

TECHNICAL EXHIBIT
APPLICATION FOR AUXILIARY STATION
RADIO STATION WUSN(FM) (FACILITY ID 28620)
CHICAGO, ILLINOIS
CH 258 8.3 KW 358 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of radio station WUSN at Chicago, Illinois. The WUSN main facility is presently licensed on Channel 258B with an effective radiated power of 5.7 kilowatts and antenna height above average terrain of 425 meters.¹ By this instant application, WUSN is proposing an auxiliary facility at its former licensed transmitter site, located atop the John Hancock Building in Chicago. The FCC tower number for the existing antenna mounting structure is 1009013. It is believed that this proposal conforms to all applicable rules and regulations of the FCC.

Transmitter Location

The herein proposed auxiliary facility will use the former licensed FM “Alford” master antenna for WUSN, located on an adjacent mast to the licensed WUSN antenna (both on the John Hancock building rooftop). No changes to the former licensed facilities (ERP or HAAT) are proposed.²

¹ See FCC File No. BLH-20030611AAT

² See FCC File No. BLH-19891214KB

Blanketing Contour

The 115 dBu predicted blanketing contour of the station would extend radially 1.1 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 1 is a map showing the predicted 60 dBu coverage contours for the licensed and proposed 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 Considerations

Attached, as an Appendix, is a sketch showing the present broadcast antenna configuration atop the *John Hancock Building* in Chicago. It is reported that when the FM Master Auxiliary antenna is employed, some areas along the penthouse rooftop exceed the Commission's controlled environment standard exposure limit. There is a plan among the users that bar persons from admittance to this rooftop area whenever the FM Master Auxiliary

antenna is in operation. Furthermore, additional controls are in place that prevents the auxiliary master antenna from being operated when persons are present on the penthouse roof.

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.

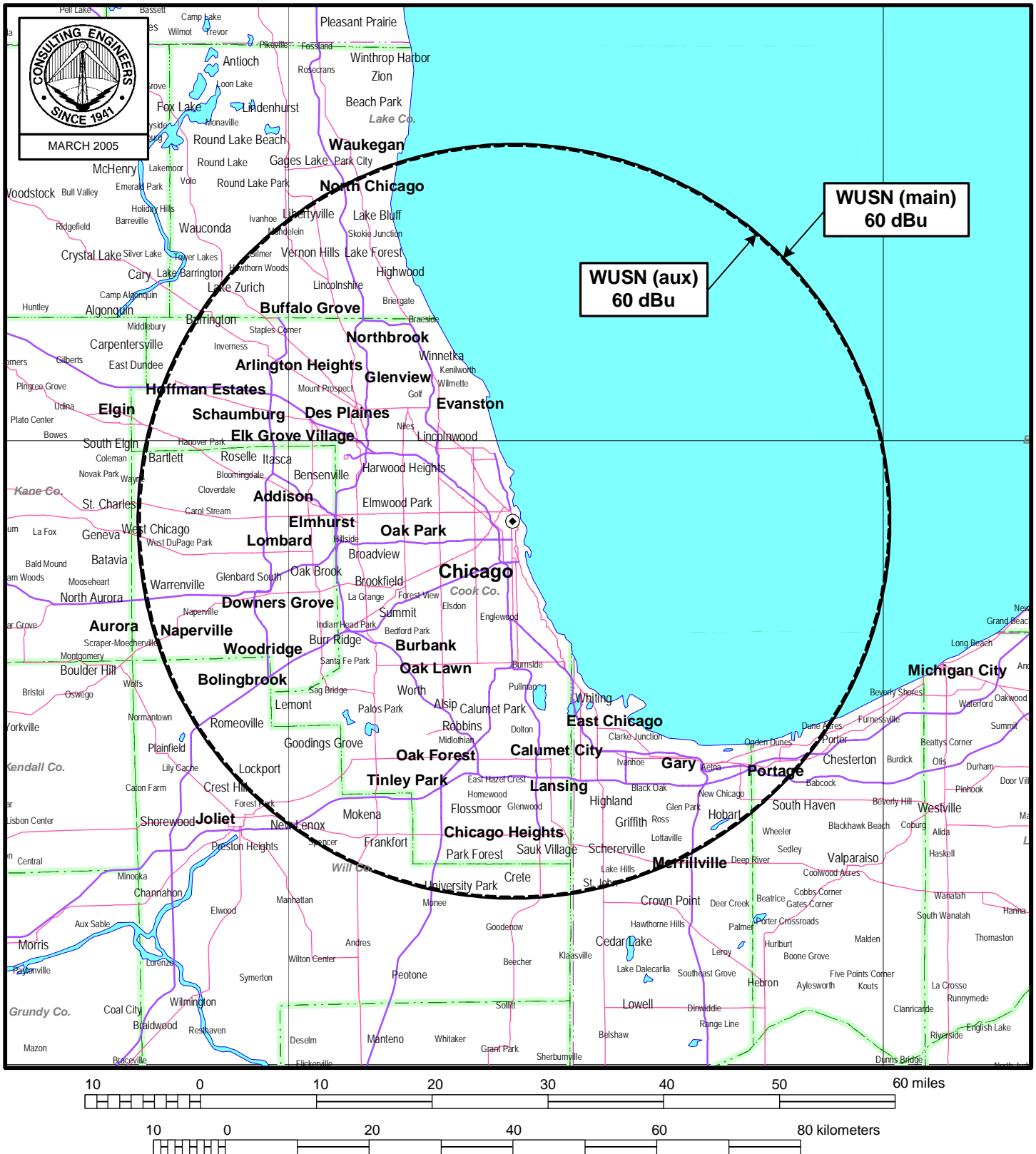


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Figure 1



PREDICTED COVERAGE CONTOURS

AUXILIARY FM STATION WUSN

CHICAGO, ILLINOIS

CH 258 8.3 KW 358 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

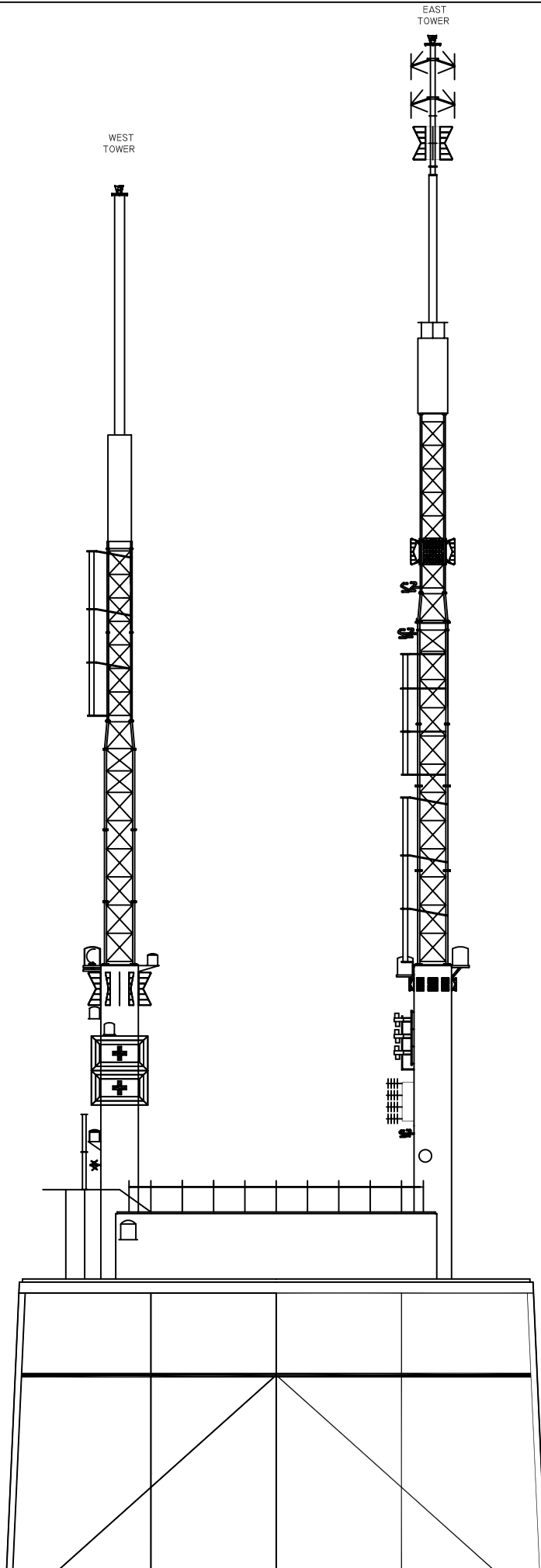
APPENDIX

GROUND ELEVATION

593 FT. AMSL
592 FT. HAAT

COORDINATES

LAT: 41° 53' 56"
LONG: 87° 37' 23"



EL. 1506'-3"
HGT. ABOVE GND.

WBBM-TV
CHANNEL 2

WBBM-DT
CHANNEL 3

BROADBAND UHF

FM MASTER
(MAIN)

AVAILABLE
APERTURE
(APPX. 50')

WLS-TV
CHANNEL 7
(ALTERNATE)

WDRV-FM
(AUXILIARY)

WXRT-FM

WGBO-TV
CHANNEL 66

WYCC-TV/DT
CHANNEL 20/21

EL. 1206'-6"
HGT. ABOVE GND.

WGN-TV
(AUXILIARY)

WLIT (FM)
(AUXILIARY)

WOCK-LP
(CHANNEL 13)

WTHX (FM)
(AUXILIARY)

EL. 1106'-6"
HGT. ABOVE GND.

FCC TOWER REGISTRATION

EAST TOWER: 1009012
WEST TOWER: 1009013

JOHN HANCOCK CENTER ROOFTOP PROFILE			
SHEET: 1 OF 1	SCALE: NON-CAL	DWG. NAME: ROOFTOP PROFILE - SEPT 03	FILE NO: 00888
DRAWN BY: M.C.E.	DATE: 7-10-01	CHECKED/APPROVED M.C.E.	DATE: 7-10-01
RICHLAND TOWERS			
JOHN HANCOCK CENTER 875 NORTH MICHIGAN AVE, SUITE 1335 CHICAGO, ILLINOIS 60611 312/964-5800			
DESCRIPTION			REVISIONS