

TECHNICAL EXHIBIT
APPLICATION FOR DTV MAXIMIZATION
STATION WIS-DT (FACILITY ID 13990)
COLUMBIA, SOUTH CAROLINA

MARCH 2, 2009

CH 10 57 KW 481 M

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Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station WIS-DT to maximize its post-transition facility. This application requests a construction permit (CP) for a digital television operation on channel 10, using its licensed non-directional antenna.

Proposed Facilities

Station WIS-DT proposes to operate DTV channel 10 with a non-directional effective radiated power (ERP) of 57 kilowatts and antenna height above average terrain (HAAT) of 481 meters. The antenna HAAT has been adjusted to correlate with the OET-69 program. The 57 kW ERP value is the maximum permitted, based on Section 73.622(f)(7) and an antenna HAAT of 481 meters. The transmitter site coordinates are:

34° 07' 29" North Latitude
80° 45' 23" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. Figure 2 is a map showing the DTV predicted coverage contours. The predicted 43 dBu contour will encompass all of Columbia. The Columbia city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Population Served

The herein proposed WIS-DT “maximized” facility is predicted to serve 1,933,022 persons, post-transition, based upon the 2000 Census. WIS-DT’s associated Appendix B facility is predicted to serve 1,450,000 persons. WIS-DT’s associated Analog Grade B facility is predicted to serve 1,364,516 persons. Therefore, the herein proposed WIS-DT facility would serve more than 100% of both WIS-DT’s Appendix B and analog populations.

Allocation Considerations

The proposed WIS-DT operation meets the FCC’s 0.5% post-transition interference standards to pertinent Class A and DTV facilities using the procedures outlined in the FCC’s OET-69 Bulletin and a standard 2 kilometer cell size and 1 kilometer terrain distance increment.

Radiofrequency Electromagnetic Field Exposure

The proposed WIS-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 454 meters above ground level with an ERP of 57 kW. A conservative relative field value of 0.3 was assumed for the calculation (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.001 mW/cm^2 . This is less than 1% of the FCC's recommended limit of 0.2 mW/cm^2 for channel 10 for an “uncontrolled” 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 station is at reduced power or shut down. The proposed WIS-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

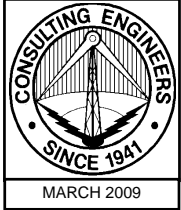


Jonathan N. Edwards

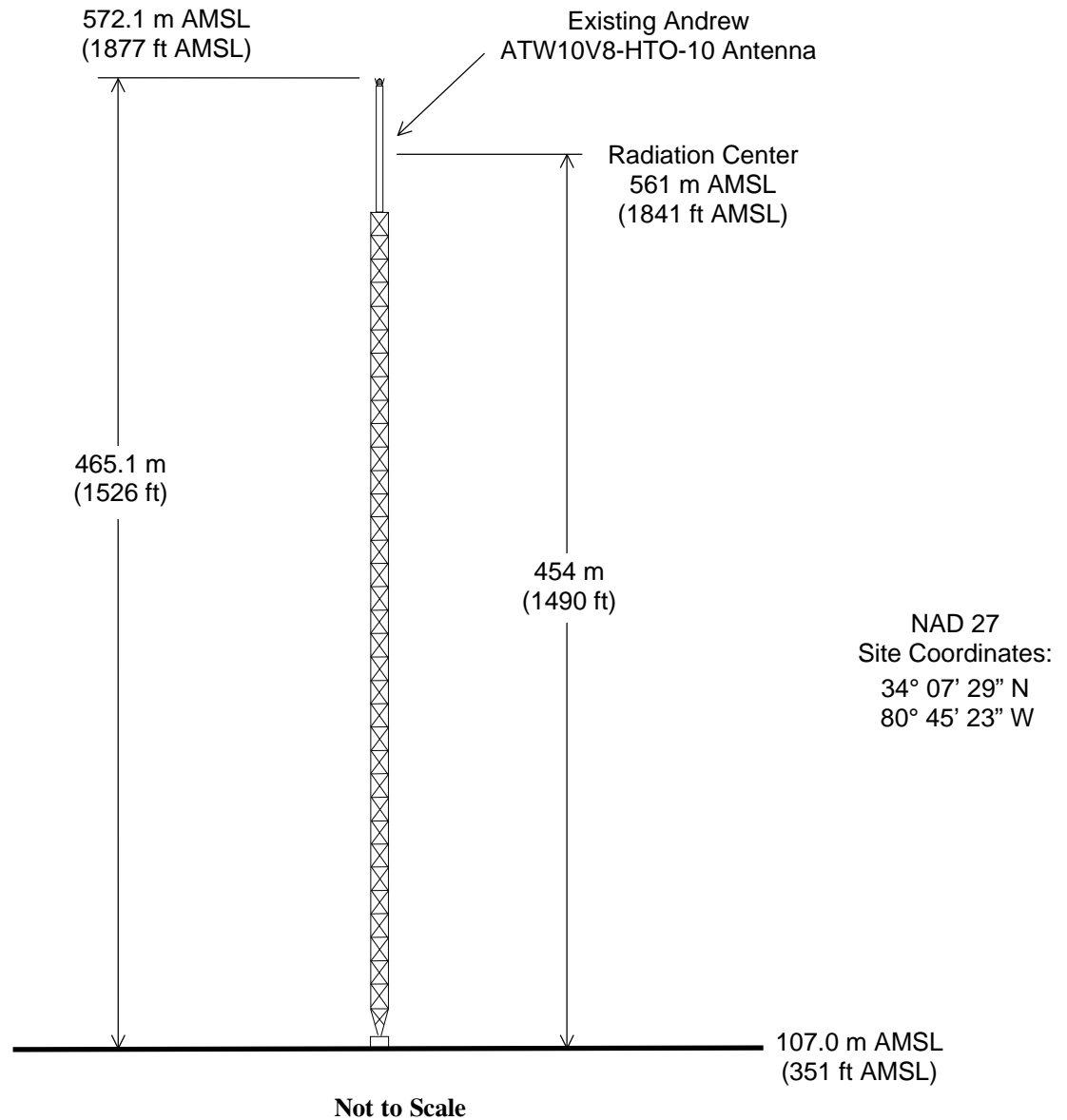
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000
JON@DLR.COM

March 2, 2009

Figure 1



Registration No. 1042916



ANTENNA AND SUPPORTING STRUCTURE

STATION WIS-DT
COLUMBIA, SOUTH CAROLINA
CH 10 57 KW 481 M

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



ANDREW

ELEVATION PATTERN

Figure 2

Type:	AQDP5V4H-10	
Directivity:	Numeric	dBd
Main Lobe:	10.00	(10.00)
Horizontal:	9.20	(9.64)
Beam Tilt:	1.00	
Polarization:	Horizontal	
Channel:	10	
Location:	Columbia, SC	

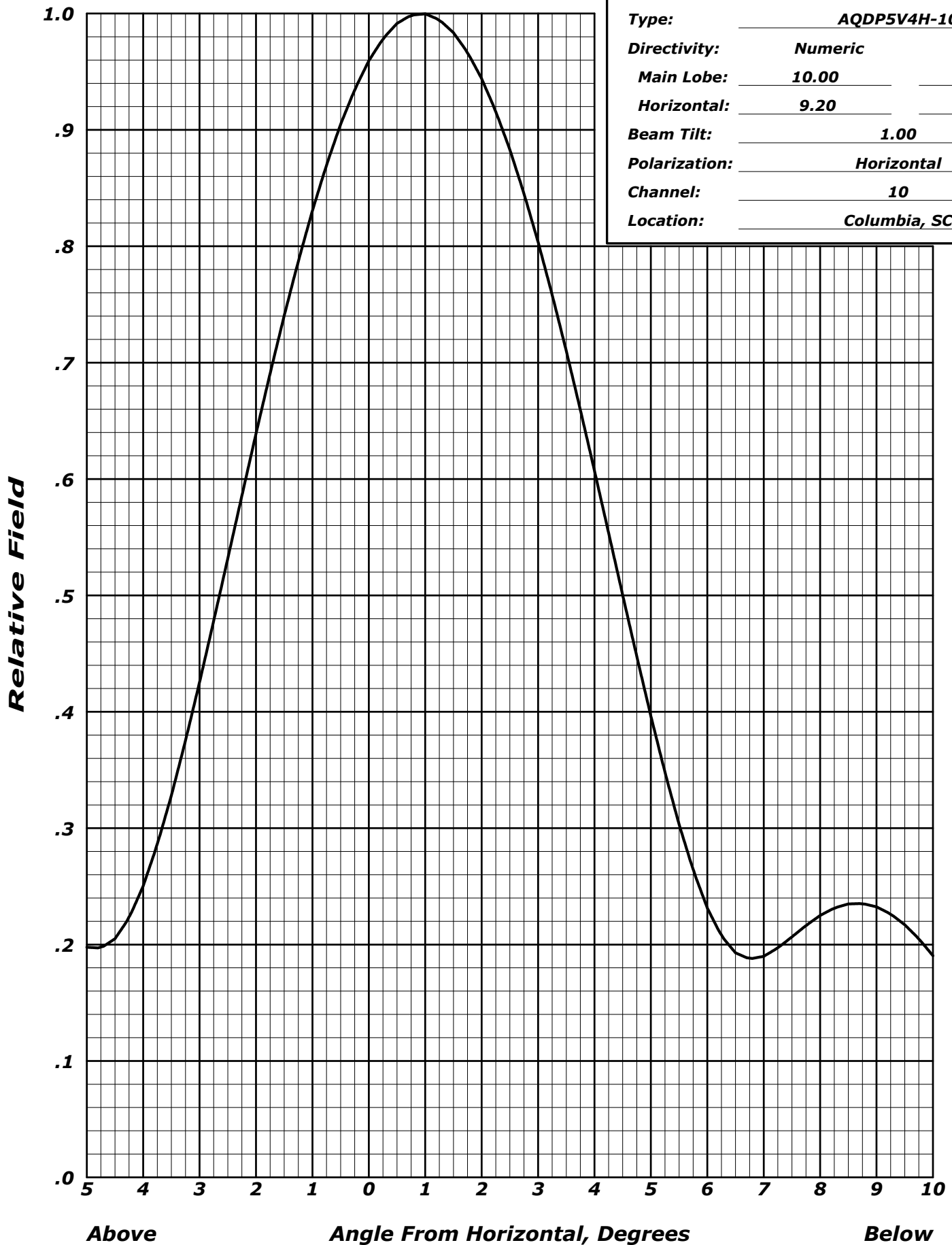


Figure 3



PREDICTED COVERAGE CONTOURS

STATION WIS-DT

COLUMBIA, SOUTH CAROLINA

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du Treil, Lundin & Rackley, Inc Sarasota, Florida