

ENGINEERING EXHIBIT
AMENDMENT OF APPLICATION FOR
CONSTRUCTION PERMIT
TELEVISION STATION WWMT-DT
KALAMAZOO, MICHIGAN

March 16, 2000

CHANNEL 2 6.9 KW 305 M

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Engineering Statement

This Engineering Exhibit was prepared on behalf of digital television broadcast station WWMT-DT, Kalamazoo, Michigan; in support of an amendment to its pending application for construction permit (FCC File No. BPEDT-19990729KE). The purpose of this amendment is to reduce the proposed nominal effective radiated power (ERP) to 6.9 kW (8.4 dBk) such that the proposal is categorized as a “checklist” filing. No other changes are proposed. The proposal complies with the DTV application “checklist” filing requirements.*

The proposal meets the maximum permissible ERP requirement pursuant to Section 73.622(f)(2) of the FCC Rules. Figure 3A is a relative field polar graph of the WWMT-DT allotment pattern. The minimum at any point on the pattern is 0.980 relative field, which equates to an ERP 6.9 kW (8.4 dBk), given a maximum allotment ERP of 7.2 kW. Therefore, the proposed nominal non-directional ERP of 6.9 kW will be within the WWMT-DT pattern envelope at all azimuths.†

* See FCC *Public Notice*, “Commission Details Application Filing Procedures Digital Television (DTV)”, Released: October 16, 1997; and, FCC *Public Notice*, “Additional Application Processing Guidelines for Digital Television (DTV)”, Released: August 10, 1998.

† The proposed WWMT-DT antenna height above average terrain (HAAT) is 305 m. There is no difference in the proposed WWMT-DT HAAT and the HAAT specified in Appendix B of the FCC Digital Sixth Report and Order.

Predicted Coverage Contours

The predicted f(50,90) coverage contours for the proposed facility were calculated in accordance with the FCC Rules. The 3-16 km terrain data were obtained through use of the U.S.G.S. 3-second computer database. Figure 1A is a tabulation of the 3-16-km terrain averages and the distances to the predicted coverage contours. The predicted coverage contours are projected on a map included herein as Figure 2A. As indicated, the predicted 35 dBu f(50,90) contour encompasses the entire community of Kalamazoo in compliance with Section 73.625(a) of the FCC Rules.

Allocation Considerations

The proposed WWMT-DT facility meets the criteria of Section 73.622(f) of the FCC Rules. Therefore, pursuant to that section, the application shall not be subject to further consideration of electromagnetic interference to other DTV or analog TV broadcast stations.

Environmental Considerations

With respect to the potential for human exposure to radio frequency (RF) energy, calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground‡ based on the following conservative assumptions, with the following results:

‡ The radiation center height above ground is 318 m.

Call Sign	Channel	Peak Visual ERP or Average ERP (kW)	Aural ERP (kW)	Relative Field Factor[§]	FCC Limit^{**} (mW/cm²)	Percentage of Limit
WWMT-DT	2	6.9	--	1.00	0.200	1.15%

As indicated above, the exposure to RF radiation at 2-m above ground level will not exceed 1.15% of the FCC limit for general population / uncontrolled exposure.

Therefore, the proposal complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from environmental processing. The applicant, in coordination with any other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the WWMT-DT tower or antenna from radio frequency radiation in excess of the FCC guidelines.

Louis Robert du Treil, Jr.

March 16, 2000

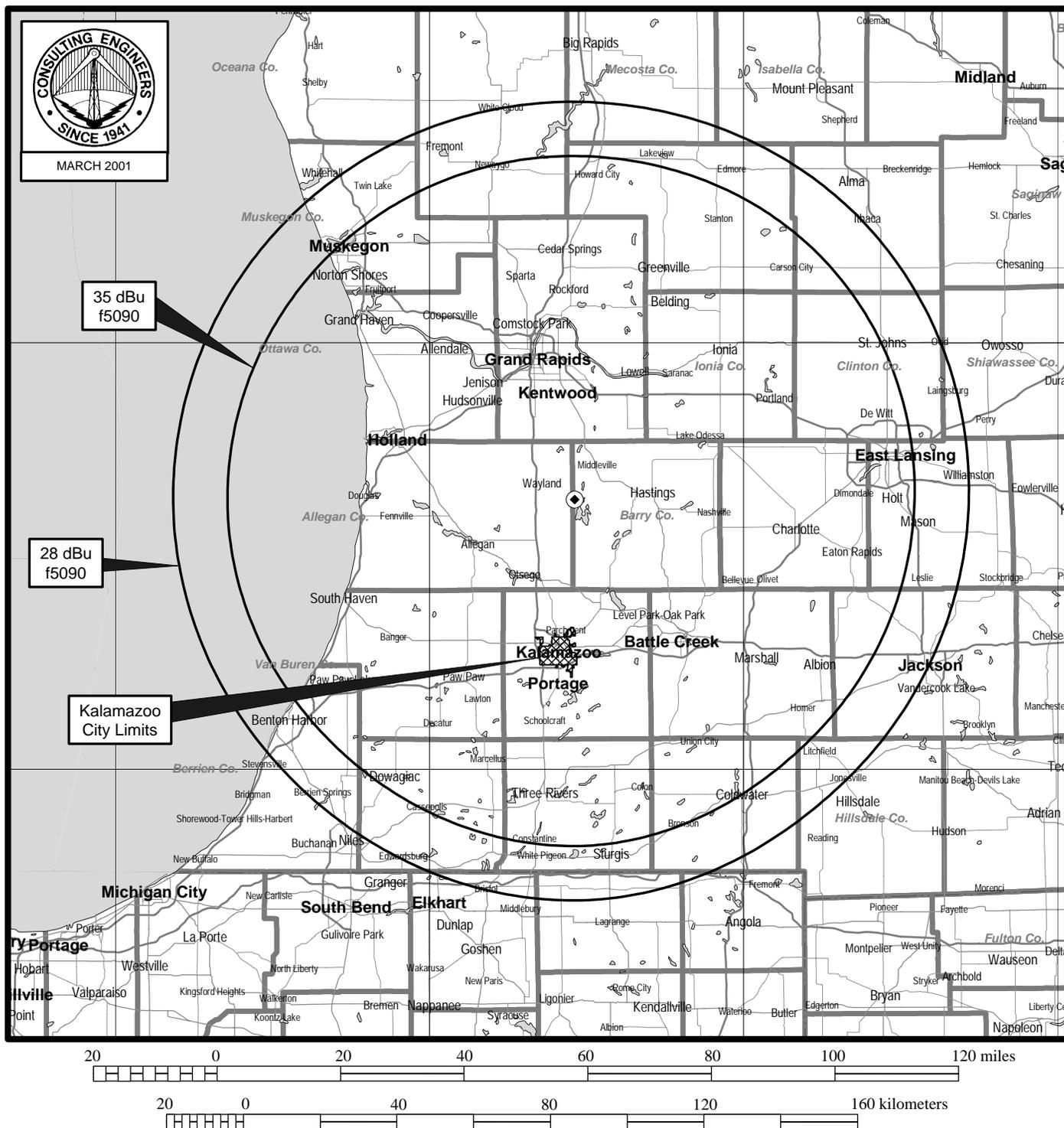
§ This is a conservative estimate of the relative field factor in the downward direction.
** for general population/uncontrolled environments

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Tabulation of Average Elevations and
 Distances to Predicted Coverage Contours

Azimuth (deg.T)	3-16 km Average Terrain (m)	Antenna HAAT (m)	ERP (kW)	35 dBu f(50,90) Contour (km)	28 dBu f(50,90) Contour (km)
0	250	303	6.9	89.6	103.7
45	245	308	6.9	89.9	104.0
90	262	291	6.9	88.6	102.7
135	271	282	6.9	87.9	102.0
180	237	316	6.9	90.4	104.5
225	246	307	6.9	89.8	103.9
270	235	318	6.9	90.5	104.6
315	242	311	6.9	90.1	104.2

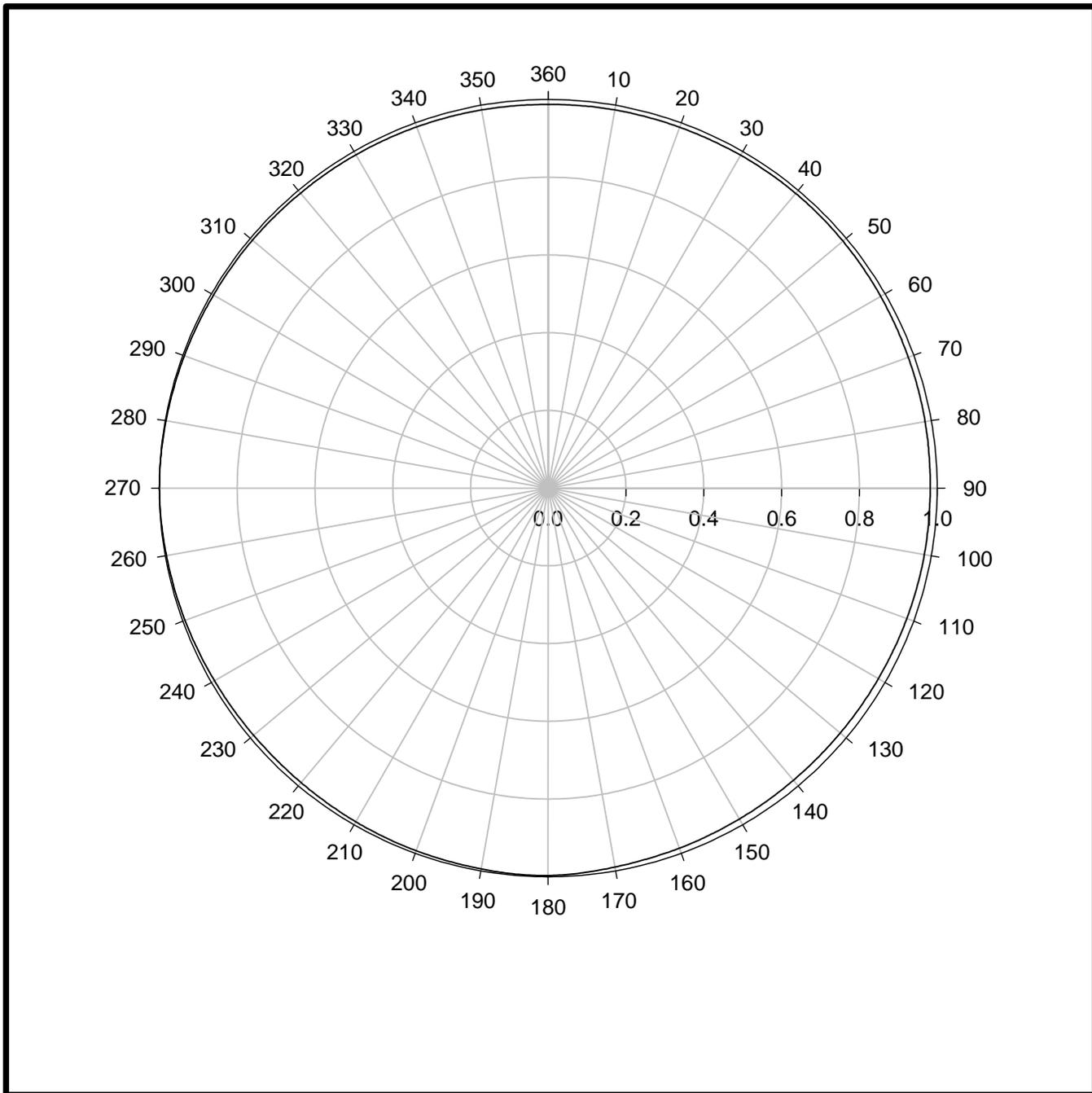
Note: The 3-16-km average terrain is 248 m based on the eight conventional radials (0°, 45°, 90°, etc.) as derived from the U.S.G.S. 3-second terrain database. The overall antenna radiation center height above average terrain is 305 m based on the eight conventional radials. Terrain data based on U.S.G.S. 3-second linearly interpolated terrain database.



PREDICTED COVERAGE CONTOURS

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



**FCC DTV ALLOTMENT PATTERN ENVELOPE FOR WWMT-DT
(GRAPH - RELATIVE FIELD)**

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