

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of KSKN TELEVISION, INC., licensee of KSKN-DT, Channel 36 in Spokane, Washington, in support of its Application for Construction Permit to operate with a maximized post-transition DTV facility.

It is proposed to mount a standard Dielectric omnidirectional antenna at the 242-meter level of the existing 287-meter tower on which the present KSKN-DT antenna is mounted. Exhibit B provides an elevation pattern for the proposed antenna. Exhibit C is a map upon which the predicted service contours are plotted. As shown, the city of license is completely contained within the proposed 48 dBu service contour. An interference study is included in Exhibit D, and it is important to note that the study utilized a cell size of 1.0 kilometers and an increment spacing of 0.1 kilometers. A power density calculation is provided in Exhibit E.

It is important to note that, while the proposed effective radiated power of 1000 kw exceeds that allowable in Section 73.622(f)(8)(i) of the Commission's Rules, the coverage of the facility proposed herein does not exceed that of the largest station in the market (KXLY-DT, Channel 13 in Spokane, Washington), as allowed in Section 73.622(f)(5) of the Rules.

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 KSKN-DT 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 1033992 to this tower.

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.

  
KYLE T. FISHER

June 12, 2008

Date **10 Jun 2008**

Call Letters

Channel **20**

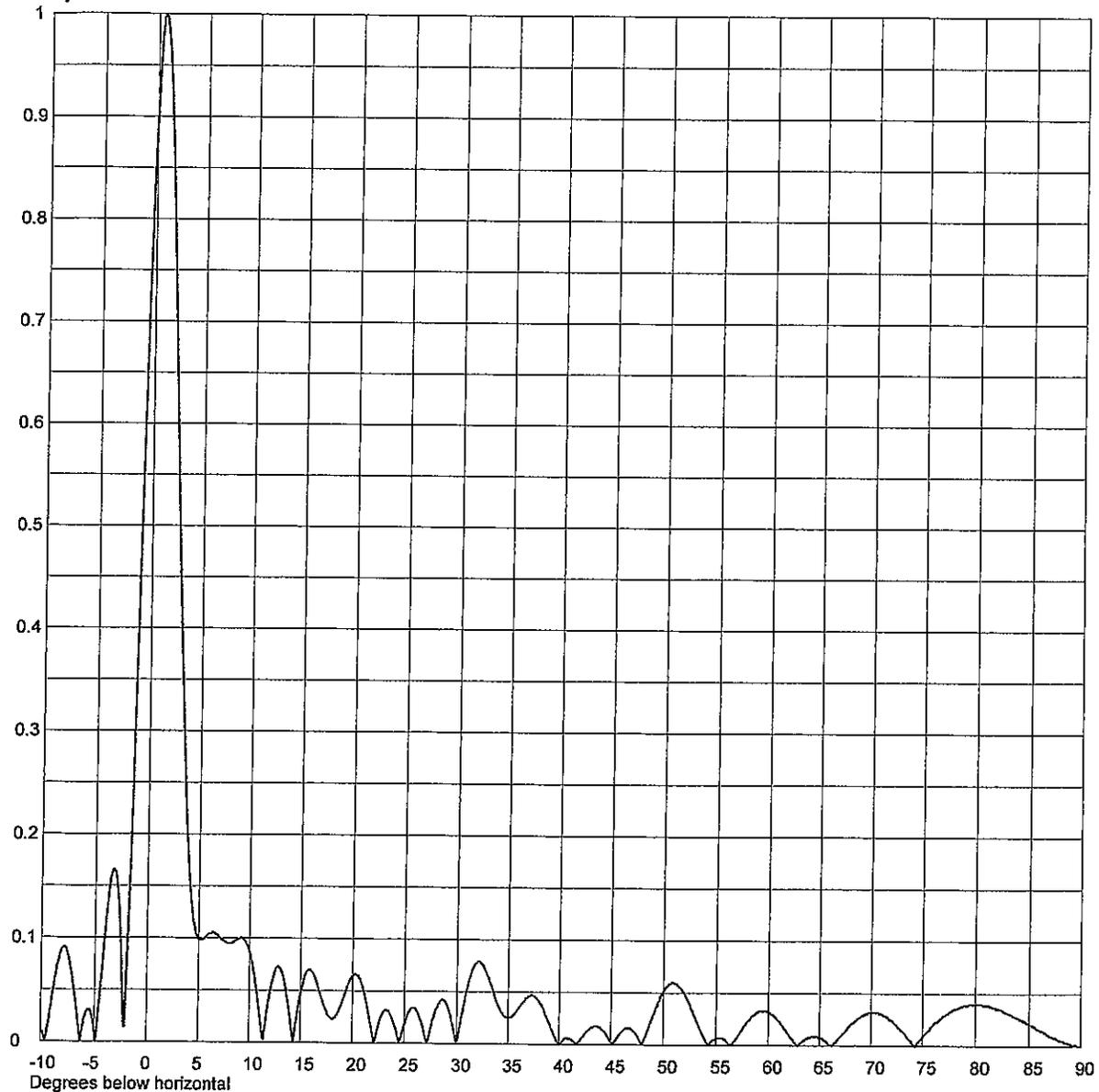
Location

Customer

Antenna Type **TFU-24GTH O4**

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>21.5 (13.32 dB)</b>	Beam Tilt	<b>0.75 Degrees</b>
RMS Gain at Horizontal	<b>17.3 (12.38 dB)</b>	Frequency	<b>509.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>24G215075-90</b>



Remarks:

**EXHIBIT B****ANTENNA ELEVATION PATTERN****PROPOSED KSKN-DT  
CHANNEL 36 – SPOKANE, WASHINGTON**

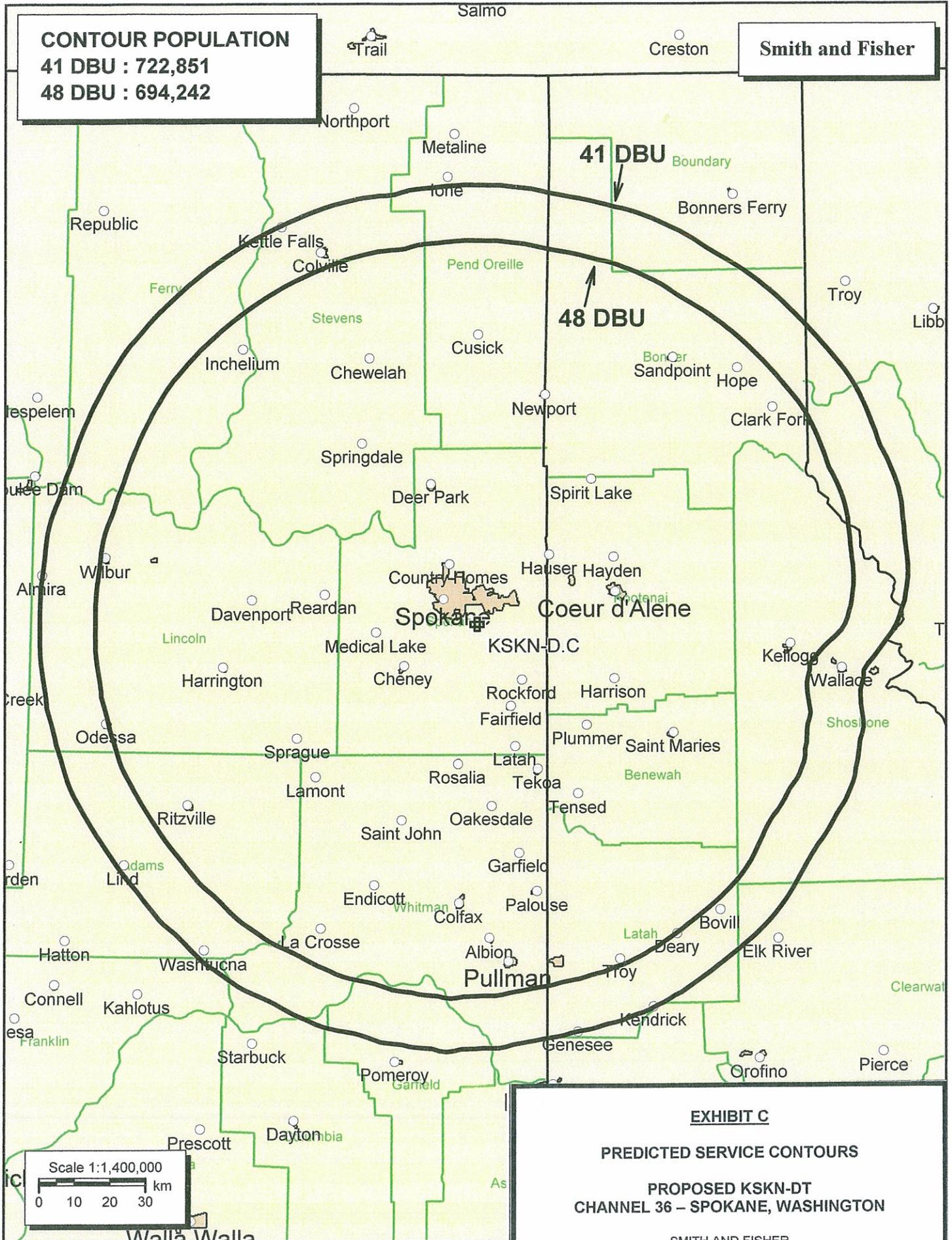
SMITH AND FISHER

**CONTOUR POPULATION**

**41 DBU : 722,851**

**48 DBU : 694,242**

**Smith and Fisher**



**EXHIBIT C**

**PREDICTED SERVICE CONTOURS**

**PROPOSED KSKN-DT  
CHANNEL 36 - SPOKANE, WASHINGTON**

SMITH AND FISHER

INTERFERENCE STUDY  
PROPOSED KSKN-DT  
CHANNEL 36 – SPOKANE, WASHINGTON

The instant application specifies an ERP of 1000 kw (omnidirectional) at 641 meters above average terrain, which we have determined to be allowable under the FCC's recently approved interference standards with respect to various post-transition digital television facilities as they will exist on or before February 17, 2009, the date by which all stations must operate with the parameters recently adopted in the Commission's DTV Table of Allotments.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe III" computer program, which has been found generally to mimic the FCC's program. In conducting our studies, we employed a cell size of 1.0 kilometers and an increment spacing of 0.1 kilometer along each radial. In addition, we utilized the 2000 U.S. Census. Changes in interference caused by proposed KSKN-DT to other pertinent stations are tabulated in Exhibit D-2.

As shown, the proposed KSKN-DT facility would not contribute more than 0.5% interference (beyond that which is caused by the allotted KSKN-DT facility) to the service population of any potentially affected post-transition DTV station.

A Longley-Rice interference study also reveals that the proposed KSKN-DT facility does not cause significant (0.5%) interference within the protected service contour of any potentially affected Class A low power television station.

Therefore, this proposal meets the FCC's *de minimis* interference standards for DTV operations.

EXHIBIT D-2

INTERFERENCE STUDY SUMMARY  
PROPOSED KSKN-DT  
CHANNEL 36 – SPOKANE, WASHINGTON

<u>Call Sign</u>	<u>City, State</u>	<u>CH.</u>	<u>Coverage Population</u>	<u>Interference Population From KSKN-DT*</u>	<u>%</u>
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[NO STATIONS AFFECTED]

Note: This study utilized a cell size of 1.0 km and an increment spacing of 0.1 km.

\*Above that caused by the allotment facility.

POWER DENSITY CALCULATION  
PROPOSED KSKN-DT  
CHANNEL 36 – SPOKANE, WASHINGTON

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Spokane facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 1000 kw, an antenna radiation center 242 meters above ground, and the elevation pattern of the Dielectric antenna, maximum power density two meters above ground of  $0.0013 \text{ mw/cm}^2$  is calculated to occur 194 meters from the base of the tower. Since this is only 0.3 percent of the  $0.41 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 36 (602-608 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to nonionizing 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 nonionizing radiation.