

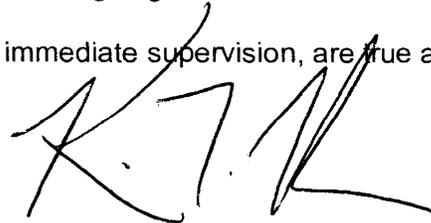
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of KILLEEN CHRISTIAN BROADCASTING CORPORATION, licensee of Class A LPTV station KPLE-LP, Channel 31 in Killeen, Texas, in support of this application for modification of Construction Permit BDCCDTL-20060914ABK, a digital companion-channel authorization on Channel 30 (K30JA-D). The purpose of this modification is to specify a reduction in effective radiated power. No change in site location, antenna model or antenna height is proposed.

It is still proposed to mount a standard ERI omnidirectional antenna at the 84-meter level of the existing 88-meter communications tower on which the KPLE-CP antenna is located. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the newly proposed 51 dBu contour continues to encompass the station's city of license. Operating parameters for the proposed facility are tabulated in Exhibit C. A new interference study is provided in Exhibit D, and a revised power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1048848 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.



KEVIN T. FISHER

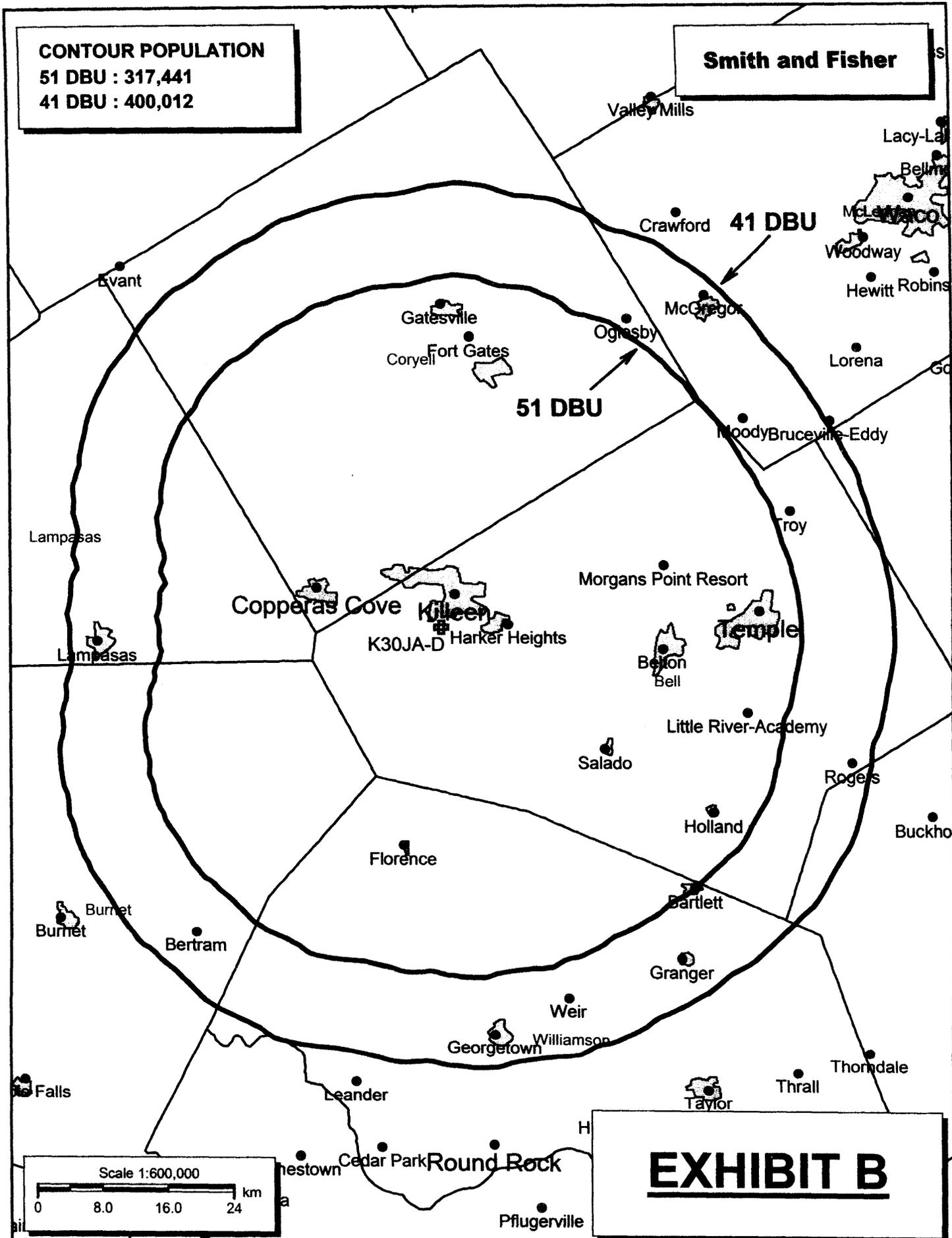
March 26, 2009

**CONTOUR POPULATION**

**51 DBU : 317,441**

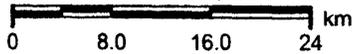
**41 DBU : 400,012**

**Smith and Fisher**



**EXHIBIT B**

Scale 1:600,000



PROPOSED OPERATING PARAMETERS

PROPOSED K30JA-D  
CHANNEL 30 – KILLEEN, TEXAS  
[MODIFICATION OF BDCCDTL-20060914ABK]

Transmitter Power Output:	1.0 kw
Transmission Line Efficiency:	66.5%
Antenna Power Gain – Toward Horizon:	14.06
Antenna Power Gain – Main Lobe:	14.06
Effective Radiated Power – Toward Horizon:	9.3 kw
Effective Radiated Power – Main Lobe:	9.3 kw
Transmitter Make and Model:	Type-accepted
Rated Output	1.0 kw
Transmission Line Make and Model:	Andrew LDF7-50A
Size and Type:	1-5/8" foam heliax
Length:	300 feet*
Antenna Make and Model:	ERI AL8
Orientation	Omnidirectional
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	84 meters
Radiation Center Above Mean Sea Level:	373 meters

\*estimated

LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED K30JA-D  
CHANNEL 30 – KILLEEN, TEXAS  
[MODIFICATION OF BDCCDTL-20060914ABK]

We conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 0.1 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than proposed K30JA-D) already is predicted to exist (also known as "masking"). The results of these studies are provided in Exhibit D-2. They conclude that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed K30JA-D facility complies with the requirements of Sections 73.6016, 73.6017, 73.6018, 73.6019, 73.6020, 73.6027 and 74.794(b) of the Commission's Rules.

## INTERFERENCE SUMMARY

PROPOSED K30JA-D  
CHANNEL 30 – KILLEEN, TEXAS

[MODIFICATION OF BDCCDTL-20060914ABK]

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
KPLE-LP BLTTL-19930713IH	Lic.	Killeen, TX	31	117,041	114,096	97.5*
KMPX-DT BLCDT-20060317AGE	Lic.	Decatur, TX	30	4,211,151	103	<0.1
KABB-DT BPCDT-19991028AAR	CP	San Antonio, TX	30	1,607,466	1,306	<0.1
KABB-DT BMPCDT-20080620AKE	Appl.	San Antonio, TX	30	1,574,292	1,258	<0.1

\*This is the analog companion channel to K30JA-D; interference is accepted and can therefore be ignored.

POWER DENSITY CALCULATION

PROPOSED K30JA-D  
CHANNEL 31 – KILLEEN, TEXAS  
[MODIFICATION OF BDCCDTL-20060914ABK]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Killeen facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 9.3 kw, an antenna radiation center 84 meters above ground, and the vertical pattern of the ERI antenna, maximum power density two meters above ground of  $0.00043 \text{ mw/cm}^2$  is calculated to occur 74 meters from the base of the tower. Since this is only 0.1 percent of the  $0.38 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 30 (566-572 MHz), this proposal may be excluded from consideration with respect to public 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.