

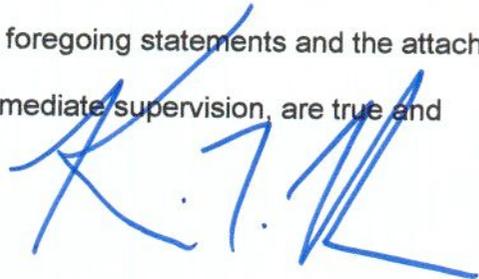
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of television translator W36CO, Channel 36 in St. Petersburg, Florida, in support of this Application for Construction Permit to specify digital operation on Channel 36 from the licensed W36CO site, as a "flashcut" proposal.

It is proposed to mount a standard Andrew directional antenna at the authorized height on the side of the existing 94-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 W36CO 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 1031079 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

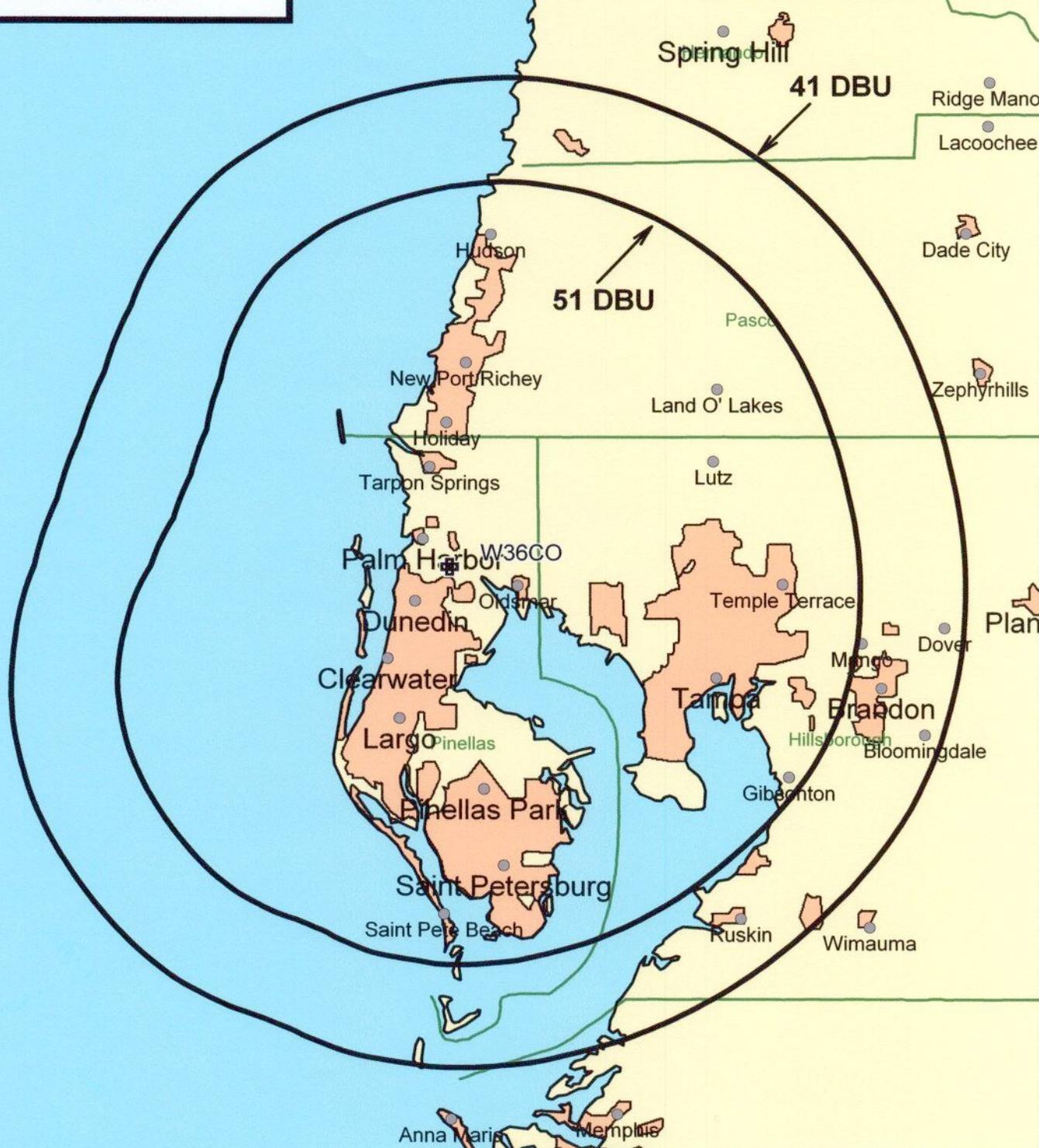
February 21, 2006

**CONTOUR POPULATION**

51 DBU : 1,862,319

41 DBU : 2,161,568

**SMITH and FISHER**



51 DBU

41 DBU

Spring Hill

Ridge Manor

Lacochee

Dade City

Zephyrhills

Land O' Lakes

Lutz

Temple Terrace

Dover

Plan

Mango

Brandon

Bloomingdale

Gibbernton

Wimauma

Ruskin

Saint Petersburg

Saint Pete Beach

Anna Maria

Memphis

Bradley

Curtis

Bayshore

**EXHIBIT B**

Scale 1:600,000



PROPOSED OPERATING PARAMETERS  
PROPOSED W36CO-D  
CHANNEL 36 – ST. PETERSBURG, FLORIDA

Transmitter Power Output:	1.6 kw
Transmission Line Efficiency:	68.1%
Antenna Power Gain – Toward Horizon:	14.12
Antenna Power Gain – Main Lobe:	14.12
Effective Radiated Power – Toward Horizon:	15.0 kw
Effective Radiated Power – Main Lobe:	15.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	2.0 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	315 feet
Antenna Make and Model:	Andrew AL8W
Orientation	110° T
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	85 meters
Radiation Center Above Mean Sea Level:	100 meters

LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED W36CO-D  
CHANNEL 36 – ST. PETERSBURG, FLORIDA

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 W36CO-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 W36CO-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 W36CO-D  
CHANNEL 36 – ST. PETERSBURG, 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>
WFTX(TV) BLCT-20030625ACD	Lic.	Cape Coral, FL	36	933,804	3,260	0.3
WMOR-TV BLCT-19961018KF	Lic.	Lakeland, FL	32	2,424,384	905	<0.1

POWER DENSITY CALCULATION

PROPOSED W36CO-D  
CHANNEL 36 – ST. PETERSBURG, 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 St. Petersburg facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 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  $0.00068 \text{ mw/cm}^2$  is calculated to occur 75 meters east-southeast of the base of the tower. Since this is only 0.2 percent of the  $0.40 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 36 (602-608 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.