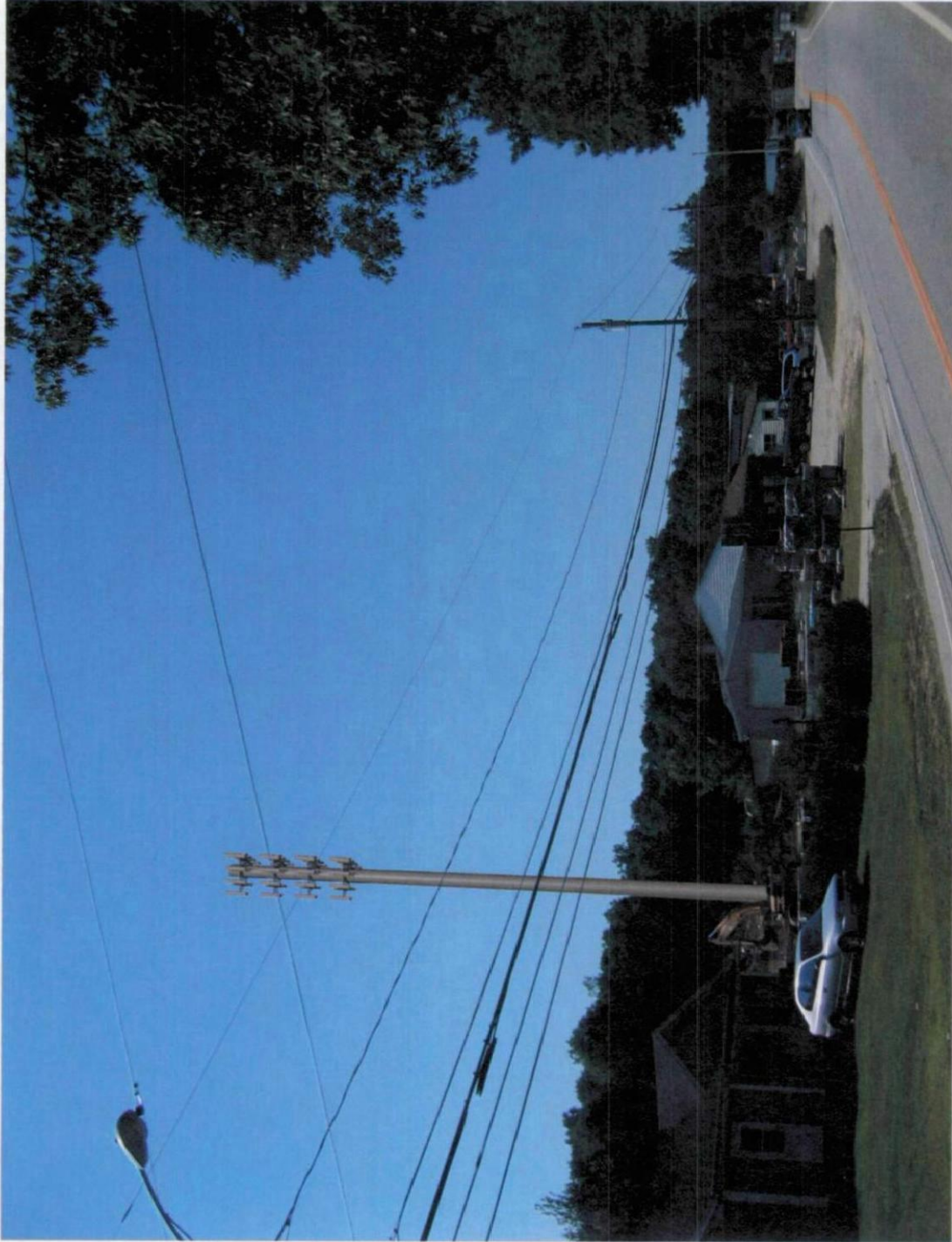
SITE: THOMPSON 98A

**VIEW 4 - EXISTING  
FROM 353 RIVERSIDE DRIVE/ROUTE  
12 LOOKING SOUTH TOWARDS SITE**

NOTE: Balloon flown 80' to the west of actual tower location due to excavation activity near proposed tower location.

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DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 4 - PROPOSED  
FROM 353 RIVERSIDE DRIVE/ROUTE  
12 LOOKING SOUTH TOWARDS SITE

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VIEW 5 - NON-VISIBLE  
FROM RIVERSIDE DRIVE/ROUTE 12  
LOOKING NORTHEAST TOWARDS  
SITE

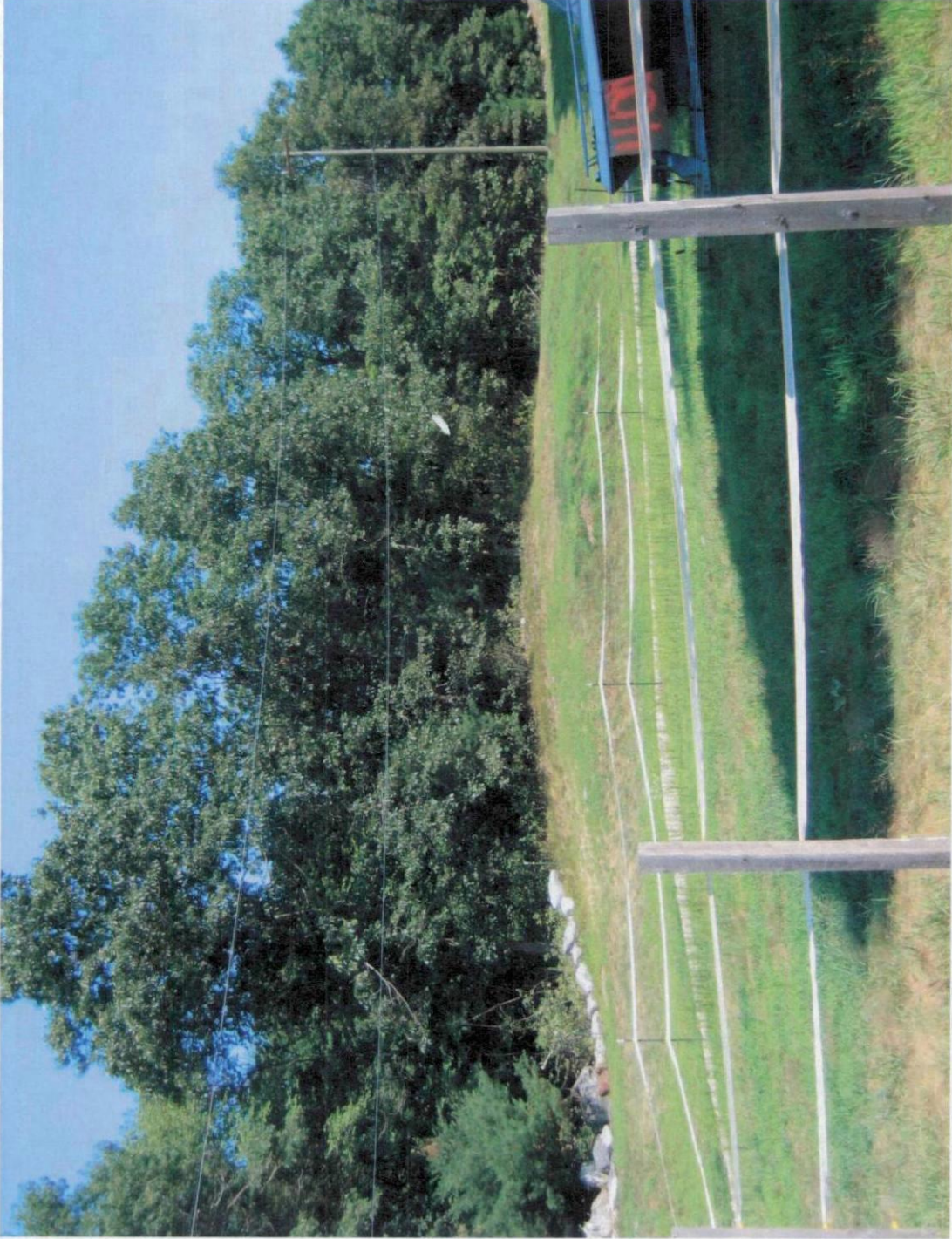


DATE: AUGUST 2007

SITE: THOMPSON 98A

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DATE: AUGUST 2007

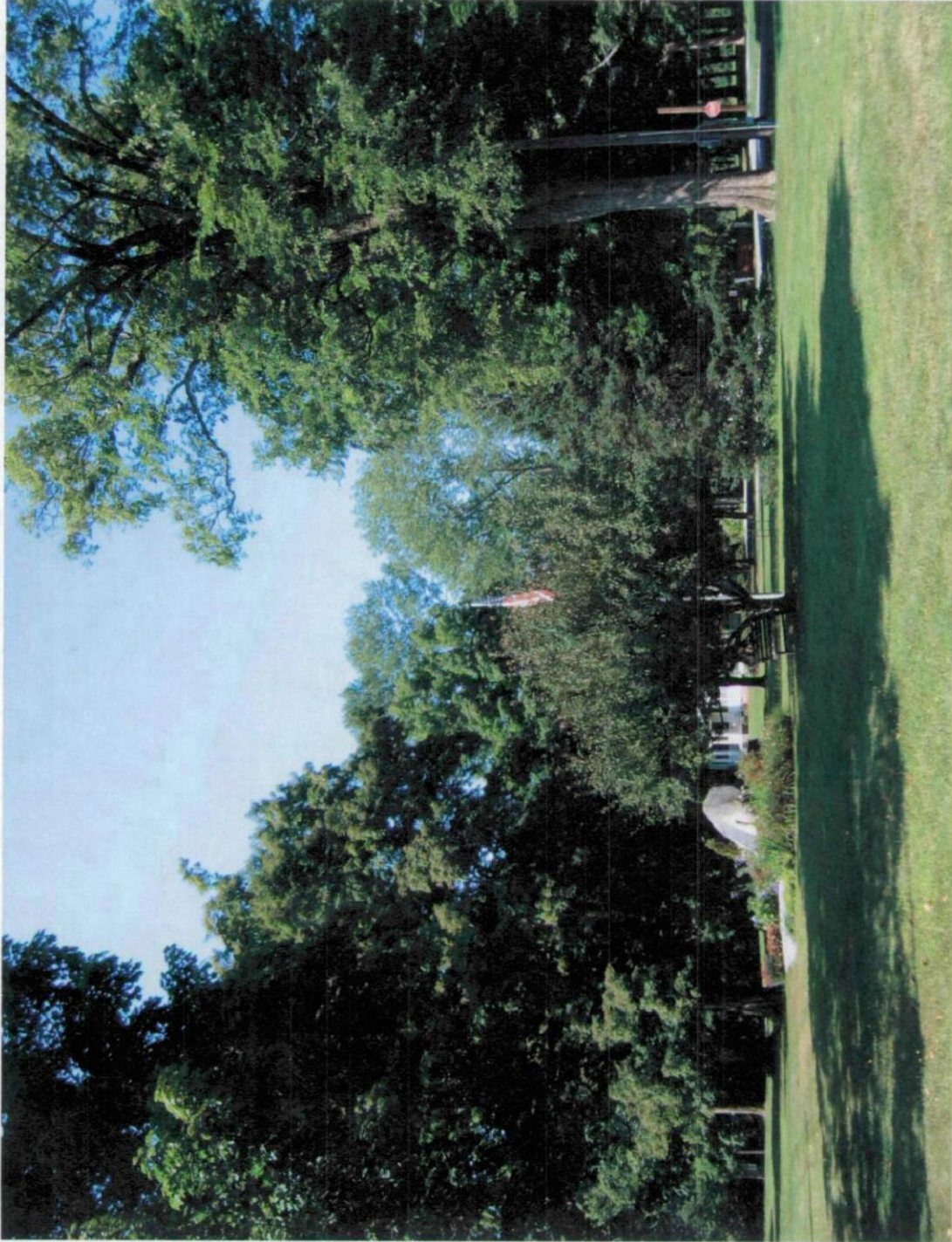
SITE: THOMPSON 98A

VIEW 6 - NON-VISIBLE  
FROM HISTORIC GEORGE NICHOLS  
PICKERING HOUSE (42 THOMPSON  
ROAD) LOOKING NORTH TOWARDS  
SITE

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DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 7 - NON-VISIBLE  
FROM THOMPSON HILL HISTORIC  
DISTRICT LOOKING WEST  
TOWARDS SITE

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DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 8 - NON-VISIBLE  
FROM QUINNATISSET COUNTRY  
CLUB LOOKING NORTHWEST  
TOWARDS SITE

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DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 9 - NON-VISIBLE  
FROM WEST THOMPSON  
RECREATIONAL AREA LOOKING  
EAST TOWARDS SITE

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VIEW 10 - NON-VISIBLE  
FROM 91 CHURCH STREET  
LOOKING NORTHEAST TOWARDS  
SITE



DATE: AUGUST 2007

SITE: THOMPSON 98A

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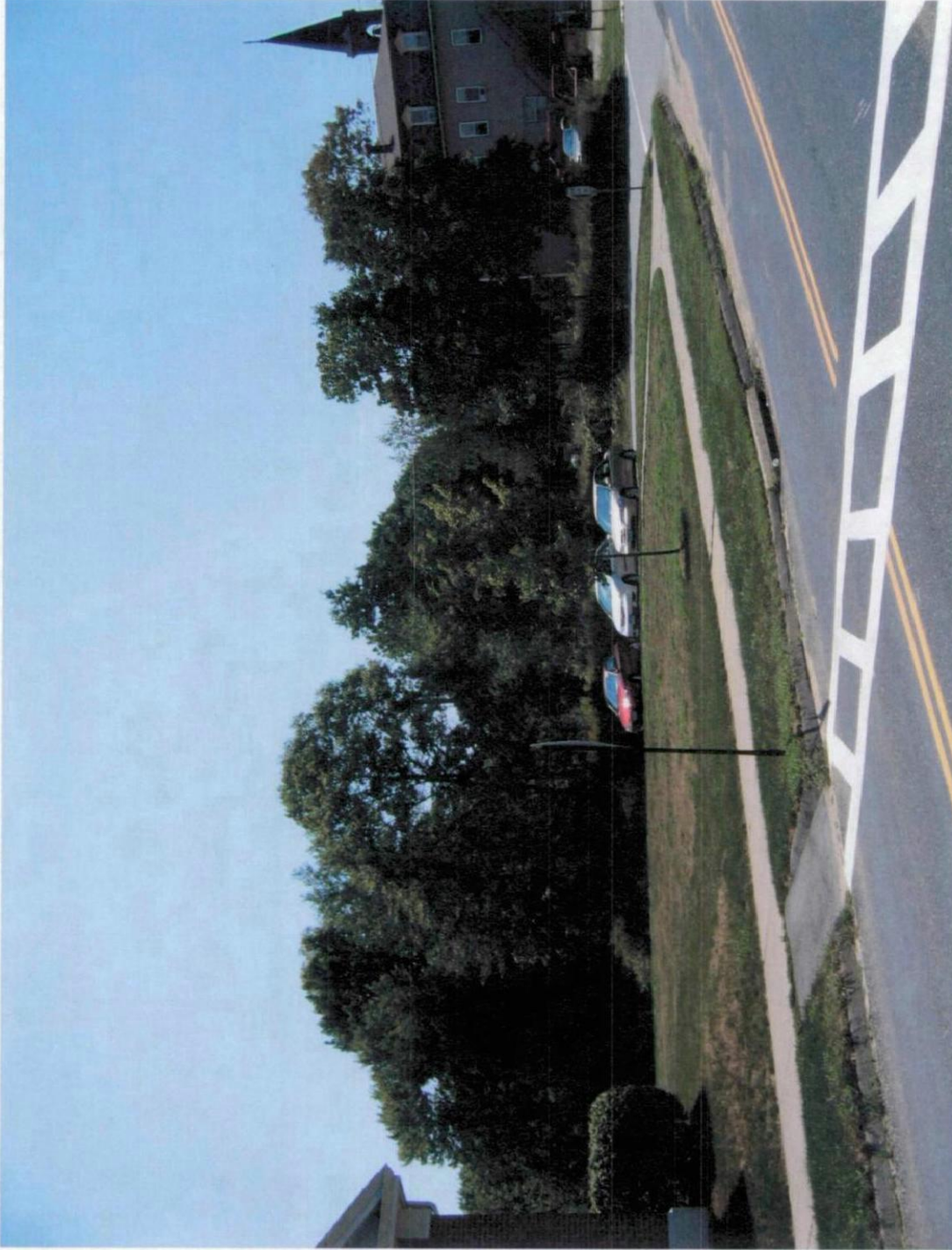
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VIEW 11 - NON-VISIBLE  
FROM TOURTELLOTTE MEMORIAL  
HIGH SCHOOL LOOKING  
SOUTHEAST TOWARDS SITE



DATE: AUGUST 2007 SITE: THOMPSON 98A

**MCF Communications, Inc.**  
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NORTH ANDOVER, MA 01845



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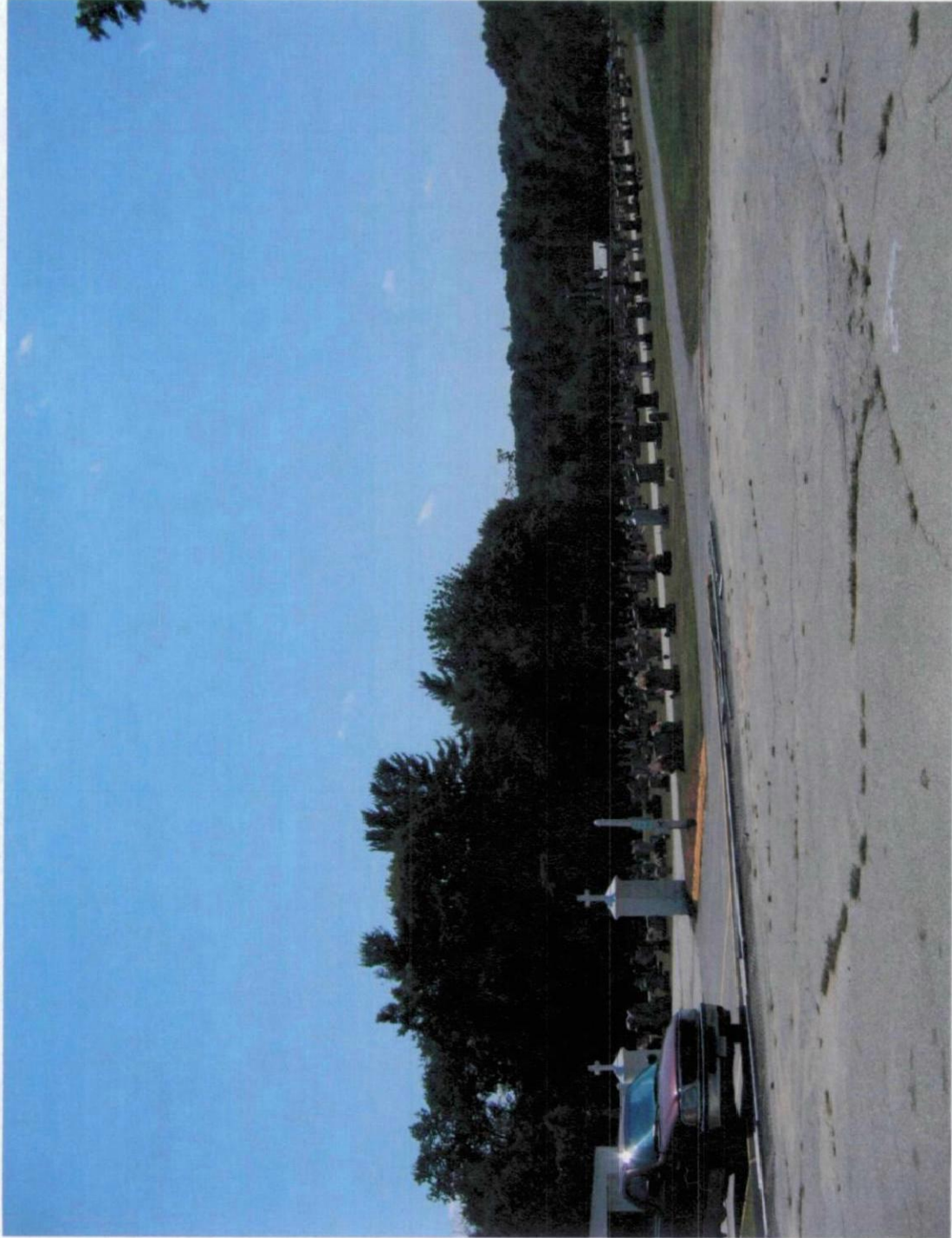
DATE: AUGUST 2007

SITE: THOMPSON 98A

VIEW 12 - NON-VISIBLE  
FROM NORTH GROSVENORDALE  
MILL HISTORIC DISTRICT LOOKING  
SOUTHEAST TOWARDS SITE

**MCF Communications, Inc.**

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NORTH ANDOVER, MA 01845



Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design



CLOUGH HARBOUR & ASSOCIATES LLP

VIEW 13 - NON-VISIBLE  
FROM ST JOSEPH CEMETERY  
LOOKING SOUTHEAST TOWARDS  
SITE

**MCF Communications, Inc.**  
733 TURNPIKE STREET, SUITE 105  
NORTH ANDOVER, MA 01845

DATE: AUGUST 2007

SITE: THOMPSON 98A



Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design

VIEW 14 - NON-VISIBLE  
FROM SWISS CEMETERY LOOKING  
SOUTHEAST TOWARDS SITE



DATE: AUGUST 2007

SITE: THOMPSON 98A

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NORTH ANDOVER, MA 01845





Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design



DATE: AUGUST 2007

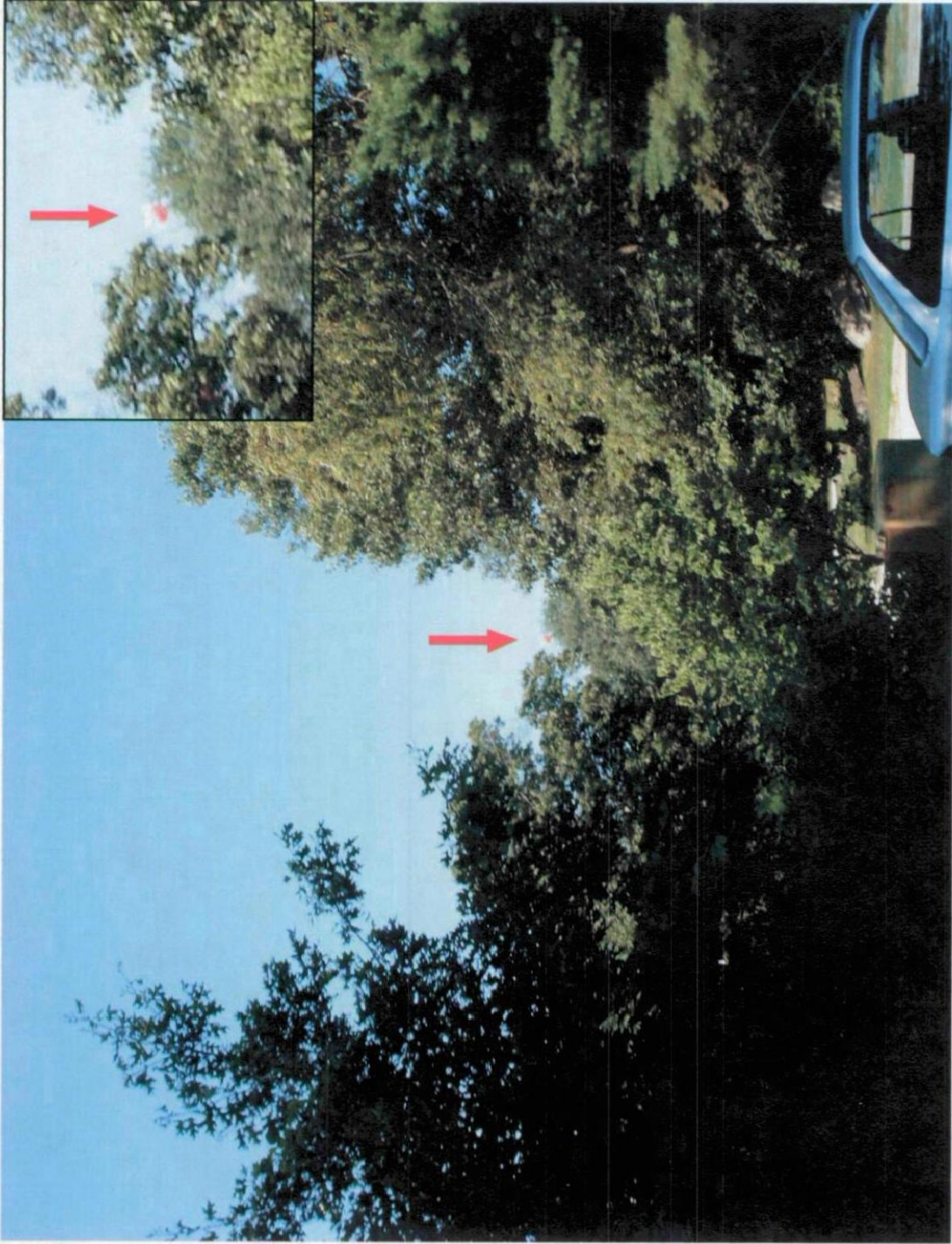
SITE: THOMPSON 98A

VIEW 15 - NON-VISIBLE  
FROM RIVERSIDE DRIVE/ROUTE 12  
LOOKING SOUTH TOWARDS SITE

**MCF Communications, Inc.**

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**ATTACHMENT D**  
**SITE B: THOMPSON 98**  
**PHOTOSIMS**



Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design

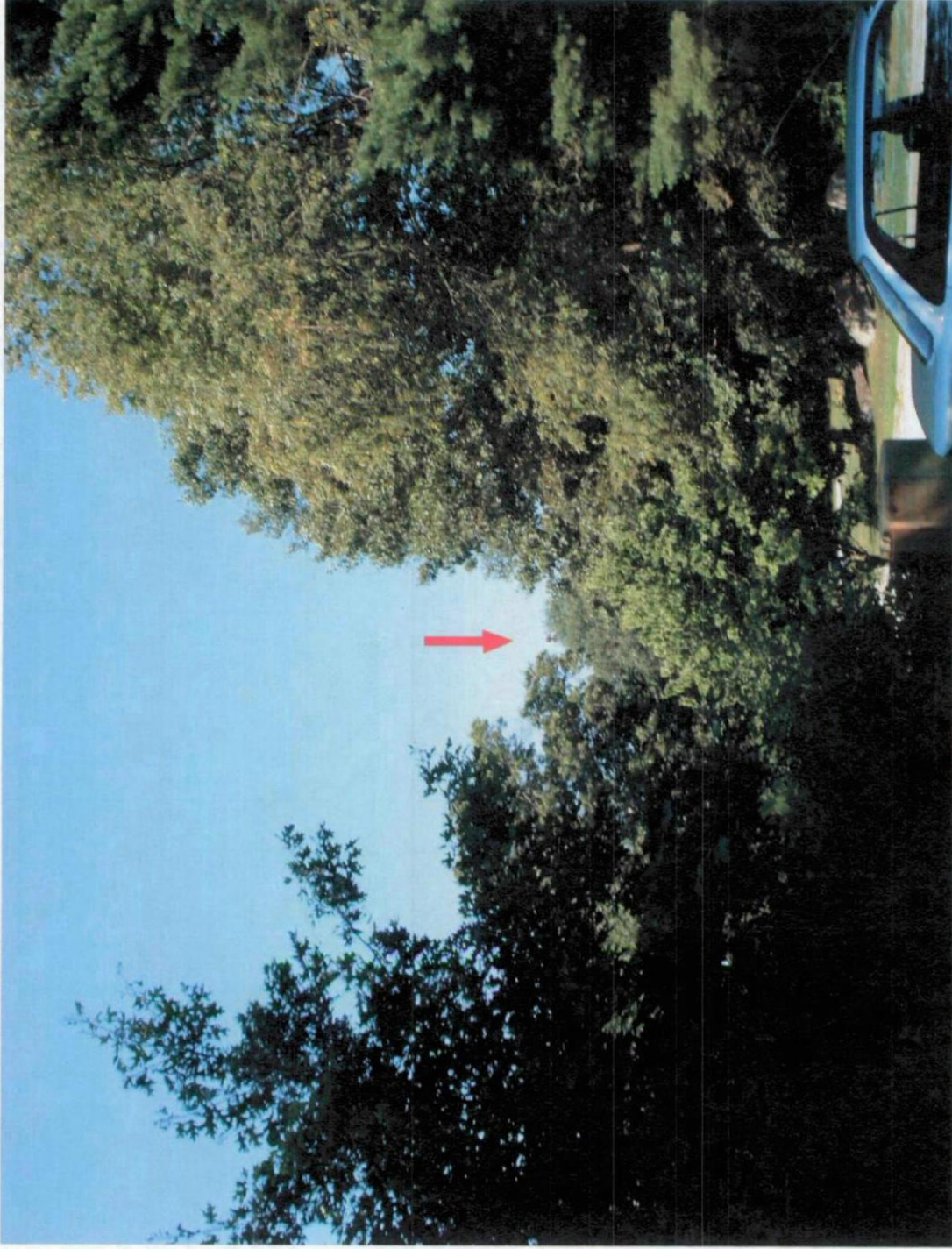
VIEW 1 - EXISTING  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

**CHW**  
CLOUGH HARBOUR & ASSOCIATES LLP

DATE: AUGUST 2007

SITE: THOMPSON 98B

**MCF Communications, Inc.**  
733 TURNPIKE STREET, SUITE 105  
NORTH ANDOVER, MA 01845



Photosim for conceptual purposes only - actual antenna & equipment locations to be determined based on final engineering design

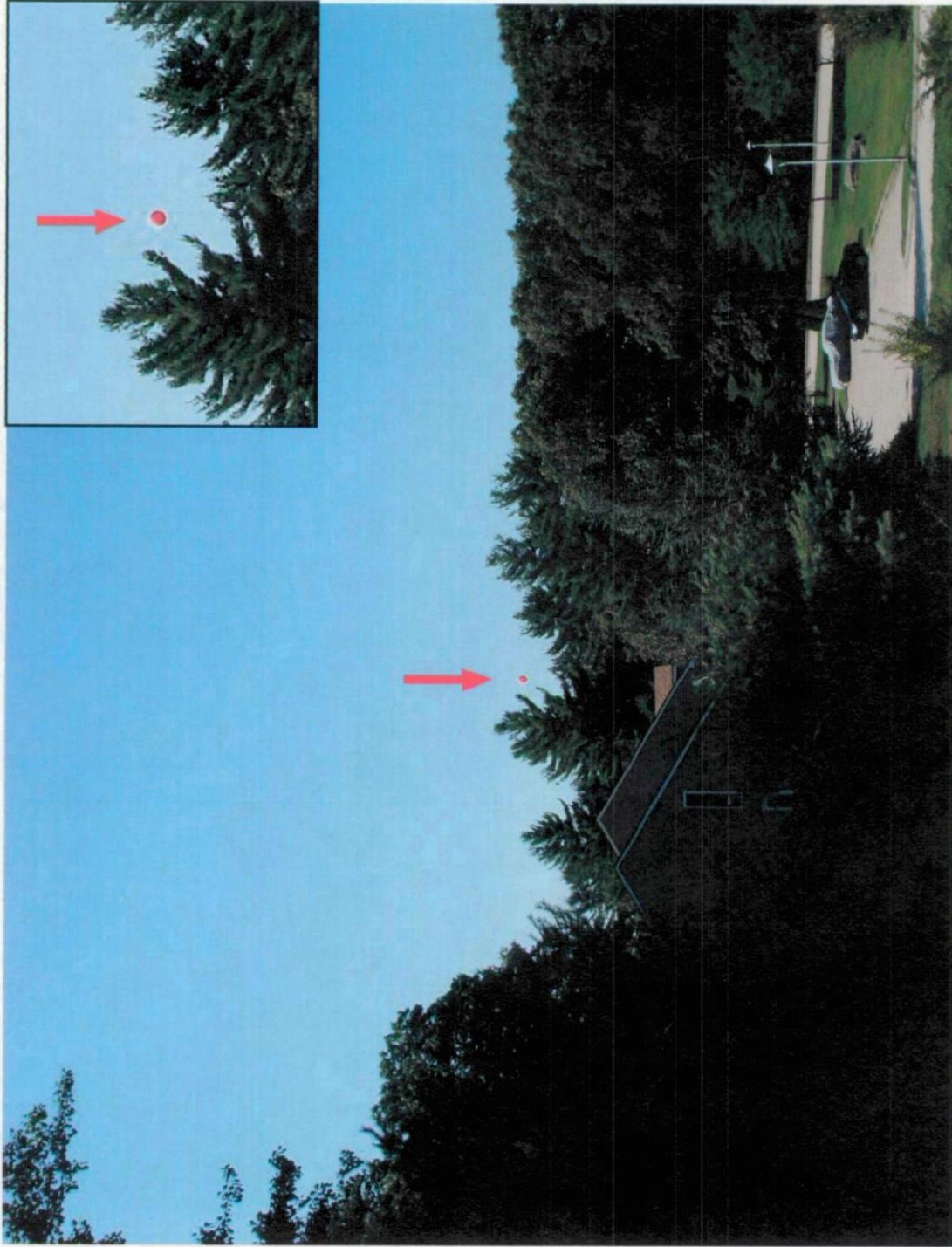
VIEW 1 - PROPOSED  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

**MCF Communications, Inc.**  
733 TURNPIKE STREET, SUITE 105  
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CLOUGH HARBOUR & ASSOCIATES LLP

DATE: AUGUST 2007    SITE: THOMPSON 98B



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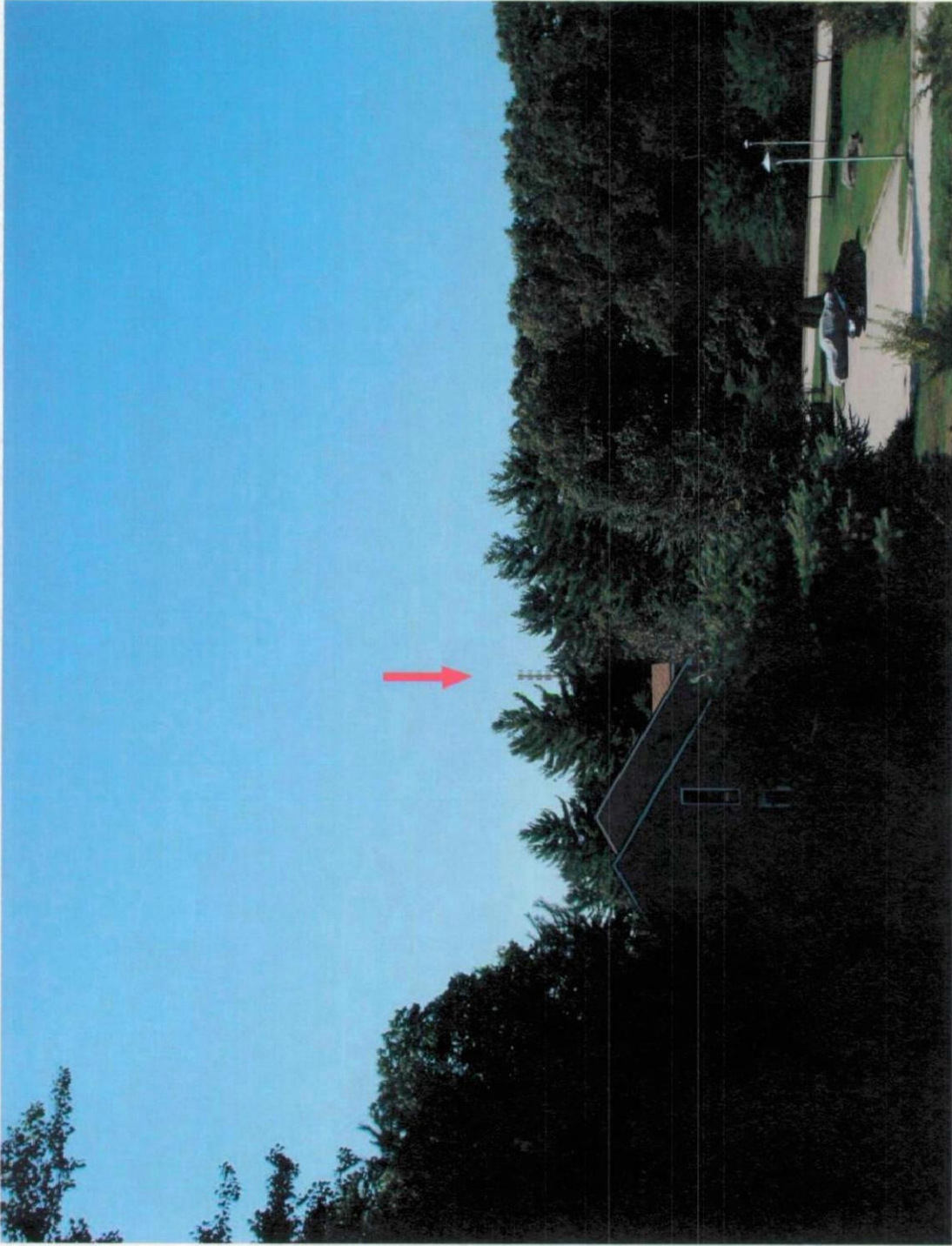


DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 2 - EXISTING  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

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733 TURNPIKE STREET, SUITE 105  
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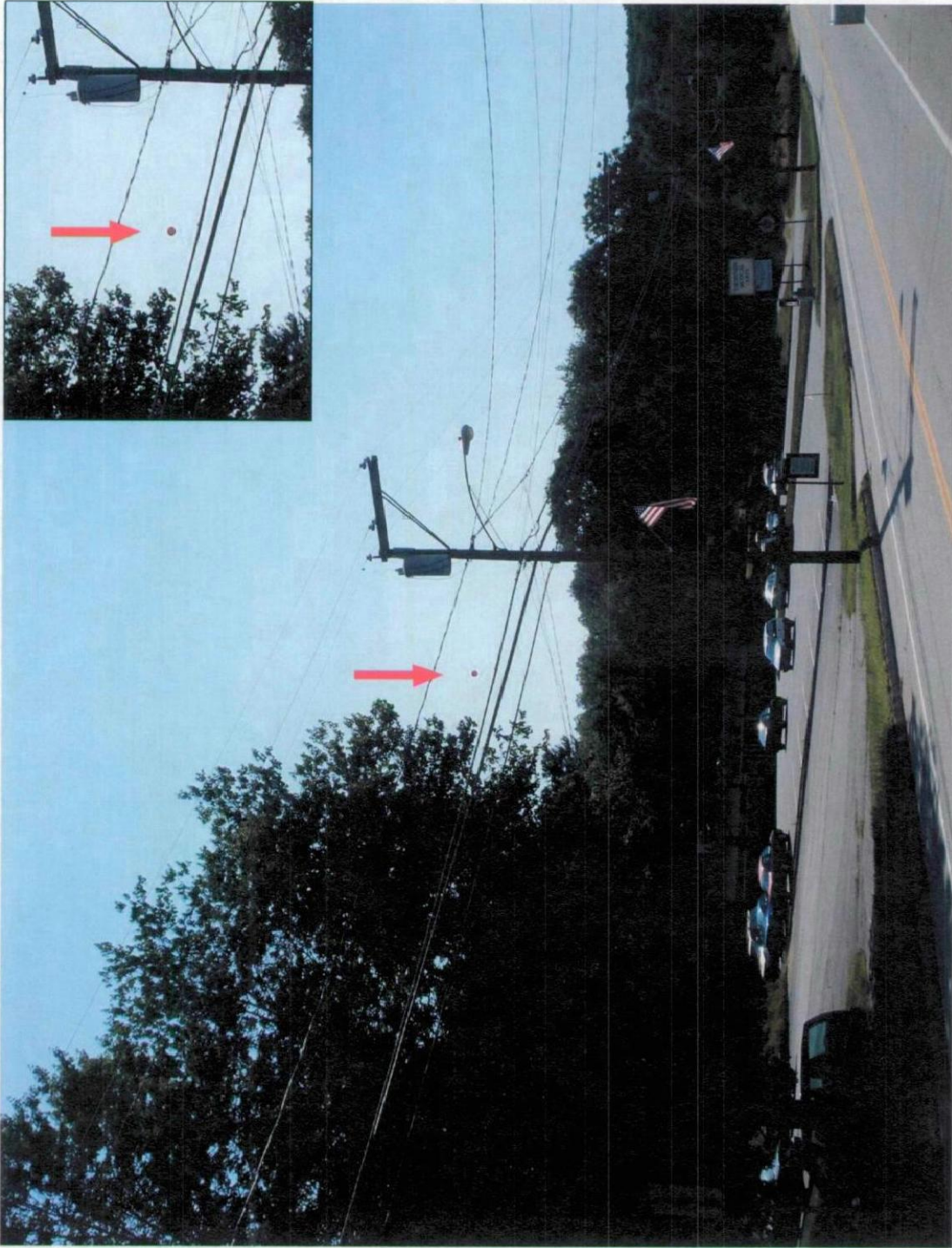
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DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 2 - PROPOSED  
FROM WESTSIDE DRIVE LOOKING  
SOUTH TOWARDS SITE

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733 TURNPIKE STREET, SUITE 105  
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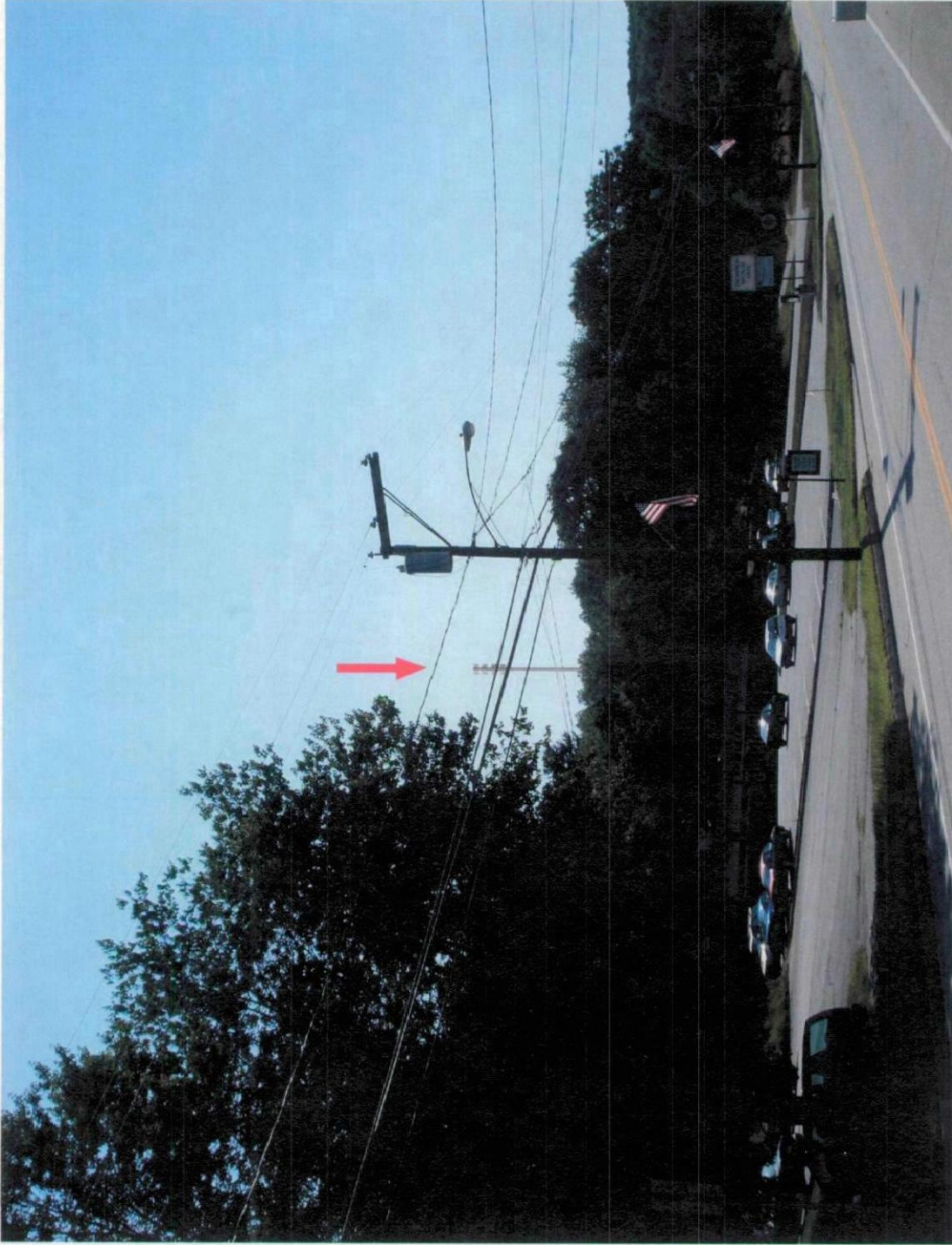


DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 3 - EXISTING  
FROM 430 RIVERSIDE DRIVE/ROUTE  
12 LOOKING SOUTHEAST TOWARDS  
SITE

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NORTH ANDOVER, MA 01845



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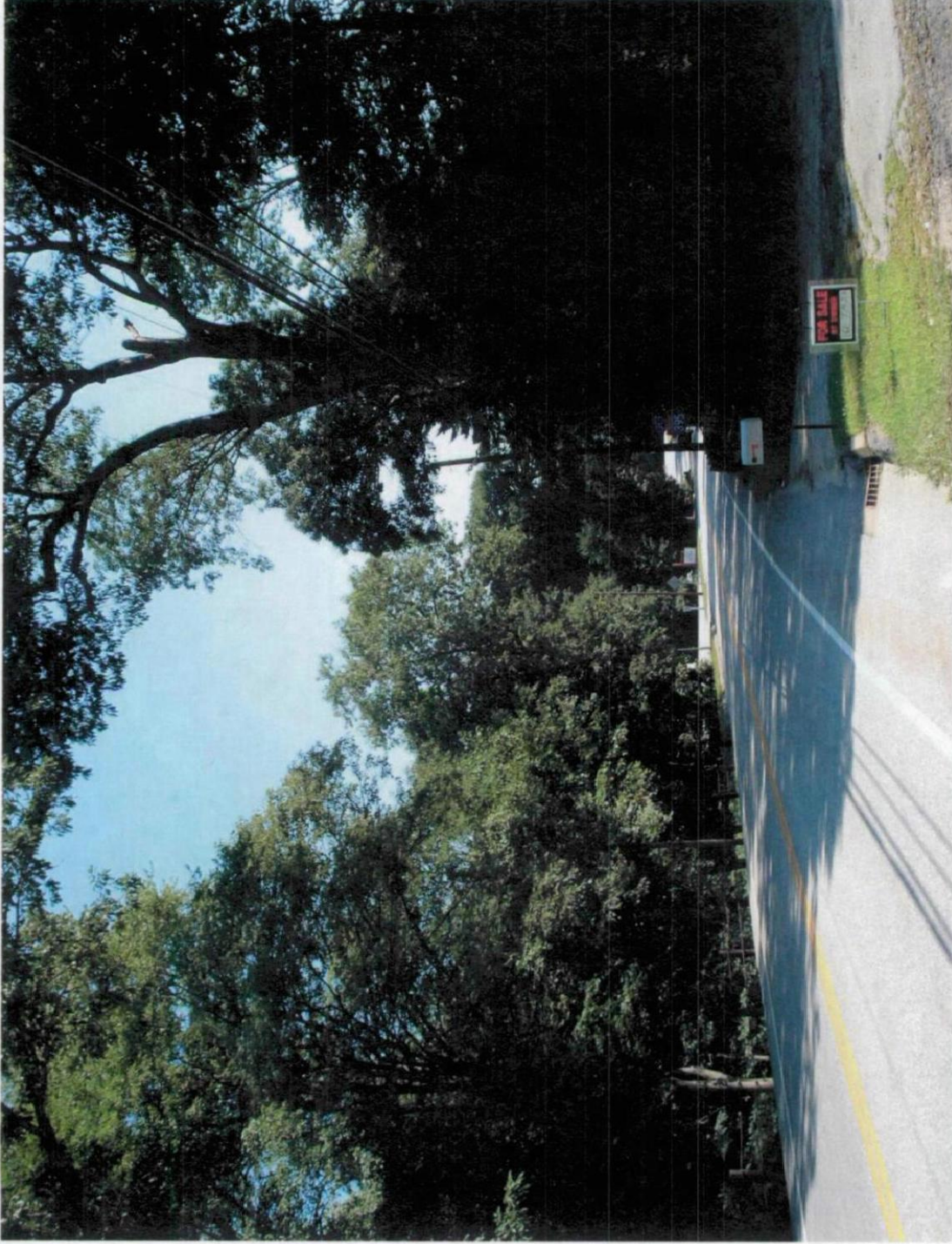
DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 3 - PROPOSED  
FROM 430 RIVERSIDE DRIVE/ROUTE  
12 LOOKING SOUTHEAST TOWARDS  
SITE

**MCF Communications, Inc.**  
733 TURNPIKE STREET, SUITE 105  
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VIEW 4 - NON-VISIBLE  
FROM 353 RIVERSIDE DRIVE/ROUTE  
12 LOOKING NORTHEAST TOWARDS  
SITE

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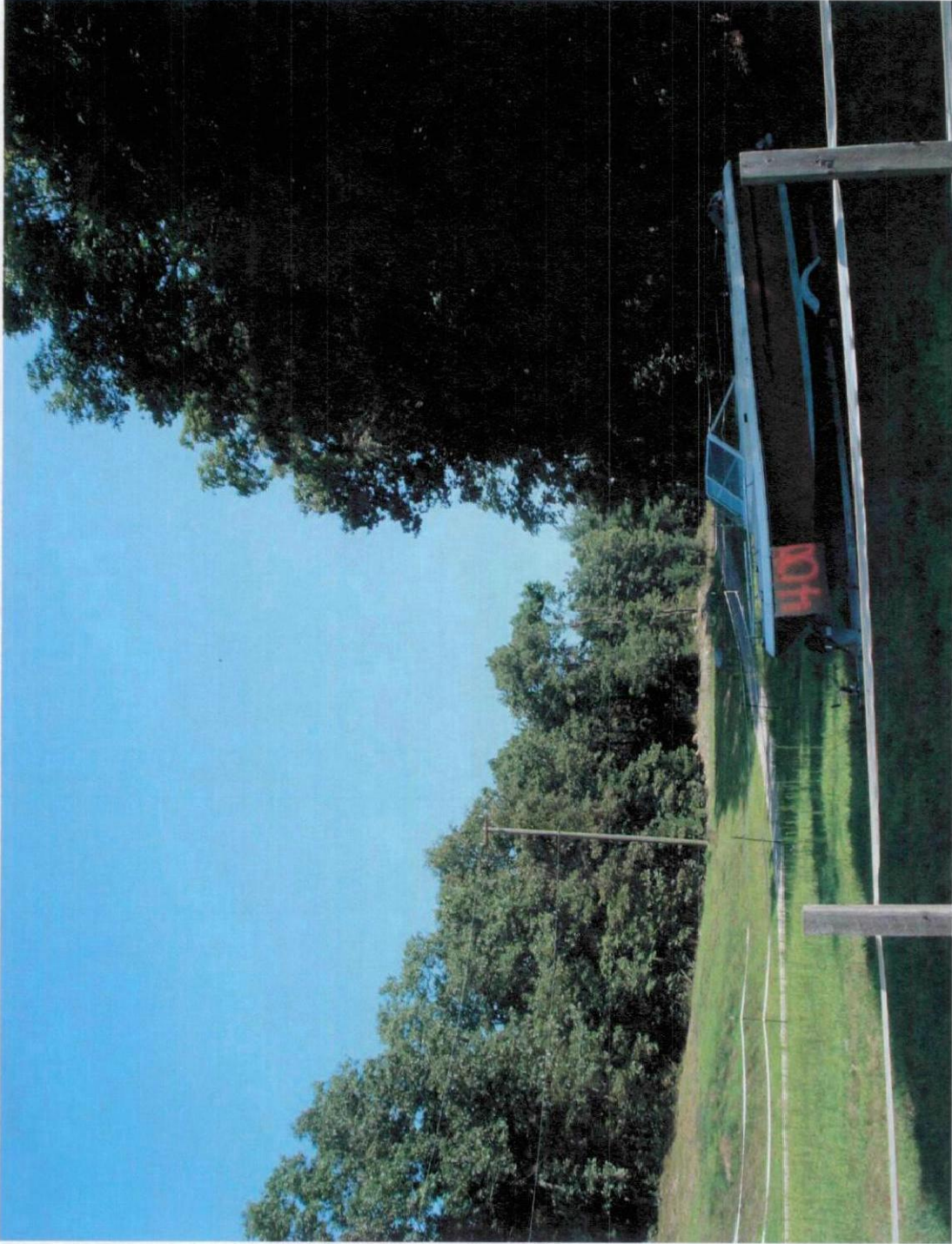
DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 5 - NON-VISIBLE  
FROM RIVERSIDE DRIVE/ROUTE 12  
LOOKING NORTHEAST TOWARDS  
SITE

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NORTH ANDOVER, MA 01845



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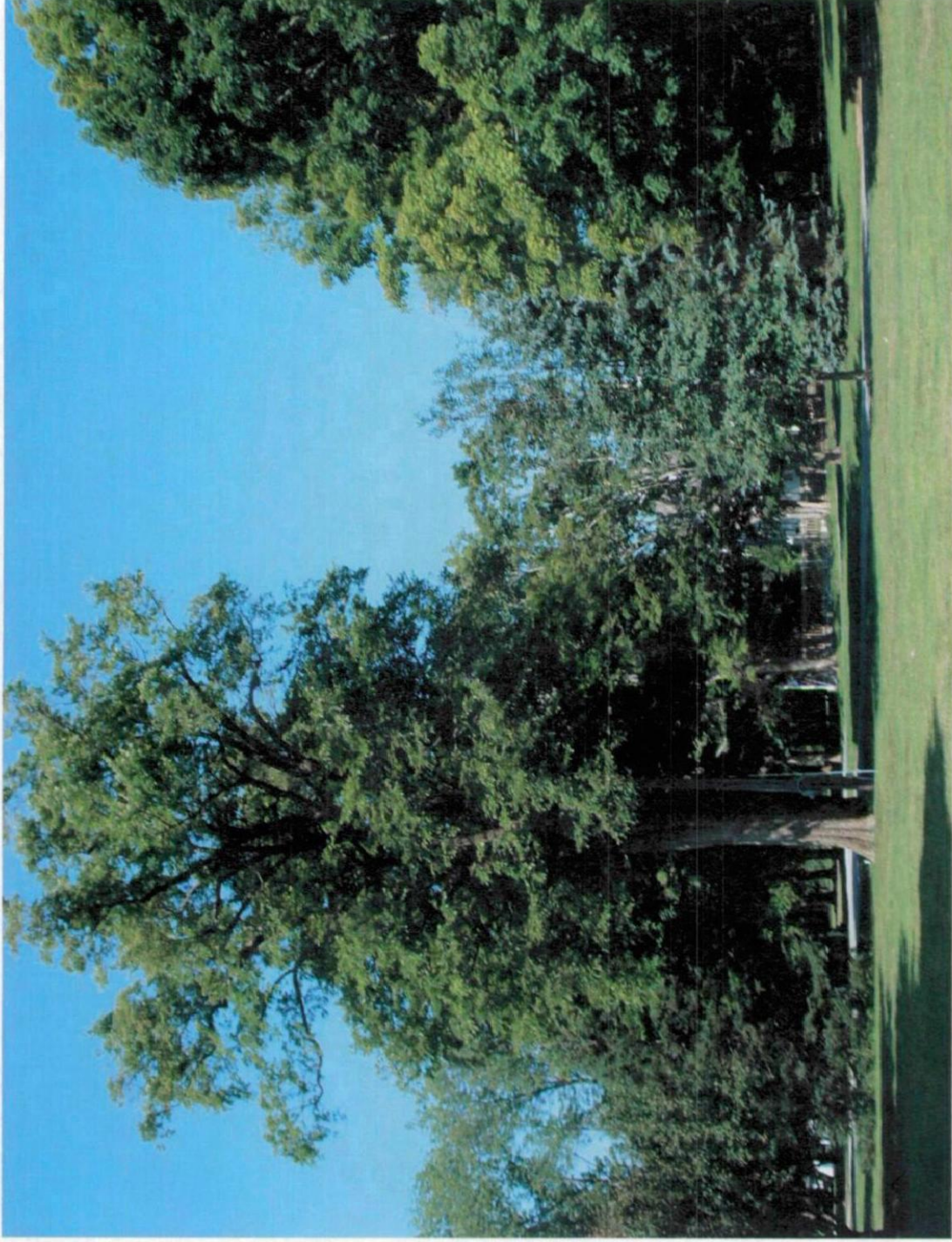


DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 6 - NON-VISIBLE  
FROM HISTORIC GEORGE NICHOLS  
PICKERING HOUSE (42 THOMPSON  
ROAD) LOOKING NORTH TOWARDS  
SITE

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VIEW 7 - NON-VISIBLE  
FROM THOMPSON HILL HISTORIC  
DISTRICT LOOKING WEST  
TOWARDS SITE

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VIEW 8 - NON-VISIBLE  
FROM QUINNATISSET COUNTRY  
CLUB LOOKING NORTHWEST  
TOWARDS SITE

**CHIA**  
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DATE: AUGUST 2007

SITE: THOMPSON 98B

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733 TURNPIKE STREET, SUITE 105  
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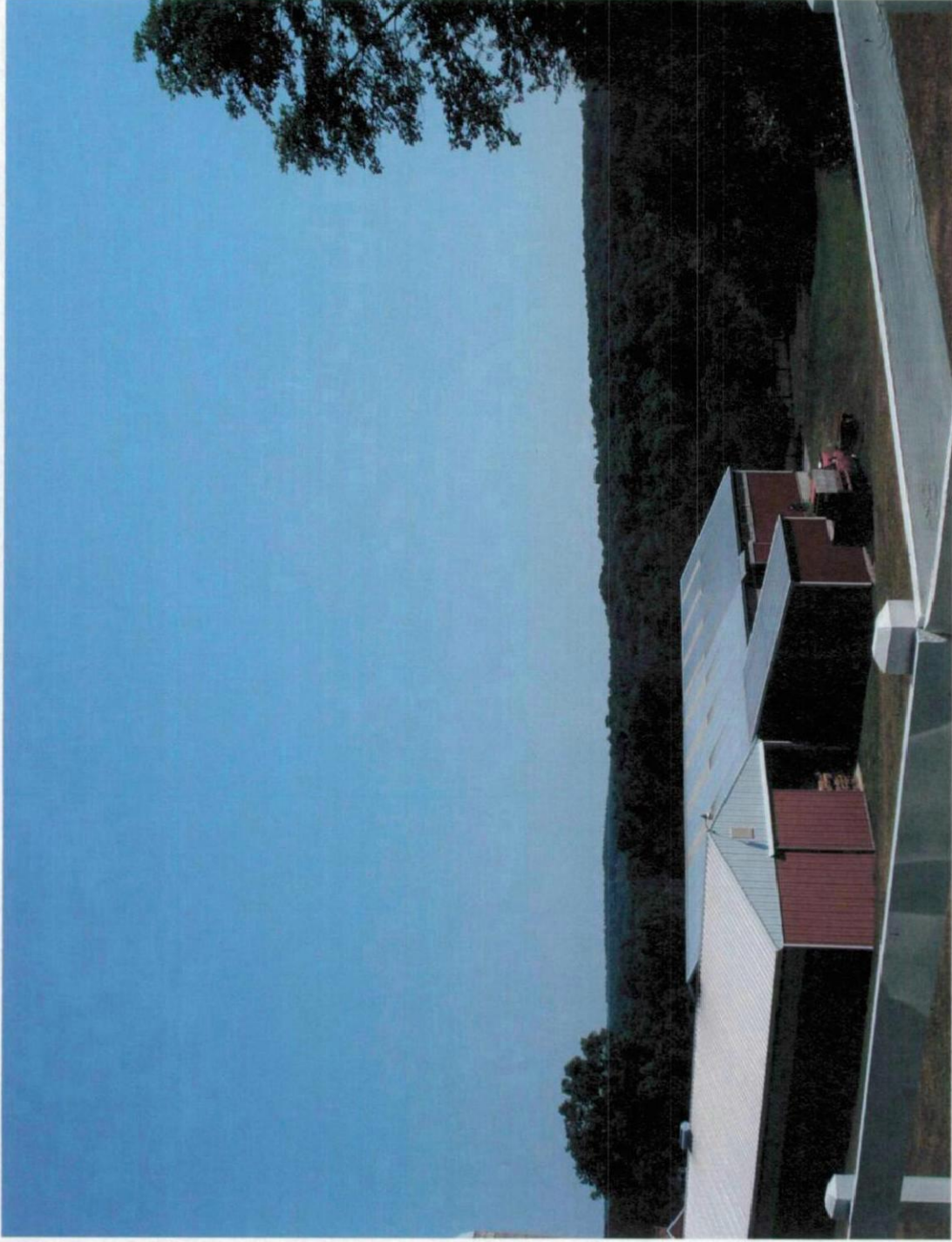
DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 9 - NON-VISIBLE  
FROM WEST THOMPSON  
RECREATIONAL AREA LOOKING  
EAST TOWARDS SITE

**MCF Communications, Inc.**

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NORTH ANDOVER, MA 01845



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SITE: THOMPSON 98B

VIEW 10 - NON-VISIBLE  
FROM 91 CHURCH STREET  
LOOKING NORTHEAST TOWARDS  
SITE

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VIEW 11 - NON-VISIBLE  
FROM TOURTELLOTTE MEMORIAL  
HIGH SCHOOL LOOKING  
SOUTHEAST TOWARDS SITE

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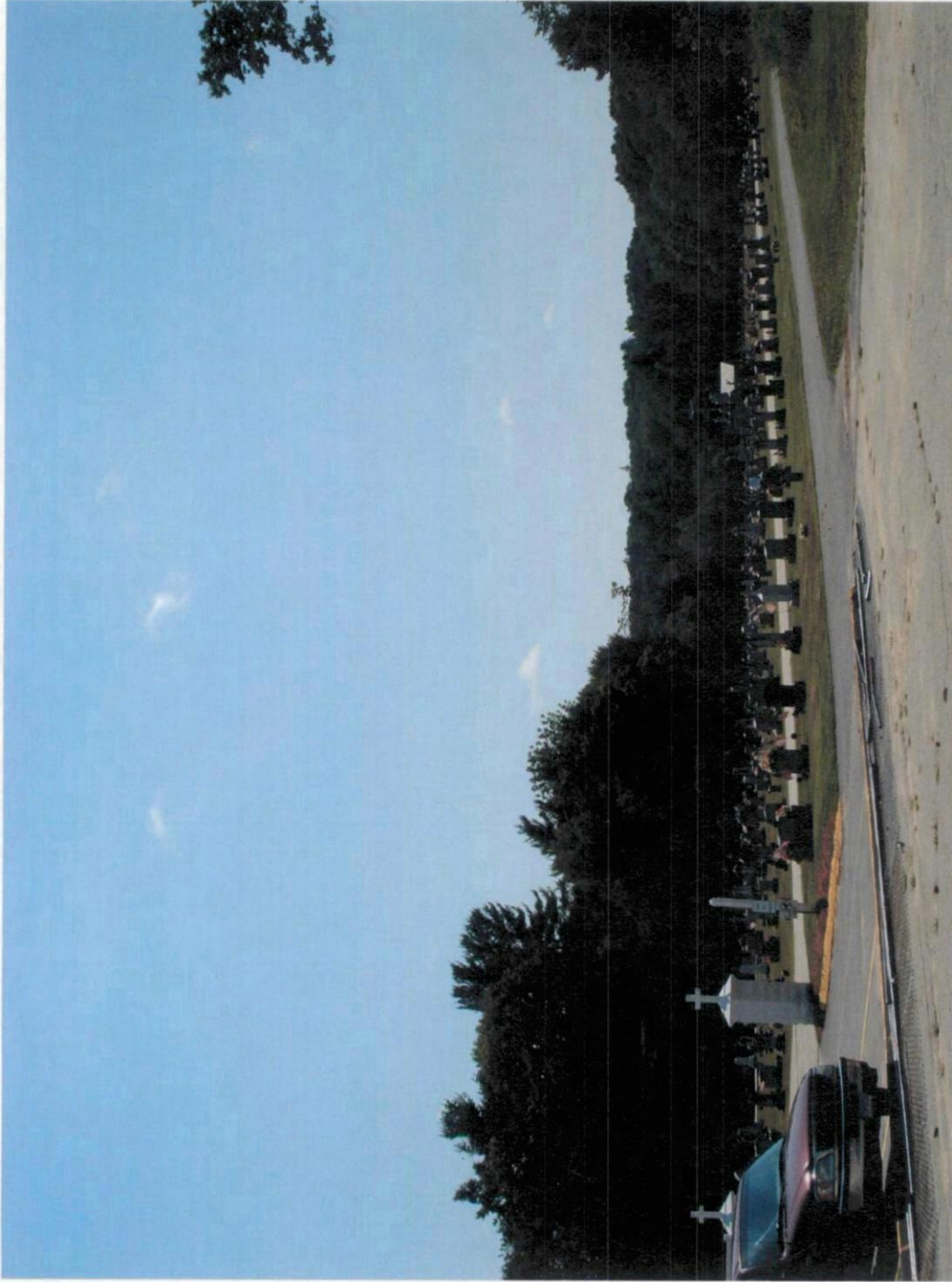
DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 12 - NON-VISIBLE  
FROM NORTH GROSVENORDALE  
MILL HISTORIC DISTRICT LOOKING  
SOUTHEAST TOWARDS SITE

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DATE: AUGUST 2007 SITE: THOMPSON 98B

VIEW 13 - NON-VISIBLE  
FROM ST JOSEPH CEMETERY  
LOOKING SOUTHEAST TOWARDS  
SITE

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733 TURNPIKE STREET, SUITE 105  
NORTH ANDOVER, MA 01845



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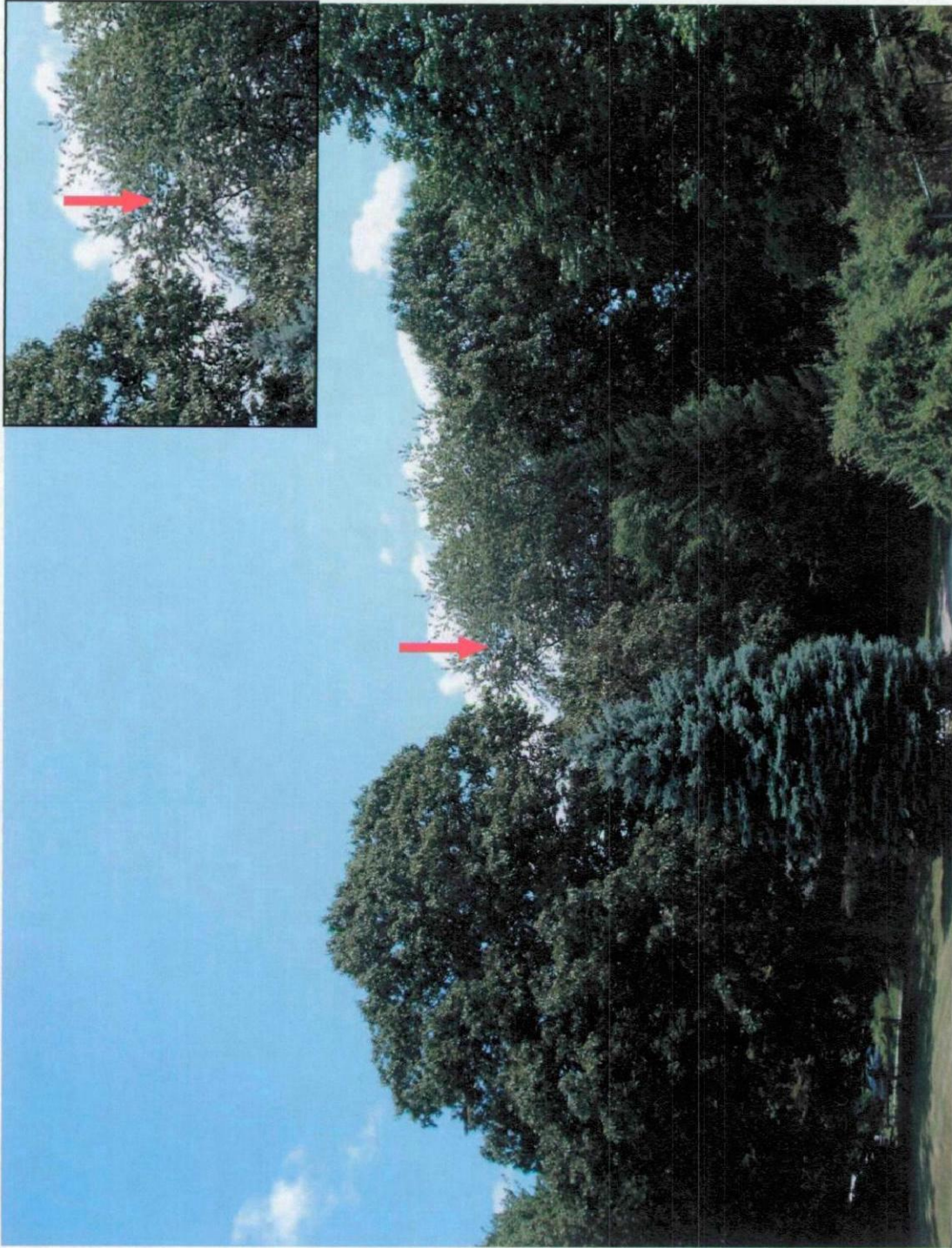
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VIEW 14 - NON-VISIBLE  
FROM SWISS CEMETERY LOOKING  
SOUTHEAST TOWARDS SITE

**MCF Communications, Inc.**  
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DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 15 - EXISTING  
FROM RIVERSIDE DRIVE/ROUTE 12  
LOOKING EAST TOWARDS SITE

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DATE: AUGUST 2007

SITE: THOMPSON 98B

VIEW 15 - PROPOSED  
FROM RIVERSIDE DRIVE/ROUTE 12  
LOOKING EAST TOWARDS SITE

**MCF Communications, Inc.**  
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NORTH ANDOVER, MA 01845