

## ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOX TELEVISION STATIONS, INC., licensee of KMSP-DT, Channel 9 in Minneapolis, Minnesota, in support of its Application for Construction Permit to operate an auxiliary facility.

It is proposed to install a new ERI omnidirectional antenna at the 254-meter level of the existing 447-meter tower on which the present main KMSP-DT antenna is located. Exhibit B provides an elevation pattern for the proposed antenna. Exhibit C is a map upon which the predicted service contours of licensed KMSP-DT and the proposed auxiliary facility are plotted. As shown, the auxiliary's 36 dBu contour is completely contained within that authorized to KMSP-DT. As a result, and since this proposal is for an auxiliary facility, an interference study is not provided. Predicted service contours for the proposed auxiliary are plotted in Exhibit D. As shown, the facility places a city-grade service contour over the entirety of the station's city of license. A power density calculation follows as Exhibit E.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the proposed site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. In addition, the FCC issued Antenna Structure Registration Number 1022899 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized, elongated final letter.

KEVIN T. FISHER

July 11, 2012

**EXHIBIT B**

**ANTENNA ELEVATION PATTERN**

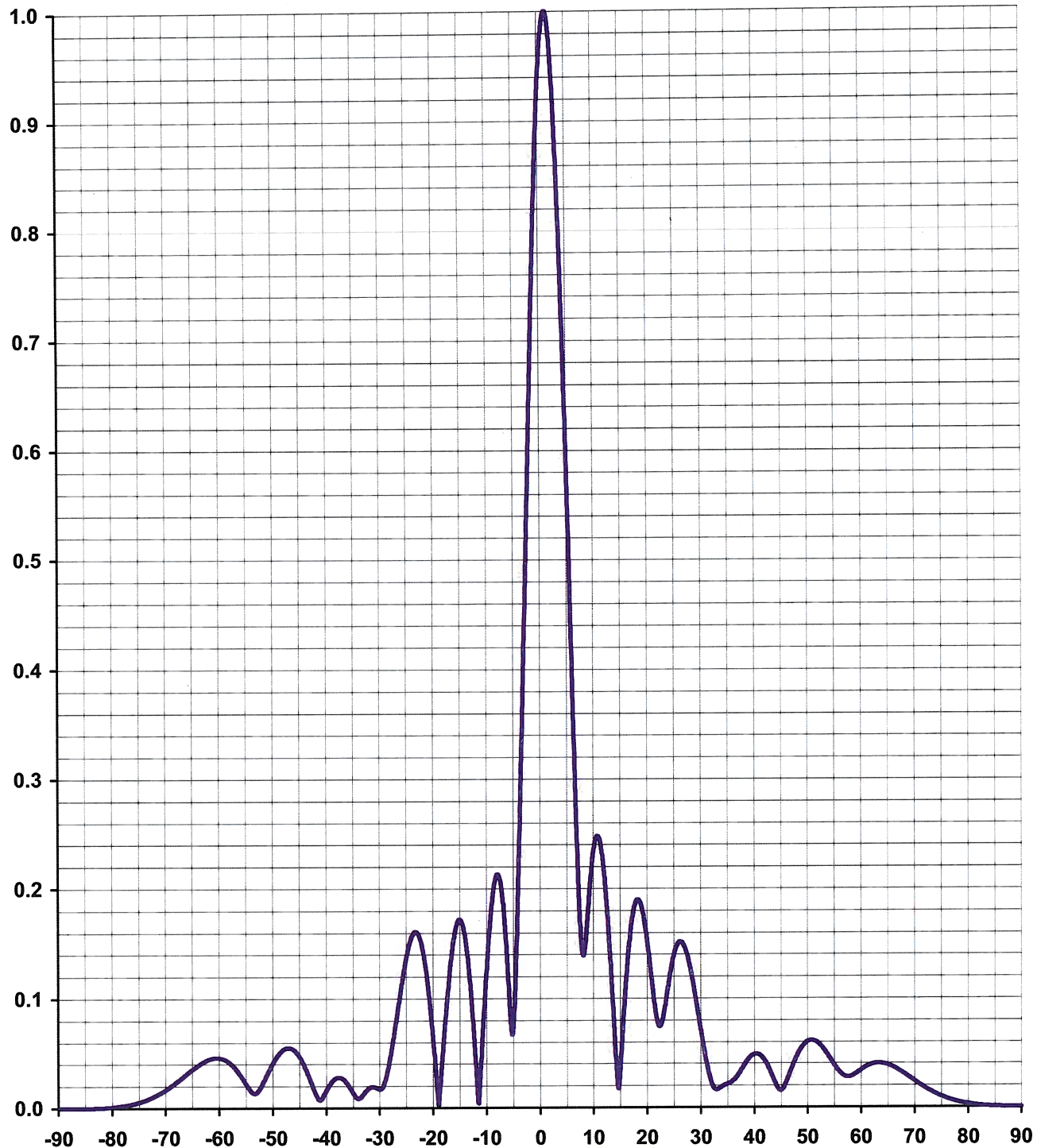
**PROPOSED KMSP-DT AUXILIARY  
CHANNEL 9 – MINNEAPOLIS, MINNESOTA**

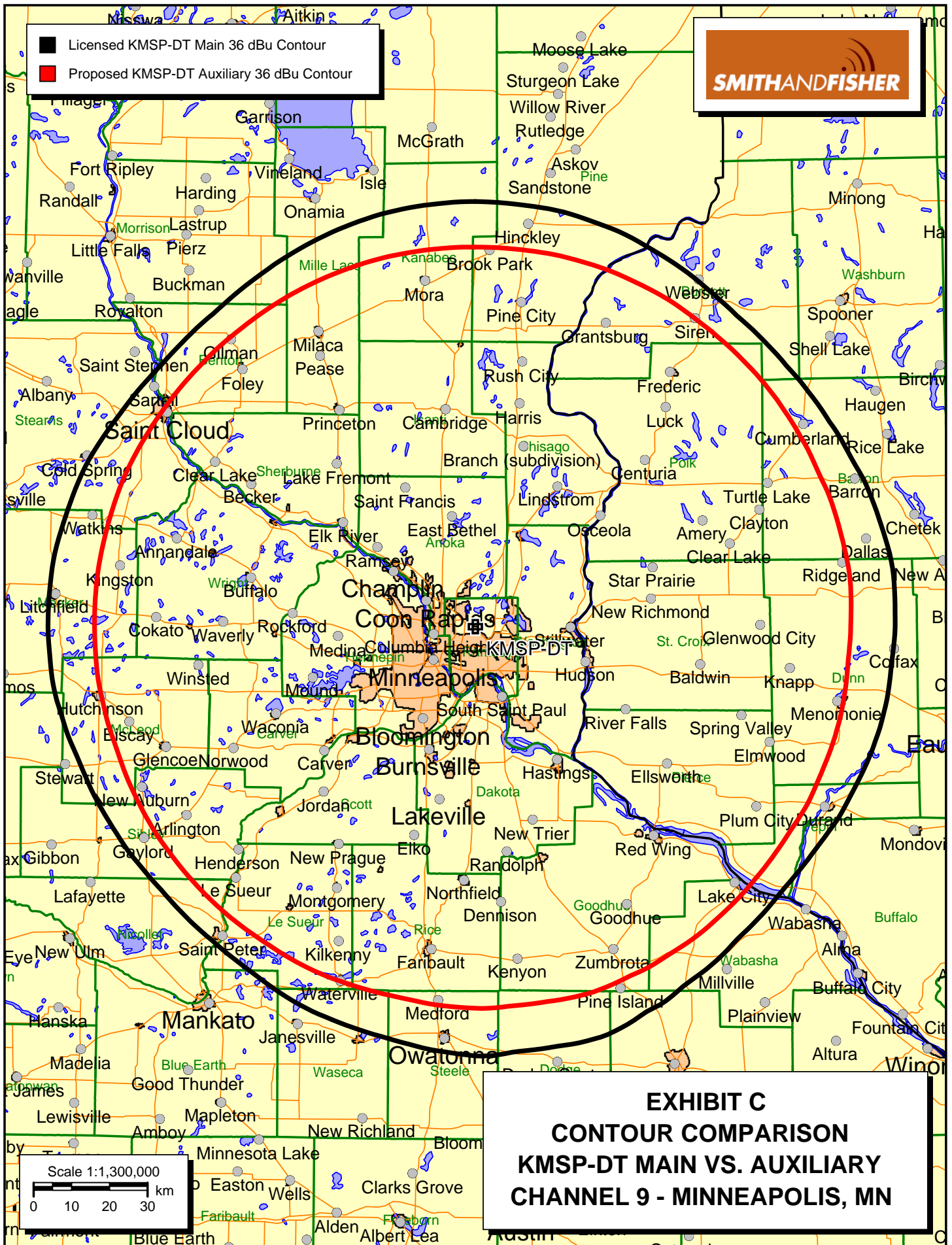
SMITH AND FISHER

KO120611-2427 Page 11

**PATTERN**

Frequency: 9 (DTV)  
Location: Minneapolis, MN  
Beam Tilt: 1.50  
Polarization: Horizontal







**CONTOUR POPULATION  
2010 U.S. CENSUS DATA**  
43 DBU : 3,461,128  
36 DBU : 3,644,517

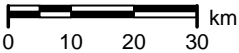
**SMITHANDFISHER**

**36 DBU  
CONTOUR**

**43 DBU  
CONTOUR**

**EXHIBIT D  
PREDICTED SERVICE CONTOURS  
PROPOSED KMSP-DT AUXILIARY  
CHANNEL 9 - MINNEAPOLIS, MN**

Scale 1:1,200,000



POWER DENSITY CALCULATION

PROPOSED KMSP-DT AUXILIARY  
CHANNEL 9 – MINNEAPOLIS, MINNESOTA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Minneapolis facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 34.3 kW (H,V), an antenna radiation center 254 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of  $0.000081 \text{ mw/cm}^2$  is calculated to occur 204 meters southwest of the base of the tower. Since this is significantly less than 0.1 percent of the  $0.20 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 9 (186-192 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.