

ENGINEERING STATEMENT

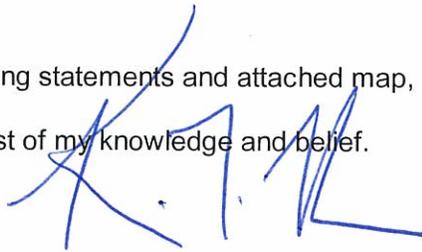
The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of WFLD-DT, Channel 31 in Chicago, Illinois, in support of its request for Special Temporary Authority (STA) to operate with reduced transmitter power and, correspondingly, effective radiated power. This STA is necessary due to recent problems with the existing transmitter. As a result, the present unit is only capable of generating half of the authorized power output. Therefore, the licensee requests temporary authorization to operate with a reduced effective radiated power of 500 kw, instead of the authorized 1000 kw ERP, until such time as it can effectively return to full transmitter power output.

No change in transmitter site, antenna make/model, or antenna height is proposed herein. Exhibit B provides elevation and azimuth pattern data for the licensed antenna. Exhibit C is a map upon which the STA's service contours are plotted. As shown, the city of license is completely contained within the proposed 48 dBu service contour. Since this proposal represents a simple decrease in effective radiated power, no interference study has been provided. A power density calculation is included in Exhibit D.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1032959 to the Sears Tower.

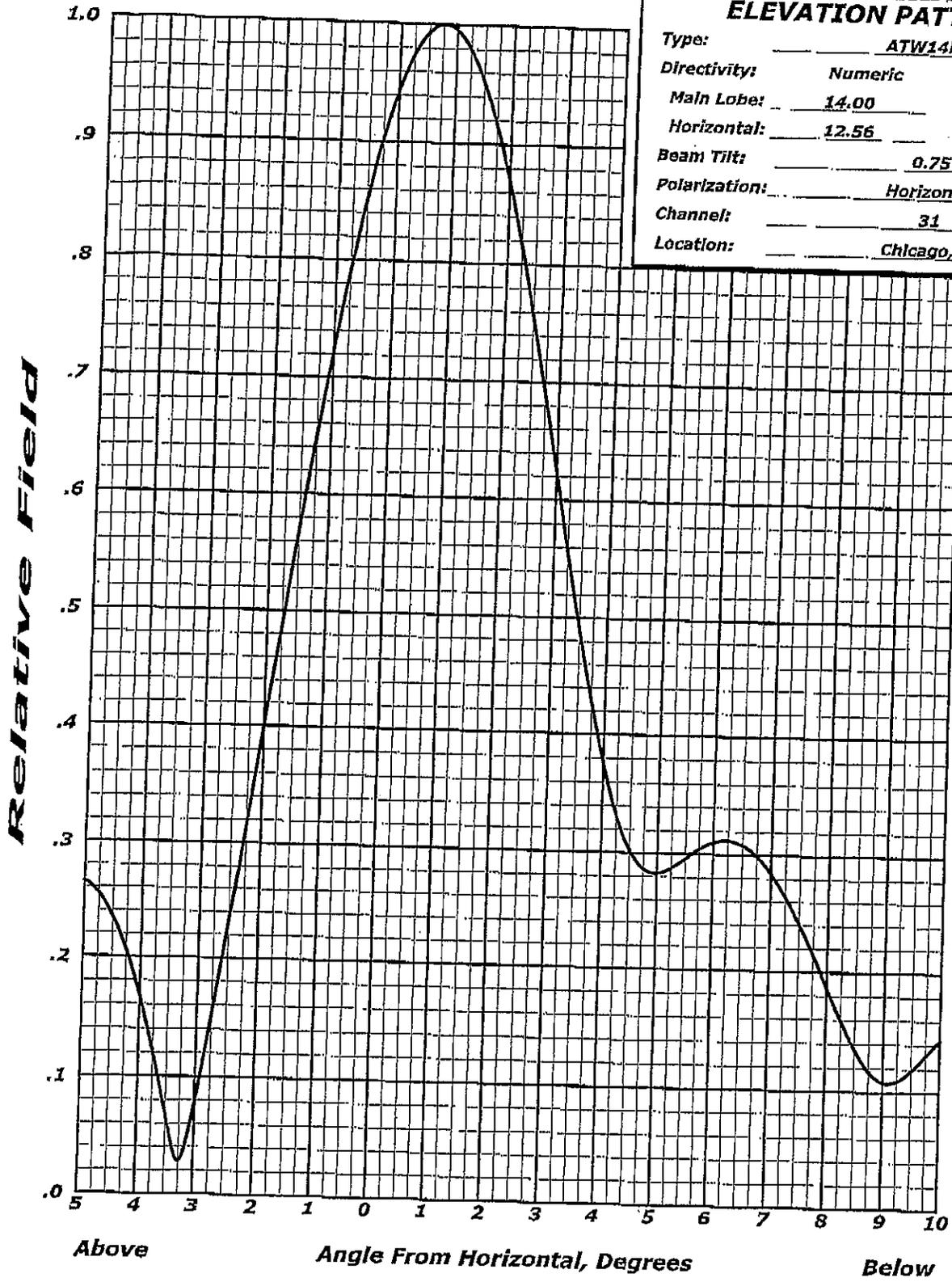
I declare, under penalty of perjury, that the foregoing statements and attached map, which was prepared by me, are true and correct to the best of my knowledge and belief.

May 5, 2009

  
KEVIN T. FISHER

# ANDREW ELEVATION PATTERN

Type:	ATW14H3H	
Directivity:	Numeric	dBd
Main Lobe:	14.00	(11.46)
Horizontal:	12.56	(10.99)
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	31	
Location:	Chicago, IL	

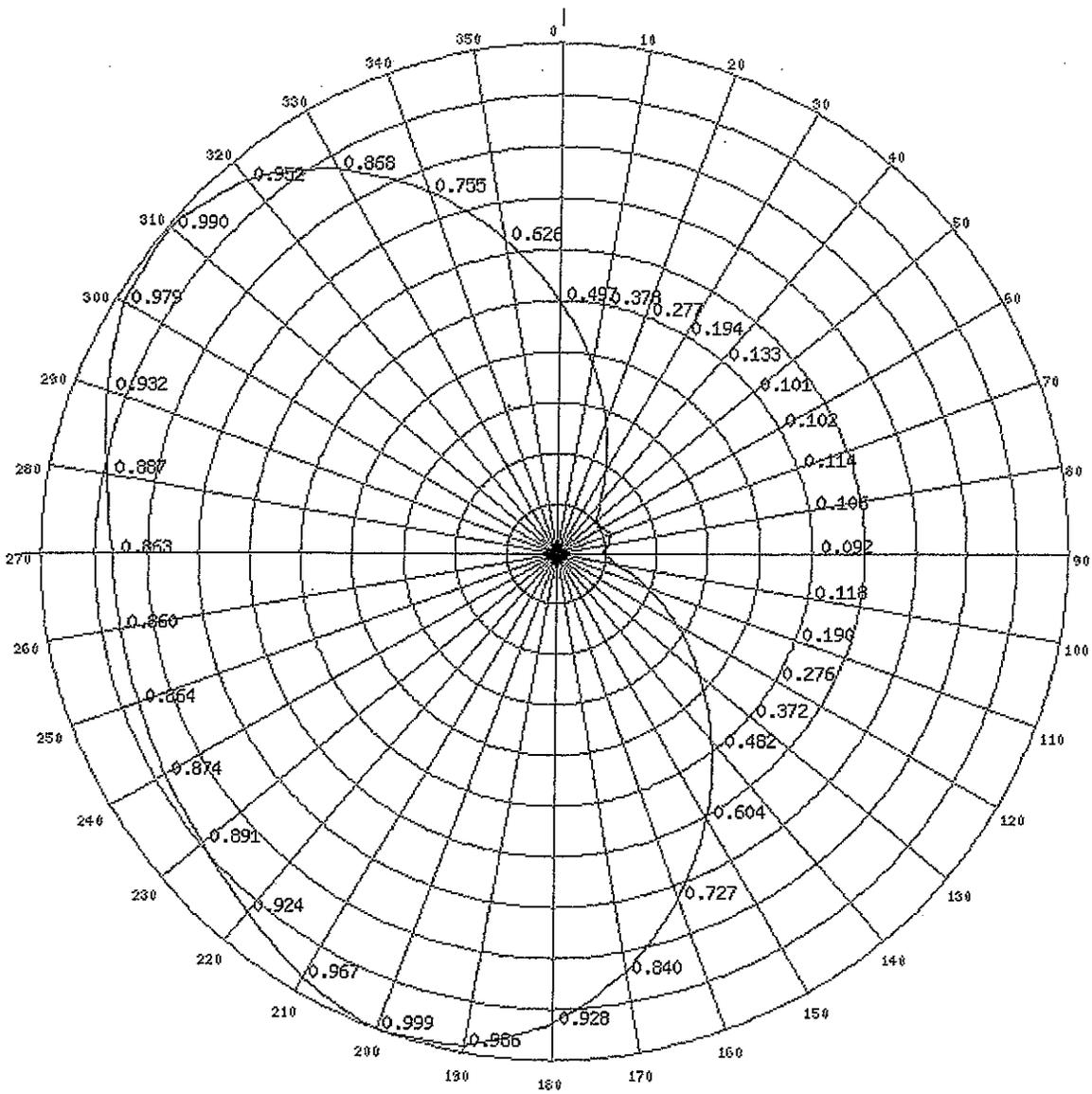


ANDREW CORPORATION  
10500 W. 153rd Street  
Orland Park, Illinois U.S.A. 60462

## EXHIBIT B-1

ANTENNA ELEVATION PATTERN  
PROPOSED WFLD-DT  
CHANNEL 31 - CHICAGO, ILLINOIS

SMITH AND FISHER



**EXHIBIT B-2**  
**ANTENNA AZIMUTH PATTERN**  
**PROPOSED WFLD-DT**  
**CHANNEL 31 – CHICAGO, ILLINOIS**  
 SMITH AND FISHER

## ANTENNA AZIMUTH PATTERN DATA

PROPOSED WFLD-DT STA  
CHANNEL 31 -CHICAGO, ILLINOIS

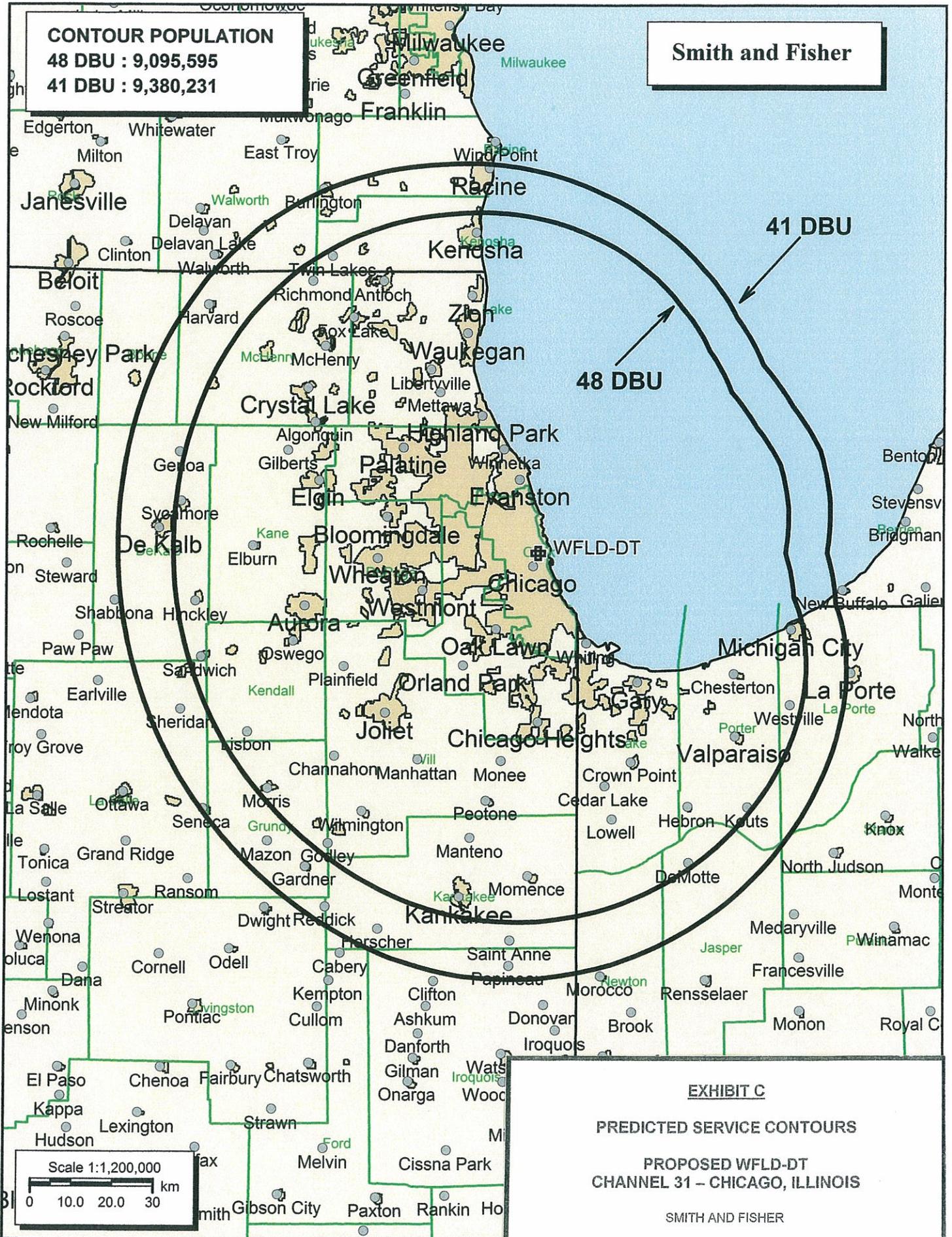
<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>	<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>
0	0.497	20.9	180	0.928	26.4
10	0.378	18.5	190	0.986	26.9
20	0.277	15.8	200	0.999	27.0
30	0.194	12.8	210	0.967	26.7
40	0.133	9.5	220	0.924	26.3
50	0.101	7.1	230	0.891	26.0
60	0.102	7.2	240	0.874	25.8
70	0.114	8.1	250	0.864	25.7
80	0.106	7.5	260	0.860	25.7
90	0.092	6.3	270	0.863	25.7
100	0.118	8.4	280	0.887	26.0
110	0.190	12.6	290	0.932	26.4
120	0.276	15.8	300	0.979	26.8
130	0.372	18.4	310	0.990	26.9
140	0.482	20.7	320	0.952	26.6
150	0.604	22.6	330	0.868	25.8
160	0.727	24.2	340	0.755	24.6
170	0.840	25.5	350	0.626	22.9

**CONTOUR POPULATION**

**48 DBU : 9,095,595**

**41 DBU : 9,380,231**

**Smith and Fisher**



POWER DENSITY CALCULATION

PROPOSED WFLD-DT STA  
CHANNEL 31 – CHICAGO, ILLINOIS

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to the facility proposed herein.

WFLD-DT will operate with a maximum ERP of 500 kw horizontal and 125 kw vertical and a center of radiation 474 meters above ground. Employing the methods set forth in *OET Bulletin No. 65* and considering the vertical patterns of the proposed Andrew ATW14H3H-ETC2-31H antenna, we calculate that maximum power density two meters above ground of 0.00038 mw/cm<sup>2</sup> would exist 465 meters southeast of the base of the Sears Tower. This is but 0.1 percent of the 0.38 mw/cm<sup>2</sup> reference for uncontrolled environments, i.e., areas with public access, surrounding stations operating on Channel 31 (572-578 MHz). Therefore, this facility may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation, without regard to the contributions from other sources.

With respect to the roof of Sears Tower, although excessive power density levels from WFLD-DT are not predicted, the total level from the numerous facilities on Sears Tower approaches the reference value at certain locations. However, access to the roof is carefully restricted, so that excessive exposure of employees or of the general public is precluded, and WFLD-DT will enter into an agreement with the Sears Tower management and the other

EXHIBIT D

broadcasters whereby it will reduce power or leave the air as necessary to avoid excessive RF exposure when personnel must enter this restricted area.

On this basis, and considering that the station produces significantly less than five percent of the current FCC reference in uncontrolled areas, a grant of the subject application would clearly constitute a minor environmental action with regard to public and occupational exposure to nonionizing electromagnetic radiation.