

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of television translator W36DG, Channel 36 in Cincinnati, Ohio, in support of this further amendment to its Application for Construction Permit BDFCDTT-20060329AHR, which seeks digital operation on Channel 36 from the licensed W36DG site, as a "flashcut" proposal. The purpose of this amendment is to reduce the proposed effective radiated power from 10.0 kw to 5.0 kw in order to alleviate predicted interference to WTVQ-TV in Lexington, Kentucky. No change in site location, antenna pattern or antenna height is proposed herein.

Exhibit B is a map upon which the newly proposed predicted service contours are plotted. It is important to note that the 51 dBu contour continues to encompass a significant portion of the Grade A contour that obtains from the licensed W36DG facility. Operating parameters for the revised facility are tabulated in Exhibit C. A new 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 1018149 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

August 31, 2006

CONTOUR POPULATION

51 DBU : 1,644,432

41 DBU : 1,873,898

SMITH and FISHER

51 DBU

41 DBU

EXHIBIT B

Scale 1:600,000

0 8 16 24 km

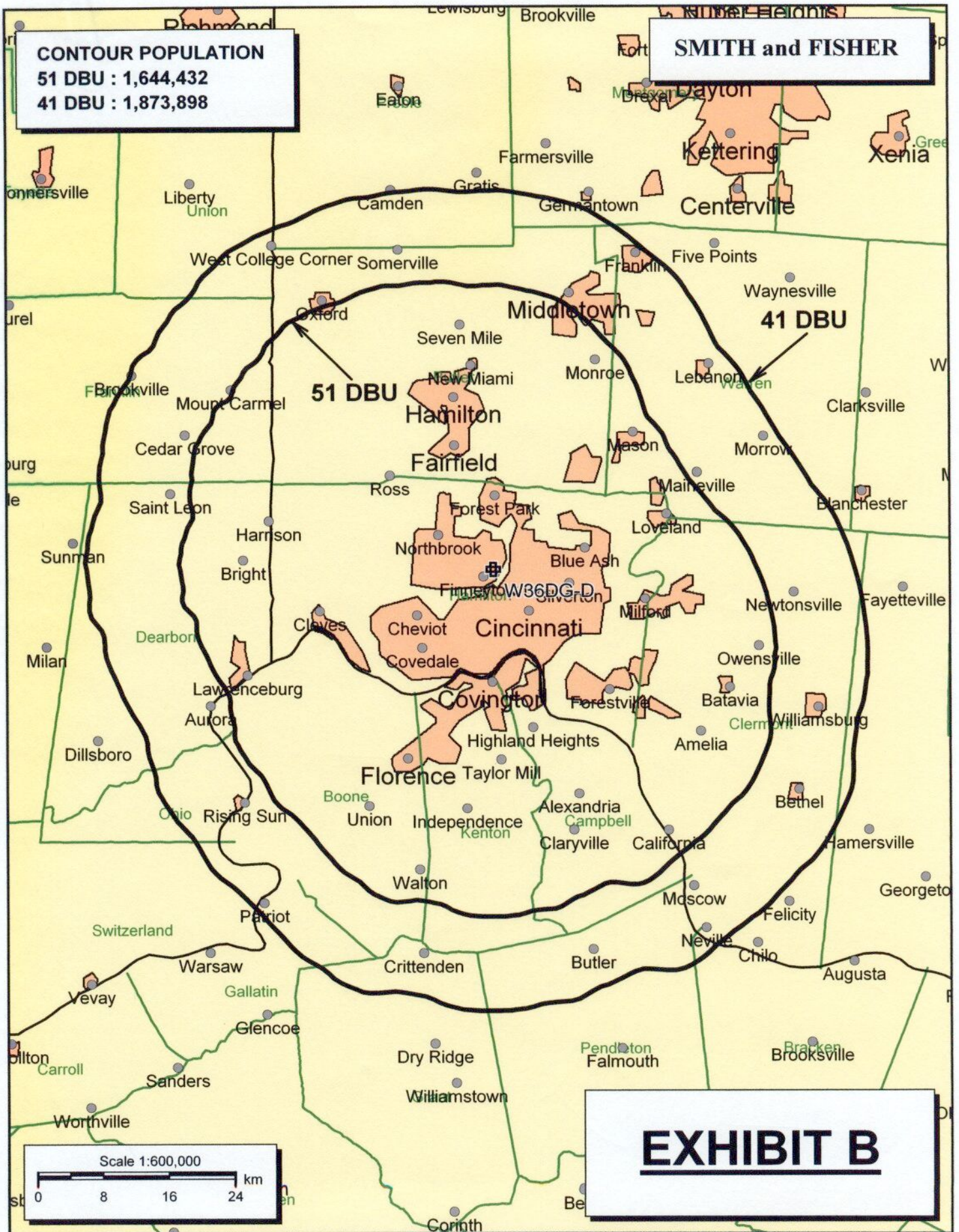


EXHIBIT C

PROPOSED OPERATING PARAMETERS

PROPOSED W36DG-D
CHANNEL 36 – CINCINNATI, OHIO

[FURTHER AMENDMENT TO BDFCDTT-20060329AHR]

Transmitter Power Output:	0.5 kw
Transmission Line Efficiency:	73.2%
Antenna Power Gain – Toward Horizon:	14.12
Antenna Power Gain – Main Lobe:	14.12
Effective Radiated Power – Toward Horizon:	5.0 kw
Effective Radiated Power – Main Lobe:	5.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	0.5 kw
Transmission Line Make and Model:	Andrew HJ8-50B
Size and Type:	3" air heliax
Length:	330 feet
Antenna Make and Model:	Andrew AL8W
Orientation	235° T
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	91.4 meters
Radiation Center Above Mean Sea Level:	355 meters

PROPOSED OPERATING PARAMETERS

PROPOSED W36DG-D
CHANNEL 36 – CINCINNATI, OHIO
[FURTHER AMENDMENT TO BDFCDTT-20060329AHR]

Transmitter Power Output:	0.5 kw
Transmission Line Efficiency:	73.2%
Antenna Power Gain – Toward Horizon:	14.12
Antenna Power Gain – Main Lobe:	14.12
Effective Radiated Power – Toward Horizon:	5.0 kw
Effective Radiated Power – Main Lobe:	5.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	0.5 kw
Transmission Line Make and Model:	Andrew HJ8-50B
Size and Type:	3" air heliax
Length:	330 feet
Antenna Make and Model:	Andrew AL8W
Orientation	235° T
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	91.4 meters
Radiation Center Above Mean Sea Level:	355 meters

LONGLEY-RICE INTERFERENCE STUDIES
PROPOSED W36DG-D
CHANNEL 36 – CINCINNATI, OHIO
[FURTHER AMENDMENT TO BDFCDTT-20060329AHR]

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 W36DG-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 W36DG-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 W36DG-D
CHANNEL 36 – CINCINNATI, OHIO

[FURTHER AMENDMENT TO BDFCDTT-20060329AHR]

<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>
WKEF(TV) BLCT-2584	Lic.	Dayton, OH	22	2,985,225	2,170	<0.1
WLWT-DT BLCDT-19980625KG	Lic.	Cincinnati, OH	35	2,171,484	763	<0.1
WTTE-DT BPCDT-19991029AGZ	CP	Columbus, OH	36	2,111,635	4,300	0.2
WTVQ-TV BLCT-19800619IX	Lic.	Lexington, KY	36	692,528	2,148	0.3
WKOI-TV BLCT-19820517KJ	Lic.	Richmond, IN	43	2,812,731	59	<0.1

POWER DENSITY CALCULATION

PROPOSED W36DG-D
CHANNEL 36 – CINCINNATI, OHIO

[FURTHER AMENDMENT TO BDFCDTT-20060329AHR]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Cincinnati facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 5.0 kw, an antenna radiation center 91 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of 0.00020 mw/cm^2 is calculated to occur 80 meters southwest of the base of the tower. Since this is less than 0.1 percent of the 0.40 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.