

TECHNICAL EXHIBIT
APPLICATION FOR AUXILIARY OPERATION
RADIO STATION WBLI(FM)
PATCHOGUE, NEW YORK
CH 291B 23.2 KW (MAX-DA) 132 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of radio station WBLI(FM) at Patchogue, New York. The WBLI(FM) main facility is presently authorized on Channel 291B with a maximum effective radiated power of 49 kilowatts and antenna height above average terrain of 152 meters.¹ By this instant application, WBLI(FM) is proposing to modify its existing auxiliary facility from a tower located at its main transmitter site. The FCC tower number for the existing antenna mounting structure is 1003317. It is believed that this proposal conforms to all applicable rules and regulations of the FCC.

Transmitter Location

The herein proposed auxiliary facility will utilize a directional ERI MP-2E-HW-DA-SP antenna mounted on an existing tower. The proposed antenna is located at the 76 meter (250 foot) level (see Figure 1).

¹ See FCC File No. BMLH-20030521AEF.

Blanketing Contour

The 115 dBu predicted blanketing contour of the station would extend radially less than 2 kilometers from the transmitting site. The applicant recognizes its responsibility to resolve complaints of blanketing interference as required by Section 73.318.

Coverage Contours

The predicted 60 dBu coverage contours for the auxiliary operation and the existing main operation were calculated in accordance with the provisions of Section 73.313. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45 degree intervals were obtained from the National Geophysical Data Center's (NGDC) 30-second terrain database. The terrain elevations were then used in combination with the effective radiated power for determining the distances to coverage contours.

Figure 2 is a map showing the predicted 60 dBu coverage contours for the authorized main and proposed auxiliary operations. As the map illustrates, the predicted auxiliary's 60-dBu contour is entirely encompassed by the primary station's 60-dBu contour.

Radiofrequency Electromagnetic Field Exposure

The proposed WBLI(FM) auxiliary facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed ERI two-element half-wave length spaced "Rototiller" antenna (model number MP-2E-HW-DA-SP) is located 76 meters above ground level. The effective radiated power is 44 kilowatts (combined horizontal and vertical

polarizations). Using the Commission's FM Model groundlevel radiofrequency electromagnetic exposure program, the worst-case ground level power density is would be less than 0.025 mW/cm^2 . This is less than 13 percent of the Commission's guideline in an uncontrolled environment for an FM radio station.² The contributions from the other emitters will be less than 100 percent of the Commission's uncontrolled access standard.

Access to the transmitting site is restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower or any nearby adjacent towers, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

It is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be provided to the FCC by the tower owner as part of the tower registration process.

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² The FCC maximum guideline for a FM broadcast station in an uncontrolled environment is 0.2 mW/cm^2 .

ASRN: 1003317



186 m AMSL
(610 ft AMSL)

107 m
(350 ft)

Proposed WBLI(FM)
Auxiliary Antenna

Radiation Center
155 m AMSL
(510 ft AMSL)

76 m
(250 ft)

Site Coordinates:
(NAD 27)
40° 50' 32"N
73° 02' 25"W

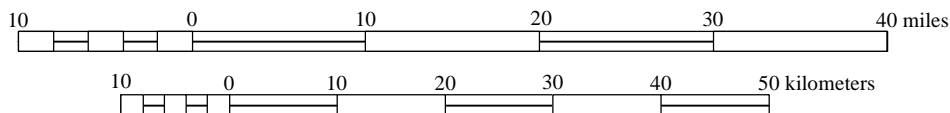
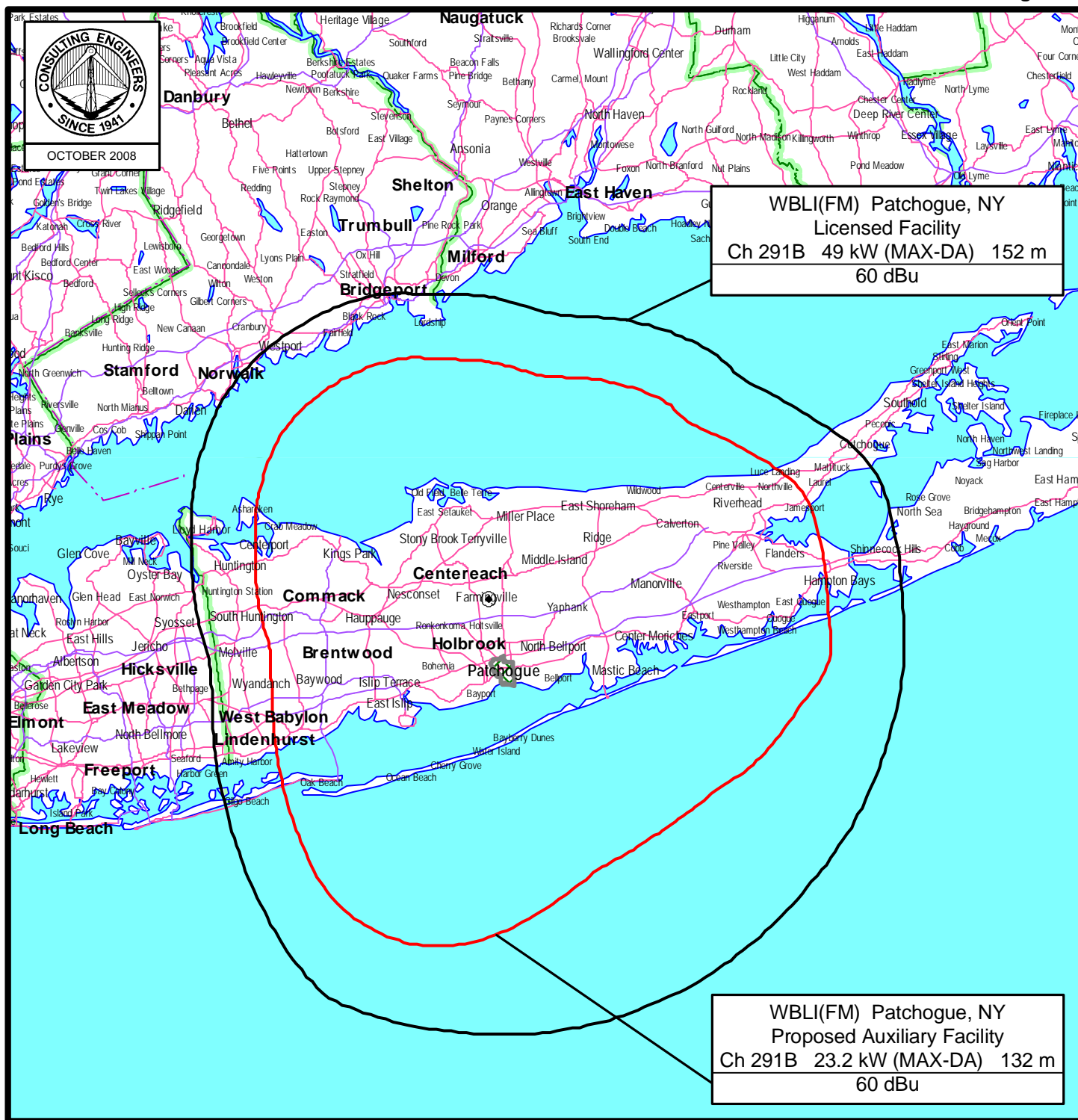
79 m AMSL
(260 ft AMSL)

Not to Scale

ANTENNA AND SUPPORTING STRUCTURE
RADIO STATION WBLI(FM) – AUXILIARY FACILITY
PATCHOGUE, NEW YORK
CH 291B 23.2 KW (MAX-DA) 132 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



PREDICTED COVERAGE CONTOURS

RADIO STATION WBLI(FM) - AUXILIARY FACILITY

PATCHOGUE, NEW YORK

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du Treil, Lundin & Rackley, Inc Sarasota, Florida