



TECHNICAL REPORT
to the
TOWN OF OLD LYME

OMNIPPOINT COMMUNICATIONS, INC.
(T-MOBILE)

PROPOSED OLD LYME
WIRELESS TELECOMMUNICATIONS FACILITIES

387 SHORE ROAD
232 SHORE ROAD
61-1 BUTTONBALL ROAD
OLD LYME, CONNECTICUT

*Omnipoint Communications, Inc.
35 Griffin Road South
Bloomfield, Connecticut 06002*

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Introduction

Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc., d/b/a T-Mobile ("T-Mobile") hereby submits this Technical Report to the Town of Old Lyme pursuant to Connecticut General Statutes § 16-50f. T-Mobile proposes to install three wireless telecommunications facilities (each identified singularly herein "Facility" or collectively as "Facilities") in the Town of Old Lyme. T-Mobile has identified a significant need for coverage and capacity in this area and proposes a comprehensive coverage solution.

The proposed Facilities are described below and shown on the attached comprehensive site map.

Listed geographically from north to south:

- **387 Shore Rd., Old Lyme (T-Mobile ID No CTNL804)**
This site is an approximately 2 acre parcel located at 387 Shore Road and owned by Gregory Benoit ("Shore Road Site" or "Site"). The Facility will consist of an 80 ft. monopole structure (the "Tower") with antennas mounted at a centerline of approximately 77' 9" ft. above grade level ("AGL") and related equipment at the base of the tower, on a concrete equipment pad within the proposed compound area.
- **232 Shore Road, Old Lyme (T-Mobile ID No CTNL803)**
This site is an approximately 5 acre parcel located at 232 Shore Road and owned by South Shore Landing Self Storage ("Shore Road Site" or "Site"). The Facility will consist of a 100 ft. monopole structure (the "Tower") with antennas mounted at a centerline of approximately 100 ft. AGL and related equipment at the base of the tower, on a concrete equipment pad within the proposed compound area.
- **61-1 Buttonball Road, Old Lyme (T-Mobile ID No CTNL801)**
This site is a 2.53 acre parcel located at 61-1 Buttonball Road and owned by Ron Swaney LLC ("Buttonball Road Site" or "Site"). The Facility will consist of a 100 ft. monopole structure (the "Tower") with antennas mounted at a centerline of approximately 97'9" ft. AGL and related equipment at the base of the tower, on a concrete equipment pad within the proposed compound area.

These Facilities, if approved, would provide much needed wireless communications service in these areas of Old Lyme.

The purpose of this Technical Report is to provide the Town of Old Lyme with information concerning the need for the proposed Facilities (Section 1), the site selection process (Section 2), the design of each Facility and any environmental effects associated with the proposed Facilities (Section 3).

Correspondence and/or communications regarding this Technical Report should be addressed to the attorneys for the applicant:

Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604
(203) 368-0211

Attention: Julie D. Kohler, Esq.
Jesse A. Langer, Esq.

Old Lyme Proposed Facilities



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ATTACHMENT 1

SECTION 1

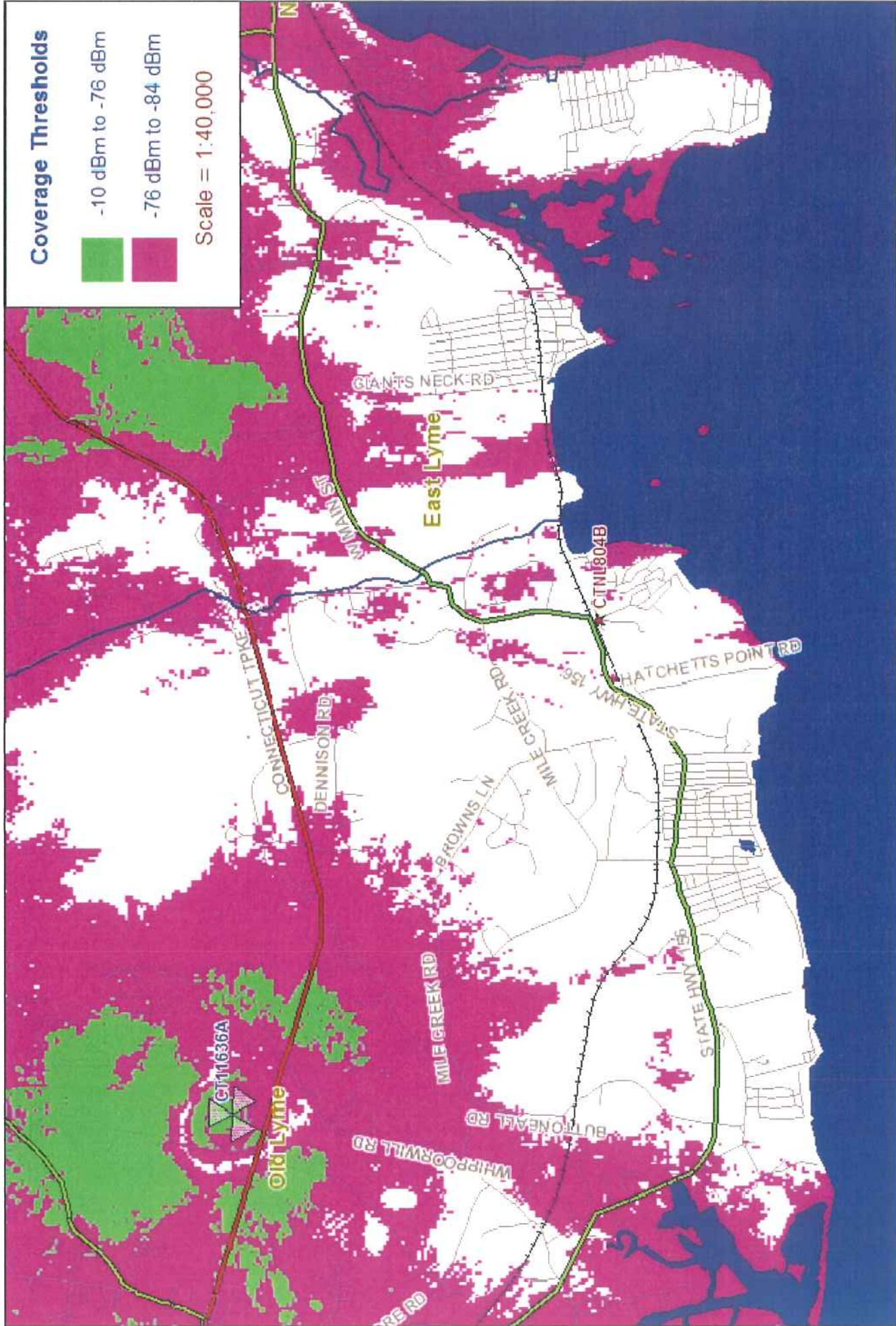
Site Justification **(387 Shore Road Site)**

The proposed Shore Road Site is necessary to enhance wireless service availability to existing and future T-Mobile wireless device users. Enhanced coverage provided by the Facility will allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The intended coverage area of the Facility includes Route 156, Connecticut Road, Oak Ridge Drive and Hatchetts Point Road just south of Interstate 95 in Old Lyme as well as the Amtrak Rail Line that passes through this area. Additionally, the Facility will provide capacity relief for the current sites that presently cover this area from outer lying areas.

Included herein are propagation plots prepared by T-Mobile that depict (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with antennas mounted at 77' AGL; and (3) coverage from the proposed Site 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 wireless service in this area of Old Lyme.

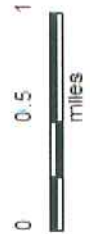
ATTACHMENT 1A



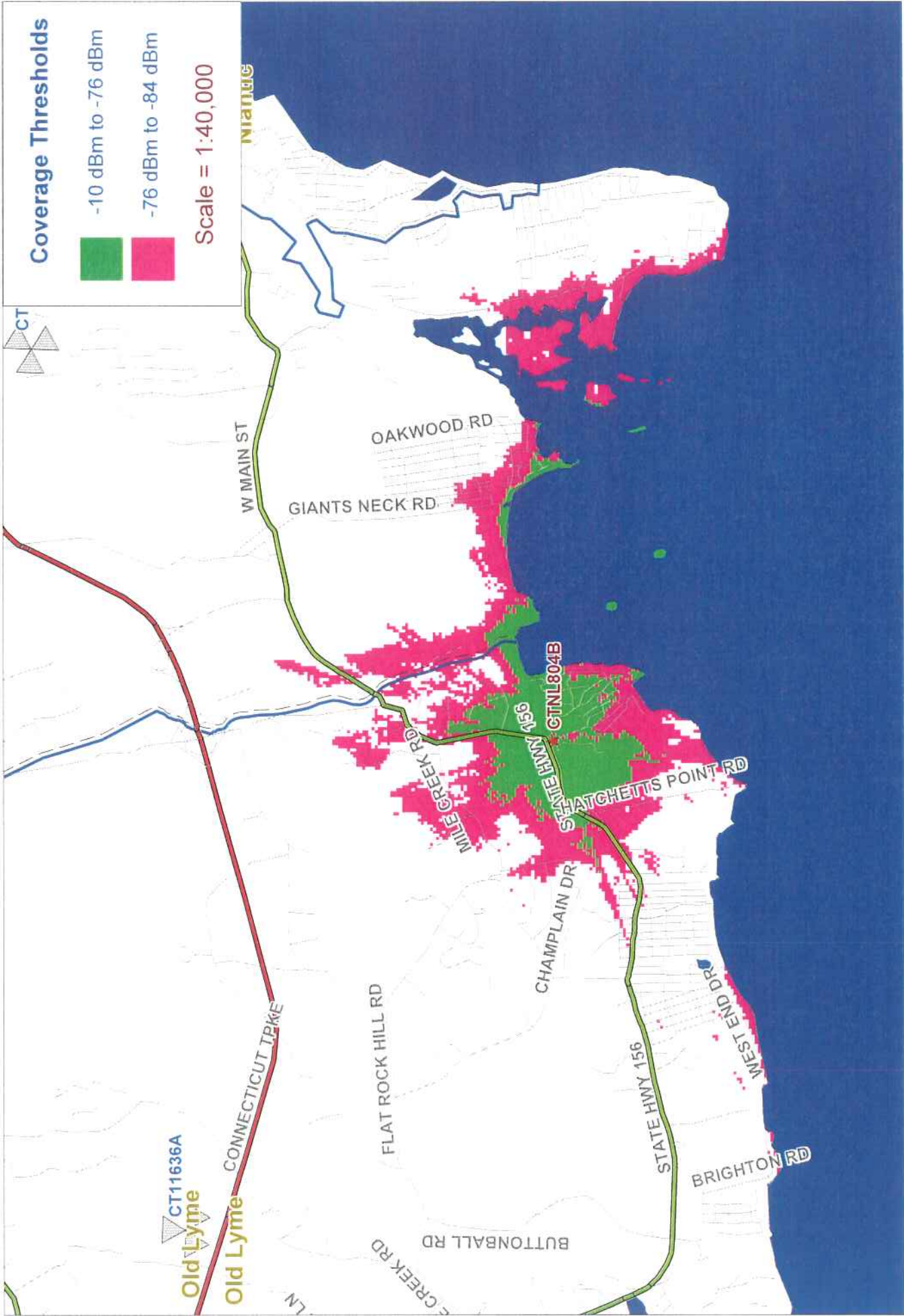
Coverage Thresholds

- 10 dBm to -76 dBm
- 76 dBm to -84 dBm

Scale = 1:40,000



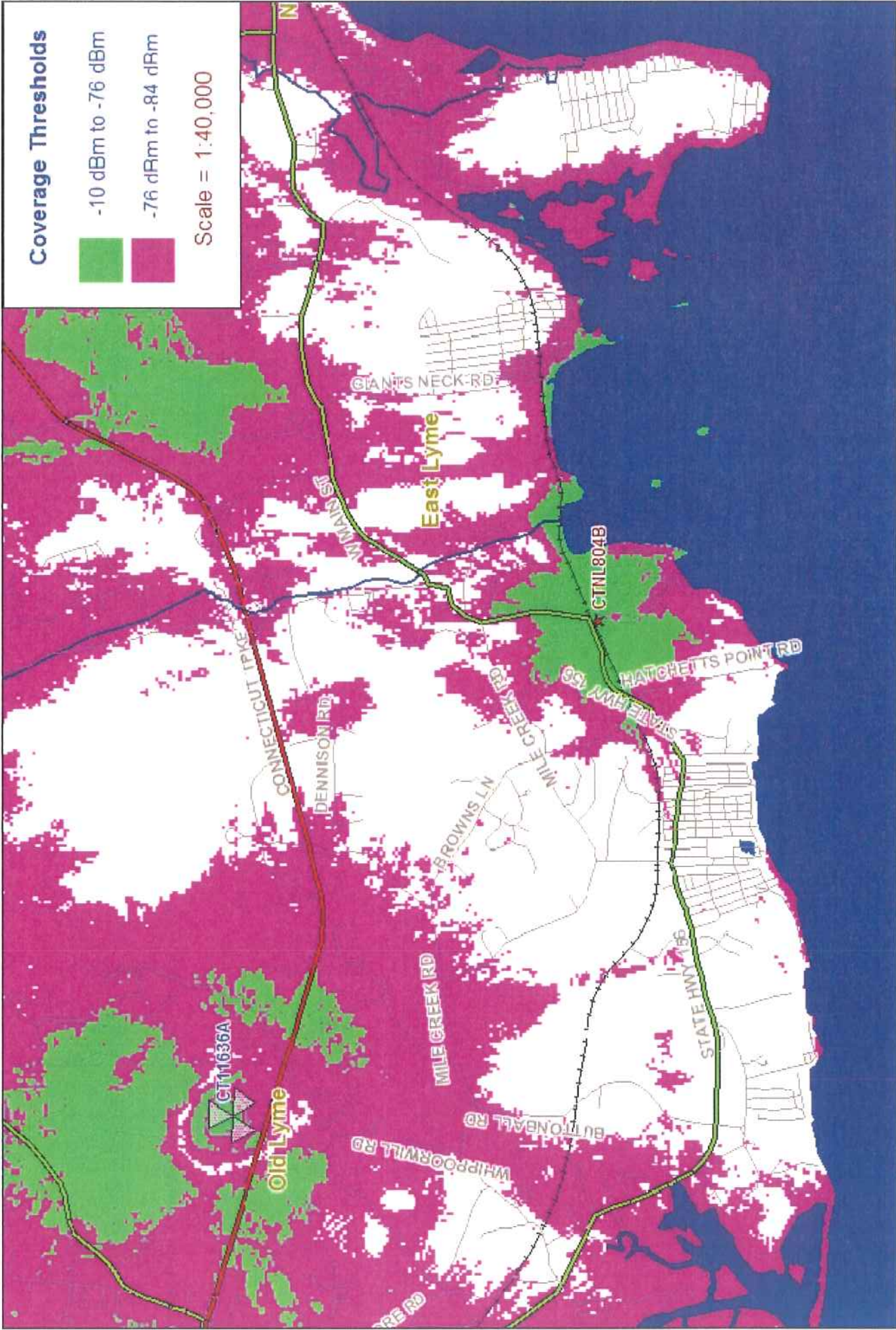
- T-Mobile -
Existing T-Mobile On Air Coverage



T-Mobile Proposed CTNL804B Facility @ 77'

- T-Mobile -





Coverage Thresholds

- 10 dBm to -76 dBm
- 76 dBm to -84 dBm

Scale = 1:40,000



Existing T-Mobile On Air Coverage
With CTNL804B @ 77' AGL

- T-Mobile -



SECTION 2

Site Search Process and Selection (387 Shore Road Site)

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the applicant to submit a statement that describes "the narrowing process by which other possible sites were considered and eliminated." In accordance with this requirement, the description of the general site search process, the identification of the target search area and the alternative locations considered for development of the proposed Facility are provided below.

As an FCC licensed wireless carrier, T-Mobile decides to seek out a site in an area based upon the needs of its wireless infrastructure and extensive research of the subject area. T-Mobile chooses a target area central to the area in which it has identified coverage and/or capacity needs. The area targeted is the geographical location where the installation of a site would, based on general radio frequency engineering and system design standards, likely address the identified problem. T-Mobile's goal is to locate sites that will remedy coverage or capacity issues, while resulting in the least environmental impact. In this case, T-Mobile has searched for a site in this area and has identified the Shore Road Site as the best possible location for a wireless facility.

T-Mobile is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, T-Mobile's site acquisition personnel first study the area in and near the search ring to determine whether any suitable structure exists. If T-Mobile cannot find a structure with appropriate height and structural capabilities, it turns to industrial / commercial areas or individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their property available. Radio frequency engineers study potentially suitable and available locations to determine whether the locations will meet the technical requirements for a site in the area. Analysis of potential environmental effects and benefits may further narrow the alternatives. The weight given relevant factors varies for each search, depending on the nature of the area and the availability of potential sites.

In the area of Old Lyme, which is the subject of this site search, there are no existing towers, transmission line structures or other suitable structures. Moreover, any existing towers are too far from the target area to provide coverage specifically to the target area. The nearest towers and suitable structures are already in use by T-Mobile. There are no large areas of commercial or industrial use in or near the target area as the area is heavily

comprised of residential homes. Finally, the Site abuts the Amtrak Rail Line, which is a component of the coverage goal.

The locations considered and the reasons locations other than this proposed Shore Road Site were not selected are outlined below:

1. Sicuranza Electric, 389 Shore Road. This parcel is only .60 acres and has little to no screening for a tower. The existing building is approximately fifteen feet high, which is too low to afford adequate coverage.

As a result, T-Mobile has determined that the property owned by Gregory Benoit at 387 Shore Road (the "Property") is superior to other properties in the area. The Property is zoned as Commercial C-30 and is 2.15 acres. Access to the Site is across an existing paved driveway on the Property. The Property is currently used as a small Laundromat building. It is also has good screening from mature trees.

SECTION 3

PROPOSED SITE

**387 Shore Road
Old Lyme, Connecticut**

Land of
Gregory Benoit

Map 10/Lot 8

2.11 Acres

GENERAL FACILITY DESCRIPTION
(387 Shore Road Site)

The proposed Shore Road Site is a 2400 square foot leased area located in the south westerly portion of an approximately 2.11 acre parcel at 387 Shore Road in Old Lyme. The Property is presently hosts a commercial use, a small laundromat. The Facility would consist of an 80 ft. monopole structure with antennas mounted on standoff cross arms

Related equipment cabinets would be placed within the compound in the center of the leased area. The equipment would be surrounded by an 8 ft high chain link fence. Vehicle access to the Site would extend easterly across the Property on an existing paved parking lot on the Property. Underground utility connections would extend from existing service originating at Shore Road.

ATTACHMENT 1B



ABUTTERS

SUBJECT PARCEL
387 SHORE ROAD

GREGORY BENOIT
5 OVERBROOK ROAD
EAST LYME, CT 06333
MAP 10, LOT 8

ABUTTERS

- | | | | |
|---|---|----|--|
| 1 | 3 WINDWARD LANE

MICHAEL & LORIKOLAR
3 WINDWARD LANE
OLD LYME, CT 06371
MAP 10, LOT 2-4 | 7 | 2 NORTH ROAD

DAVID & LINDA TUCK
P.O. BOX 537
SOUTH LYME, CT 06376
MAP 92, LOT 12 |
| 2 | 5-1 WINDWARD LANE

RENE LAURENCOT JR.
5-1 WINDWARD LANE
OLD LYME, CT 06371
MAP 10, LOT 2-5 | 8 | 5-1 NORTH ROAD

MARTHA MEANEY ET AL.
3 TUNK'S VILLAGE DRIVE
FARMINGTON, CT 06032
MAP 92, LOT 13 |
| 3 | 389 SHORE ROAD

JACQUELINE SCURANZA
18 SEA VIEW ROAD
SOUTH LYME, CT 06376
MAP 10, LOT 7 | 9 | 18 HATCHETT'S POINT ROAD

HATCHETT'S IMPROVEMENT CO.
ATTN: PRESIDENT
P.O. BOX 154
SOUTH LYME, CT 06376
MAP 9, LOT 21 |
| 4 | 1 SHORE ACRES ROAD

MEANEY TRUSTEE
P.O. BOX 57
SOUTH LYME, CT 06376
MAP 94, LOT 3 | 10 | 371 SHORE ROAD

ROBERT MAN
371 SHORE ROAD
OLD LYME, CT 06371
MAP 9, LOT 16 |
| 5 | 1 NORTH ROAD

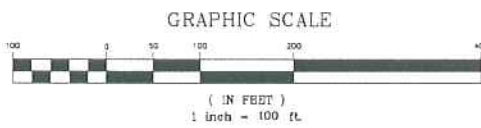
MARK & ANNA STANKEWICZ
P.O. BOX 535
SOUTH LYME, CT 06376
MAP 94, LOT 1 | 11 | 380 SHORE ROAD

XXXXXXXXXXXX
XXXXXXXXXXXX
SOUTH LYME, CT 06376
MAP 9, LOT 14 |
| 6 | 3 NORTH ROAD

ROBERT & MARY STALEY
5805 OGDEN ROAD
BETHESDA, MD 20816
MAP 92, LOT 11 | 12 | 382 SHORE ROAD

XXXXXXXXXXXX
XXXXXXXXXXXX
EAST LYME, CT 06333
MAP 10, LOT 1 |
| | | 13 | AMTRAK RIGHT OF WAY

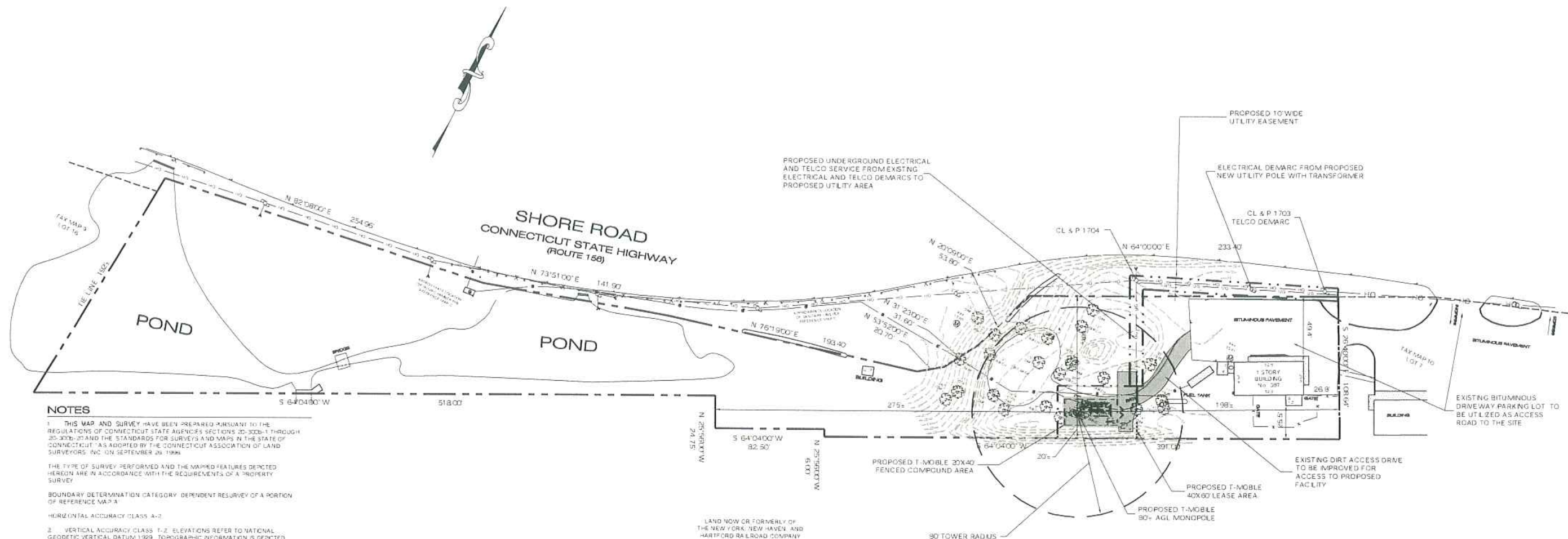
NATIONAL PASSENGER
RAILROAD CORP.
711 3RD AVENUE
NEW YORK, NY 10017 |



ABUTTERS MAP
SCALE: 1" = 100'-0"

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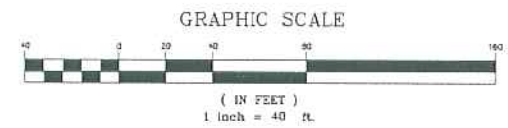
T-MOBILE SITE NUMBER: CTNL804B	PERMITTING DOCUMENTS AMTRAK OLD LYME 5 387 SHORE ROAD OLD LYME, CT 06371-1858	ABUTTERS MAP	
APT FILING NUMBER: CT-255T-370	DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-255T-370	APT DRAWING NUMBER: CTNL804B
<p>T-Mobile 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p>	REVISIONS:	DRAWN BY: RCB	SCALE: AS NOTED
	<p>ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1897 FAX: (860)-663-0935</p>	<p>REV. 0: 05/15/08: FOR REVIEW: SMC REV. 1: 05/20/09: FOR REVIEW: SMC REV. 2: 05/26/09: FINAL REV. 3: REV. 4:</p>	CHECKED BY: SMC
		SHEET NUMBER: A-1	



NOTES

- THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-17 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 29, 1998.
- THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF A PROPERTY SURVEY.
- BOUNDARY DETERMINATION CATEGORY DEPENDENT RESURVEY OF A PORTION OF REFERENCE MAP A.
- HORIZONTAL ACCURACY CLASS A-2.
- VERTICAL ACCURACY CLASS 1-2. ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM 1988. TOPOGRAPHIC INFORMATION IS DEPICTED ONLY FOR A PORTION OF THE PROPERTY.
- LOT AREA TO THE LINES = 91,830 SQUARE FEET OR 2.11 ACRES. LIMIT OF TITLE IS NOT DETERMINED BY THIS SURVEY.
- ALL MONUMENTATION FOUND OR SET ON THE SUBJECT PREMISES IS DEPICTED HEREON.
- NORTH REFERS APPROXIMATELY TO REFERENCE MAP A.
- REFERENCE MAPS:
 - A) NEW YORK, NEW HAVEN & HARTFORD RAILROAD, OFFICE OF ENGINEER - REAL ESTATE SURVEYS, LAND IN OLD LYME, CONN. TO BE CONVEYED TO GEORGE AND MARY EMERSON, SCALE 1"=100', DATED JULY, 1982 AND FILED AS MAP NO. 1256 WITH THE OLD LYME TOWN CLERK.
 - B) CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP, TOWN OF OLD LYME, SHORE ROAD FROM VILE CREEK EASTERLY TO THE SOUTH LYME STATION, ROUTE NO. 158, SHEET 4 OF 4, SCALE 1"=40', DATED NOV. 30, 1932.
 - C) SITE PLAN, PROPOSED SUBSURFACE SANITARY DISPOSAL SYSTEM PREPARED FOR NORMAN EMERSON, CONNECTICUT ROUTE 158, OLD LYME, CT, PREPARED BY ANGLUS L. WIDOMALD & ASSOCIATES, DATED NOV. 29, 1982, SCALE 1"=25'.
- PARCEL OWNER OF RECORD: GREGORY BENNETT, 5 OVERBROOK ROAD, EAST LYME, CT 06333.
 - 9) THE PROPERTY IS TOGETHER WITH THE FOLLOWING:
 - A) A RIGHT OF WAY FOR EGRESS AND ACCESS OVER TAX LOT 1 TO ROUTE 158 AS SET FORTH IN VOLUME 100, PAGE 483 OF THE OLD LYME LAND RECORDS (NOT PLATTABLE).
 - B) THE RIGHT TO USE AN EXISTING SEPTIC SYSTEM, AS SET FORTH IN VOLUME 100, PAGE 483 OF THE OLD LYME LAND RECORDS (NOT PLATTABLE).
 - C) ALL RIGHTS UNDER PERMITS FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION FOR A SEWER CROSSING, AS RECORDED IN VOLUME 145, PAGES 745 AND 746 OF THE OLD LYME LAND RECORDS, APPROXIMATE LOCATION OF SEWER LINE IS DEPICTED HEREON.
 - D) AN EASEMENT FOR THE RIGHT, PRIVILEGE AND AUTHORITY TO PERPETUALLY MAINTAIN A SEPTIC SYSTEM DRAINAGE FIELD AS SHOWN ON SURVEY PLAN PROPERTY OF NORMAN EMERSON, 382 SHORE ROAD, OLD LYME, CT, TO BE CONVEYED TO MARK W. & ROBERTA E. BUGBEE, DATED DEC. 19, 1982, SCALE 1"=25', PREPARED BY ANGLUS L. WIDOMALD & ASSOCIATES.
- THE PROPERTY IS SUBJECT TO A) OBLIGATIONS AS SET FORTH IN VOLUME 52, A) A PAGE 100 AND VOLUME 137A7, PAGE 801 OF THE OLD LYME LAND RECORDS (NOT PLATTABLE), AND BY RIGHTS OF OTHERS AS SET FORTH IN VOLUME 100A7, PAGE 483 OF THE OLD LYME LAND RECORDS (NOT PLATTABLE).
- THE OFFSETS OR DIMENSIONS SHOWN FROM STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE. THEY ARE NOT INTENDED TO GUIDE IN THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PATIOS, PLANTING AREAS, ADDITIONS TO BUILDINGS, OR ANY OTHER CONSTRUCTION.
- SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY.

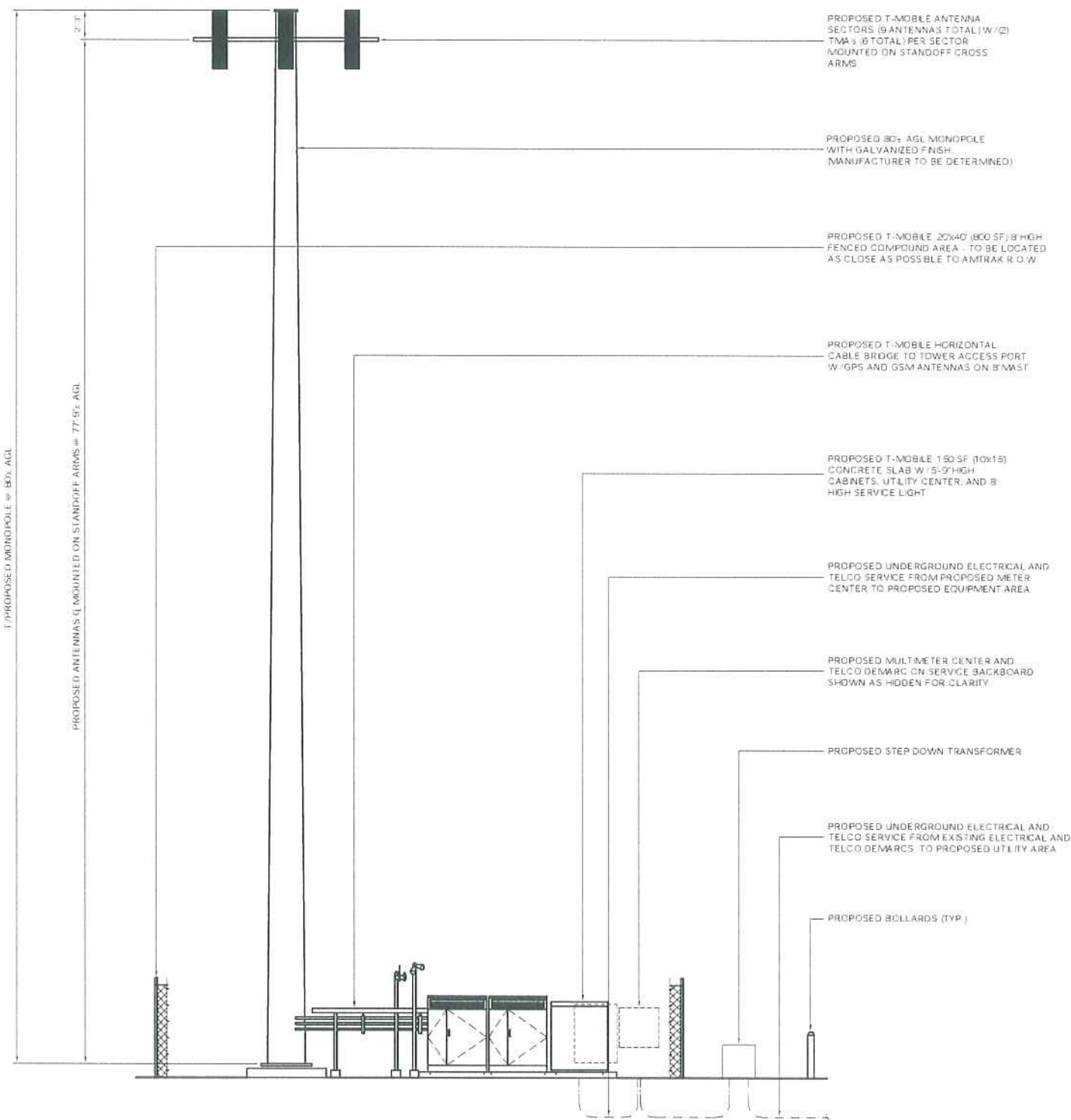
NOTE
3 TREES WILL NEED TO BE REMOVED AS PART OF THE CONSTRUCTION OF THE PROPOSED FACILITY.



LEGEND			
	CURB		DRAINAGE INLET / STRUCTURE
	DROP CURB		CATCH BASIN
	WALL		SIGN
	STONE WALL		LIGHT POLE
	EDGE OF PAVEMENT		UTILITY POLE
	OVERHEAD WIRES		STOCKADE FENCE
	STRUCTURE - MANHOLE		CONTOURS
	GAS VALVE		TOP/BOTTOM OF CURB
	WATER VALVE		SPOT ELEVATION
	HANDICAP PARKING		CONCRETE
	PARKING STALL COUNT		GUY WIRE

T-MOBILE SITE NUMBER: CTNL804B APT FILING NUMBER: CT-255T-370 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100 ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1637 FAX: (860)-663-0935	PERMITTING DOCUMENTS AMTRAK OLD LYME 5 387 SHORE ROAD OLD LYME, CT 06371-1858 DESIGN TYPE: RAW LAND	SITE PLAN APT FILING NUMBER: CT-255T-370 APT DRAWING NUMBER: CTNL804B DRAWN BY: RCB CHECKED BY: SMC SCALE: 1"=40' DATE: 05/20/09
	REVISIONS: REV. 0: 05/15/09: FOR REVIEW: SMC REV. 1: 05/20/09: FOR REVIEW: SMC REV. 2: 05/26/09: FINAL REV. 3: REV. 4:	SHEET NUMBER: SP-1

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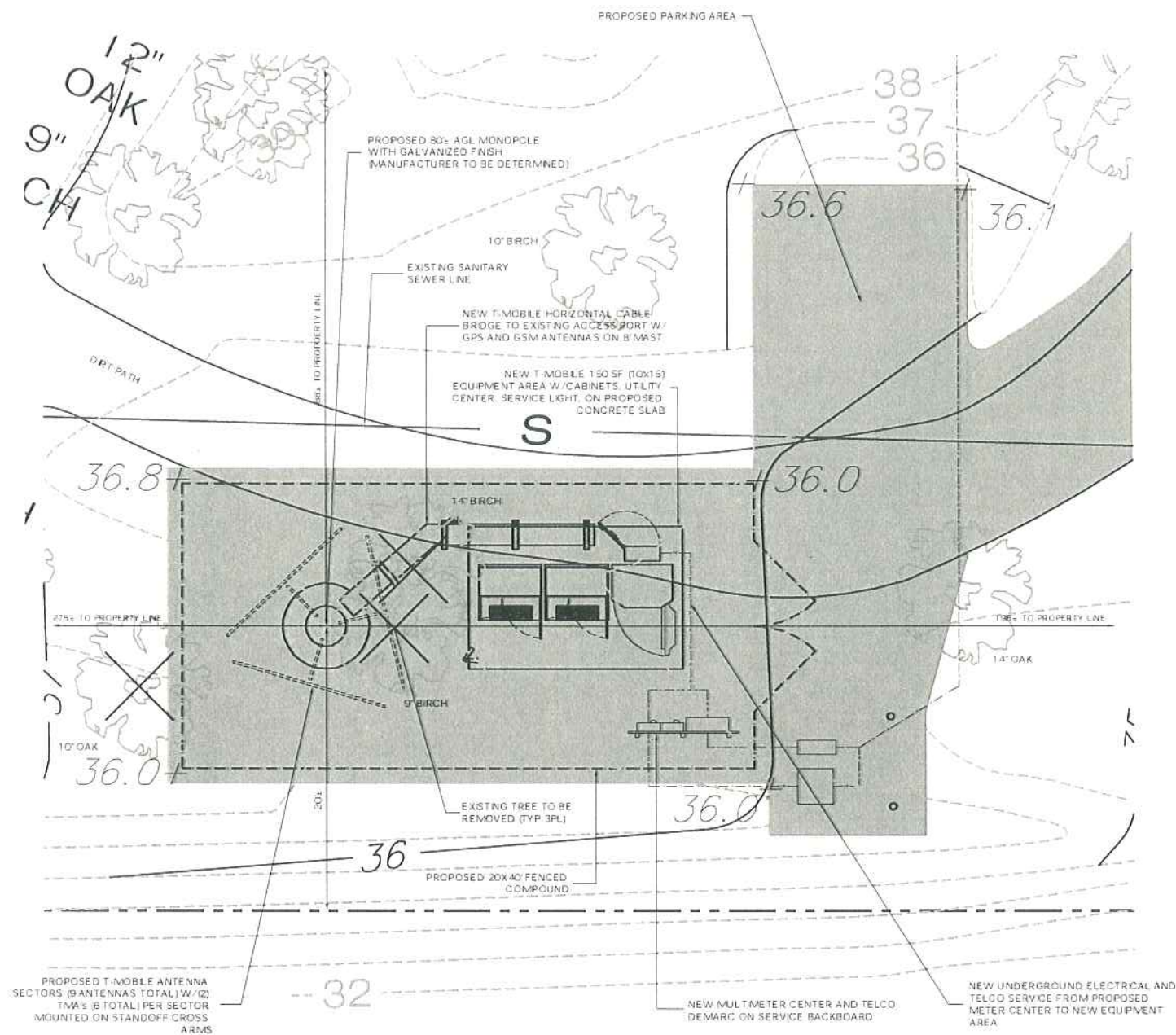


SOUTHERN ELEVATION

SCALE: 3/16" = 1'-0"

ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA-TA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES FOR NEW LONDON COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 120 MPH WIND. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.



COMPOUND PLAN

SCALE: 3/16" = 1'-0"

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T-MOBILE SITE NUMBER: CTNL804B	PERMITTING DOCUMENTS AMTRAK OLD LYME 5 387 SHORE ROAD OLD LYME, CT 06371-1858	SITE & COMPOUND PLAN ELEVATION & DETAILS
A-PT FILING NUMBER: CT-255T-370	DESIGN TYPE: RAW LAND	
T-Mobile	35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	A-PT FILING NUMBER: CT-255T-370
ALL-POINTS TECHNOLOGY CORPORATION, P.C.	3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-463-0935	A-PT DRAWING NUMBER: CTNL804B A-1.DWG
		DRAWN BY: AAJ
		CHECKED BY: SMC
		SCALE: AS NOTED
		DATE: 05/20/09
		SHEET NUMBER:
		SP-2
		STATE OF CONNECTICUT PROFESSIONAL ENGINEER



SITE EVALUATION REPORT
(387 Shore Road Site)

I. LOCATION

- A. COORDINATES: 41°17'47.37" N
72°15'35.02" W
- B. GROUND ELEVATION: 38'± AMSL
- C. USGS MAP: USGS 7.5 quadrangle for Old Lyme (1970) and Niantic (1983)
- D. SITE ADDRESS: 387 Shore Road
Old Lyme, CT 06371
- E. ZONING WITHIN ¼ MILE OF SITE: Zoned commercial and residential to the north. Amtrak right of way and residential to the south. Commercial and residential to the east. Commercial to the west.

II. DESCRIPTION

- A. LEASE AREA: 40x60
COMPOUND SIZE: 20' x 40'
- B. TOWER TYPE/HEIGHT: 80' Monopole
- C. SITE TOPOGRAPHY AND SURFACE: Subject site is located adjacent in an existing wooded area adjacent to a bituminous parking area for an existing commercial facility. An area of fill is located west of the proposed Facility. Topography slopes from north to south and east (from elevation 38 AMSL to elevation 35 AMSL) across the project area.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: Existing terrain is a wooded area adjacent to a bituminous parking area and the Amtrak right of way. There is an existing wetland area located approximately 275' west of the proposed Facility.
- E. LAND USE WITHIN ¼ MILE OF SITE: Residential to the north and west. Amtrak right of way, vacant land and residential to the south. Commercial and residential to the east.

III. FACILITIES

- A. POWER COMPANY: CL&P
- B. POWER PROXIMITY TO SITE: 250'±
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: 250'±
- E. VEHICLE ACCESS TO SITE: Existing bituminous driveway, parking area and proposed gravel access drive.
- F. OBSTRUCTION: N/A.
- G. CLEARING AND FILL REQUIRED:

Total area of disturbance: 5,500 sf.

3 trees will need to be removed.

The site is balanced with approx. 80 cubic yards of cut material and 40 cubic yards of fill material.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: Gregory Benoit
- C. ADDRESS: 5 Overbrook Road
East Lyme, CT 06333
- D. DEED ON FILE AT: Book 339, Page 601

**FACILITIES AND EQUIPMENT SPECIFICATION
(TOWER & EQUIPMENT)
(387 Shore Road Site)**

I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: TBD
- B. TYPE: Monopole
- C. HEIGHT: 80'
- D. DIMENSIONS: Approx 36" outer diameter at bottom x 21" outer diameter at top

II. TOWER LOADING:

- A. T-MOBILE
 - 1. ANTENNAS: 3 panel antenna per sector; 3 sectors
 - 2. POSITION ON TOWER: 77'-9" Rad Center
 - 3. TRANSMISSION LINES: 18 lines

III. ENGINEERING ANALYSIS AND CERTIFICATION:

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

ENVIRONMENTAL ASSESSMENT STATEMENT
(387 Shore Road Site)

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. No wetlands were identified on or near the proposed Site or within 200 feet of proposed development activities (closest wetland is 275' west of the Facility). Due to the significant distance between the proposed Facility and the nearest wetland resource, no likely adverse impact to wetlands will occur. See Wetlands Compliance Statement attached hereto. 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 might be utilized.

C. LAND

Minimal clearing and grading would be required for development of the proposed Site. Three trees (9-14" inches in diameter) would have to be removed or relocated to construct the tower and equipment area (proposed electric service). The remainder of the Property would be unchanged by the construction and operation of the Site.

D. NOISE

The equipment to be in operation at the proposed Site after construction would emit no noise other than from cooling fans within the equipment cabinets. A portable generator might be employed during power outages. Some noise is anticipated during Facility construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the facility would be approximately 21.325 % of the applicable FCC/ANSI standards.

F. VISIBILITY

The potential visibility of the proposed monopole was assessed using a viewshed map (attached) with an approximate two-mile radius. As shown, the primary area of visibility occurs over open water on Long Island Sound located to the south. The predictive model also depicts areas of potential visibility that are located within the immediate vicinity of the proposed site along select portions of Shore Road and the existing Amtrak right-of-way and a limited area of potential visibility within the Point O' Woods residential development located to the south/southwest of the proposed site.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The NEPA report for this site is pending and will be filed with the Certificate application. As this site is paved and already developed with a commercial building, it is our expectation that a "no adverse impact" determination will be reached.

ATTACHMENT 1C



Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Mr. Scott Chasse
All-Points Technology Corp., P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Date: May 26, 2009

Project No.: 40505.09

From: Dean Gustafson
Professional Soil Scientist

Re: Wetland Compliance
T-Mobile Site No. CTNL804E
387 Shore Road
Old Lyme, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site.

The Site was inspected on April 22, 2009. The property is improved with a commercial Laundromat building and associated paved parking in the eastern portion of the subject property. Based on a review of plans prepared by All-Points Technology Corporation, P.C. (latest revised date 05/15/09) VHB understands that T-Mobile proposes to construct a wireless communications facility just west of the Laundromat and associated paved area. A wetland resource was identified approximately 275 feet west of the proposed development. Due to the significant distance separating the proposed T-Mobile facility from the nearest wetland resource area, no likely adverse impact to wetlands will occur as a result of the proposed development.

Connecticut Market



Worst Case Power Density

Site: CTNL804B
Site Address: 387 Shore Road
Town: East Lyme
Tower Height: 80 ft.
Facility Style: Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWW-16DWW	Antenna Model	APX16DWW-16DWW
Cable Size	7/8 in.	Cable Size	7/8 in.
Cable Length	110 ft.	Cable Length	110 ft.
Antenna Height	77.0 ft.	Antenna Height	77.0 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0186 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	2.0460 dB	Total Cable Loss	1.2760 dB
Total Attenuation	6.5460 dB	Total Attenuation	2.7760 dB
Total EIRP per Channel (In Watts)	54.46 dBm 279.53 W	Total EIRP per Channel (In Watts)	61.24 dBm 1331.86 W
Total EIRP per Sector (In Watts)	63.50 dBm 2236.25 W	Total EIRP per Sector (In Watts)	64.25 dBm 2663.73 W
nsg	11.4540	nsg	15.2240
Power Density (S) = 0.097325 mW/cm ²		Power Density (S) = 0.115929 mW/cm ²	
T-Mobile Worst Case % MPE =		21.3254%	
Equation Used:			
$S = \frac{(1000(grf))^2 (Power) 10^{(nsg/10)}}{4\pi (R)^2}$			
Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997			

Co-Location Total

Carrier	% of Standard
Verizon	0.0000 %
Cingular	0.0000 %
Sprint	0.0000 %
AT&T Wireless	0.0000 %
Nextel	0.0000 %
MetroPCS	
Other Antenna Systems	0.0000 %
Total Excluding T-Mobile	0.0000 %
T-Mobile	21.3254
Total % MPE for Site	21.3254%

*Preliminary Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL804B
387 Shore Road
Old Lyme, Connecticut*

NOTE:



- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 80 feet.
- Existing tree canopy height estimated at 50 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

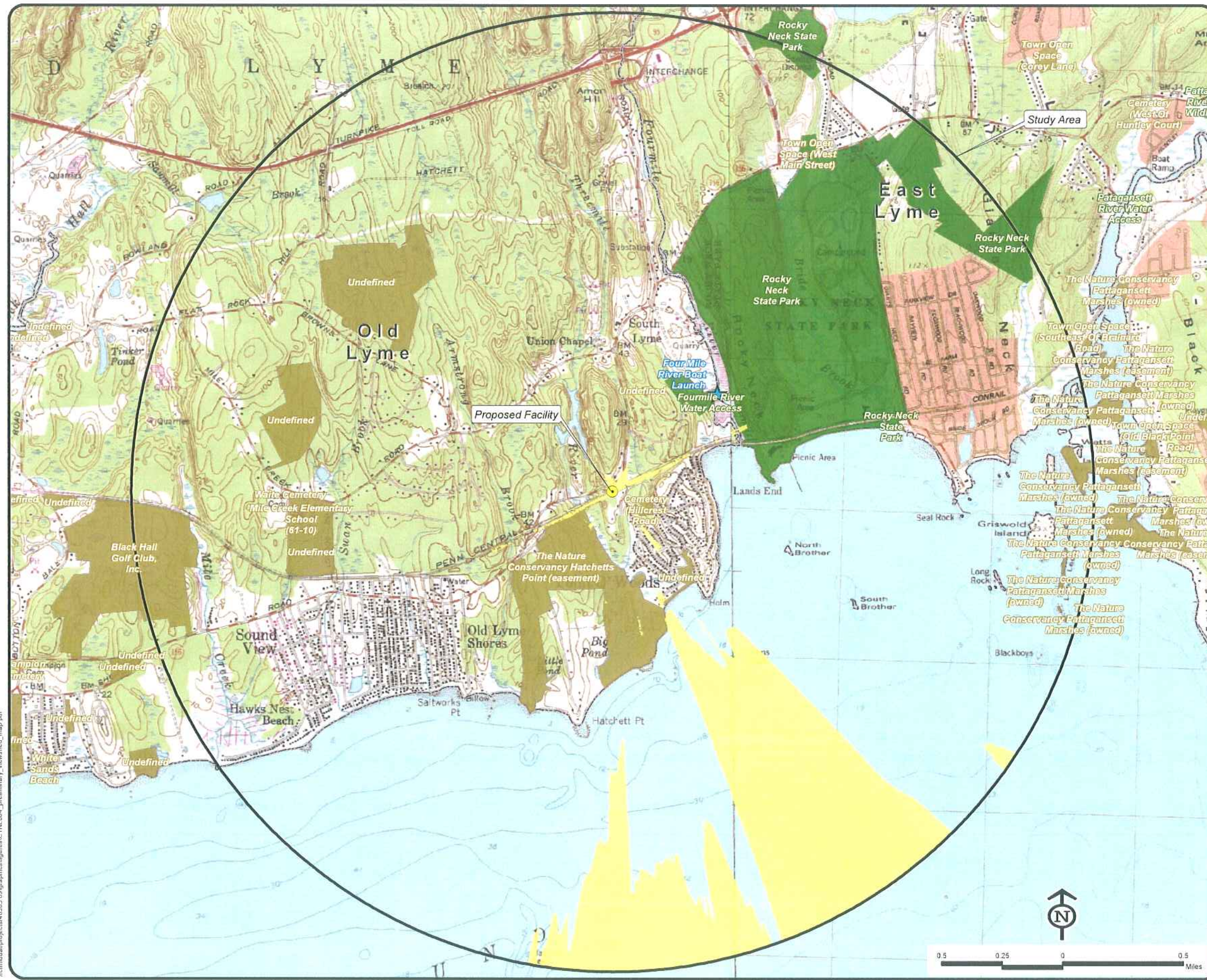
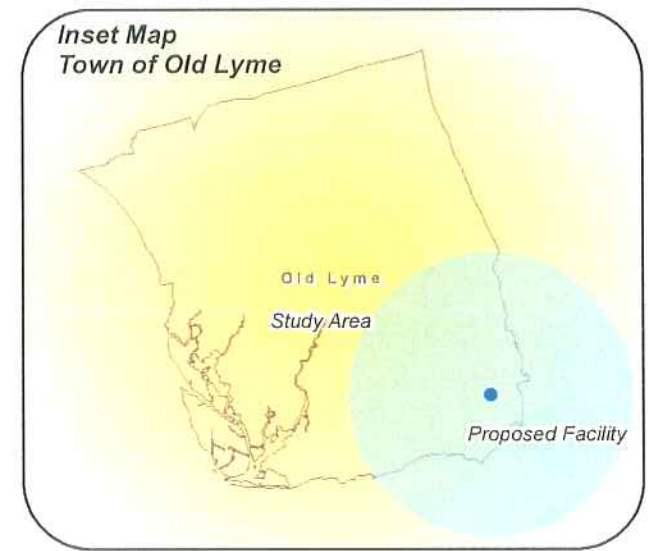
DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LIDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
- Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
- Protected CT DEP properties data layer provided by CTDEP, May 2007
- CT DEP boat launches data layer provided by CT DEP, 1994
- Scenic Roads layer derived from available State and Local listings.

Map Compiled May, 2009

Legend

- | | | | |
|---|--|---|-------------------------------------|
|  | Tower Location |  | CT DEP Protected Properties (2007) |
|  | Year-Round Visibility (Approximately 679 acres) |  | State Forest |
|  | Protected Municipal and Private Open Space Properties (1997) |  | State Park |
|  | Cemetery |  | DEP Owned Waterbody |
|  | Preservation |  | State Park Scenic Reserve |
|  | Conservation |  | Historic Preserve |
|  | Existing Preserved Open Space |  | Natural Area Preserve |
|  | Recreation |  | Fish Hatchery |
|  | General Recreation |  | Flood Control |
|  | School |  | Other |
|  | Uncategorized |  | State Park Trail |
| | |  | Water Access |
| | |  | Wildlife Area |
| | |  | Wildlife Sanctuary |
| | |  | Federal Protected Properties (1997) |
| | |  | CT DEP Boat Launches (1994) |
| | |  | Scenic Road (State and Local) |
| | |  | Town Line |



Z:\cmdata\projects\40505\09\graphics\figures\CTNL804B_preliminary_viewshed_map.pdf

ATTACHMENT 2

SECTION 1

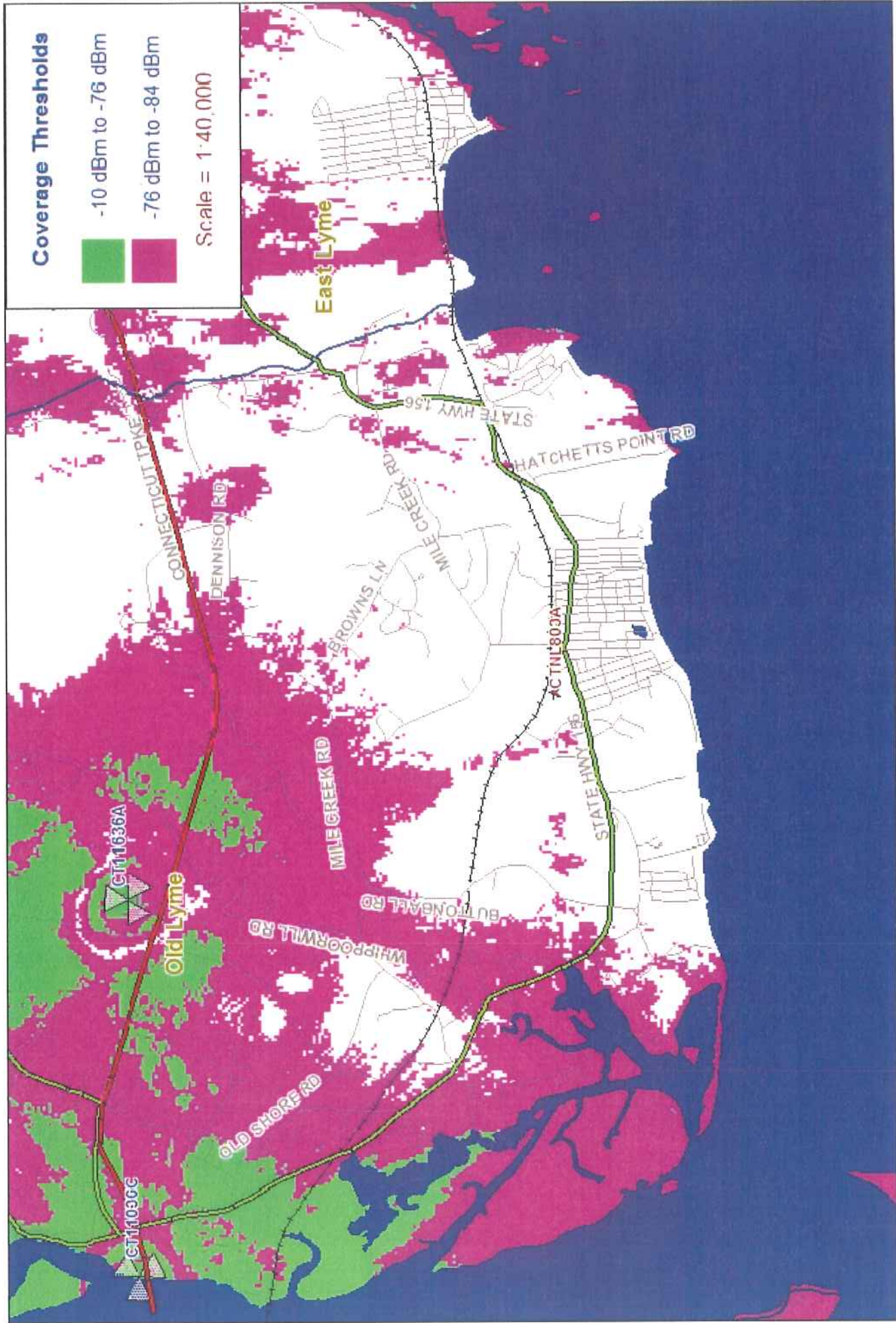
Site Justification (232 Shore Road Site)

The proposed Shore Road Site is necessary to enhance wireless service availability to existing and future T-Mobile wireless device users. Enhanced coverage provided by the Facility will allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The intended coverage area of the Facility includes Route 156, Mill Creek Road, Hawks Nest Road and Cross Lane just south of Interstate 95 in Old Lyme as well as the Amtrak Rail Line that passes through this area. Additionally, the Facility will provide capacity relief for the current sites that presently cover this area from outer lying areas.

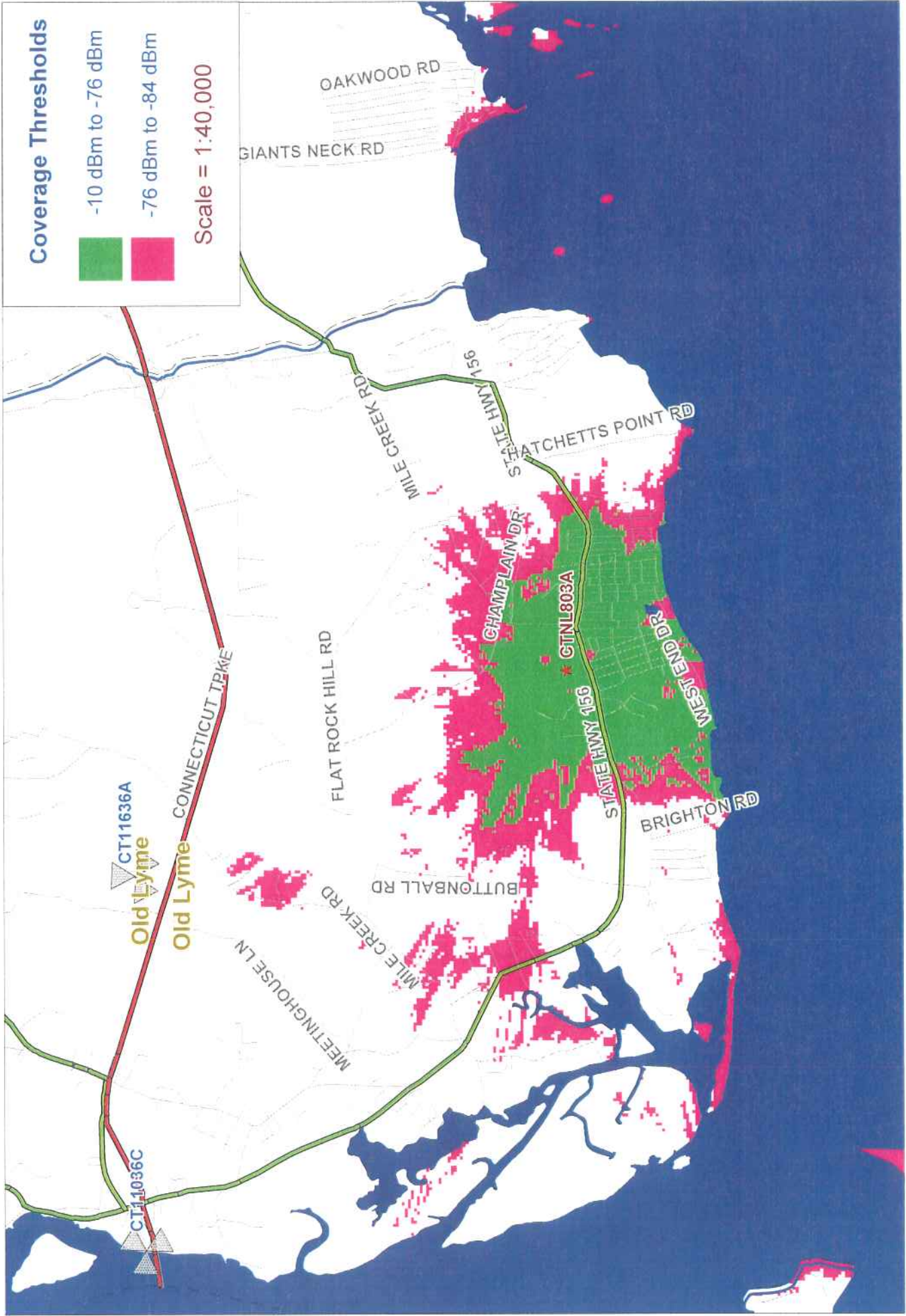
Included herein are propagation plots prepared by T-Mobile that depict (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with antennas mounted at a centerline of approximately 100 ft. AGL; and (3) coverage from the proposed Site with existing and 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 wireless service in this area of Old Lyme.

ATTACHMENT 2A

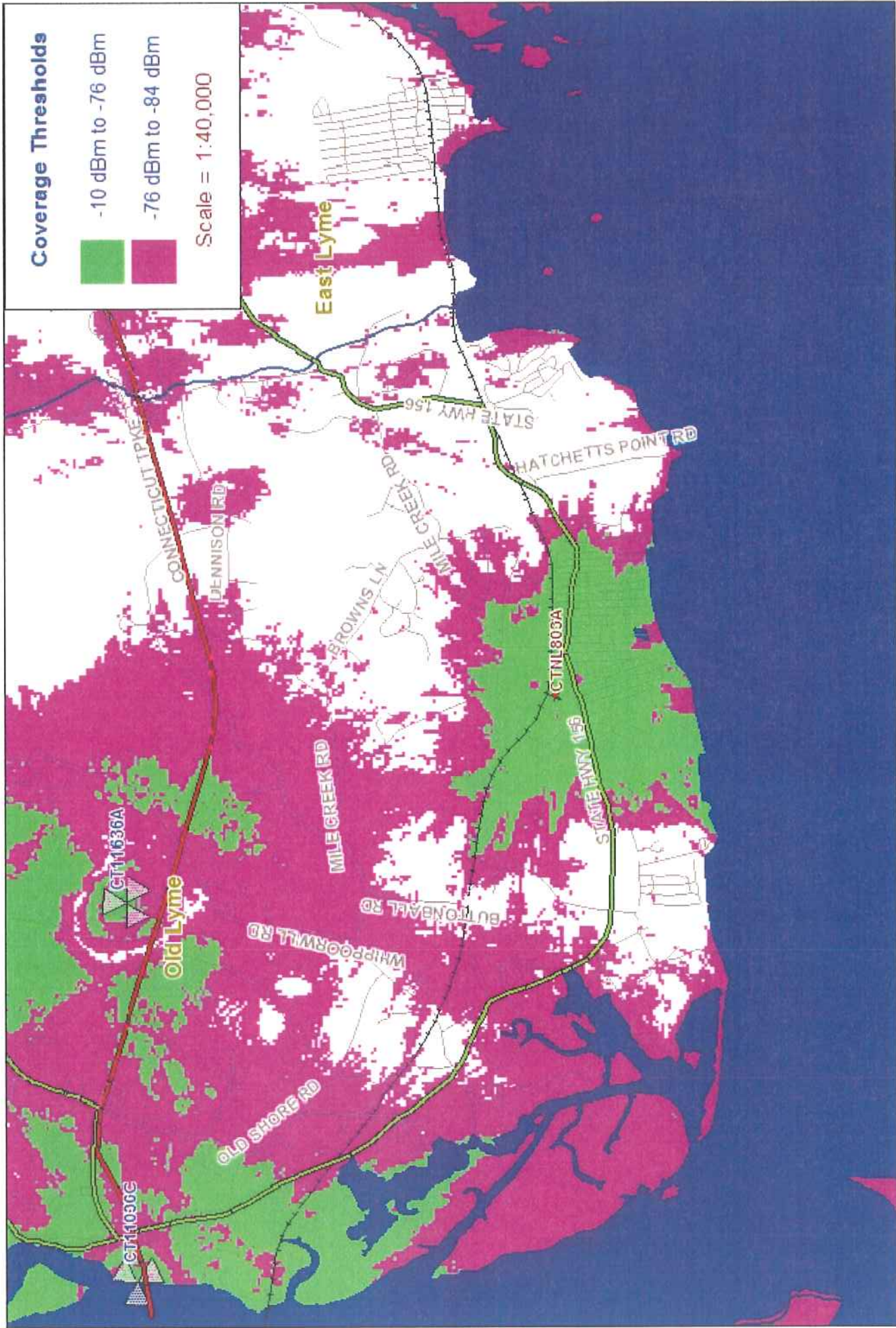


- T-Mobile-- Existing T-Mobile On Air Coverage



- T-Mobile - T-Mobile Proposed CTNL803A Facility @ 97'

- T-Mobile -



Existing T-Mobile On Air Coverage
With CTNL803A @ 97' AGL



- T-Mobile -

SECTION 2

Site Search Process and Selection (232 Shore Road Site)

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the applicant to submit a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, the description of the general site search process, the identification of the target search area and the alternative locations considered for development of the proposed Facility are provided below.

As an FCC licensed wireless carrier, T-Mobile decides to seek out a site in an area based upon the needs of its wireless infrastructure and extensive research of the subject area. T-Mobile chooses a target area central to the area in which it has identified coverage and/or capacity needs. The area targeted is the geographical location where the installation of a site would, based on general radio frequency engineering and system design standards, likely address the identified problem. T-Mobile’s goal is to locate sites that will remedy coverage or capacity issues, while resulting in the least environmental impact. In this case, T-Mobile has searched for a site in this area for several years, and has identified the Shore Road Site as the best possible location for a wireless facility.

T-Mobile is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, T-Mobile’s site acquisition personnel first study the area in and near the search ring to determine whether any suitable structure exists. If T-Mobile cannot find a structure with appropriate height and structural capabilities, it turns to industrial / commercial areas or individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their property available. Radio frequency engineers study potentially suitable and available locations to determine whether the locations will meet the technical requirements for a site in the area. Analysis of potential environmental effects and benefits may further narrow the alternatives. The weight given relevant factors varies for each search, depending on the nature of the area and the availability of potential sites.

In the area of Old Lyme, which is the subject of this site search, there are no existing towers, transmission line structures or other suitable structures. Moreover, any existing towers are too far from the target area to provide coverage specifically to the target area. The nearest towers and suitable structures are already in use by T-Mobile. Finally, the Site is located within the target search area and abuts the Amtrak Rail Line, which is a component of the coverage goal.

The locations considered and the reasons locations other than the proposed Shore Road Site were not selected are outlined below:

1. 287 Shore Road, vacant church, corner of Shore Road and Swan Ave. This property hosts a vacant church, with a flat roof steeple that is approximately 35' tall. T-Mobile radio frequency engineers reviewed site and determined that the rooftop was too low to afford adequate coverage.

2. Existing Water Tank located off Cross Lane. This site hosts a water tank, with a height of approximately 25'. T-Mobile radio frequency engineers reviewed and determined that the tank structure is too low to afford adequate coverage, particularly since the water tank does not extend beyond the existing tree line.

3. 240-1 Shore Road (Route 156), Old Lyme Self Storage. This site is closer to residential homes than the proposed Site. It is also located approximately 250' away from town recreational fields, directly north across Amtrak Rail Line. The owner expressed a lack of interest in installing a tower on this site.

4. 234 Shore Road. This site hosts an approximately 30' tall office building. T-Mobile radio frequency engineers reviewed site and determined that the existing rooftop was too low to afford adequate coverage.

As a result, T-Mobile has determined that the property owned by South Shore Landing Self Storage at 232 Shore Road (the "Property") is superior to other properties in the area. The Property is zoned for light industrial (LI-80) and is 5 acres. Access to the Site is across an existing driveway and across an existing gravel parking lot on the Property. The Property is currently used as a storage facility. It is also set back approximately 900' from Shore Road, with excellent screening from mature trees. There are no residential homes in the immediate area. There is also a large track of forest immediately to the north and east of the proposed Site. AT&T has expressed an interest to co-locate on the proposed Facility.

SECTION 3

PROPOSED SITE

**232 Shore Road
Old Lyme, Connecticut**

Land of
South Shore Landing Self Storage

Map 8/Lot 36-2

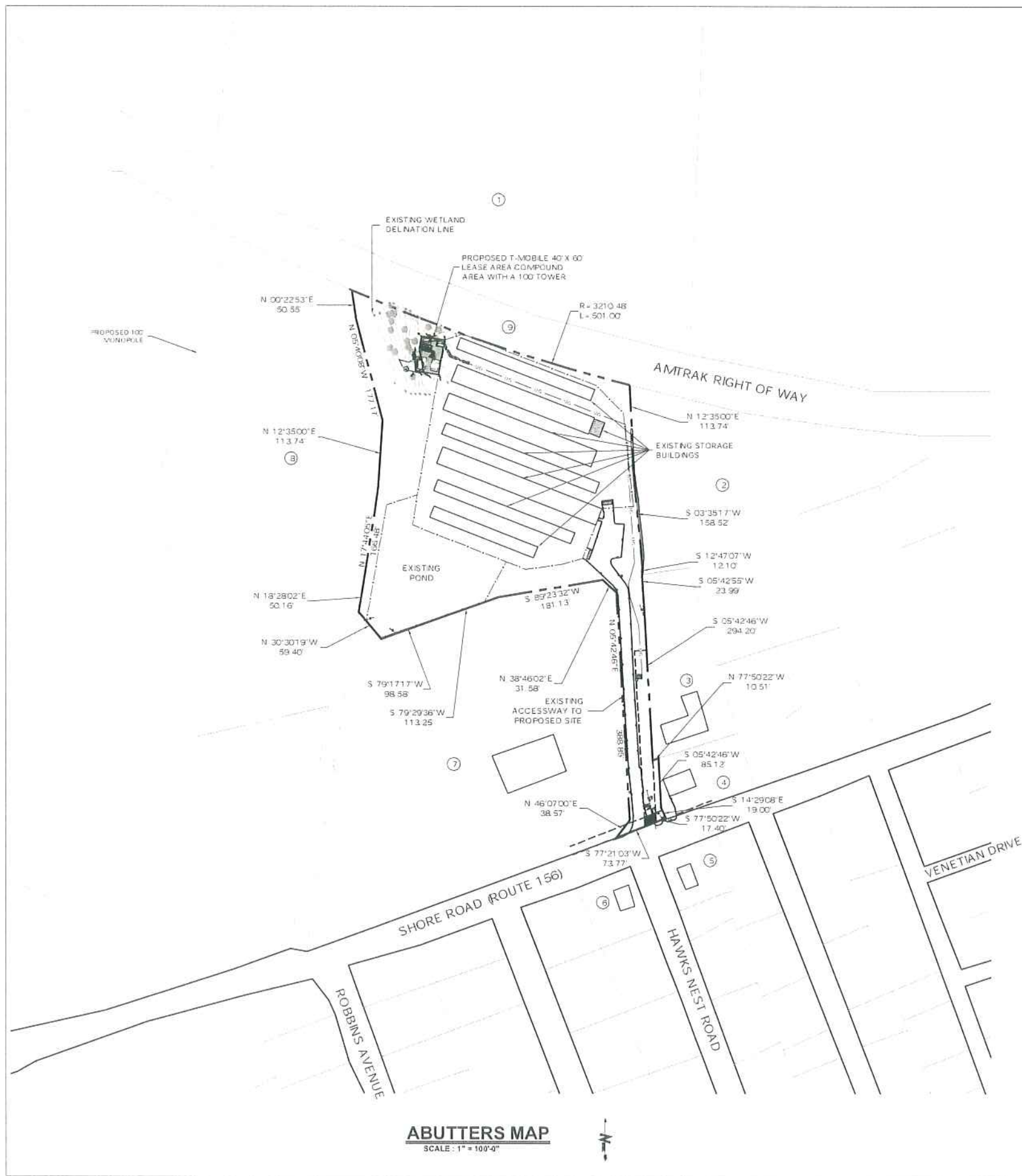
5 Acres

GENERAL FACILITY DESCRIPTION
(232 Shore Road Site)

The proposed Shore Road Site is a 2400 square foot leased area located in the northwesterly portion of an approximately 5 acre parcel at 232 Shore Road in the Town. The Property is used by the owner as a storage facility. The Facility would consist of a 100 ft. monopole structure with antennas mounted on standoff cross arms. The monopole would accommodate 3 additional sets of antennas.

Related equipment cabinets would be placed at the base of the tower in the center of the leased area. The equipment would be surrounded by an 8-foot chain link fence. Vehicle access to the Site would extend from Shore Road along an existing driveway and across an existing gravel parking lot. Underground utility connections would extend from existing service along the eastern property line.

ATTACHMENT 2B



ABUTTERS MAP
SCALE: 1" = 100'-0"

ABUTTERS

SUBJECT PARCEL
232 SHORE ROAD

GARY D. SMITH
P.O. BOX 833
OLD LYME, CT 06371
MAP B, LOT 36-2
ACRES = 5.0

- | | | | |
|---|---|---|---|
| 1 | XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX | 7 | 230 SHORE ROAD

CAPITAL HOLDINGS OF CT, INC.
230 SHORE ROAD
OLD LYME, CT 06371
MAP B, LOT 36-1 |
| 2 | 240-1 SHORE ROAD

RICHARD BATTALINO
P.O. BOX 487
SOUTH LYME, CT 06376
MAP B, LOT 37 | 8 | 226 SHORE ROAD

GARVIN FAMILY CORP, INC.
11 STONEWOOD DRIVE
OLD LYME, CT 06371
MAP B, LOT 34 |
| 3 | 236-1 SHORE ROAD

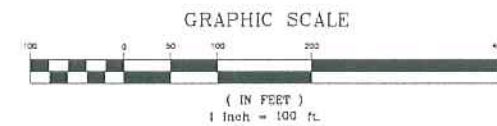
DONALD GALE & SHARON GALE
P.O. BOX 37
SALEM, NY 10590
MAP B2, LOT 2 | 9 | AMTRAK RIGHT OF WAY

NATIONAL PASSENGER
RAILROAD CORP.
711 3RD AVENUE
NEW YORK, NY 10017 |
| 4 | 236 SHORE ROAD

ROGER CRAMPTON
170 BOSTON POST ROAD
SUITE 122
MADISON, CT 06443
MAP B2, LOT 1 | | |
| 5 | 2 HAWKS NEST ROAD

MICHAEL GERARD & JOANNE SPALA
P.O. BOX 4115
OLD LYME, CT 06371
MAP B2, LOT 23 | | |
| 6 | 1 HAWKS NEST ROAD

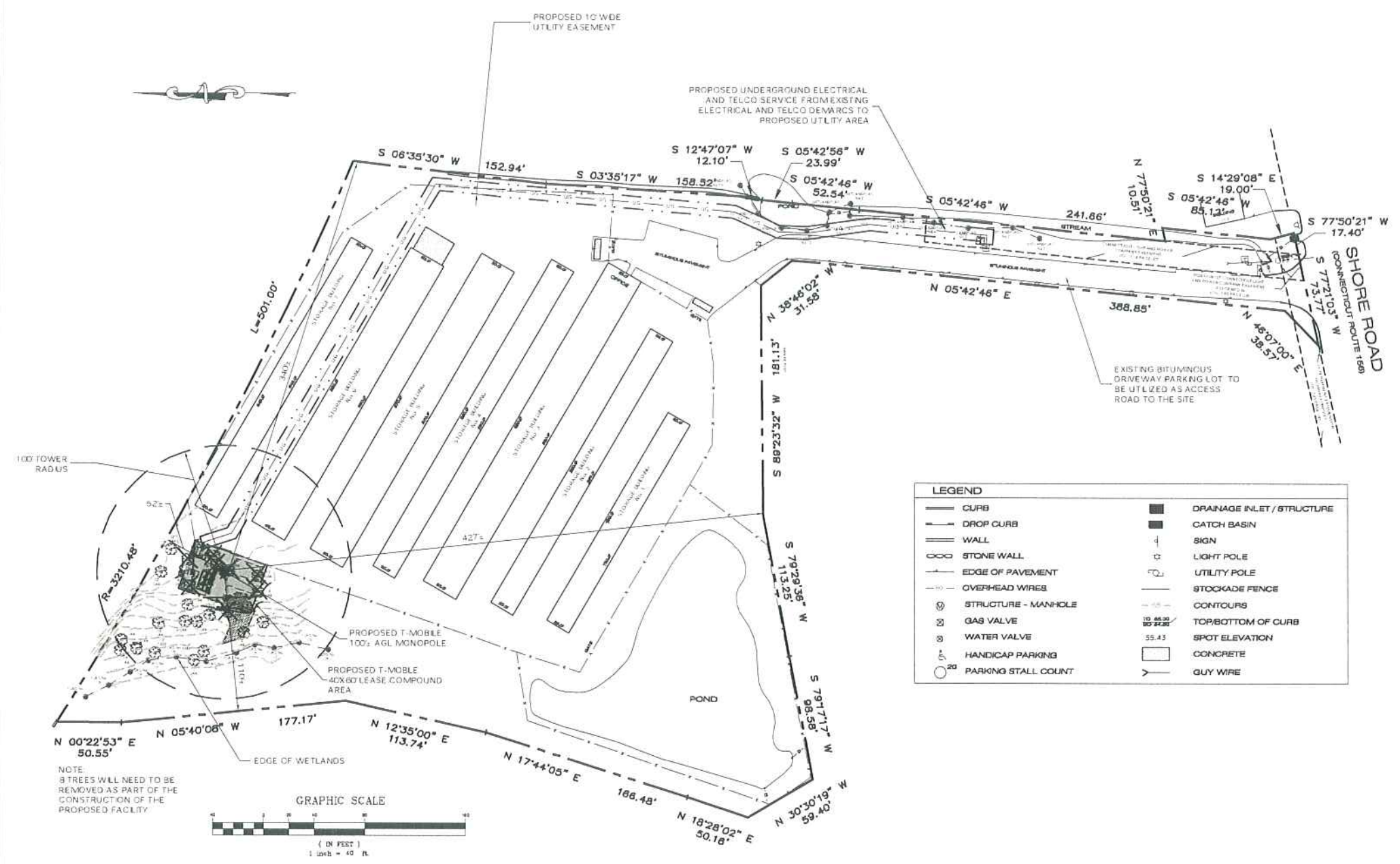
MICHELE JOHNSON
1 HAWKS NEST ROAD
OLD LYME, CT 06371
MAP B2, LOT 32 | | |



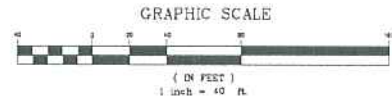
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T-Mobile 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	PERMITTING DOCUMENTS SOUTH SHORE LANDING 232 SHORE ROAD OLD LYME, CT 06371-2086	ABUTTERS MAP	
	DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-255T-330 APT DRAWING NUMBER: CTNL803 DRAWN BY: RCB CHECKED BY: SMC	
ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-6935	REVISIONS: REV 0: 05/21/09: FOR REVIEW: SMC REV 1: 05/26/09: FINAL REV 2: REV 3: REV 4:	SCALE: AS NOTED DATE: 05/21/09 SHEET NUMBER: A-1	





100' TOWER RADIUS
 52±
 R=3210.46'
 110±
 NOTE:
 8 TREES WILL NEED TO BE REMOVED AS PART OF THE CONSTRUCTION OF THE PROPOSED FACILITY.



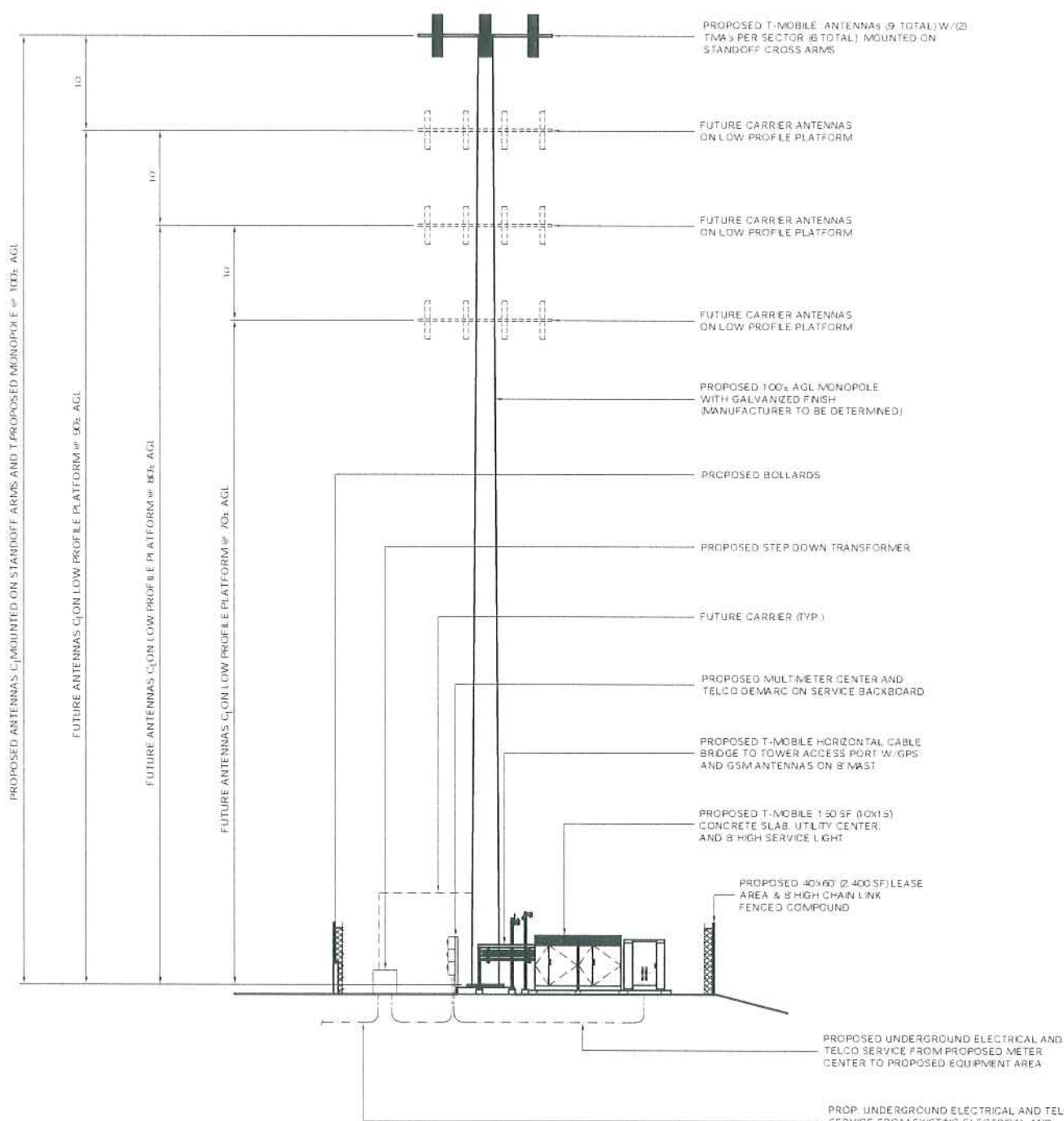
LEGEND			
	CURB		DRAINAGE INLET / STRUCTURE
	DROP CURB		CATCH BASIN
	WALL		SIGN
	STONE WALL		LIGHT POLE
	EDGE OF PAVEMENT		UTILITY POLE
	OVERHEAD WIRES		STOCKADE FENCE
	STRUCTURE - MANHOLE		CONTOURS
	GAS VALVE		TOP/BOTTOM OF CURB
	WATER VALVE		SPOT ELEVATION
	HANDICAP PARKING		CONCRETE
	PARKING STALL COUNT		GUY WIRE

NOTES

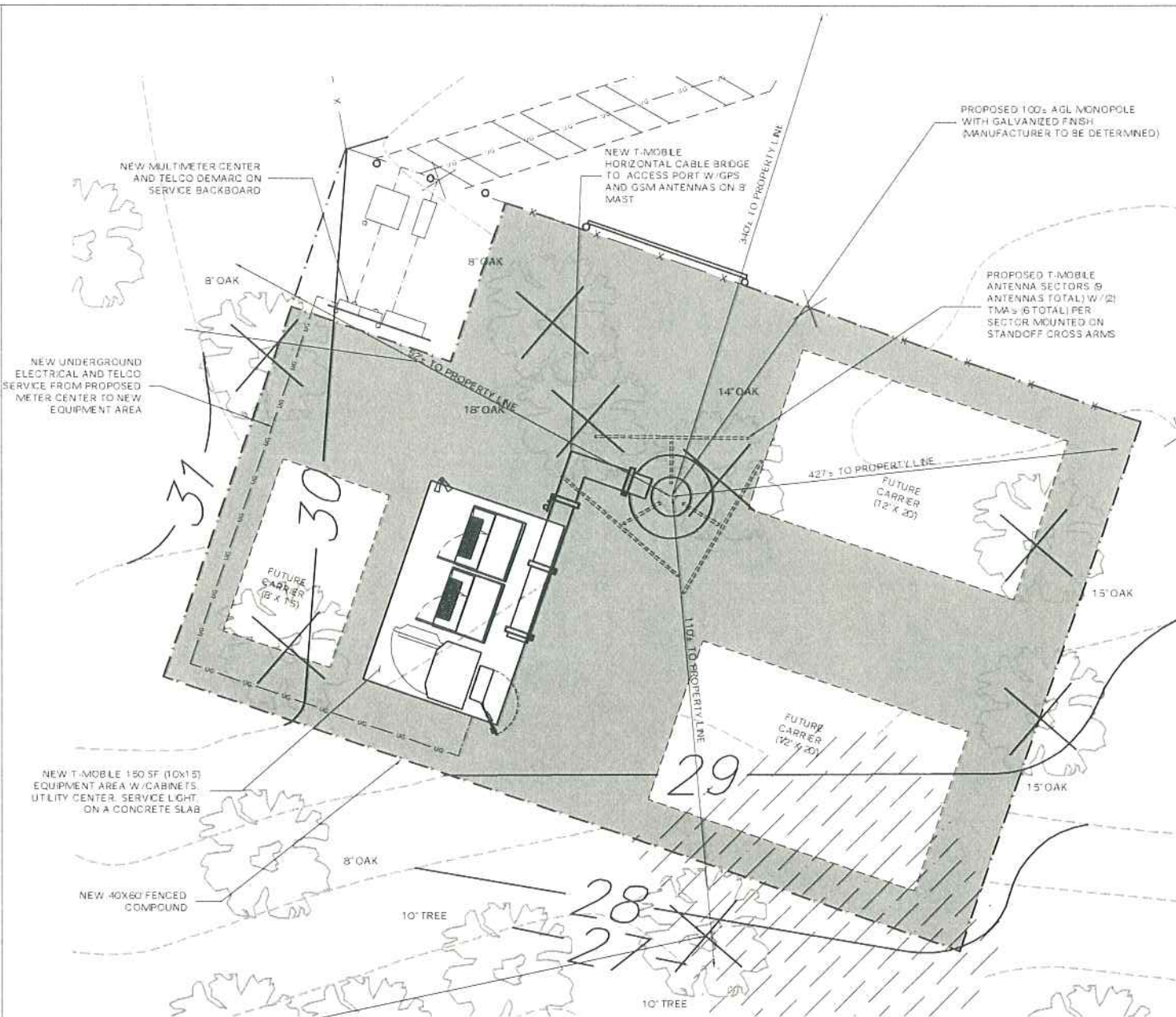
- THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1993.
- THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF A PROPERTY SURVEY.
- BOUNDARY DETERMINATION CATEGORY: DEPENDENT RESURVEY OF LOT 2 AS DEPICTED ON REFERENCE MAP A.
- HORIZONTAL ACCURACY CLASS: A-2
- VERTICAL ACCURACY CLASS: T-2. ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM 1929. TOPOGRAPHIC INFORMATION IS DEPICTED ONLY FOR A PORTION OF THE PROPERTY.
- TOTAL LOT AREA = ± 21,893 SQUARE FEET OR 50.6 ACRES.
- ALL MONUMENTATION FOUND OR SET ON THE SUBJECT PREMISES IS DEPICTED HEREON.
- NORTH REFERS TO REFERENCE MAP A.
- REFERENCE MAPS:
 - (A) RECORD SUBDIVISION PLAN, SOUTH SHORE LANDING, 230 SHORE ROAD, OLD LYME, CT 06371 FOR GARY D. SMITH, PREPARED BY GARY D. SMITH, SCALE 1"=40', DATED 09-06-2000 AND LAST REVISED 10-18-2000 AND ON FILE WITH THE OLD LYME TOWN CLERK.
 - (B) LAND TO BE CONVEYED TO KENNETH GELBAND, RAYMOND A. NELLUZZO & GARY D. SMITH, SHORE RD., OLD LYME, CONN., PREPARED BY RICHARD W. GATES, SCALE 1"=40' DATED 2/28/85.
 - (C) CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP, TOWN OF OLD LYME, SHORE ROAD FROM MILE CREEK EASTERLY TO THE SOUTH LYME STATION, ROUTE NO. 166, SHEET 1 OF A SCALE 1"=40', LAST REVISED 2/27/1993.
 - (D) MAP SHOWING EASEMENT AREA TO BE GRANTED TO CONNECTICUT LIGHT AND POWER COMPANY ACROSS THE PROPERTY OF GARY D. SMITH & KENNETH S. GELBAND, SCALE 1"=40' DATED 7/10/1987, PREPARED BY RICHARD W. GATES.
 - (E) SITE PLAN MODIFICATION, SOUTH SHORE LANDING, 230 SHORE ROAD, OLD LYME, CONNECTICUT, SCALE 1"=40', DATED 8/5/2000 AND LAST REVISED 10/18/2000.
- PARCEL OWNER OF RECORD: GARY D. SMITH, P.O. BOX 833, OLD LYME, CT 06371.
- THE PROPERTY IS TOGETHER WITH TWO EASEMENTS RECORDED IN VOLUME 270 AT PAGE 499. EASEMENT NO. 5 IS DEPICTED HEREON. EASEMENT NO. 6 IS NOT PLOTTABLE.
- THE PROPERTY IS SUBJECT TO:
 - (A) AN EASEMENT IN FAVOR OF THE CONNECTICUT LIGHT AND POWER COMPANY RECORDED IN VOLUME 174 AT PAGE 307, AS SUBORDINATED TO AN EASEMENT IN FAVOR OF THE STATE OF CONNECTICUT RECORDED IN VOLUME 195 AT PAGE 740, WHICH SUBORDINATION AGREEMENT WAS RECORDED IN VOLUME 185 AT PAGE 315 OF THE OLD LYME LAND RECORDS. EASEMENTS ARE DEPICTED HEREON.
 - (B) DECLARATION OF CROSS EASEMENTS RECORDED IN VOLUME 270 AT PAGE 499 OF THE OLD LYME LAND RECORDS. EASEMENTS ARE NOT PLOTTABLE.
 - (C) EMERGENCY ACCESS EASEMENT RECORDED IN VOLUME 270 AT PAGE 502 OF THE OLD LYME LAND RECORDS.

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T-MOBILE SITE NUMBER: CTNL803	PERMITTING DOCUMENTS SOUTH SHORE LANDING 232 SHORE ROAD OLD LYME, CT 06371-2086	SITE PLAN	
APT FILING NUMBER: CT-255T-330	DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-255T-330	
	35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	APT DRAWING NUMBER: CTNL803	
		DRAWN BY: RCB	SCALE: 1"=50'
	3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-463-1697 FAX: (860)-463-0935	CHECKED BY: SMC	DATE: 5/15/09
		REVISIONS:	
		REV. 0: 05/21/09: FOR REVIEW: SMC	SHEET NUMBER: SP-1
		REV. 1: 05/26/09: FINAL	
REV. 2: REV. 3: REV. 4:			



NORTHERN ELEVATION
SCALE: 1/8" = 1'-0"



COMPOUND PLAN
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE
(IN FEET)
1/8 inch = 1ft.

ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA-TA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES FOR NEW LONDON COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 100 MPH WIND. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

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T-MOBILE SITE NUMBER: CTNL803	PERMITTING DOCUMENTS SOUTH SHORE LANDING 232 SHORE ROAD OLD LYME, CT 06371-2086	COMPOUND PLAN & TOWER ELEVATION	
APT FILING NUMBER: CT-255T-330	DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-255T-330	
 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	REVISIONS:	APT DRAWING NUMBER: CTNL803 A-1.DWG	
	ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-463-1697 FAX: (860)-463-0935	REV. 0: 05/21/09: FOR REVIEW: SMC REV. 1: 05/26/09: FINAL REV. 2: REV. 3: REV. 4:	DRAWN BY: RCB
		CHECKED BY: SMC	DATE: 05/21/09
		SHEET NUMBER: SP-2	

SITE EVALUATION REPORT
(232 Shore Road Site)

I. LOCATION

- A. COORDINATES: 41°17'30.18" N
72°17'13.18" W
- B. GROUND ELEVATION: 30'± AMSL
- C. USGS MAP: USGS 7.5 quadrangle for Old Lyme (1970)
- D. SITE ADDRESS: 232 Shore Road
Old Lyme, CT 06371
- E. ZONING WITHIN ¼ MILE OF SITE: Zoned residential and Amtrak right of way to the north. Residential to the south. Light industrial and commercial to the east. Light industrial and residential to the west.

II. DESCRIPTION

- A. SITE SIZE: 40' x 60'
- B. TOWER TYPE/HEIGHT: 100' Monopole
- C. SITE TOPOGRAPHY AND SURFACE: Subject site is located adjacent to an existing wooded area and a gravel parking area for an existing storage facility. Topography slopes from northeast to southwest (from elevation 31 AMSL to elevation 27 AMSL). Exposed rock outcropping occupies a small portion of the proposed compound area.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: Existing terrain is a wooded area adjacent to a gravel parking area and the Amtrak right of way. There is an existing wetland area located approximately 65' west of the proposed facility.
- E. LAND USE WITHIN ¼ MILE OF SITE: Amtrak right of way, vacant land, a municipal recreation facility, and residential to the north. Commercial and residential to the east, south and west.

III. FACILITIES

- A. POWER COMPANY: CL&P
- B. POWER PROXIMITY TO SITE: 785'±
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: 785'±
- E. VEHICLE ACCESS TO SITE: Existing bituminous driveway and gravel parking area.
- F. OBSTRUCTION: N/A.
- G. CLEARING AND FILL REQUIRED:

Total area of disturbance: 6,800 sf.

8 trees will need to be removed.

The site is balanced with approx. 10 cubic yards of cut material and approx. 40 cubic yards of fill material.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: South Shore Landing Self Storage
Gary Smith
- C. ADDRESS: 232 Shore Road
Old Lyme, CT 06371
- D. DEED ON FILE AT: Book 181, Page 61

**FACILITIES AND EQUIPMENT SPECIFICATION
(TOWER & EQUIPMENT)
(232 Shore Road Site)**

I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: TBD
- B. TYPE: Monopole
- C. HEIGHT: 100'
- D. DIMENSIONS: Approx 36" outer diameter at bottom x 21" outer diameter at top

II. TOWER LOADING:

- A. T-MOBILE
 1. MODEL: 3 panel antenna per sector; 3 sectors
 2. POSITION ON TOWER: 100' Rad Center
 3. TRANSMISSION LINES: 18 lines
- B. FUTURE CARRIERS – 3 additional carriers; equipment TBD

III. ENGINEERING ANALYSIS AND CERTIFICATION:

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

ENVIRONMENTAL ASSESSMENT STATEMENT
(232 Shore Road Site)

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. The proposed facility is located in the cleared and disturbed area within 62 feet from the nearest wetland resource located to the west. Although work is proposed in proximity to nearby wetland resources, no direct impact to wetlands will occur. See Wetlands Compliance Statement attached hereto. 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 might be utilized.

C. LAND

Minimal clearing and grading would be required for development of the proposed Site (6,800 sf of total disturbance). Eight trees (8-15" inches in diameter) will need to be removed or relocated to construct the tower and equipment area (proposed electric service). The remainder of the Property would remain unchanged by the construction and operation of the Site.

D. NOISE

The equipment to be in operation at the proposed Site after construction would emit no noise other than from cooling fans within the equipment cabinets. A portable generator might be employed during power outages. Some noise is anticipated during Facility construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the facility would be approximately 12.336% of the applicable FCC/ANSI standards.

F. VISIBILITY

The potential visibility of the proposed monopole was assessed using a viewshed map (attached) with an approximate two-mile radius. As shown, the primary areas of visibility would be immediately to the south and to the west of the proposed site and/or over open water on Long Island Sound located to the south. Year-round visibility from these areas accounts for the majority of the anticipated potential visibility. Other areas of potential year-round visibility are located within the general vicinity of the proposed monopole.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The NEPA report for this site is pending and will be filed with the Certificate application. As is evident from the attached Low Potential Impact Letter, however, EBI has concluded that the proposed installation will not implicate any of the criteria as outlined in NEPA 1.1307(a) items (1) through (8) and preparation of an Environmental Assessment (EA) is not required (tribal consultation is pending). Of importance, based on a letter dated December 23, 2008, the Connecticut State Historic Preservation Officer concurred with EBI's finding that construction of the proposed undertaking will have no effect on historic or archaeological resources.

ATTACHMENT 2C



Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Mr. Scott Chasse
All-Points Technology Corp., P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Date: May 26, 2009

Project No.: 40505.08

From: Dean Gustafson
Professional Soil Scientist

Re: Wetland Compliance
T-Mobile Site No. CTNL803
232 Shore Road
Old Lyme, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site.

The Site was inspected on April 22, 2009. The property is improved with a self storage facility consisting of numerous storage buildings surrounded by a chain link fence and underlain by gravel drive isles located between Shore Road to the south and railroad tracks to the north. Based on a review of plans prepared by All-Points Technology Corporation, P.C. (latest revised date 05/15/09) VHB understands that T-Mobile proposes to construct a wireless communications facility in the northwest corner of the subject property just outside the storage facility's fenced compound. The proposed T-Mobile facility is located in an area that consists of partial clearing and mature forested upland area located approximately 20 feet from a nearby forested wetland system. In addition, underground utility service will be provided from an existing electrical transformer located in the southern portion of the property near Shore Road and adjacent to a paved access drive. This underground utility will be located in close proximity (e.g., less than 5 feet) to a wetland system located along the east property boundary.

Although work is proposed in proximity to nearby wetland resources, no direct impact will occur. The area proposed for development is immediately adjacent to existing developed and disturbed areas associated with the railroad tracks and storage facility. Silt fence will be installed and maintained during construction activities to avoid any temporary impacts to nearby wetland areas. Therefore, no likely adverse impact to wetlands will occur as a result of the proposed T-Mobile development due to the existing surrounding disturbance, the small area of development and the unmanned nature of the development.

VHB recommends that any exposed soils surrounding the proposed facility be permanently stabilized by loam and seeding with a New England Conservation/Wildlife seed mix (New England Wetland Plants, Inc., or approve equivalent). The New England Conservation/Wildlife seed mix provides a permanent cover of grasses, forbs, wildflowers, legumes and grasses to provide both

good erosion control and wildlife habitat value. This mix is designed to be a no maintenance seeding, and it is appropriate for cut and fill slopes and disturbed areas.

Connecticut Market



Worst Case Power Density

Site: CTNL803A
Site Address: 232 Shore Road
Town: Old Lyme
Tower Height: 100 ft.
Facility Style: Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWW-16DWW	Antenna Model	APX16DWW-16DWW
Cable Size	7/8 in.	Cable Size	7/8 in.
Cable Length	125 ft.	Cable Length	125 ft.
Antenna Height	97.0 ft.	Antenna Height	97.0 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0186 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	2.3250 dB	Total Cable Loss	1.4500 dB
Total Attenuation	6.8250 dB	Total Attenuation	2.9500 dB
Total EIRP per Channel (In Watts)	54.19 dBm 262.14 W	Total EIRP per Channel (In Watts)	61.07 dBm 1279.56 W
Total EIRP per Sector (In Watts)	63.22 dBm 2097.10 W	Total EIRP per Sector (In Watts)	64.08 dBm 2559.12 W
nsg	11.1750	nsg	15.0500
Power Density (S) = 0.055559 mW/cm ²		Power Density (S) = 0.067800 mW/cm ²	
T-Mobile Worst Case % MPE =		12.3359%	
Equation Used: $S = \frac{(1000)(grf)^2 (Power)^{10^{(nsg/10)}}}{4\pi (R)^2}$			
Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997			

Co-Location Total

Carrier	% of Standard
Verizon	0.0000 %
Cingular	0.0000 %
Sprint	0.0000 %
AT&T Wireless	0.0000 %
Nextel	0.0000 %
MetroPCS	
Other Antenna Systems	0.0000 %
Total Excluding T-Mobile	0.0000 %
T-Mobile	12.3359
Total % MPE for Site	12.3359%

Preliminary Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL803
232 Shore Road
Old Lyme, Connecticut

NOTE:

- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 100 feet.
- Existing tree canopy height estimated at 50 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

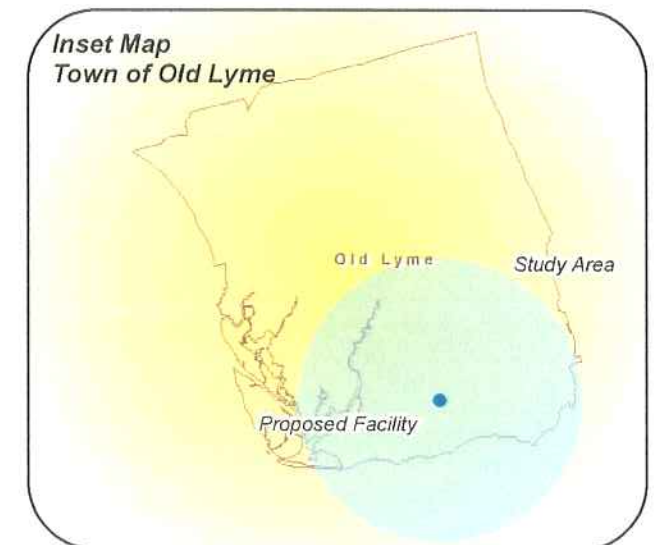
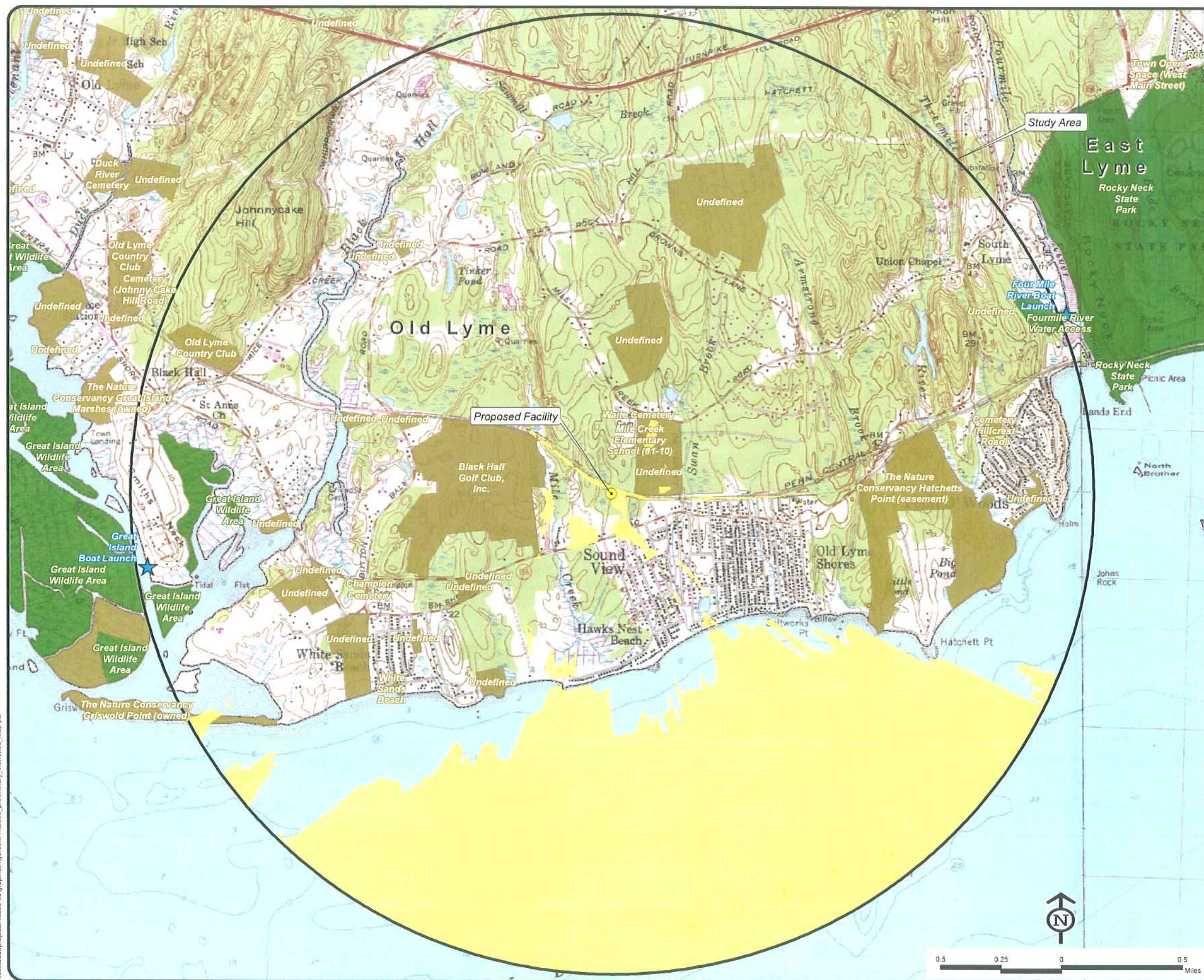
DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
- Base map comprised of Old Lyme (1970) and Niantic (1983) USGS Quadrangle Maps
- Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
- Protected CT DEP properties data layer provided by CTDEP, May 2007
- CT DEP boat launches data layer provided by CT DEP, 1994
- Scenic Roads layer derived from available State and Local listings.

Map Compiled May, 2009

Legend

- | | |
|--|---|
|  Tower Location |  CT DEP Protected Properties (2007) |
|  Year-Round Visibility (Approximately 1817 acres) | State Forest |
|  Protected Municipal and Private Open Space Properties (1997) | State Park |
| Cemetery | DEP Owned Waterbody |
| Preservation | State Park Scenic Reserve |
| Conservation | Historic Preserve |
| Existing Preserved Open Space | Natural Area Preserve |
| Recreation | Fish Hatchery |
| General Recreation | Flood Control |
| School | Other |
| Uncategorized | State Park Trail |
| | Water Access |
| | Wildlife Area |
| | Wildlife Sanctuary |
| |  Federal Protected Properties (1997) |
| |  CT DEP Boat Launches (1994) |
| |  Scenic Road (State and Local) |
| |  Town Line |



May 27, 2009

Ms. Jamie Ford
Project Coordinator
HPC Development, LLC
53 Lake Ave Ext.
Danbury, CT 06811

Subject: National Environmental Policy Act (NEPA) - Letter of Low Potential Impact
South Shore Landing Self Storage- Amtrak / CTNL803A
232 Shore Road, Old Lyme, CT
EBI Project # 61087294

Dear Ms. Ford:

Attached please find our *National Environmental Policy Act (NEPA)* Letter of Low Potential Impact for the proposed telecommunications installation at the address noted above (the Subject Property). The purpose of this letter is to evaluate the above-referenced property for potential environmental and historical concerns specified by the Federal Communications Commission (FCC) in 47 CFR 1.1307.

As of the date of this *Report*, *T-Mobile USA* proposes to construct a 100-foot monopole tower and equipment cabinets located within a fenced compound on a 40-foot by 60-foot lease area. Nine antennas will be mounted on the proposed tower at a centerline height of 100 feet above ground level. *T-Mobile USA* plans to utilize the existing self storage facility access drives. Underground utilities will be routed from the proposed utility area at the tower east between the storage buildings and then south to existing electrical and telco demarcs.

Based upon the results of our preliminary NEPA screening, it appears that the proposed installation will not impact any of the criteria as outlined in 1.1307(a) items (1) through (8) and preparation of an Environmental Assessment (EA) is not required. However, our Native American Indian consultation required under Section 1.1307(a) (5) of the FCC Rules is incomplete. Although EBI has submitted 4 requests to the Narragansett Indian Tribe, the Narragansett Indian Tribe has not responded after their notification initiating consultation and review of cell tower site designated by TCNS # 46866. Of importance, based on a letter dated December 23, 2008, the Connecticut State Historic Preservation Officer concurred with our finding that construction of the proposed undertaking will have no effect on historic or archaeological resources.

Based on our preliminary review and archaeological assessment, even though tribal consultation is incomplete, there is a low potential that the proposed undertaking will impact Native American religious sites.

Thank you for the opportunity to prepare this *Report*, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully Submitted,



Michael Chun
Program Director
Direct# (646) 789-9206

ATTACHMENT 3

SECTION 1

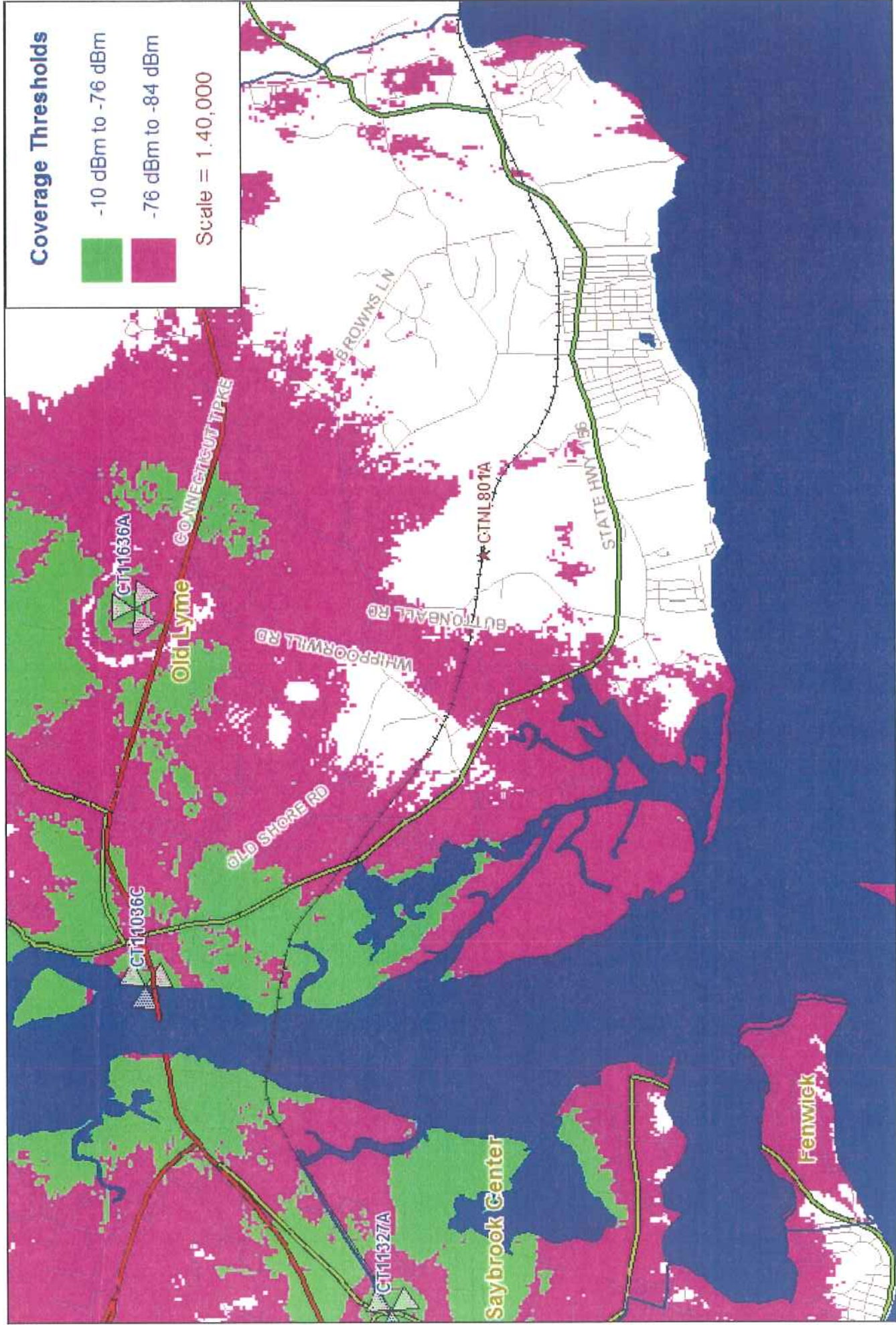
Site Justification (61-1 Buttonball Road Site)

The proposed Buttonball Road Site is necessary to enhance wireless service availability to existing and future T-Mobile wireless device users. Enhanced coverage provided by the Facility will allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The intended coverage area of the Facility includes Buttonball Road and Route 156 just south of Interstate 95 in the Town, as well as the Amtrak Rail Line that passes through this area. Additionally, the Facility will provide capacity relief for the current sites that presently cover this area from outer lying areas.

Included herein are propagation plots prepared by T-Mobile that depict (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with antennas mounted at 97'9" AGL; and (3) coverage from the proposed Site 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 wireless service in this area of Old Lyme.

ATTACHMENT 3A



- T-Mobile-- Existing T-Mobile On Air Coverage



Coverage Thresholds

- -10 dBm to -76 dBm
- -76 dBm to -84 dBm

Scale = 1:40,000



Existing T-Mobile On Air Coverage
With CTNL801A @ 97' AGL

- T-Mobile -



SECTION 2

Site Search Process and Selection (61-1 Buttonball Road Site)

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the applicant to submit a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, the description of the general site search process, the identification of the target search area and the alternative locations considered for development of the proposed Facility are provided below.

As an FCC licensed wireless carrier, T-Mobile decides to seek out a site in an area based upon the needs of its wireless infrastructure and extensive research of the subject area. T-Mobile chooses a target area central to the area in which it has identified coverage and/or capacity needs. The area targeted is the geographical location where the installation of a site would, based on general radio frequency engineering and system design standards, likely address the identified problem. T-Mobile’s goal is to locate sites that will remedy coverage or capacity issues, while resulting in the least environmental impact. In this case, T-Mobile has searched for a site in this area for several years, and has identified the Buttonball Road Site as the best possible location for a wireless facility.

T-Mobile is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, T-Mobile’s site acquisition personnel first study the area in and near the search ring to determine whether any suitable structure exists. If T-Mobile cannot find a structure with appropriate height and structural capabilities, it turns to industrial / commercial areas or individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their property available. Radio frequency engineers study potentially suitable and available locations to determine whether the locations will meet the technical requirements for a site in the area. Analysis of potential environmental effects and benefits may further narrow the alternatives. The weight given relevant factors varies for each search, depending on the nature of the area and the availability of potential sites.

In the area of Old Lyme, which is the subject of this site search, there are no existing towers, transmission line structures or other suitable structures. Moreover, any existing towers are too far from the target area to provide coverage specifically to the target area. The nearest towers and suitable structures are already in use by T-Mobile. There are no large areas of commercial or industrial use in or near the target area. Finally, the Site is located

within the target search area and abuts the Amtrak Rail Line, which is a component of the coverage goal.

The locations considered and the reasons locations other than the proposed Buttonball Road Site were not selected are outlined below:

1. Amtrak Power Substation, 63 Buttonball Road. This parcel is a right of way for Amtrak. Amtrak maintains a strict policy against collocation of antennas on Amtrak catenaries. The parcel is only 1.5 acres and is situated very close to Buttonball road. The ground elevation is also eight feet lower than the proposed Site.

2. Black Hall Golf Course, 50 Buttonball Road. Several calls were made to the landlord but were met with a lack of interest in leasing the property for the location of a tower.

As a result, T-Mobile has determined that the property owned by Ron Swaney LLC at 61-1 Buttonball Road (the "Property") is superior to other properties in the area. The Property is zoned R-80 and is 2.53 acres. Access to the Site is across an existing paved parking lot on the Property. T-Mobile would not have to remove any trees. The Property is currently used as a commercial storage facility. (The existing twenty foot building located on the Property is too low to afford adequate coverage.) The location is also set back approximately 1000' from Buttonball Road, with adequate screening mature trees. The Black Hall Golf Course abuts the Property to the south and a large track of forest is located to the north. There are no residential properties in the immediate area.

SECTION 3

PROPOSED SITE

**61-1 Buttonball Road
Old Lyme, Connecticut**

Land of
Ron Swaney LLC

Map 8/Block11/Lot1

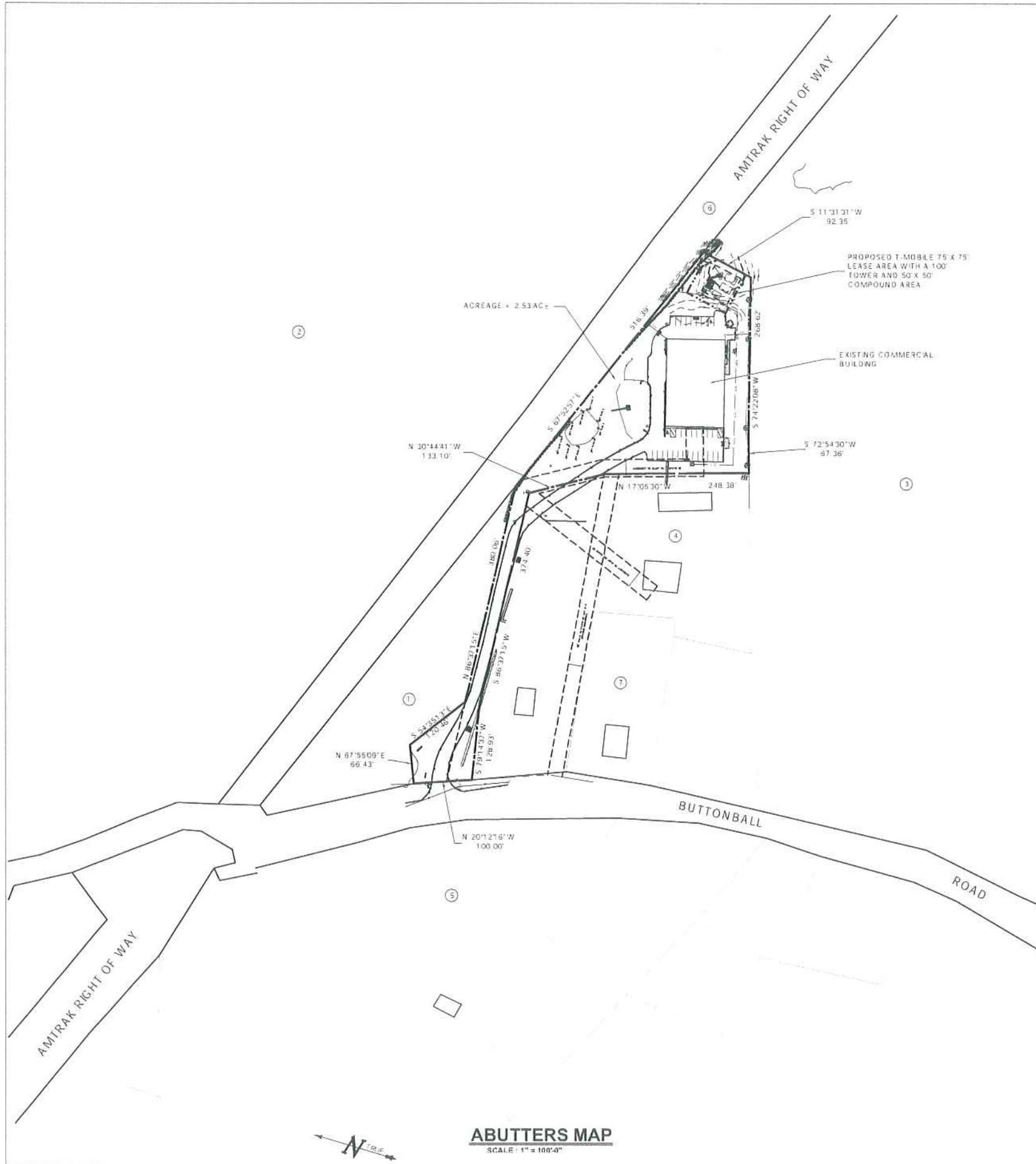
2.53 Acres

GENERAL FACILITY DESCRIPTION
(61-1 Buttonball Road Site)

The proposed Butterball Road Site is a 5625 square foot leased area located in the easterly portion of an approximately 2.53 acre parcel at 61-1 Buttonball Road. The Property is used by the owner as a commercial storage facility. The Facility would consist of a 100 ft. monopole structure with antennas mounted on standoff cross arms. The monopole would accommodate 3 additional sets of antennas.

Related equipment cabinets would be placed in a compound within the leased area. The equipment would be surrounded by an 8 ft chain link fence. Vehicle access to the Site would extend from Buttonball Road along an existing paved parking lot on the Property. Underground utility connections would extend from existing service along the northern property line.

ATTACHMENT 3B

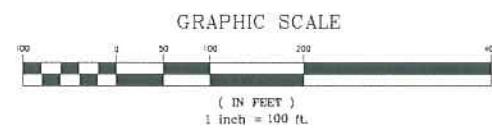


ABUTTERS

SUBJECT PARCEL
61-1 BUTTONBALL ROAD
RON SWANEY, LLC
61-1 BUTTONBALL ROAD
OLD LYME, CT 06371
MAP 8, LOT 11-1

ABUTTERS

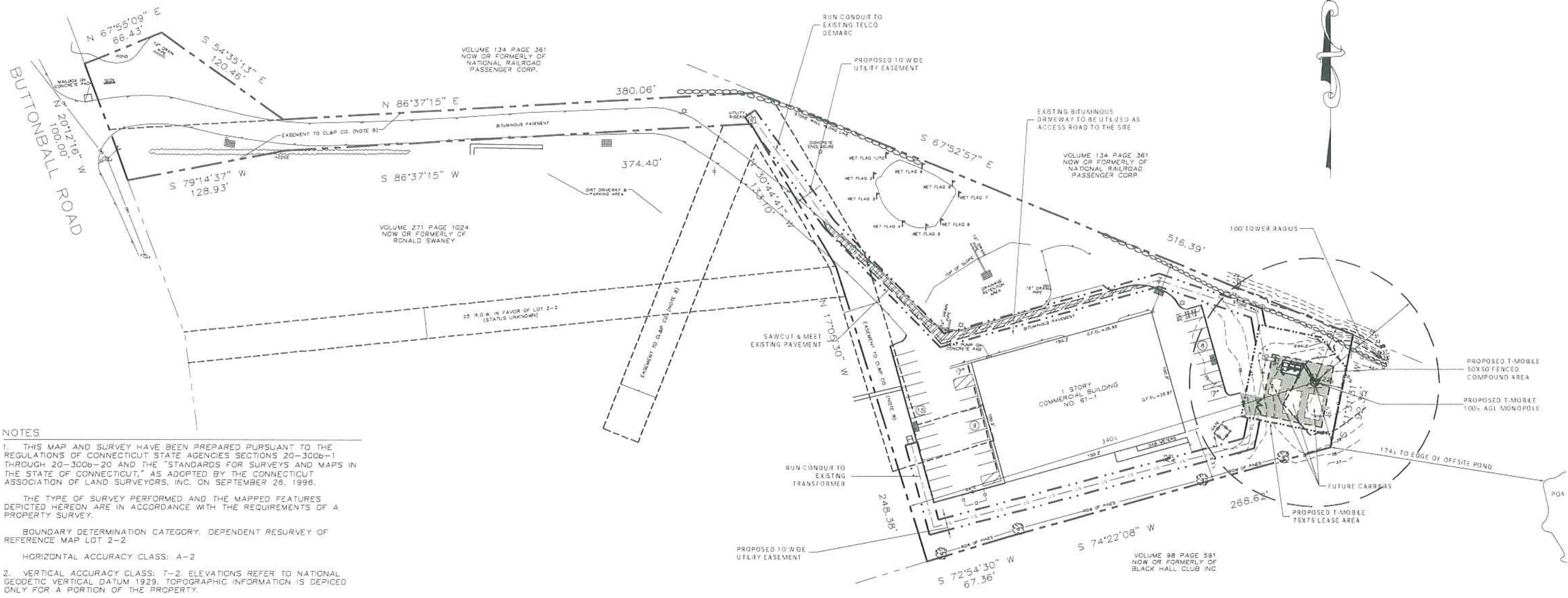
- 1 63 BUTTONBALL ROAD
NATIONAL PASSENGER RAILROAD CORP
711 3RD AVENUE
NEW YORK, NY 10017
MAP 8, LOT 9
- 2 71 BUTTONBALL ROAD
TOWN OF OLD LYME
52 LYME STREET
OLD LYME, CT 06371
MAP 8, LOT 8
- 3 47-1 BUTTONBALL ROAD
BLACK HALL CLUB, INC.
P.O. BOX 278
OLD LYME, CT 06371
MAP 8, LOT 13
- 4 59 BUTTONBALL ROAD
RONALD SWANEY
59 BUTTONBALL ROAD
OLD LYME, CT 06371
MAP 8 LOT 11
- 5 62 BUTTONBALL ROAD
ARMAND & BARBARA ROMEO
62 BUTTONBALL ROAD
OLD LYME, CT 06371
MAP 8, LOT 7
- 6 AMTRAK RIGHT OF WAY
NATIONAL PASSENGER RAILROAD CORP
711 3RD AVENUE
NEW YORK, NY 10017
- 7 57 BUTTONBALL ROAD
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
MAP 8, LOT 10



ABUTTERS MAP
SCALE: 1" = 100'-0"

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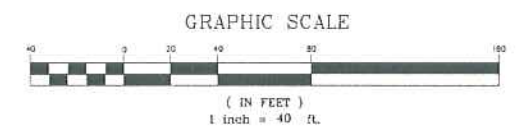
T-MOBILE SITE NUMBER: CTNL801A APT FILING NUMBER: CT-255T-380		PERMITTING DOCUMENTS AMTRAK OLD LYME 2 61-1 BUTTONBALL ROAD OLD LYME, CT 06371-1757		ABUTTERS MAP APT FILING NUMBER: CT-255T-380 APT DRAWING NUMBER: CTNL801A DRAWN BY: RCB CHECKED BY: SMC SCALE: AS NOTED DATE: 05/20/09	
 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100		DESIGN TYPE: RAW LAND			
		ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-463-1637 FAX: (860)-463-0935		REVISIONS: REV 0: 05/19/09: FOR REVIEW: SMC REV 1: 05/26/09: FINAL REV 2: REV 3: REV 4:	



- NOTES**
- THIS MAP AND SURVEY HAVE 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 TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF A PROPERTY SURVEY.
 - BOUNDARY DETERMINATION CATEGORY: DEPENDENT RESURVEY OF REFERENCE MAP LOT 2-2
 - HORIZONTAL ACCURACY CLASS: A-2
 - VERTICAL ACCURACY CLASS: T-2. ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM 1929. TOPOGRAPHIC INFORMATION IS DEPICTED ONLY FOR A PORTION OF THE PROPERTY.
 - LOT AREA = ± 110,169 SQUARE FEET OR 2.529 ACRES.
 - ALL MONUMENTATION FOUND OR SET ON THE SUBJECT PREMISES IS DEPICTED HEREON.
 - NORTH ARROW AND BEARINGS REFER TO REFERENCE MAP.
 - REFERENCE:
 - "RECORD SUBDIVISION MAP, PROPERTY OF RONALD AND BARBARA A. SWANEY, BUTTONBALL ROAD, OLD LYME, CT," DATED JUNE 7, 1996, REVISED TO JULY 10, 1996, PREPARED BY HENDRIKS ASSOCIATES, LLC, AND FILED AS MAP NO. 2903 WITH THE OLD LYME TOWN CLERK.
 - DEED REFERENCE: BOOK 344 PAGE 975 OF THE OLD LYME LAND RECORDS.
 - THE PROPERTY IS SUBJECT TO AN EASEMENT RECORDED IN BOOK 347, PAGE 853 OF THE OLD LYME LAND RECORDS. IT IS DEPICTED HEREON.
 - PARCEL OWNER OF RECORD: RON SWANEY LLC, 59 BUTTONBALL ROAD, OLD LYME, CT 06371
 - WET LAND FLAGS SET BY VANASSE, HAGEN, BRUSTLIN, INC.
 - APPROXIMATE LOCATION OF POND ON ADJACENT PROPERTY TAKEN FROM AERIAL SOURCES.

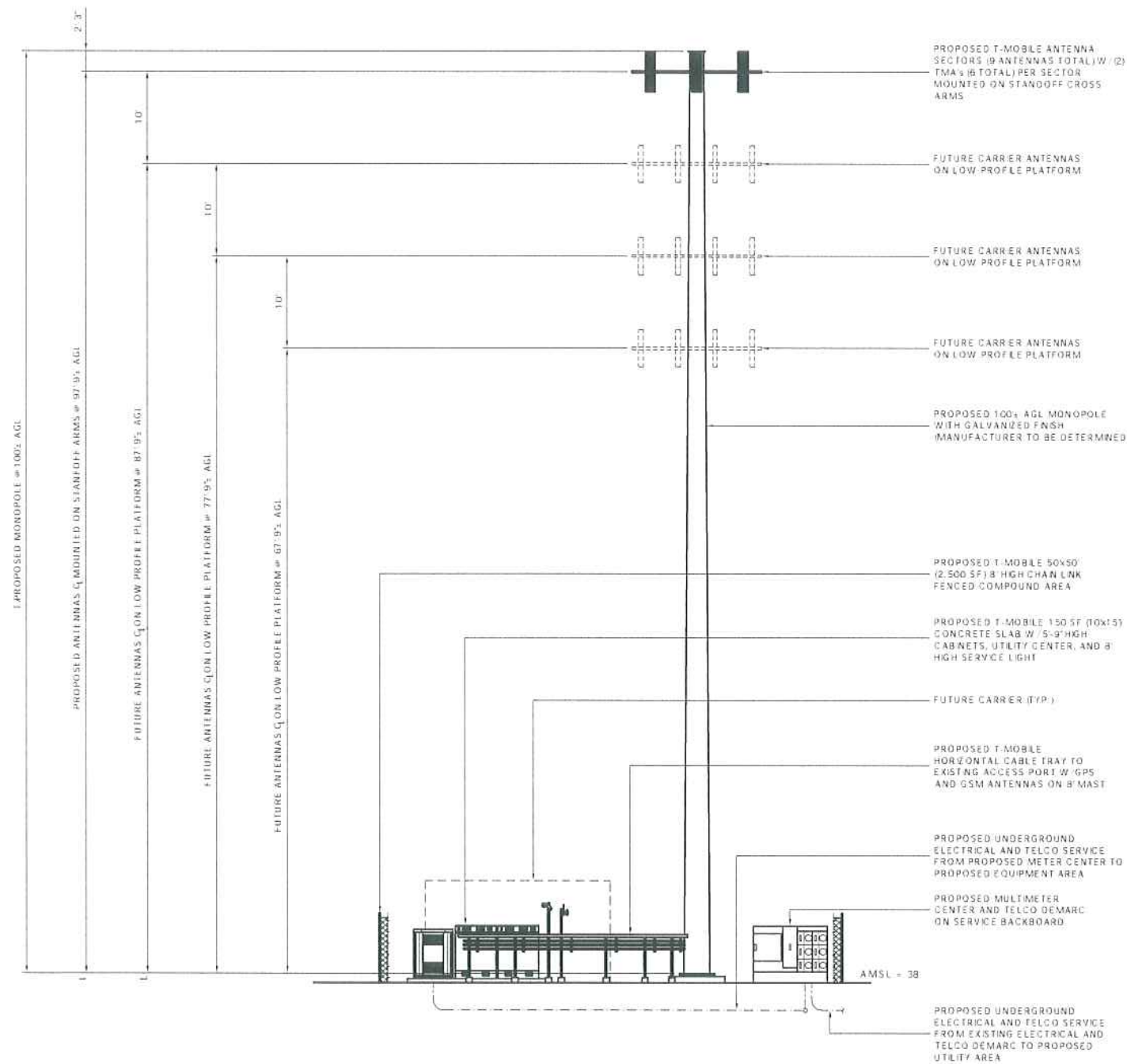
LEGEND			
	CURB		DRAINAGE INLET / STRUCTURE
	DROP CURB		CATCH BASIN
	WALL		SIGN
	STONE WALL		LIGHT POLE
	EDGE OF PAVEMENT		UTILITY POLE
	OVERHEAD WIRES		STOCKADE FENCE
	STRUCTURE - MANHOLE		CONTOURS
	GAS VALVE		TOP/BOTTOM OF CURB
	WATER VALVE		SPOT ELEVATION
	HANDICAP PARKING		CONCRETE
	PARKING STALL COUNT		GUY WIRE

SITE PLAN
1" = 40'-0"

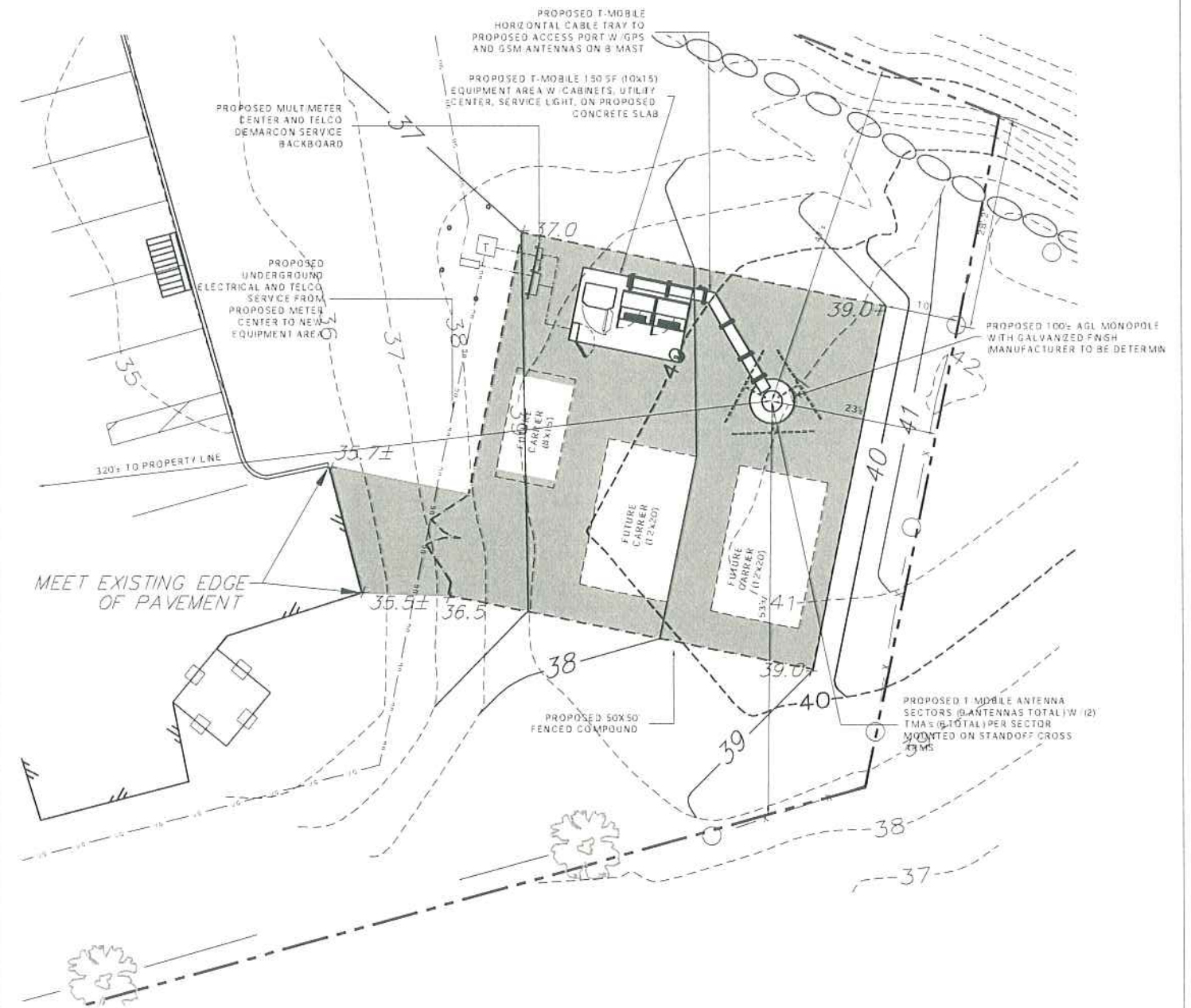


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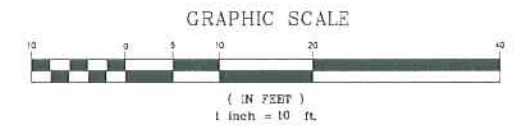
T-MOBILE SITE NUMBER: CTNL801A APT FILING NUMBER: CT-255T-380	PERMITTING DOCUMENTS AMTRAK OLD LYME 2 61-1 BUTTONBALL ROAD OLD LYME, CT 06371-1757	SITE PLAN
	DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT-255T-380 APT DRAWING NUMBER: CTNL801A
35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	REVISIONS: REV 0: 5/15/09; FOR REVIEW: SMC REV 1: 09/26/09; FINAL REV 2: REV 3: REV 4:	DRAWN BY: RCB CHECKED BY: SMC SCALE: AS NOTED DATE: 4/29/09
ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-463-1697 FAX: (860)-463-0935	SHEET NUMBER: SP-1	



EASTERN ELEVATION
SCALE: 1/8" = 1'-0"



COMPOUND PLAN
SCALE: 1" = 10'-0"



ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA-TIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES FOR NEW LONDON COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 120 MPH WIND. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

THIS DOCUMENT IS THE CREATION, DESGN, PROPERTY AND COPYRIGHTED WORK OF OMNIPONT COMMUNICATIONS, INC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS.

T-MOBILE SITE NUMBER: CTNL801A APT FILING NUMBER: CT-255T-380 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	PERMITTING DOCUMENTS AMTRAK OLD LYME 2 61-1 BUTTONBALL ROAD OLD LYME, CT 06371-1757 DESIGN TYPE: RAW LAND	COMPOUND PLAN & TOWER ELEVATION APT FILING NUMBER: CT-255T-380 APT DRAWING NUMBER: CTNL801A SP-2.DWG DRAWN BY: AAJ CHECKED BY: SMC SCALE: AS NOTED DATE: 05/20/09
ALL-POINTS TECHNOLOGY CORPORATION, P.C. 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935	REVISIONS: REV 0: 05/15/09: FOR REVIEW-SMC REV 1: 05/26/09: FINAL REV 2: REV 3: REV 4:	SHEET NUMBER: <h1>SP-2</h1>

SITE EVALUATION REPORT
(61-1 Buttonball Road Site)

I. LOCATION

- A. COORDINATES: 41° 17' 46.55" N
72° 18' 01.73" W
- B. GROUND ELEVATION: 38' ± AMSL
- C. USGS MAP: 7.5 quadrangle for Old Lyme (1970)
- D. SITE ADDRESS: 61-1 Buttonball Road
Old Lyme, CT, 06371
- E. ZONING WITHIN ¼ MILE OF SITE: The area north, south and west of the Site is zoned residential. The area east of the Site is zoned light industrial.

II. DESCRIPTION

- A. LEASE AREA: 75' x 75'
COMPOUND SIZE: 50' X 50'
- B. TOWER TYPE/HEIGHT: 100' Monopole
- C. SITE TOPOGRAPHY AND SURFACE: Site is located adjacent to an existing bituminous parking area for an existing commercial facility in a grassed area with visual evidence of shallow rock in the area. The topography slopes from east to west (from elevation 41 AMSL to elevation 36 AMSL).
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The existing terrain is a grassed area adjacent to a bituminous parking area, the Amtrak right of way, and an existing golf course. There is an existing wetland area (man made pond) located approximately 275' east of the proposed Facility and an irrigation pond 175' east of the proposed Facility.
- E. LAND USE WITHIN ¼ MILE OF SITE: Amtrak right of way and a vacant wooded area to the north. Single family residential and golf course to the south. Golf course to the east. Residential and vacant land to the west.

III. FACILITIES

- A. POWER COMPANY: CL&P
- B. POWER PROXIMITY TO SITE: 400±
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: 535'±
- E. VEHICLE ACCESS TO SITE: Existing bituminous driveway and parking area.
- F. OBSTRUCTION: Rock removal will be required.
- G. CLEARING AND FILL REQUIRED:

Total area of disturbance: 9,950 sf.

No trees will need to be removed.

The site is balanced with approximately 230 cubic yards of cut material and 50 cubic yards of fill material required.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: Ron Swaney, LLC
- C. ADDRESS: 59 Buttonball Road
Old Lyme, CT 06371
- D. DEED ON FILE AT: Book 344, Page 975

**FACILITIES AND EQUIPMENT SPECIFICATION
(TOWER & EQUIPMENT)
(61-1 Buttonball Road Site)**

I. TOWER SPECIFICATIONS:

- A. MANUFACTURER: TBD
- B. TYPE: Monopole
- C. HEIGHT: 100'
- D. DIMENSIONS: Approximately 36" outer diameter at bottom X 21" outer diameter at top.

II. TOWER LOADING:

- A. T-MOBILE
 - 4. ANTENNAS: 3 panel antenna per sector; 3 sectors
 - 5. POSITION ON TOWER: 97'-9" Rad Center
 - 6. TRANSMISSION LINES: 18 Lines
- B. FUTURE CARRIERS - 3 additional carriers; equipment TBD

III. ENGINEERING ANALYSIS AND CERTIFICATION:

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

ENVIRONMENTAL ASSESSMENT STATEMENT
(61-1 Buttonball Road Site)

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. The nearest wetlands are located 175' and 275' from the proposed Facility. The work necessary for the proposed facility will not have a direct impact on these wetlands. See Wetlands Compliance Statement attached hereto. 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 might be utilized.

C. LAND

The proposed Site will not require any tree removal or relocating. Minimal clearing and grading would be required for development of the proposed Site. The remainder of the Property would remain unchanged by the construction and operation of the Site.

D. NOISE

The equipment to be in operation at the proposed Site after construction would emit no noise other than from cooling fans within the equipment cabinets. A portable generator might be employed during power outages. Some noise is anticipated during Facility construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the Facility would be approximately 12.336% of the applicable FCC/ANSI standards.

F. VISIBILITY

The potential visibility of the proposed Facility was assessed using a viewshed map (attached) with an approximate two-mile radius. As shown, the primary areas of visibility would be the potential visibility occurs over the Great Island tidal marsh located nearly two miles to the southwest of the proposed site and/or over open water on Long Island Sound located to the south. Other areas of potential year-round visibility include select portions of Buttonball Road located within the general vicinity of the proposed monopole; select portions of Smith Neck Road located roughly 1.25 miles to the southwest; and several open areas within the northern portion of the Black Hall Golf Course which is located immediately adjacent to the proposed site location

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The NEPA report for this site is pending and will be filed with the Certificate application. As this site is already developed as a commercial storage facility, it is our expectation that a "no adverse impact" determination will be reached.

ATTACHMENT 3C



Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Mr. Scott Chasse
All-Points Technology Corp., P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Date: May 26, 2009

Project No.: 40505.06

From: Dean Gustafson
Professional Soil Scientist

Re: Wetland Compliance
T-Mobile Site No. CTNL801A
61-1 Buttonball Road
Old Lyme, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site.

The Site was inspected on April 22, 2009. The property is improved with a commercial building and associated paved parking areas located just south of the railroad tracks and west of Black Hall Golf Course. Based on a review of plans prepared by All-Points Technology Corporation, P.C. (latest revised date 05/15/09) VHB understands that T-Mobile proposes to construct a wireless communications facility just east of the paved parking lot that serves the site's commercial building. One wetland, a man made pond identified by flag numbers WF 1 through 10, was delineated on the subject property approximately 275 feet from the proposed development. An irrigation pond on the adjoining Black Hall Golf Course is located 175± feet east of the proposed T-Mobile facility. The proposed facility is located in a maintained lawn area adjacent to a paved parking lot. Due to the significant distance separating the proposed T-Mobile facility from the nearest wetland resource area the proposed facility, the facility is located adjacent to an existing developed area and no mature vegetation will be disturbed, no likely adverse impact to nearby wetlands will result from the proposed development.

Connecticut Market



Worst Case Power Density

Site: CTNL801A
Site Address: 61-1 Buttonball Road
Town: Old Lyme
Tower Height: 100 ft.
Facility Style: Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWW-16DWW	Antenna Model	APX16DWW-16DWW
Cable Size	7/8 in.	Cable Size	7/8 in.
Cable Length	125 ft.	Cable Length	125 ft.
Antenna Height	97.0 ft.	Antenna Height	97.0 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0186 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	2.3250 dB	Total Cable Loss	1.4500 dB
Total Attenuation	6.8250 dB	Total Attenuation	2.9500 dB
Total EIRP per Channel (In Watts)	54.19 dBm 262.14 W	Total EIRP per Channel (In Watts)	61.07 dBm 1279.56 W
Total EIRP per Sector (In Watts)	63.22 dBm 2097.10 W	Total EIRP per Sector (In Watts)	64.08 dBm 2559.12 W
nsg	11.1750	nsg	15.0500
Power Density (S) = 0.055559 mW/cm ²		Power Density (S) = 0.067800 mW/cm ²	
T-Mobile Worst Case % MPE =		12.3359%	
Equation Used : $S = \frac{(1000)(grf)^2 (Power)^{10^{(nsg/10)}}}{4\pi (R)^2}$			
Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997			

Co-Location Total

Carrier	% of Standard
Verizon	0.0000 %
Cingular	0.0000 %
Sprint	0.0000 %
AT&T Wireless	0.0000 %
Nextel	0.0000 %
MetroPCS	
Other Antenna Systems	0.0000 %
Total Excluding T-Mobile	0.0000 %
T-Mobile	12.3359
Total % MPE for Site	12.3359%









*Preliminary Viewshed Analysis
Proposed T-Mobile Wireless
Telecommunications Facility
CTNL801A
61-1 Buttonball Road
Old Lyme, Connecticut*

NOTE:
 - Viewshed analysis conducted using ESRI's Spatial Analyst.
 - Proposed Facility height is 100 feet.
 - Existing tree canopy height estimated at 50 feet.
 - Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

DATA SOURCES:
 - Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
 - Base map comprised of Old Lyme (1970) USGS Quadrangle Map
 - Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
 - Protected CT DEP properties data layer provided by CTDEP, May 2007
 - CT DEP boat launches data layer provided by CT DEP, 1994
 - Scenic Roads layer derived from available State and Local listings.

Map Compiled May, 2009

Legend

- | | |
|--|---|
|  Tower Location |  CT DEP Protected Properties (2007) |
|  Year-Round Visibility (Approximately 289 acres) | State Forest |
|  Protected Municipal and Private Open Space Properties (1997) | State Park |
| Cemetery | DEP Owned Waterbody |
| Preservation | State Park Scenic Reserve |
| Conservation | Historic Preserve |
| Existing Preserved Open Space | Natural Area Preserve |
| Recreation | Fish Hatchery |
| General Recreation | Flood Control |
| School | Other |
| Uncategorized | State Park Trail |
| | Water Access |
| | Wildlife Area |
| | Wildlife Sanctuary |
| |  Federal Protected Properties (1997) |
| |  CT DEP Boat Launches (1994) |
| |  Scenic Road (State and Local) |
| |  Town Line |

