

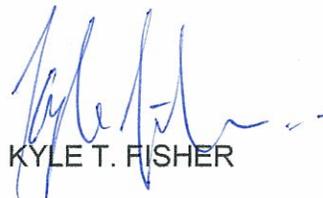
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of television translator W51DY, Channel 51 in Sebring, Florida, in support of this Application for Construction Permit to specify digital operation on Channel 51 from the licensed W51DY site, as a "flashcut" proposal.

It is proposed to utilize a standard ERI directional antenna which is mounted at the 85-meter level of an existing 90-meter communications tower. 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 encompasses a significant portion of the Grade A contour that obtains from the licensed W51DY facility. Operating parameters for the proposed facility are tabulated in Exhibit C. An interference study is provided in Exhibit D, and a 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 1052077 to this tower.

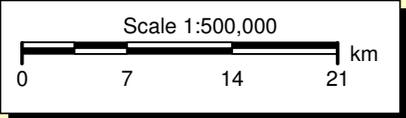
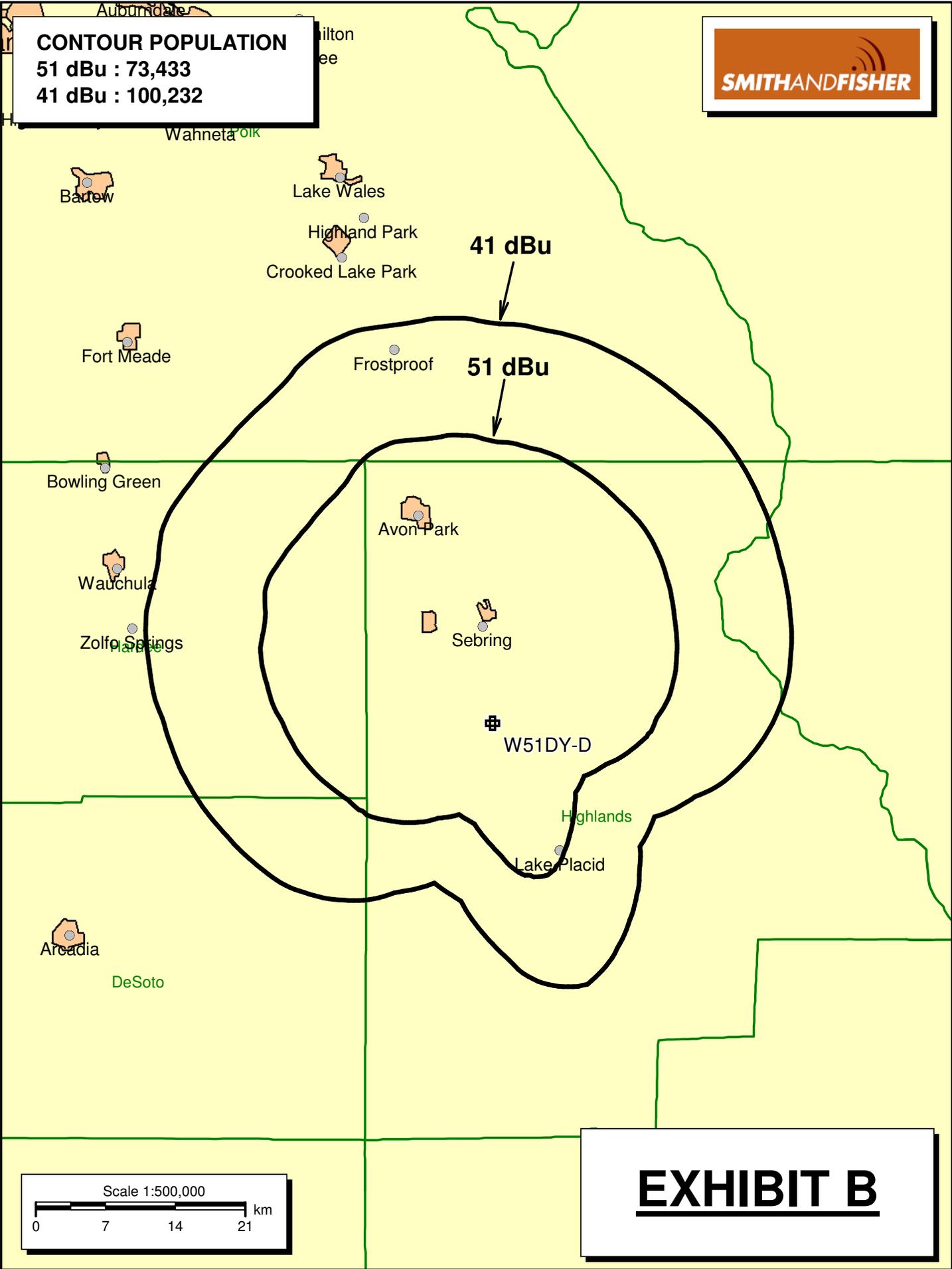
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

  
KYLE T. FISHER

February 16, 2010



**CONTOUR POPULATION**  
 51 dBu : 73,433  
 41 dBu : 100,232



**EXHIBIT B**

PROPOSED OPERATING PARAMETERS

PROPOSED W51DY-D  
CHANNEL 51 – SEBRING, FLORIDA

Transmitter Power Output:	0.05 kw
Transmission Line Efficiency:	63.3%
Antenna Power Gain – Toward Horizon:	62.54
Antenna Power Gain – Main Lobe:	62.54
Effective Radiated Power – Toward Horizon:	2 kw
Effective Radiated Power – Main Lobe:	2 kw
Transmitter Make and Model:	Type-accepted
Rated Output	0.05 kw
Transmission Line Make and Model:	Andrew LDF7-50A
Size and Type:	1-5/8" foam heliax
Length:	300 feet
Antenna Make and Model:	Andrew ALP16L2-HSN
Orientation	Directional, 340° T
Beam Tilt	0.5 degrees
Radiation Center Above Ground:	85 meters
Radiation Center Above Mean Sea Level:	110 meters

LONGLEY-RICE INTERFERENCE STUDY  
PROPOSED W51DY-D  
CHANNEL 51 – SEBRING, FLORIDA

We conducted a detailed interference study 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 1.0 kilometer increments along each radial studied, and employs the 2000 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 that proposed W51DY-D) already is predicted to exist (also known as "masking"). A summary of the results of this study is 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 W51DY-D facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY  
PROPOSED W51DY-D  
CHANNEL 51 – SEBRING, FLORIDA

<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>
WINK-DT BPCDT-20091215AAF	App.	Fort Myers, FL	50	1,455,935	6,081	0.4
WHLV-DT BPCDT-20080617AEC	CP	Cocoa, FL	51	3,028,777	4,477	0.1
WTGL-DT	Allot.	Cocoa, FL	51	2,616,257	593	<0.1

POWER DENSITY CALCULATION  
PROPOSED W51DY-D  
CHANNEL 51 – SEBRING, FLORIDA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Sebring facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 2 kw, an antenna radiation center 85 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of  $0.000091 \text{ mw/cm}^2$  is calculated to occur 19 meters north-northwest of the base of the tower. Since this is less than 0.1 percent of the  $0.46 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 51 (692-698 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.