

TECHNICAL EXHIBIT
APPLICATION TO MODIFY
CONSTRUCTION PERMIT
STATION WIPX-LP (FACILITY ID 65121)
INDIANAPOLIS, INDIANA

MAY 23, 2003

CH 34(+) 150 KW-DA

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Technical Narrative

This technical exhibit supports an application to modify the construction permit (CP) of low power television (LPTV) station WIPX-LP at Indianapolis, Indiana (Facility ID 65121).

Station WIPX-LP is currently licensed to operate on channel 51 with a zero (0) carrier offset and a directional antenna system (BLTTL-19970918JR). The antenna pattern is “cardioid” shaped with the major lobe oriented to the south (170 degrees True). The maximum visual effective radiated power (ERP) is 6.49 kilowatts (kW). The antenna center of radiation is 237.7 meters above ground level (AGL) and 456 meters above mean sea level (AMSL). The transmitter site coordinates are 39-46-11, 86-09-26.

Station WIPX-LP has a construction permit (CP) to operate on channel 34 with a plus (+) carrier offset (BPTT-JG0601AI). A directional antenna system is proposed with a maximum visual ERP of 10 kW. The antenna height (237.7 m AGL, 456 m AMSL) and site (39-46-11, 86-09-26) are the same as for the WIPX-LP license operation.

Proposed Facilities

Station WIPX-LP proposes to modify the construction permit by relocating the transmitter site, changing directional antenna system, and increasing ERP. Operation is proposed on channel 34 with a plus (+) carrier offset (same as for WIPX-LP CP operation). It is proposed to install the antenna system on an existing tower approximately 17.8 kilometers

north of the present WIPX-LP site. The FCC antenna structure registration number for the tower is 1024109 and the coordinates are 39-55-43, 86-10-55 (NAD-27). It proposes to use an Antenna Concepts ACS24AR directional antenna system with a “cardioid” shaped pattern. The major lobe of the antenna pattern will be oriented toward 160 degrees True (south, see Figure 2). The proposed maximum visual ERP will be 150 kW. The proposed antenna center of radiation will be 237.7 meters AGL, and 488.9 meters AMSL. There is no proposed change in city of assignment (Indianapolis, IN).

According to the FCC’s database, the following broadcast stations are authorized to operate on the proposed structure.

WTHR-TV, Ch.13, Indianapolis, IN

WTHR-DT, CH.46, Indianapolis, IN

WALV-CA, Ch.50, Indianapolis, IN

Figure 3 is a map showing the predicted 74 dBu contours for the WIPX-LP license operation (Ch.51, 6.49 kW-DA), the WIPX-LP CP operation (Ch.34, 10 kW-DA), and the operation proposed herein (Ch.34, 150 kW-DA). As shown, there is overlap of the predicted 74 dBu contours as required to demonstrate the application is considered a minor change.

NTSC Allocation Considerations

A study has been conducted using the provisions of Sections 74.705, 74.707 and 74.709 of the FCC rules to assure that the proposal will not create prohibited interference with other authorized or pending analog (NTSC) full-power TV, LPTV and Class A TV stations. The proposed WIPX-LP operation complies with the FCC’s allocation standards with respect to other analog assignments except as follows.

WFYI(TV), Ch.20, Indianapolis, IN

WBKI-TV, Ch.34(-), Campbellsville, KY

W57CQ, App. Ch.34(+), Houghton Lake, MI, BPTTL-20020814ABB

New LPTV, App. Ch.34(0), Terre Haute, IN, BNPTTL-20000831ALD

With respect to the above analog assignments interference calculations have been made using the procedures outlined in the FCC’s OET-69 Bulletin and a 1 kilometer grid. No new

interference will be caused to the above analog assignments from the proposed WIPX-LP operation.

The proposed WIPX-LP site is 338 kilometers from the nearest point of the US/Canada border. There are no Canadian TV and DTV allotments on pertinent channels that require consideration. The proposed 19 dBu F(50,10) contour does not extend to or across the Canadian border (see Figure 4). Therefore, it is believed coordination of the proposed WIPX-LP operation with Canada is not required.

The closest point of the Mexican border is more than 1700 kilometers to the southwest. The closest FCC monitoring station is at Allegan, Michigan, approximately 298 kilometers to the north. The closest point of the National Radio Quiet Zone (VA/WV) is more than 490 kilometers to the east. The Table Mountain Radio Quiet Zone (CO) is more than 1600 kilometers to the west. The closest radio astronomy site using channel 37 is at North Liberty, Iowa, approximately 497 kilometers to the west-northwest. These separations are considered sufficient to not be a coordination concern.

DTV Allocation Considerations

Pertinent DTV allotments and assignments on channels 33, 34 and 35 have been examined using the procedures outlined in the FCC's OET-69 Bulletin.¹ The proposed WIPX-LP operation complies with the FCC's "de minimis" (0.5%) interference policy.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation. If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin and described above.

¹ The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. A Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

Radiofrequency Electromagnetic Field Exposure

The proposed WIPX-LP facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A visual ERP of 150 kW with 10% aural power was assumed. A relative field value of 0.3 was assumed for the Antenna Concepts 24-bay antenna's downward radiation (see Figure 2). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0041 mW/cm^2 . This is approximately 1% of the FCC's recommended limit of 0.4 mW/cm^2 for channel 34 for an "uncontrolled" environment. It is less than 1% of the FCC's recommended limit for a "controlled" environment.

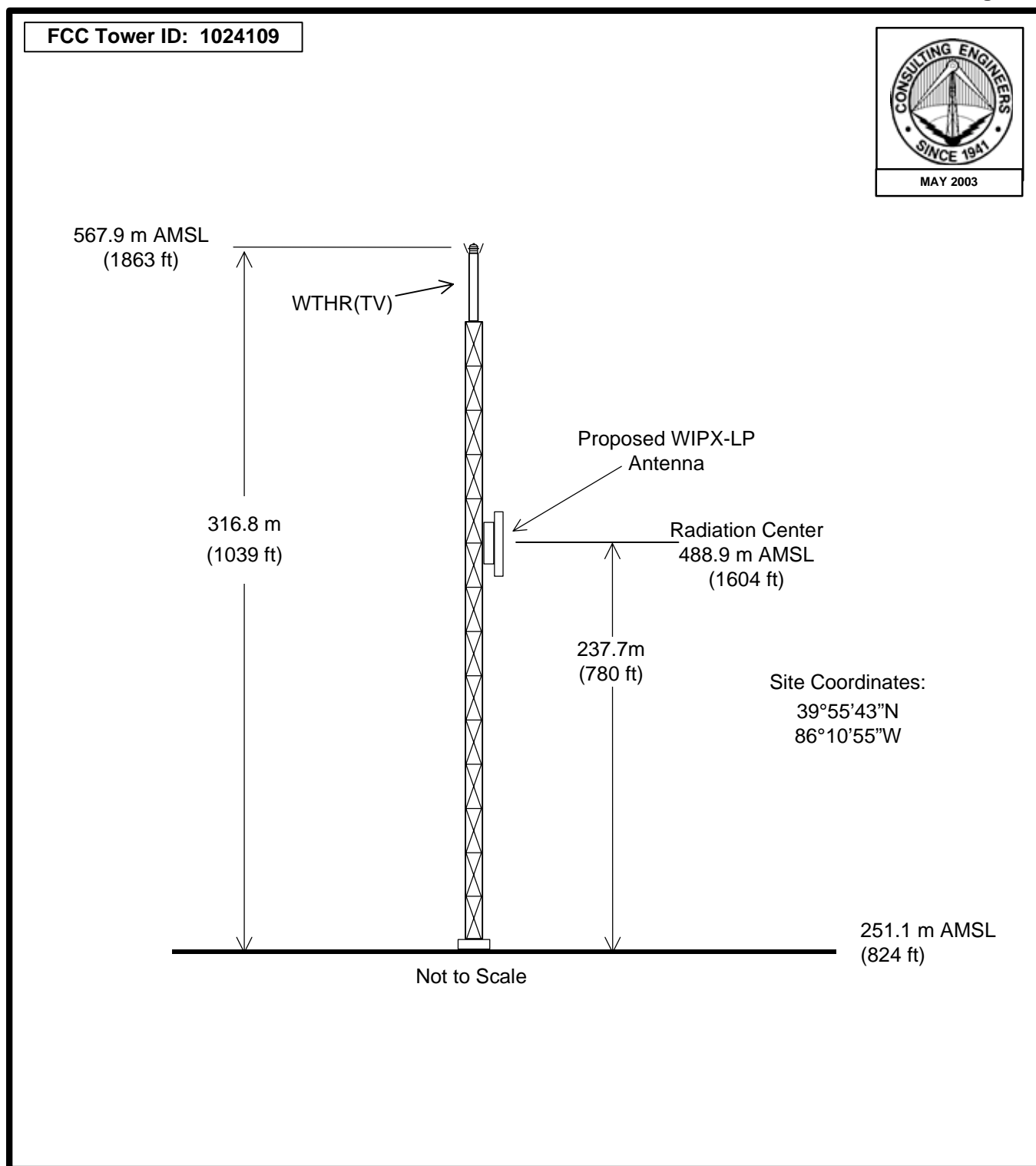
Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed WIPX-LP operation appears to be otherwise categorically excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

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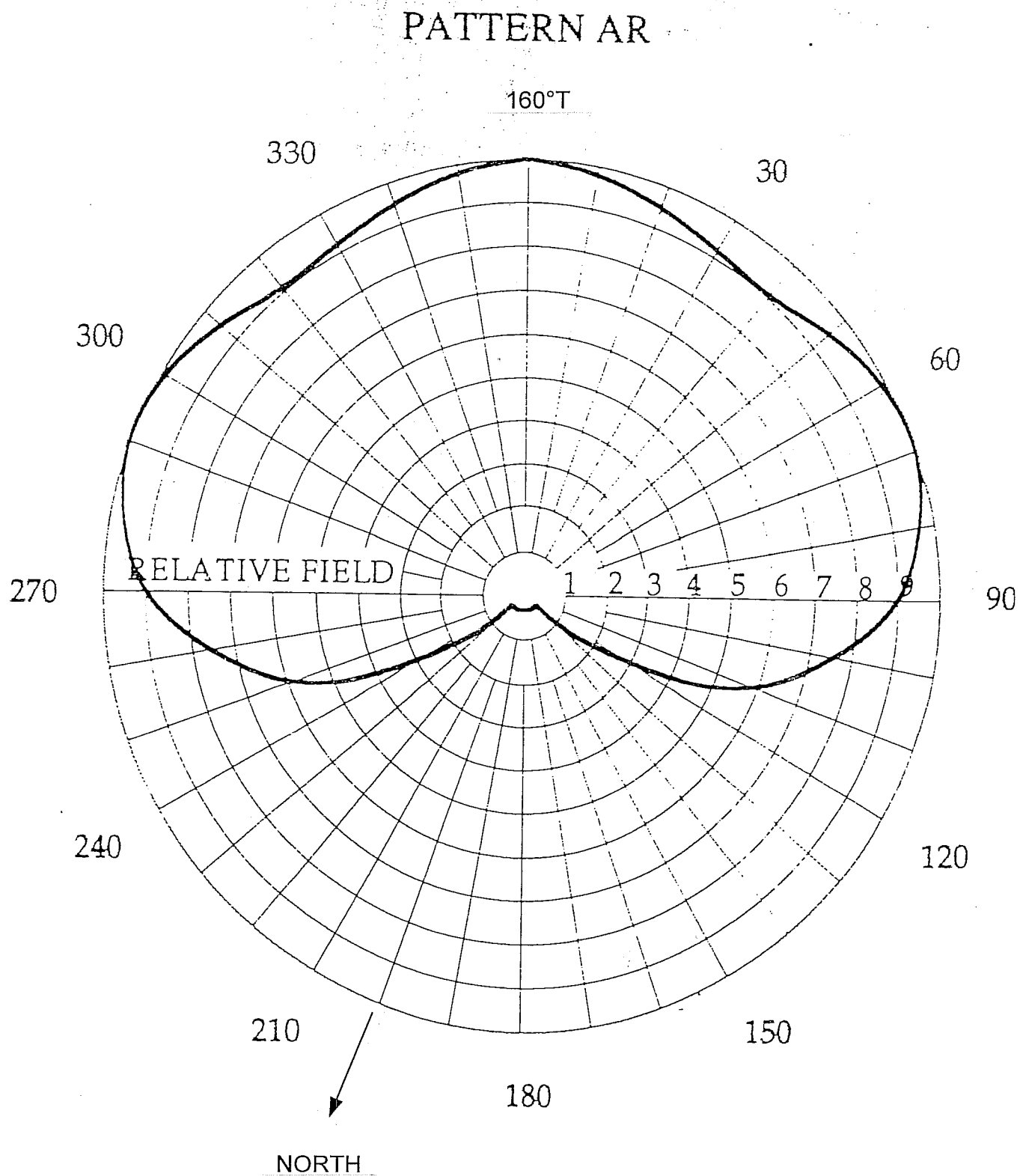
Figure 1

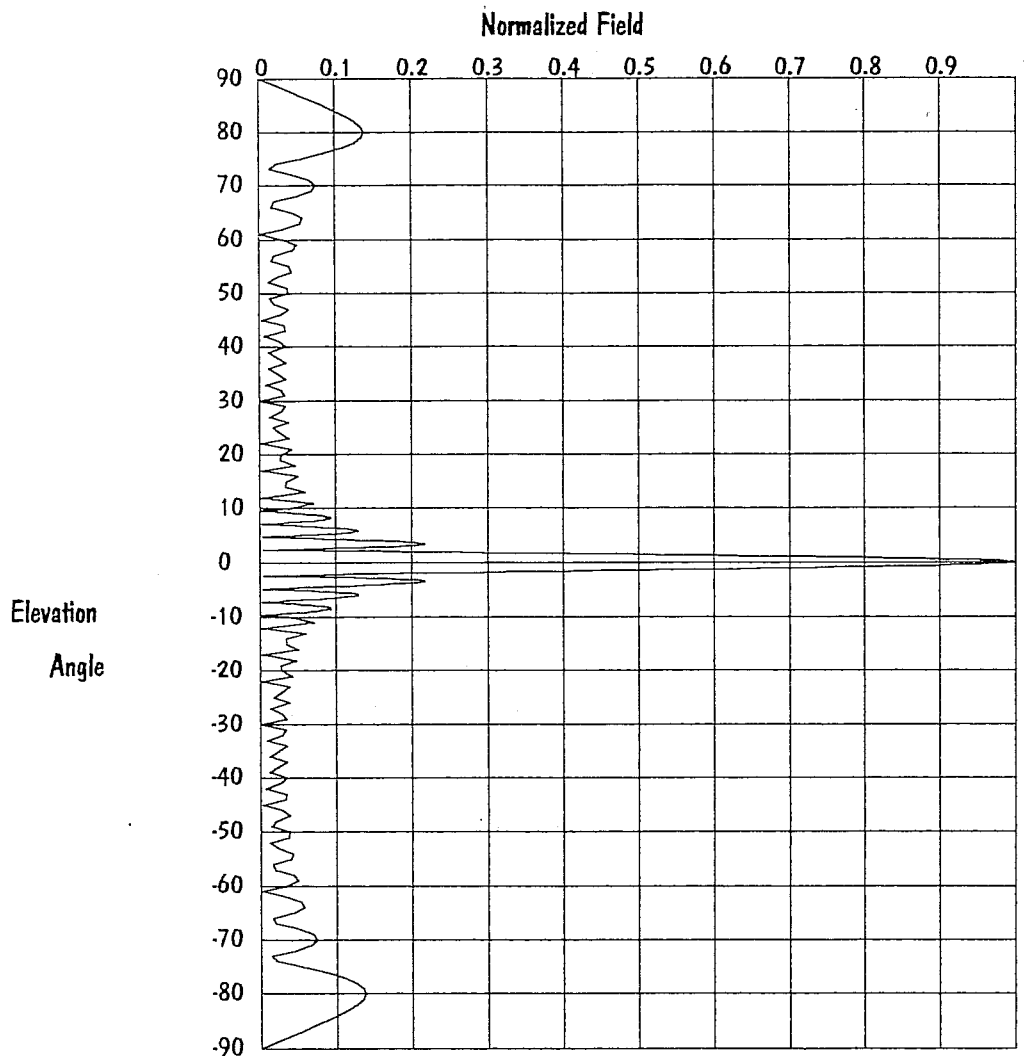


PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WIPX-LP
INDIANAPOLIS, INDIANA
CH 34(+) 150 KW-DA

du Treil, Lundin & Rackley, Inc. Sarasota, Florida





Elevation Pattern

Scale: Linear

Units: Absolute

Antenna Concepts Inc.

CLIENT: *du Treil, Lundin & Rackley, Inc.*

Date: 4/13/1998

ANTENNA TYPE: *ACS 24 bay Low Power slot*

FREQUENCY: *UHF*

PATTERN POL: *Horizontal*

Beam Tilt (Deg.): *0*

Elev. DIRECTIVITY: *28.221/ 14.505dBd*

Null Fill (%) : *, ,*

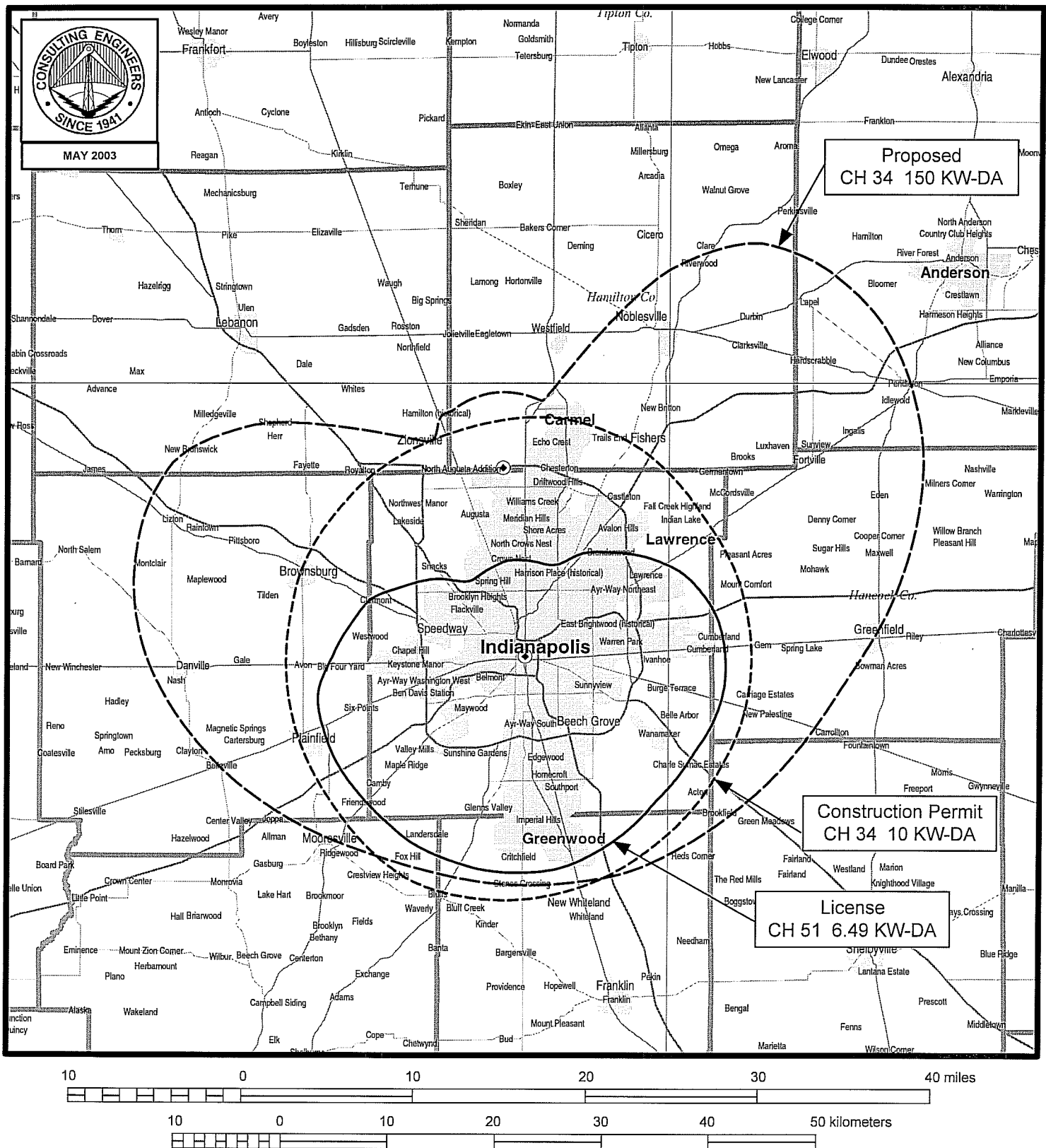
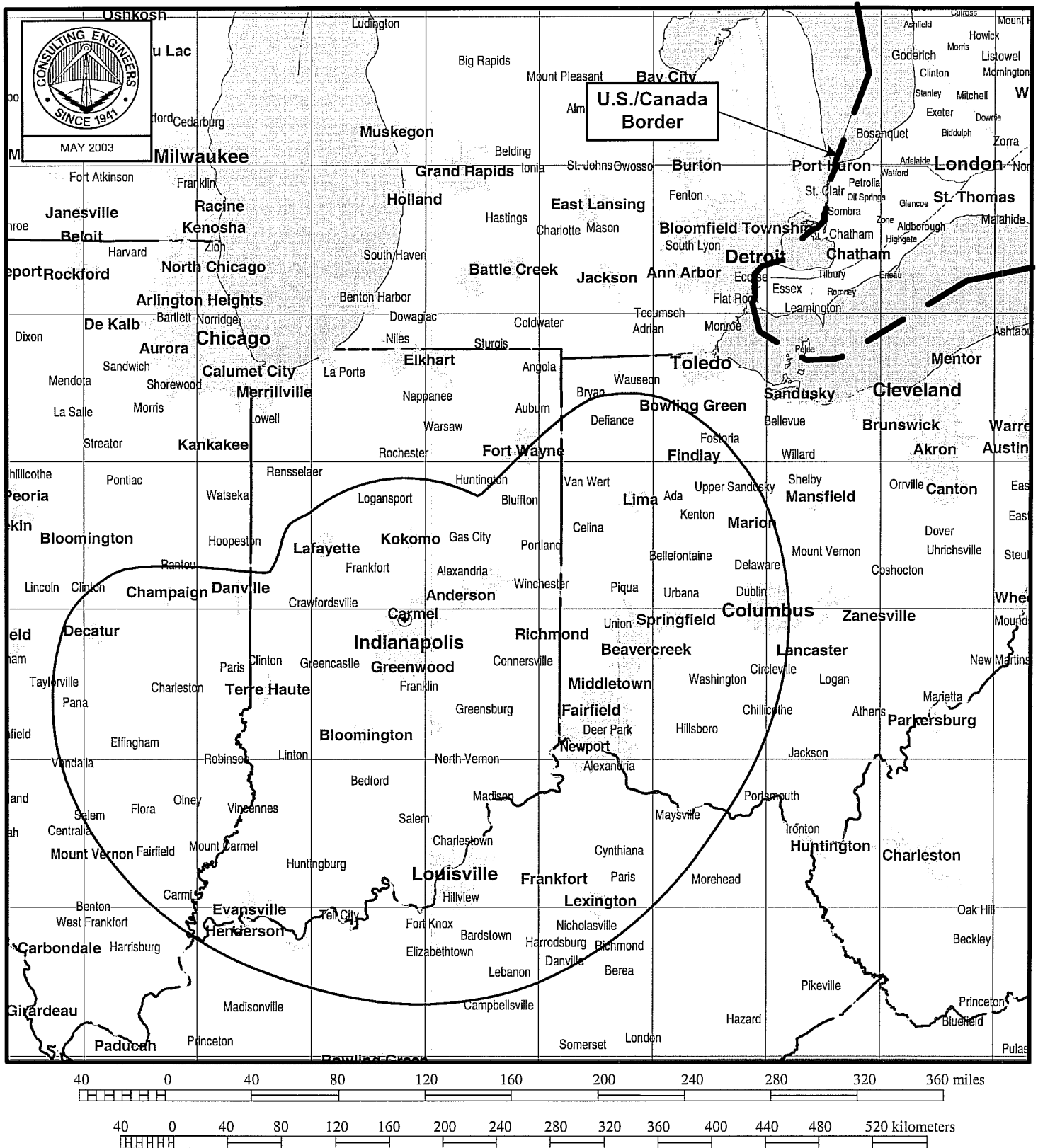


Figure 4



PREDICTED 19 dBu F(50,10) CONTOUR

STATION WIPX-LP

INDIANAPOLIS, INDIANA

du Treil, Lundin & Rackley, Inc Sarasota, Florida