

SBA TOWERS II LLC  
TECHNICAL REPORT  
PROPOSED OLD LYME  
TOWER FACILITY

OLD LYME, CONNECTICUT

SBA Towers II LLC  
One Research Drive  
Suite 200C  
Westborough, MA 01581

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## **Introduction**

SBA Towers II LLC (“SBA”) hereby submits this Technical Report to the Town of Old Lyme pursuant to Section 16-50l of the Connecticut General Statutes. SBA proposes to install a wireless telecommunications facility (the “Facility”) at a site located at 14 Cross Lane, Assessor’s Parcel 9-2 in Old Lyme (the “Site”). The Site is located on an approximately 24 acre parcel owned by the Town of Old Lyme. The Facility is being proposed to allow New Cingular Wireless PCS, LLC (“AT&T”) and other licensed wireless service providers to provide enhanced service in this area of the Town as well as to permit the Town’s emergency services coverage in this area of the Town. The purpose of this Technical Report is to provide the Town of Old Lyme, in accordance with the requirements set forth in Connecticut General Statutes § 15-50l(e), with information concerning the need for the proposed Facility (Section 1), the site selection process (Section 2), the Facility design and any environmental effects associated with the proposed Facility (Section 3).

## **SECTION 1**

### **Site Justification**

This Section provides information regarding the identification of a specific need for the proposed Facility.

The Old Lyme site is necessary to increase wireless service availability in Old Lyme, particularly along Route 156, the Amtrak corridor and the surrounding areas.

Included herein are coverage propagation plots prepared by AT&T for the Site. A plot is provided which depicts AT&T's existing and approved surrounding sites. The plots provided depict (1) AT&T's existing coverage in this area of Old Lyme from existing sites and (2) AT&T's predicted coverage from the proposed Site at 140' with existing and approved sites.

Together, these propagation plots clearly demonstrate the need for a site in the area and the effectiveness of the proposed site in meeting the need for enhanced wireless service in Old Lyme.

Illustrations of Current Coverage  
And  
Current Coverage plus  
Proposed Sites S2285 and S2286  
Will be attached to the end of this  
document.

Both SBA and AT&T investigated numerous properties in the area of the Town property located at 14 Cross Lane including:

- 1) Assessor's Parcel 9/4; 7 Cross Lane, Old Lyme. This property was investigated and rejected as a possible location because of extensive wetlands on the property.
- 2) Assessor's Parcel 9/6; 17 Cross Lane, Old Lyme. This parcel, like the proposed site, is owned by the Town of Old Lyme. This site was also rejected due to wetland impact.
- 3) Assessor's Parcel 9/6; 344 Shore Road, Old Lyme. The owner of this parcel was not responsive to SBA's attempts to contact them regarding possible leasing of this property.
- 4) Assessor's Parcel 8/36-1; 230 Shore Road, Old Lyme. The owner of this property was not interested in leasing this parcel for the purpose of siting a telecommunications facility.
- 5) Assessor's Parcel 9/9; 368 Shore Road, Old Lyme. This site was rejected because it is conservation land and not available for development.

The Town property (the "Site") is superior to other properties in the area. The Site (including both town parcels) is an approximately 37 acre parcel and is currently developed with a fire house. The remainder of the parcel is used for recreational purposes. Topographical features and vegetation afford significant screening of the Site. In addition, based on its elevation and location, a tower at the Site would provide adequate coverage to the area and will significantly reduce the visual impact to this area of Old Lyme. Finally, the proposed Site is anticipated to eliminate the need for two telecommunications towers proposed by T-Mobile Northeast, LLC, thereby reducing the number of telecommunications facilities needed in Town and reducing the environmental impact thereof.

**SECTION 3**

**PROPOSED SITE**

**14 Cross Lane  
Old Lyme, Connecticut**

Land of  
Town of Old Lyme

Assessor's Parcel 9-2

24 Acres

**(The Town owns an additional, adjoining parcel.  
The two parcels total 37 acres)**

## GENERAL FACILITY DESCRIPTION

The proposed Facility is a 75' x 75' leased area located in the eastern portion of an approximately 24 acre parcel at 14 Cross Lane in Old Lyme. The proposed Facility would be just north of the existing firehouse facility. The Facility would consist of a 180-foot self-supporting monopole tower designed to accommodate five sets of antennas and a 75' x 75' site compound designed to accommodate the related equipment either in single-story equipment buildings or on concrete pads. AT&T would locate its antennas at the 140' centerline on the tower as well as ground equipment within the equipment compound. In addition, Verizon Wireless has expressed an interest in locating on the proposed facility. In addition, SBA will provide space, free of charge, on the tower and within the compound, for the Town of Old Lyme's emergency services equipment. The tower and equipment buildings would be enclosed by an 8-foot high security fence and gate. Vehicle access to the Site would extend from Cross Lane along a new driveway, a distance of approximately forty-seven feet. Utilities would extend from existing utility service on Cross Lane proceeding underground to the equipment compound.

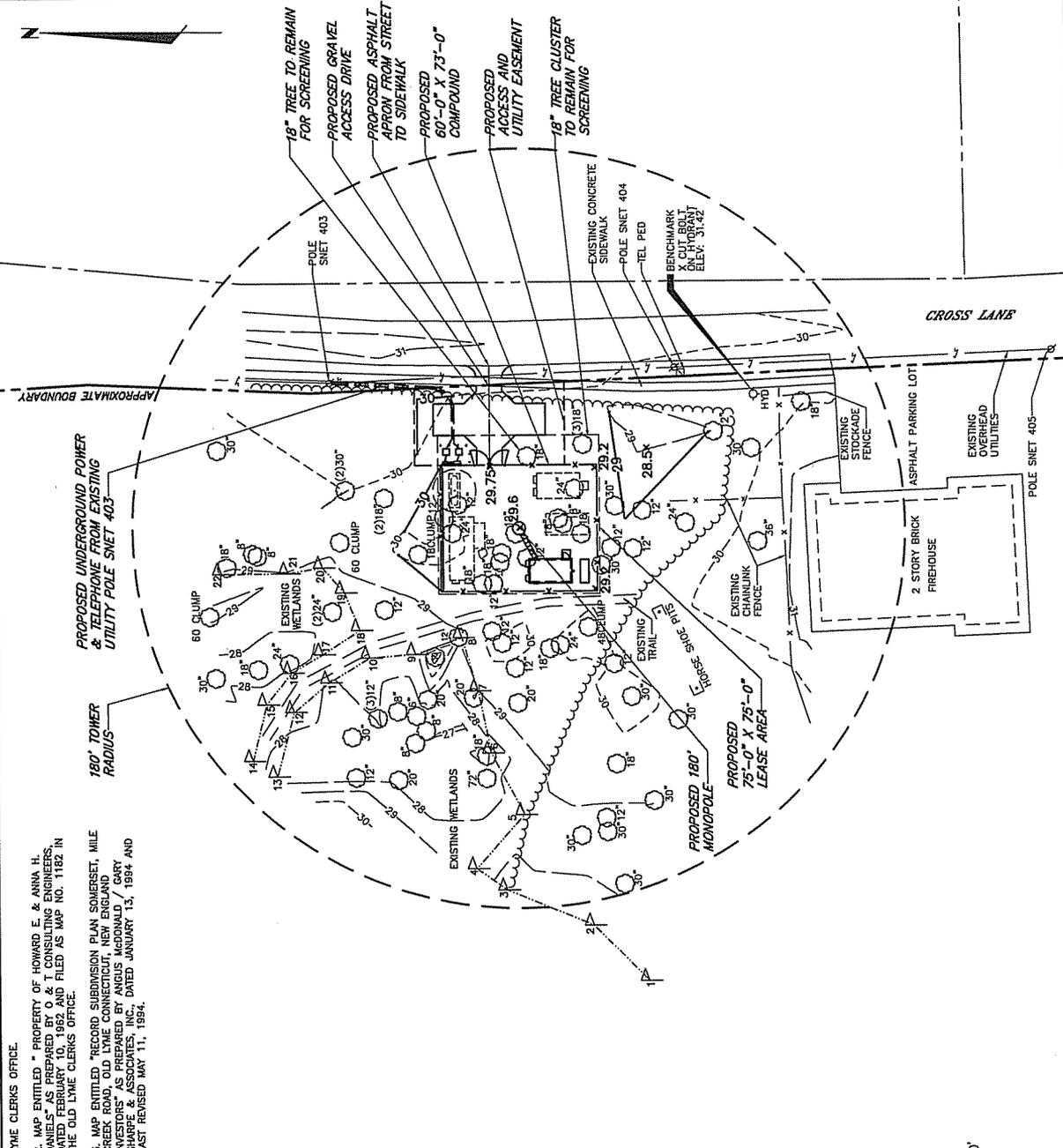




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DATE PROJECTED:	15303-1047-1101	
DRAWN BY:	JDM	
CHECKED BY:	PAL	
REVISIONS:		
NO.	DATE	DESCRIPTION
1	11/17/09	ISSUED CASE CERTIFICATE

PROJECT NO.	15363-1047-1101
SITE NAME:	OLD LYME-FIREHOUSE
SITE NUMBER:	CT 11797-S
SITE ADDRESS:	14 CROSS LANE OLD LYME, CT 06371
DESIGN TYPE:	RAW LAND
SHEET TITLE:	SITE ACCESS MAP
DRAWING NO.:	C-2
REVISION:	A



**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 BOARD OF SURVEYING AND MAPPING ON SEPTEMBER 28, 1998. 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 SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.
2. MAP ENTITLED "RECORD SUBDIVISION PLAN SOMERSET, MILE CREEK ROAD, OLD LYME CONNECTICUT, NEW ENGLAND INVESTORS" AS PREPARED BY ANGEUS McDONALD / GARY SHARPE & ASSOCIATES, INC., DATED JANUARY 13, 1994 AND LAST REVISED MAY 11, 1994.
3. MAP ENTITLED "RECORD SUBDIVISION PLAN SOMERSET, MILE DANIELS" AS PREPARED BY O & T CONSULTING ENGINEERS, DATED FEBRUARY 10, 1962 AND FILED AS MAP NO. 1182 IN THE OLD LYME CLERKS OFFICE.
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. THE EXACT KNOWING OF THE TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.
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 CORRS BASE STATION NAMED "CTICE". LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET/INCHES. ELEVATIONS ARE SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION. INFORMATION SHOWN BASED ON FAA ZC CERTIFICATION ACCURACY LEVEL DEFINED AS:  
HORIZONTAL: ±30 FEET / 15 METERS  
VERTICAL: ±20 FEET / 6 METERS
9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF OLD LYME, CONNECTICUT, NEW LONDON COUNTY, PANEL 17 OF 20, COMMUNITY PANEL NUMBER 090103 0017 D, REVISED JUNE 16, 1992.
10. WETLAND LANDS SHOWN BASE ON DELINEATION BY VANASSE HANGEN BRUSTLIN, INC., AND LOCATED BY CIA DURING THE FIELD SURVEY.

**MAP REFERENCES:**

1. MAP ENTITLED "MAP SHOWING PROPERTY OF THOMAS A. & ANNA H. DANIELS" AS PREPARED BY O & T CONSULTING ENGINEERS, DATED JUNE 28, 1975 AND FILED AS MAP #1735 IN THE OLD LYME CLERKS OFFICE.

0 25' 50' 100' 150'

11 X 17: 1" = 50'  
FULL SIZE: 1" = 25'



## SITE EVALUATION REPORT

### I. LOCATION

- A. COORDINATES: 41° 17' 36.6" N; 72° 16' 54.8" W
- B. GROUND ELEVATION: 30 feet AMSL
- C. USGS MAP: NIAN TIC AND OLD LYME, CONNECTICUT
- D. SITE ADDRESS: 14 Cross Lane, Old Lyme, CT
- E. ZONING WITHIN ¼ MILE OF SITE: residential and commercial

### II. DESCRIPTION

- A. SITE SIZE: 75' x 75' leased area  
LESSOR'S PARCEL: 24 acres
- B. TOWER TYPE/HEIGHT: Monopole/180' AGL
- C. SITE TOPOGRAPHY AND SURFACE: The Site is relatively flat. There are wetlands within 22 feet of the proposed Site. Those wetlands will not be impacted by the construction of the proposed Facility.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The Town's parcel is currently developed with a fire house and the remainder of the parcel and adjoining parcel are developed for recreational use for Town residents.
- E. LAND USE WITHIN ¼ MILE OF SITE: The surrounding area consists of mixed uses. The subject property is used for recreational purposes. There are residential uses as well as commercial uses along the Route 1 corridor. Finally, the Amtrak corridor is near the proposed site. The closest residence is 450 feet to the south of the proposed Facility.

### III. FACILITIES

- A. POWER COMPANY: Connecticut Light and Power
- B. POWER PROXIMITY TO SITE: Power is available from existing service on Cross Lane.
- C. TELEPHONE COMPANY: AT&T.
- D. PHONE SERVICE PROXIMITY: Same as power.

- E. VEHICLE ACCESS TO SITE: Vehicular access to the Site would utilize a new access drive to the Site from Cross Lane, approximately forty-seven feet in length.
- F. OBSTRUCTION: None.
- G. CLEARING AND FILL REQUIRED: Minimal clearing and grading would be required for development of the access drive and the site compound as the access drive will be improved with gravel and appropriate drainage. Approximately fourteen trees 6" in diameter or greater would be removed for construction of the proposed access drive and site. Detailed plans would be provided to the Connecticut Siting Council in a Development and Management Plan after Council approval of the proposed facility.

IV. LEGAL

- A. PURCHASE [ ] LEASE [X]
- B. OWNER: Town of Old Lyme
- C. ADDRESS: 14 Cross Lane, Old Lyme, CT
- D. DEED ON FILE AT: Town of Old Lyme  
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**FACILITIES AND EQUIPMENT SPECIFICATION**  
(NEW TOWER & EQUIPMENT)

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: TBD

B. TYPE: Monopole

C. HEIGHT: 180'      DIMENSIONS: Approx. 5' diameter at base  
Approx. 1 ½' diameter at top

II. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for Old Lyme (New London County), the tower would be designed to withstand pressures equivalent to a 120 MPH wind. The foundation design would be based on soil conditions at the site.

## ENVIRONMENTAL ASSESSMENT STATEMENT

### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the Facility. There is a small, unnamed stream on the Site but that stream will not be impacted by the construction and operation of the proposed Facility. The equipment used will discharge no pollutants to wetland and watercourse areas or to area groundwater. Best management practices will be used during construction to control storm water and erosion.

#### B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at this Facility would emit no air pollutants of any kind. For limited periods during power outages, a portable generator may be utilized.

#### C. LAND

Minimal clearing and grading would be required for development of the access drive. Development of the site compound will require moderate clearing and grading. Approximately fourteen trees 6" in diameter or greater will be removed for the proposed construction. The remaining land of the lessor would remain unchanged by the construction and operation of the cell site.

#### D. NOISE

The equipment to be in operation at the proposed site after construction would emit no noise other than the installed heating, air conditioning and ventilation systems. A portable generator may be employed during power outages. Some noise is anticipated during cell site construction, which is expected to take approximately four to six weeks.

#### E. POWER DENSITY

The worst-case calculation of power density for operation of AT&T's antennas at the facility would be approximately 7.1% of the applicable FCC/ANSI standards.

#### F. VISIBILITY

The potential visibility of the proposed monopole was assessed using a viewshed map (attached hereto) with an approximate two-mile radius, totaling 8,053 acres. As shown, the Site would be visible from

approximately 1,933 acres of the entire study area. Virtually all of the anticipated visibility occurs over the open waters of Long Island Sound.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the site is located appears to exhibit no scenic, natural or recreational characteristics that would be affected by the proposed site. Review under the National Environmental Policy Act, including the Connecticut Department of Environmental Protection Natural Diversity Data Base and the State Historic Preservation Officer, is pending.

⊕ T/ LIGHTNING ROD  
ELEV.: +184'-0" AGL

⊕ T/ MONOPOLE  
ELEV.: +180'-0" AGL

⊕ **TOWN OF OLD LYME ANTENNA**  
**ELEV.: +180'-0" AGL**

⊕ C OF FUTURE CARRIER 1 ANTENNA  
ELEV.: +160'-0" AGL

⊕ C OF FUTURE CARRIER 2 ANTENNA  
ELEV.: +150'-0" AGL

⊕ **C OF PROPOSED AT&T ANTENNA**  
**ELEV.: +140'-0" AGL**

⊕ C OF FUTURE CARRIER 3 ANTENNA  
ELEV.: +130'-0" AGL

⊕ C OF FUTURE CARRIER 4 ANTENNA  
ELEV.: +120'-0" AGL

PROPOSED  
180' MONOPOLE

⊕ T/ FOUNDATION  
ELEV.: +1'-0" AGL

⊕ EXISTING GRADE  
ELEV.: +0'-0" AGL

Drawing Copyright © 2009

**CHA**

2150 Elias Deane Highway, Suite 212 - Rocky Hill, CT 06067-2335  
Phone: (860) 237-4527 • www.chaconcept.com

**SBA** 

SBA TOWERS II LLC  
5900 BROKEN SOUND PARKWAY  
BOCA RATON, FL 33487-2797  
OFFICE: (561) 226-9523  
FAX: (561) 226-3572

CT11797-S  
OLD LYME-FIREHOUSE  
14 CROSS LANE  
OLD LYME, CT 06371  
NEW LONDON COUNTY  
CHA PROJ. NO. - 15363-1047

SHEET TITLE:  
**TOWER ELEVATION**

DATE:  
11/11/09

REVISION: 0