

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

IN RE:

APPLICATION OF SBA TOWERS II, LLC
FOR A CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED FOR
THE CONSTRUCTION, MAINTENANCE AND
OPERATION OF A TELECOMMUNICATIONS
FACILITY AT 12 BURR ROAD,
BLOOMFIELD, CONNECTICUT

DOCKET NO. 379

Date: June 30, 2009

PRE-FILED TESTIMONY OF HOLLIS M. REDDING

Q1. Ms. Redding, please summarize your professional background in telecommunications.

A. I am a zoning specialist in the growing Northeast Region for SBA Towers II, LLC where I am in charge of telecommunications development and site acquisition activities. My responsibilities include site selection and design, municipal and community relations associated with SBA's efforts to develop new tower sites in Connecticut and Massachusetts, coordination and support during the approval process and supervision of project construction once approved. I have been part of the telecommunications industry for more than 15 years and have been involved in all aspects of the development of telecommunications facilities. Prior to working for SBA, I worked for Optasite, Inc. for 8 years where I was a zoning specialist. I have also worked for SNET Mobility/Cingular (now AT&T Wireless). I have successfully completed all aspects of development activities for more than 150 sites in Connecticut and Massachusetts.

Q2. What is the purpose of your testimony?

A. My testimony provides background information relating to SBA's application for a Certificate of Environmental Compatibility and Public Need for the proposed

Bloomfield facility at 12 Burr Road in Bloomfield. In addition, I will address the specific site search resulting in the proposed site as well SBA's activities prior to initiation of this application.

Q3. How does SBA conduct a site search?

A. SBA maintains close relationships with the licensed wireless carriers in Connecticut, follows the development activities of others and has an in-depth understanding of the fluctuating market conditions. When a wireless carrier contacts SBA regarding the need for a new facility, SBA conducts an extensive review of the area. The first activity after assignment of a search ring to acquisition personnel is a review of the area for suitable existing structures, such as existing telecommunications facilities, transmission lines available for co-location and other, existing tall structures. Only once SBA exhausts its search for existing structures on which to locate, does it then begin to study the area for suitable locations to construct a new facility. When looking for a suitable location for a new facility, SBA first studies the area to determine whether industrial, commercial areas or town-owned parcels which have appropriate environmental and land use characteristics are present. Potential locations are studied by radio frequency engineers to determine whether the locations will meet the technical requirements for a site in the area. The list of potential locations is then further refined based on the willingness of property owners to make their property available.

Q4. Please describe SBA's search for the proposed Bloomfield wireless facility.

A. SBA commenced a search for a site in this area of Bloomfield in April, 2005. Specifically, at that time, Sprint had identified an existing coverage gap along Route 185 and the surrounding areas in this area of Bloomfield. When SBA commenced its site

search, it found no existing towers within the search area. The nearest tower(s) suitable for use as a wireless communications facility are located outside of the search area, and are not useable due to existing terrain in the area. In addition, SBA identified no other existing tall structures which were suitable for use.

Turning to locations for a new tower proposal, SBA found that site selection in the area was limited by existing residential development throughout the area and several large parcels of land unavailable for the development of a telecommunications facility. These include several large parcels owned by the State of Connecticut and MDC for flood retention purposes and for public water supply/watershed. These parcels are protected Class I and Class II water company land and not available for the development of a telecommunications facility. In addition, there is another large parcel in the search area is the Auer Farm property, which consists of approximately 120 acres. After months of discussions with the Board of Directors of Auer Farm, the Board rejected the proposal by SBA (then Optasite) for a proposed telecommunications facility on that property. Finally, SBA investigated the possibility of locating a facility on the Tumble Brook Country Club property. In furtherance of that possibility, SBA conducted a balloon float on that property and determined that a facility on that property would have a far greater visual impact than the proposed Site. There are no other large areas of commercial or industrial development in the site search area. The proposed Site is uniquely suited for the development of a telecommunications facility given its size (almost 30 acres) and, while in a residential zone, it is used for non-residential purposes.

Q6. Has SBA consulted with municipal officials with regard to their plans?

A. Yes. In compliance with Section 16-50I(e), consultation with municipal officials was undertaken by SBA. On February 6, 2006, SBA provided technical information to the Mayor of Bloomfield, who referred the matter to the Director of Planning, Thomas Hooper. SBA was unable to initially meet in person with Mr. Hooper, but did have several telephone conversations with Mr. Hooper. During those telephone conversations, Mr. Hooper suggested investigating the MDC owned property as well as the Auer Farm property.

After those conversations, SBA commenced discussions with Auer Farm. SBA and its representatives arranged a follow-up meeting with Mr. Hooper on October 31, 2007. Representatives from Auer Farm were present at that meeting. After months of discussions and attending numerous meetings with the Board of Directors of Auer Farm, the Board rejected SBA's proposal. In addition, SBA investigated the possible use of the MDC property and determined that, because it was Class I and Class II water company land, it was not available for the development of a facility.

Finally, since so much time had passed, SBA did contact Mr. Hooper again in September, 2008 to discuss the proposed Facility. He did not have any additional comments regarding the proposed Facility.

Q7. Has SBA offered co-location to the Town of Bloomfield so it can locate its emergency service equipment at this Site?

A. As is its customary practice, SBA will make space available for the Town's emergency service equipment, free of charge and has already offered to do so. To date, the Bloomfield Fire Department has indicated that it is interested in locating its

emergency equipment on the proposed Facility. Correspondence from the Town is attached hereto as Exhibit 1.

Q8. Pursuant to statutory requirements, did SBA post a sign giving the public notice of the hearing on this Application?

A. Yes, on June 24, 2009, SBA posted a sign at the Site giving the public notice of the hearing on this Application. Photographs of the hearing sign is attached hereto as Exhibit 2.

The statements above are true and complete to the best of my knowledge.

6/30/09
Date

Hollis M. Redding
Hollis M. Redding

Subscribed and sworn before me this 30TH day of June, 2009.

By: Car P. Cannon
Commissioner of the Superior Court

EXHIBIT I

(((*)))
Optasite Towers LLC

received
5/23/08

May 22, 2008

Bloomfield Police Department
Ms. Betsy J. S. Hard, Police Chief
785 Park Avenue
Bloomfield, CT 06002

Dear Chief Hard:

Optasite Towers, LLC, ("Optasite"), intends to file an application with the Connecticut Siting Council for a potential wireless telecommunications facility to be located at the following location in the Town of Bloomfield:

Site Information

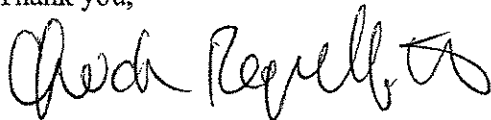
12 Burr Road, Bloomfield, CT 06002
North Latitude 41 ° 49' 04.29" West Longitude 72 ° 45' 52.24"
Proposed Tower Height - 130' extendable to 160'

Optasite is extending an offer to Bloomfield emergency services to occupy space on the tower and necessary ground space for radio equipment at no charge to the Town.

Please let me know if the Town needs the site for its emergency services and provide me the height required and the equipment specifications, so Optasite can properly design the tower to include your equipment.

Please do not hesitate to contact me with any questions. I can be reached at 860-394-7021.

Thank you,



Chuck Regulbuto
Director of Northeast Development



NECS



NEW ENGLAND COMMUNICATIONS SYSTEMS, INC.

427 Hayden Station Road • Suites A & B • Windsor, CT 06095

To whom it may concern,

As current service provider and system designer for the Town of Bloomfield I would recommend that the town pursue the following infrastructure when towers become available for use.

(1) DB586-Y 890-960 Andrew Omni antenna/ Fed by LDF5-50A Cable

(1) ANT450D-6 Telewave Dipole antenna/ Fed by LDF5-50A Cable

(2) WB2623CC PTP40400 Motorola Integrated Backhaul Pair Microwave Fed by CAT 6 cable

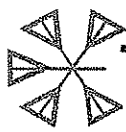
I also recommend that the Town's equipment be placed on a platform at the top of the tower. This allows the town to use the proper antennas on the public safety channels which may exceed 20 feet in length.

Inside I would locate the equipment in a seven foot freestanding rack unit.

We would also require (2) 20 amp 120v AC circuits to power this equipment.

Thank you for your consideration in this matter. Please contact me with any questions regarding this correspondence.

Brooks Gianakos
NECS Engineering Services
(860) 883-3205



TELEWAVE, INC.



406 - 512 MHz

ANT450D, D3, D6-9, D7-12 DIPOLE AND DIPOLE ARRAY • 1 TO 12 dBd

DESCRIPTION AND FEATURES:

The Telewave ANT450D series consists of single, dual, 4-element, and 8-element dipole array antennas with a precision phasing harness for optimum performance. The 2, 4, and 8-element arrays are uniquely field-adjustable for pattern and gain, allowing the antenna to accommodate any current or future coverage requirements. The high gain capabilities, wide bandwidth, and high efficiency of these antennas are particularly suited for combining applications in UHF trunking, business, public safety, and paging. Mechanical and electrical uptilt or downtilt are available as options. Desired tilt angle must be specified on the order, and consultation with our engineering staff is recommended.

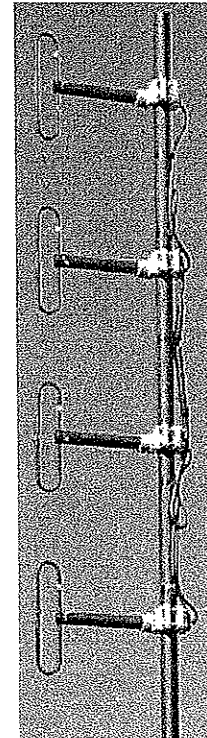
Each antenna is constructed with 6061-T6 aluminum, welded at the base connection to prevent intermodulation, and all elements are at DC ground potential for lightning protection. Each element is completely protected with our proprietary, high-tech Txylan™ coating. The black Txylan™ coating is highly resistant to the accumulation of water and ice, and provides exceptional protection from corrosive gases, ultraviolet radiation, salt spray, acid rain and abrasives such as windblown sand.

MOUNTING:

ANT450D series antennas mount to a 1.5" -2.5" galvanized steel support pipe or tower leg.

COMMON SPECIFICATIONS:

Power	500 Watts
Frequency Range	406-512 MHz
VSWR	1.5:1 or less
Impedance	50 Ohms
Pattern	Adjustable - Offset circular, cardioid, or bidirectional
Lightning Protection	DC Ground
Termination	Type N Male at harness feed cable
Max. Wind Velocity	175 MPH
0.5" radial ice	150 MPH

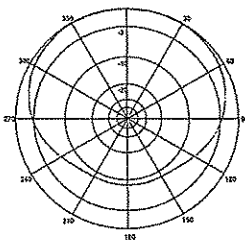


ANT450D6-9

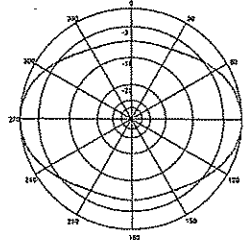
MODEL SPECIFICATIONS:

	ANT450D	ANT450D3	ANT450D6-9	ANT450D7-12
Gain (pattern dependent)	1-2.5 dBd	3-6 dBd	6-9 dBd	7-12 dBd
Vertical BW (3/8λ spacing)	71°	24°	15°	7.5°
Dimensions	18" H x 17" D	34" H x 17" D	72" H x 13.5" D	144" H x 17" D
Weight	6 lb.	13 lb.	18 lb.	36 lb.
Max. Exposed Area	0.24 Sq. ft.	0.75 Sq. ft.	1.4 Sq. ft.	2.8 Sq. ft.
Lateral Thrust at 100 MPH	10 lb.	30 lb.	56 lb.	112 lb.

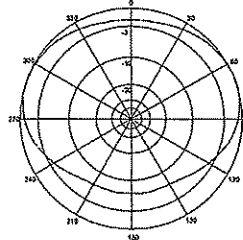
ANT450D6-9 f=400 MHz
1/4 wave spacing from mast
H-plane - Gain 8.07 dBd



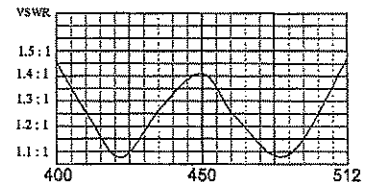
ANT450D6-9 f=400 MHz
1/2 wave spacing from mast
H-plane - Gain 8.10 dBd



ANT450D8-9 f=400 MHz
3/8 wave spacing from mast
H-plane - Gain 8.45 dBd



Typical 1.5:1 VSWR bandwidth



TELEWAVE, INC. 660 Giguere Court San Jose, CA 95133

Toll Free: 1-800-331-3396 Direct: 408-929-4400 Fax: 408-929-4080

<http://www.telewave.com>

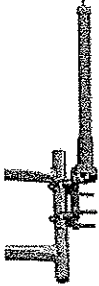
Email: sales@telewave.com

Product Specifications



DB586-Y

Omni Antenna, 890–960 MHz, 360° horizontal beamwidth, fixed electrical tilt



- Light weight, low profile omnidirectional antenna ideal for low to moderate gain applications
- Integral dual purpose mount allows top or side mounting

CHARACTERISTICS

General Specifications

Antenna Type Omni
Includes V-bolts
Operating Frequency Band 890 – 960 MHz

Electrical Specifications

Frequency Band, MHz	890–960
Beamwidth, Horizontal, degrees	360
Gain, dBd	6.0
Gain, dBi	8.1
Beamwidth, Vertical, degrees	18.0
Beam Tilt, degrees	0
VSWR	1.5:1
5th Order IMD at 2 x 20 W, dBc	-150
Input Power, maximum, watts	300
Polarization	Vertical
Impedance, ohms	50
Lightning Protection	dc Ground

Product Specifications

DB586-Y



Mechanical Specifications

Color	Horizon blue
Connector Interface	N Female
Connector Location	Bottom
Connector Quantity	1
Wind Area, maximum	0.0 m ² 0.3 ft ²
Wind Loading, maximum	89.4 N @ 100 mph 20.1 lbf @ 100 mph
Wind Speed, maximum	201.2 km/h 125.0 mph

Dimensions

Length	1498.6 mm 59.0 in
Outer Diameter	38.1 mm 1.5 in
Net Weight	3.7 kg 8.3 lb

Regulatory Compliance/Certifications

Agency

RoHS 2002/95/EC
China RoHS SJ/T 11364-2006

Classification

Compliant by Exemption
Logo 2

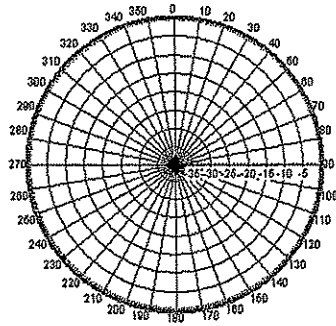


Product Specifications

DB586-Y

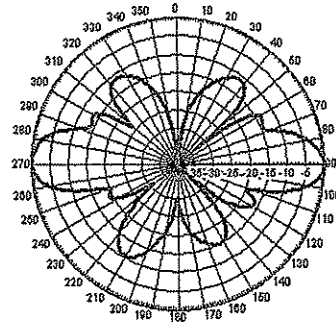


Horizontal Pattern



Freq: 903 MHz, Tilt: 0

Vertical Pattern



Freq: 903 MHz, Tilt: 0

TECHNICAL SPECIFICATIONS



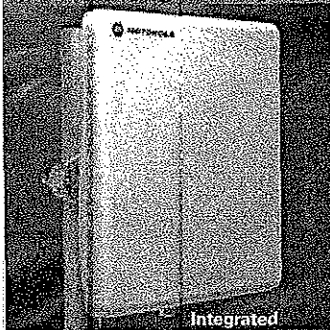
MOTOROLA POINT-TO-POINT BROADBAND
WIRELESS SOLUTIONS

MOTOROLA PTP 49400 BRIDGE

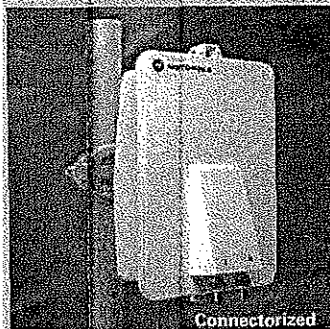
4.9 GHz Wireless Ethernet Bridges

A Unique Combination of Innovative Technologies

MOTO⁴**WI**



Integrated



Connectorized

Motorola PTP 49400 Bridges
4.9 GHz Part Numbers
WB2623 Integrated
WB2624 Connectorized
WB2627 Integrated Lite
WB2628 Connectorized Lite

Technology Serving Public Safety Agencies

Operating in the 4.9 GHz band at data rates up to 35 Mbps, Motorola's PTP 49400 point-to-point wireless Ethernet bridges provide public safety officials with high-bandwidth, super-reliable connectivity for voice, video and data communications. The systems provide up to 99.999% availability, even in non-line-of-sight environments, across long distances, through high-interference areas, over open terrain or water and through extreme weather conditions. (Regulatory conditions for the 4.9 GHz band should be confirmed prior to system purchase.)

The PTP 49400 can be implemented as a standalone system or integrated with other Motorola wireless systems. When integrated with other Motorola wireless products, the PTP 49400 bridges can support an end-to-end solution for emergency response teams on the move. By seamlessly rolling broadband wireless into two-way radio or cellular communications, Motorola's integrated solution enables seamless, uninterrupted access to information for a variety of public safety applications.

The PTP 49400 bridges are incorporated in Motorola's **MOTO**wi4™ portfolio of innovative wireless broadband solutions that create, complement and complete IP networks. Delivering IP coverage to virtually all spaces, the **MOTO**wi4 portfolio includes Fixed Broadband, WiMAX, Mesh and Broadband-over-Powerline solutions for private and public networks.

Detailed Technical Specifications for the PTP 49400 bridges are provided on the back of this document.

Technical Specifications for the MOTOROLA PTP 49400 POINT-TO-POINT SYSTEMS

RADIO TECHNOLOGY	REMARKS
RF band	4.940 GHz–4.990 GHz*
Channel raster	4945, 4955, 4965, 4975, 4985 MHz, i-DFS or manual
Channel size	10 MHz
Channel selection/dynamic frequency control	By <i>Intelligent</i> Dynamic Frequency Selection (i-DFS) or manual intervention
Transmit power control	Adaptive, varying between -10 and 23 dBm according to modulation selected and radio path**
EIRP	Integrated: ≤ 45 dBm
System gain	Integrated: Between 163 and 134 dB** Connectorized: Varies with modulation mode and antenna type**
Receiver sensitivity	Adaptive, varying between -95.0 dBm and -72 dBm according to modulation selected
Modulation	Dynamic; 8 modes adapting between BPSK and 64 QAM
Error correction	FEC, ARQ
Antenna: type/gain/BW	Integrated: Integrated flat plate 22 dBi / 7° Connectorized: Approved to operate with flat plate up to 28 dBi. Parabolic dish up to 37.7 dBi; connected via 2 x N-type female
Range	Up to 124 miles (200 km)***
Data rates	Integrated and Connectorized: Up to 35 Mbps at the Ethernet Integrated and Connectorized Lite: Up to 17 Mbps at the Ethernet
Security & encryption	Proprietary scrambling mechanism; optional AES 128-Bit Encryption; FIPS-197 compliant * Regulatory conditions for RF bands should be confirmed prior to system purchase. ** Gain and maximum transmit power may vary based on regulatory domain *** In all cases the range limit is set by the latest software release
ETHERNET BRIDGING AND T1/E1	REMARKS
Protocol	IEEE 802.3
Packet prioritization	IEEE 802.1p
Interface	10 BASE-T / 100 BASE-T (RJ-45)—auto MDI/MDIX switching
Latency	5 ms typical
T1/E1	Via external multiplexer
MANAGEMENT & INSTALLATION	REMARKS
LED indicators	Power status, Ethernet link status and activity
System management	Web Server and SNMP
Installation	Built-in audio assistance for link optimization
Connection	Distance between outdoor unit and primary network connection: up to 330' (100 meters)
PHYSICAL	REMARKS
Dimensions	Integrated outdoor unit (ODU): Width 14.5" (370 mm), Height 14.5" (370 mm), Depth 3.75" (95 mm) Connectorized ODU: Width 12" (305 mm), Height 12" (305 mm), Depth 4.1" (105 mm) Powered indoor unit (PIDU Plus): Width 9.75" (250 mm), Height 1.5" (40 mm), Depth 3" (80 mm)
Weight	Integrated ODU: 12.1 lbs (5.5 kg) including bracket Connectorized ODU: 9.1 lbs (4.3 kg) including bracket PIDU Plus: 1.9 lbs (864 g)
Wind speed	150 mph (242 kph)
Power source	90–240 VAC, 50–60 Hz / 36-60V DC
Power consumption	40 W typical
ENVIRONMENTAL & REGULATORY	REMARKS
Operating temperature	-40°F (-40°C) to +140°F (+60°C), including solar radiation
Protection and safety	UL60950; IEC60950; EN60950; CSA-C22.2 No. 60950
Radio	FCC Part 90



For more information about the Motorola Point-to-Point Solutions:
 Outside of North America: +44 1364 655500
 In North America: +1 877 515-0400
www.motorola.com/ptp

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MOTOROLA PTP 49400 TS US 23-Aug-06

EXHIBIT 2

