

ENGINEERING STATEMENT
RE MODIFICATION OF CONSTRUCTION PERMIT
(FCC FILE NO. BMPCDT-19990927AAK)
TO OPERATE DTV STATION
WJZY-DT, BELMONT, NORTH CAROLINA
CHANNEL 47 1000 KW ERP 553.5 METERS HAAT

MARCH 2008

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

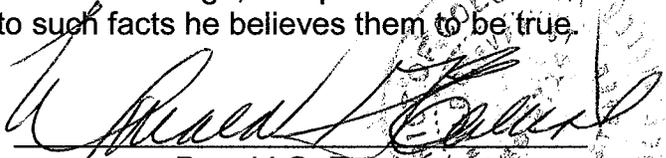
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

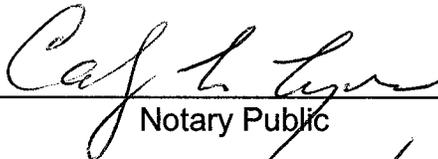
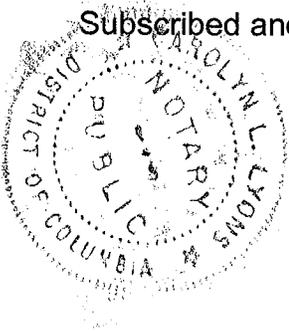
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 14th day of Mar, 2008.


Notary Public

My Commission Expires: 2/28/2013

COHEN, DIPPELL AND EVERIST, P. C.

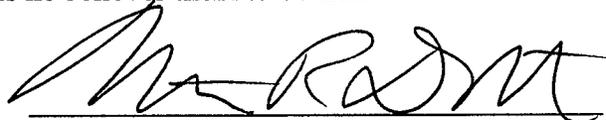
City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

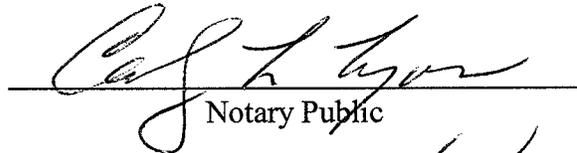
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

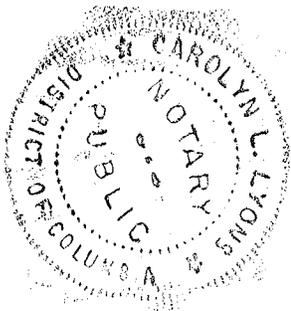


Martin R. Doczkat

Subscribed and sworn to before me this 14th day of March, 2008.


Notary Public

My Commission Expires: 2/28/2013



Introduction

This engineering statement has been prepared on behalf of WJZY-TV, Inc., (“WJZY-DT”) licensee of TV station WJZY(TV), Belmont, North Carolina, in support of its request to modify the outstanding construction permit (FCC File No. BPCDT-19990927AAK) for a digital television (“DTV”) operation. WJZY(TV) operates from the site on NTSC TV Channel 46 (656-662 MHz) with 5000 kW effective radiated power (“ERP”) and 594 meters antenna height above average terrain (“HAAT”). The current analog Channel 46 operation of WJZY(TV) is with a non-directional TV antenna. WJZY-DT has been allotted¹ Channel 47 (662-668 MHz) for its digital TV operation and been authorized to construct a facility (FCC File No. BPCDT-19990927AAK) with 1000 kW non-directional ERP and 595.3 meters HAAT. WJZY-DT is currently operating under Special Temporary Authority (“STA”) (FCC File No. BDSTA-20060424ACE), with 1000 kW non-directional ERP and 553.5 meters HAAT which was granted October 17, 2007 and expires April 17, 2008. It is now proposed to operate from the existing tower with 1000 kW non-directional ERP at a slight decrease in HAAT from the authorized construction permit of 553.5 meters, which matches the current STA operation. The proposed operation meets the provisions of Paragraph 140 of the Third Periodic Review and Order.²

Expedited Processing

An allocation study from the proposed site has not been performed as the predicted F(50,90) 41 dBu contour of the proposed DTV facilities at the currently authorized site fits

¹“In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service”, MM Docket 87-268, Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (FCC 08-72) Released March 6, 2008.

²“In the Matter of Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television”, MB Docket No. 07-91, Report & Order (FCC 07-228), Released December 31, 2007.

entirely within the predicted F(50,90) 41 dBu contour of the WJZY-DT facility in Appendix B of the Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order (“Appendix B”). However, WJZY-DT intends to use its non-directional antenna currently operational under STA after the transition. The purpose of requesting these proposed reduced facilities is to meet the provisions of Paragraph 140 of the Third Periodic Review Report and Order.³ The proposed operation does not extend beyond the WJZY-DT facility in Appendix B (see Exhibit E-1) and the proposed operation is predicted to serve 3,267,017 persons in an area of 38,837 square kilometers, which is 96% of the population served by the WJZY-DT facility in the Appendix B.

Antenna Site

There is no change in the proposed antenna site. The existing antenna is side-mounted on the existing tower at 542.5 meters above ground level and operates under STA with a non-directional ERP of 1000 kW.

The WJZY(TV) antenna site is located at 945 Old Willis School Road, Dallas, North Carolina. The WJZY(TV) antenna structure registration number is 1006705. A vertical sketch of the existing antenna structure has been included as Exhibit E-2.

The geographic coordinates of the existing tower are as follows:

North Latitude: 35° 21' 44"

West Longitude: 81° 09' 19"

(NAD-27)

The following data shows the pertinent information concerning the final operation, and there are no changes from the current STA.

³Ibid.

Antenna and Elevation Data
(no change)

Antenna:	Andrew	Model No. ATW30H5-HSO-47H See Exhibit E-3 for technical exhibits required by Section 73.625(c)
Beam Tilt	1.2 degree electrical	
Transmitter Power Output	49.38 kW	16.94 dBk
Transmission Line Efficiency/Loss	67.53%	1.705 dB (582.2 m (1910 ft) of Andrew 8-3/16" MACXLine)
Input Power to Antenna	33.34 kW	15.23 dBk
Non-Directional Max. Power Gain	30	14.77 dB
Effective Radiated Power	1000 kW	30 dBk
Elevation of the site above mean sea level	245.6 meters 805.8 feet	
Elevation of the top of existing supporting structure above ground including DTV antenna	592.4 meters 1943.6 feet	
Elevation of the top of supporting structure above mean sea level including DTV antenna	838.0 meters 2749.3 feet	
Height of DTV antenna radiation center meters above ground	542.5 meters 1779.9 feet	
Height of DTV antenna radiation center above mean sea level	788.1 meters 2585.7 feet	
Height of DTV antenna radiation center above average terrain	553.5 meters 1804.4 feet	

Note: Slight height differences may result due to conversion to metric.

Authorized Effective Radiated Power

The non-directional ERP authorized by the outstanding construction permit for the DTV operation is 1000 kW at 595.3 meters HAAT. Station WJZY-DT is proposing to modify its

outstanding construction permit to operate a facility with a maximum ERP of 1000 kW at 553.5 meters HAAT using a non-directional transmitting antenna. This power and height will ensure that it does not extend the predicted 41 dBu contour in any direction beyond that authorized by the construction permit.

As stated, the attached map (Exhibit E-1) shows the computed F(50,90) 41 dBu contour predicted according to Section 73.625(b) of the Commission's rules based on the DTV facilities authorized in the outstanding construction permit and the requested facilities of 1000 kW ERP and 553.5 meters HAAT.

Principal Community Coverage

In MM Docket No. 00-83, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community.

The proposed operation proposed by Station WJZY-DT places a predicted 48 dBu contour over the community of license as shown in Exhibit E-4.

Topographic Data

The average elevation data of the eight cardinal radials from 3.2 to 16.1 kilometers is based on the NGDC 3-second computerized terrain database.

Contour Data

Utilizing the formula in Section 73.625(b)(2) for the effective heights shown on the attached tabulation, the depression angle A_h , for each azimuth has been calculated. The maximum radiation value has been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90% of the maximum.

Table I provides the distances along the eight cardinal radials to the predicted F(50,90) 41 dBu proposed contour, the average elevations, and the effective antenna heights.

The distances along each radial to the limits of F(50,90) 41 dBu contour were determined as specified in Section 73.625(b) by reference to the propagation data for Channels 14-69, as published by the Commission in Figures 10b and 10c, Section 73.699 of its Rules.

Other Stations

There are numerous FM and TV broadcast stations located within 10 km of the proposed site. No objectionable interference problems are anticipated, however, if any problems occur, the applicant will take the necessary steps to resolve them. There are no AM stations within 3.22 km of the proposed site.

Environment Statement

The WJZY-DT antenna is side-mounted on the existing tower at 542.5 meters above ground. The other DTV antenna for WMYT-DT, Rock Hill, South Carolina, will be located on the existing tower at 562.2 meters above ground.

There are numerous other transmitters operating from the tower. The following broadcast stations are operating from the tower:

WJZY-TV, Belmont, NC	Channel 46
WMYT-TV, Rock Hill, SC	Channel 55
WNKS(FM), Charlotte, NC	Channel 236C
WIBT(FM), Shelby, NC	Channel 241C
WPEG(FM), Concord, NC	Channel 250C

In addition, the following land mobile, cellular, paging and radiolocation stations are also operating from the tower:

WPEF547, Dallas, NC	WPHN945, Dallas, NC
WPES330, Dallas, NC	WPKE359, Dallas, NC
KPJ464, Dallas, NC	WNKE880, Dallas, NC

WNTG948, Charlotte, NC	WNNJ542, Dallas, NC
WMH496, Charlotte, NC	WNNF951, Dallas, NC
WPJM348, Dallas, NC	WPHS660, Dallas, NC
WNCV928, Dallas NC	WNIE471, Dallas, NC
WNNF951, Dallas, NC	WPMU527, Dallas, NC
WPMV345, Dallas, NC	WPJN290, Dallas, NC
WPAR401, Dallas, NC	WPAR412, Dunn, NC

Because of the complexity of calculating the contribution of all these transmitters, RF measurements were taken at the site during October, 1998. Those measurements and analysis conducted by Doty-Moore are contained in a report entitled "WJZY Television Radio Frequency Radiation Hazard Survey." All of the transmitters listed above were active during the measurements.

The report indicates that a Narda 8718 meter using an 8742 probe was used to perform the measurements. RFF measurements were performed on the ground as well as on the tower. According to the report the meter and probe were calibrated by Narda on November 12, 1998 after measurements were taken. The meter was checked prior to calibration and found to be within 10% of the calibrated data.

Radiofrequency Field Levels on the Ground

The Doty-Moore report further indicates that all measurements recorded on the ground were time averaged over 30 seconds. The percentages are based on the controlled exposure environment with 100% being the limit. The limit for an uncontrolled environment is 5 times less or 20%. No area on the ground exceeded the 20% limit therefore, no radiation hazard signs have been posted on the property.

Log number 32 was the highest measurement recorded on the ground. A level of 9.54% was measured between guys #8 and #9 at the outer B anchor. The RFF contribution of the two DTV stations will be calculated and added to this value.

Station WMYT-DT

Channel 39 Freq: 620-626 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP =	225,000 watts (Horizontal only)
R =	560.2 meters (antenna height above ground - 2 meters)
F =	0.1 (assumed)

$$S = <0.25 \mu\text{W}/\text{cm}^2$$

Therefore WMYT-DT contributes less than 0.22 $\mu\text{W}/\text{cm}^2$ at 2 meters above the ground. The limit for an uncontrolled environment (general population) is f/1500 for the 300-1500 MHz range.

$$(620 \text{ MHz})/1500 = 413 \text{ uW}/\text{cm}^2$$

WMYT-DT contributes less than 0.07% RF for an uncontrolled environment (general population) two meters above the ground .

Station WJZY-DT (Current Operation)

Channel 47 Freq: 668-674 MHz Range

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

ERP =	1,000,000 watts (Horizontal only)
R =	540.5 meters (antenna height above ground - 2 meters)
F =	0.05 (manufacturer data)

$$S = <0.29 \mu\text{W}/\text{cm}^2$$

Therefore, WJZY-DT contributes less than 0.29 $\mu\text{W}/\text{cm}^2$ at 2 meters above the ground.

The limit for an uncontrolled environment is f/1500 for the 300-1500 MHz range.

$$(668 \text{ MHz})/1500 = 445 \text{ uW}/\text{cm}^2$$

Therefore under this scenario:

WJZY-DT contributes less than 0.07% RF for an uncontrolled environment (general population) two meters above the ground.

The estimated RFF contributions of WMYT-DT and WJZY-DT will now be added to the worst case measurement recorded on the ground.

$$\begin{aligned} &\underline{\text{RFF measurements}} + \underline{\text{WMYT-DT}} \text{ contribution} + \underline{\text{WJZY-DT}} \text{ contribution} = \underline{\text{Total RFF}} \\ &9.54\% + <0.07\% + <0.07\% = <10\% \text{ (Total RFF 2 meters above ground)} \end{aligned}$$

Therefore the total RFF percentage two meters above the ground at the highest RF measurement point will still be only less than 10% of the limit, under the worst case scenario, when WMYT-DT and WJZY-DT are operational. This value will still be less than the 20% limit required for an uncontrolled environment. Based on this analysis, no radiation hazard signs will be necessary.

The permittee indicates that all authorized personnel climbing the tower will be alerted to the potential zones of high field levels on the tower. Authorized personnel required to work on the tower at a level higher than the limit switch at the 1352.5 foot level will be issued a separate key. The authorized tower climbers will have two way communication with a coordinator on the ground. The coordinator will monitor the power level of all stations and reduce power or shut off power to stations as necessary. The coordinator will be required to “lock out, tag out” transmitters so that all control is performed at the site. When tower personnel are back below the 1352.5 foot level the coordinator will remove the “lock out, tag out” and control will be returned to the station’s personnel.

An environmental assessment (“EA”) is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

- (a)(1) The proposed facilities are not located in an officially designated wilderness area.
- (a)(2) The proposed facilities are not located in an officially designated wildlife preserve.

- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The proposed facilities are not located near any known Indian religious sites.
- (a)(6) The proposed facilities are not located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing tower at an existing site will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) The existing tower lighting will remain unchanged.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin 65 (Edition 97-01) and Supplement A. Authorized personnel will be alerted to areas of the antennas where potential radiation levels are in excess of the FCC guidelines. A security fence with a locked gate precludes access to the tower site.

Cohen, Dippell and Everist, P.C.

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED OPERATION OF
WJZY-DT, BELMONT, NORTH CAROLINA
CHANNEL 47 1000 KW 553.5 METERS HAAT
MARCH 2008

<u>Radial</u> <u>Bearing</u> N ° E, T	<u>Average*</u> <u>Elevation</u> <u>3.2 to 16.1 km</u> meters	<u>Effective</u> <u>Height</u> meters	<u>Depressio</u> <u>n</u> <u>Angle</u>	<u>ERP At</u> <u>Radio</u> <u>Horizon</u> kW	<u>Distance to Contour F(50,90)</u>	
					<u>48 dBu</u> <u>City Grade</u> km	<u>41 dBu</u> <u>Noise-Limited</u> km
0	256.6	531.5	0.639	1000	101.8	116.5
45	233.0	555.1	0.653	1000	103.6	118.0
90	217.4	570.7	0.662	1000	104.4	119.0
135	222.6	565.5	0.659	1000	104.2	118.7
180	229.7	558.4	0.655	1000	103.8	118.2
225	239.5	548.6	0.649	1000	103.1	117.6
270	265.7	522.4	0.633	1000	101.0	116.0
315	240.0	548.1	0.648	1000	103.1	117.6
Average	238.1	550.0				

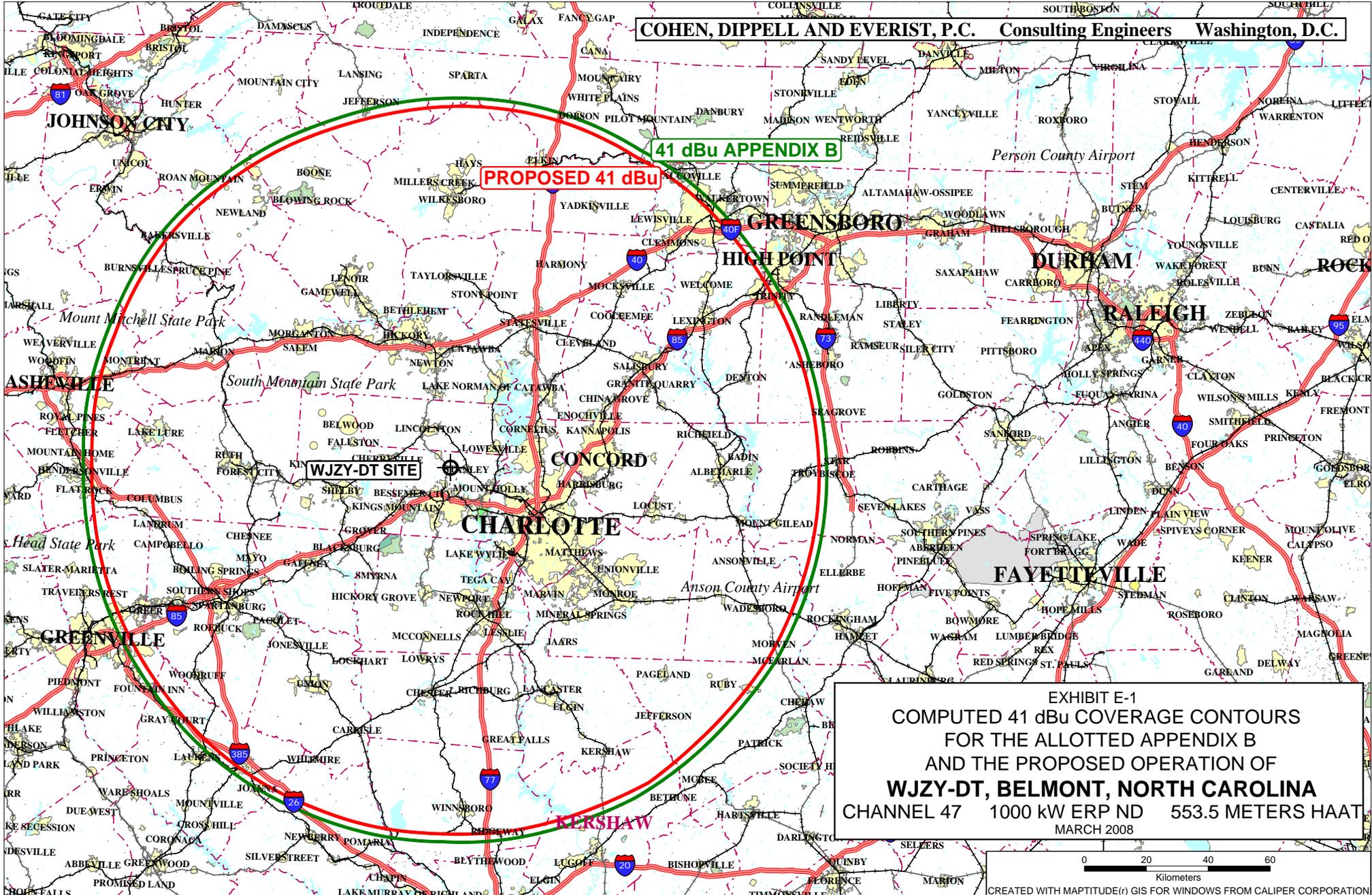
*Based on data from FCC 3-second data base

Slight HAAT variations result from 3-second datum versus original site HAAT values based on 7.5 minute quadrangle map determination.

DTV Channel 47 (668-674 MHz)
 Average Elevation 3.2 to 16.1 km 238.1 meters AMSL
 Center of Radiation 788.1 meters AMSL
 Antenna Height Above Average Terrain 553.5 meters
 Effective Radiated Power 1000 kW (30 dBk)

North Latitude: 35° 21' 44"
 West Longitude: 81° 09' 19"

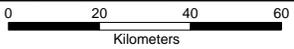
(NAD-27)



PROPOSED 41 dBu

41 dBu APPENDIX B

EXHIBIT E-1
COMPUTED 41 dBu COVERAGE CONTOURS
FOR THE ALLOTTED APPENDIX B
AND THE PROPOSED OPERATION OF
WJZY-DT, BELMONT, NORTH CAROLINA
CHANNEL 47 1000 kW ERP ND 553.5 METERS HAAT
MARCH 2008



ABOVE GROUND

ABOVE MEAN SEA LEVEL

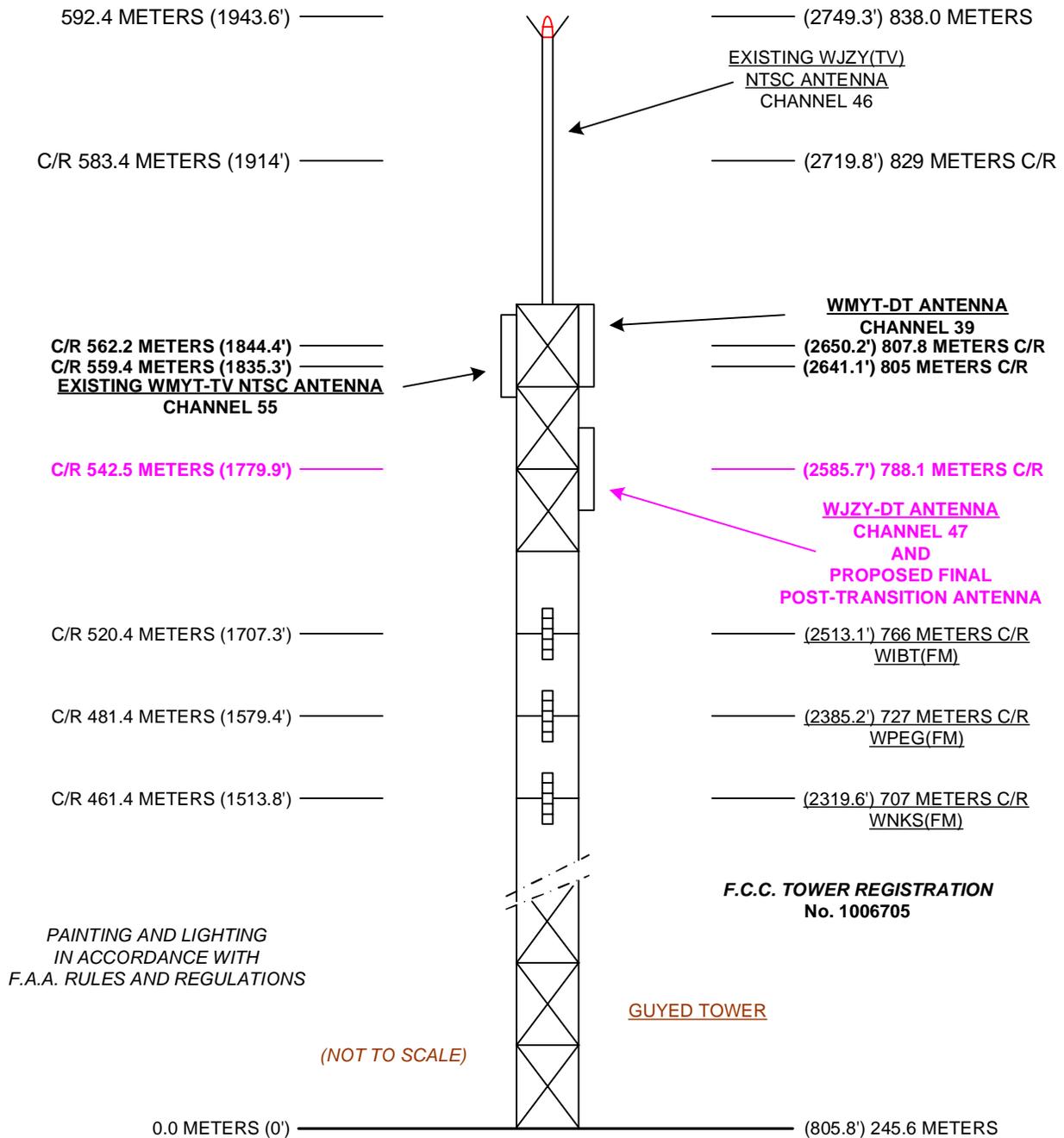


EXHIBIT E - 2
 VERTICAL SKETCH
 FOR THE MULTIPLE USE TOWER
WJZY(TV), BELMONT, NORTH CAROLINA
WMYT-TV, ROCK HILL, SOUTH CAROLINA

MARCH 2008

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-3

ANTENNA MANUFACTURER DATA

WJZY-DT, BELMONT, NORTH CAROLINA

**PRELIMINARY SPECIFICATION FOR
ANDREW TRASAR® HORIZONTALLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA**

*Prepared For
WJZY-DT Channel 47 Belmont, NC
December 14, 2000*

ANTENNA TYPE:
ATW30H5-HSO-47H

SPECIFICATION NO.:
AG121300-788



Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

AG121300-788 -1-

PRELIMINARY SPECIFICATION FOR ANDREW TRASAR® HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

ELECTRICAL CHARACTERISTICS:

CHANNEL:	47
FREQUENCY RANGE:	668 to 674 MHz
AZIMUTH PATTERN NUMBER:	CH47AZ-H-BID-OMNI
ELEVATION PATTERN NUMBER:	ATW30H5H
AZIMUTH DIRECTIVITY:	1.00 (0.00 dB)
ELEVATION DIRECTIVITY:	30.00 (14.77 dBd)
PEAK POWER GAIN:	30.00 (14.77 dBd)
GAIN AT HORIZONTAL:	4.06 (6.09 dBd)
ELECTRICAL BEAM TILT:	1.20 Degrees
INPUT POWER REQUIRED:	7.6 kW Average Power, 8VSB Digital
MAXIMUM INPUT POWER:	96 kW Average Power
INPUT TYPE:	8-3/16 inch EIA, 75 ohm
VSWR (MAXIMUM):	1.10 Over 6 MHz of Channel



Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

AG121300-788 -2-

PRELIMINARY SPECIFICATION FOR ANDREW TRASAR® HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION: Side Mount*

*(Tower Interface supplied and installed by others.)

HEIGHT OF ANTENNA: 49.8 feet

HEIGHT OF CENTER OF RADIATION (B): 24.9 feet

OVERALL HEIGHT (A): 52.8 feet
(Includes two 3 foot Lightning Rods)

DEICING: Pressurized Radome Enclosure

RADOME DIAMETER (C): 16.4 inches, O.D.

RADOME COLOR: AVIATION ORANGE (standard)

CLIMBING DEVICE: Not Applicable

CALCULATED WEIGHT¹: 2,270 lbs.

WINDLOAD DATA²: **SHEAR:** 2,835 lbs.

ANTENNA AREA: $C_A A_C$: 88.9 square feet
 A_C : 74.1 square feet

This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three translational and three rotational degrees of freedom.

1 Calculated weight is based on the **PRELIMINARY** design of the antenna. The actual weight of the antenna will be within $\pm 10\%$ of the calculated weight. The actual weight will be given in the technical manual which accompanies the antenna. This figure is for the antenna only and does not include the antenna input section.

2 Based on a wind speed of 70 miles per hour (MPH), a height above average terrain (HAAT) of 1,948 feet, and a height above ground level (HAGL) of 1,921 feet per EIA/TIA-222-F.

NOTE: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

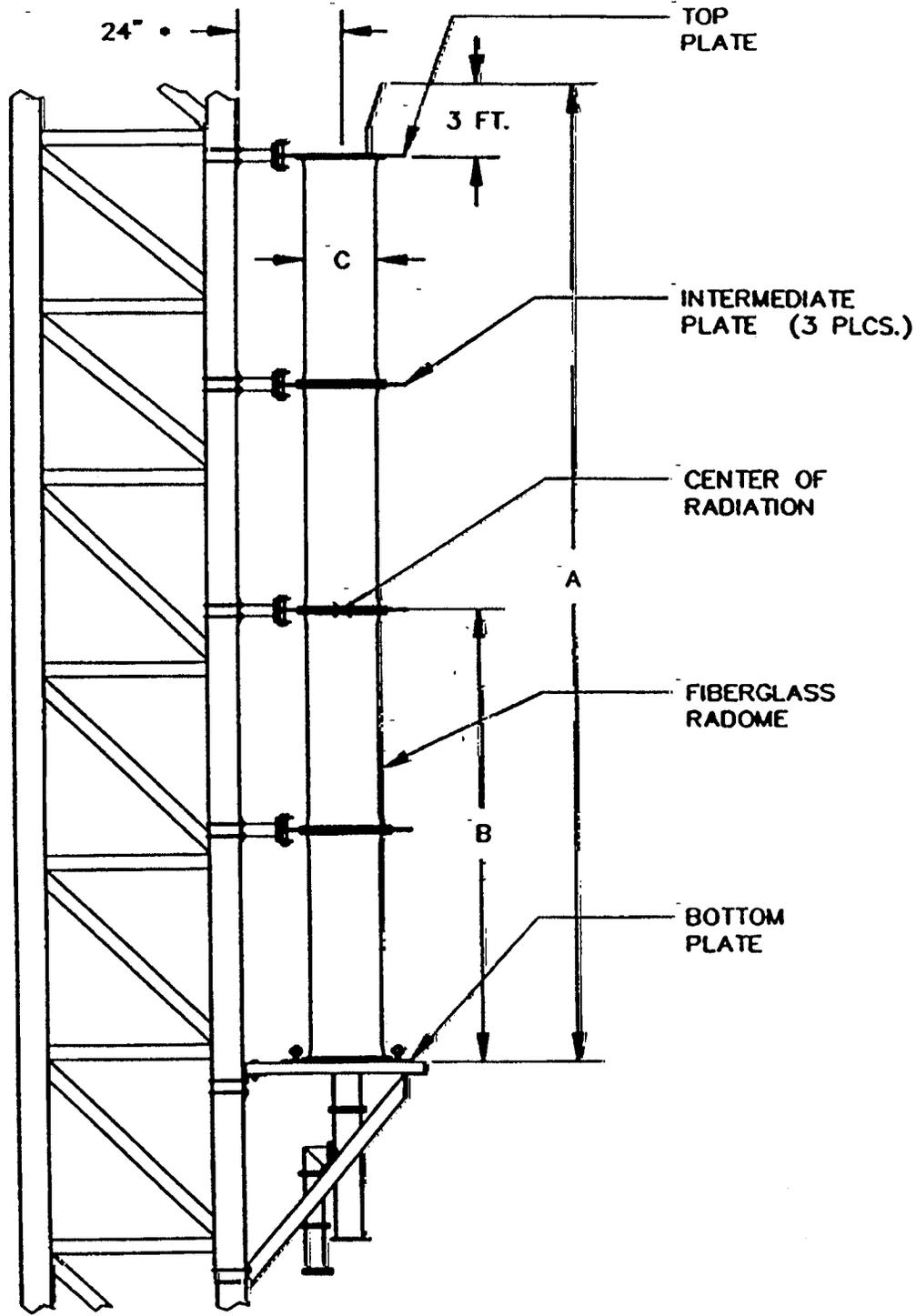


Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

AG121300-788 -3-

TYPICAL MOUNTING CONFIGURATION SHOWN. ACTUAL MOUNTING CONFIGURATION MAY VARY.

SIDE MOUNT ANTENNA DIMENSIONS AND TOWER ATTACHMENT DETAILS



TOWER AND MOUNT
NOT PROVIDED

•RECOMMENDED MINIMUM SPACING



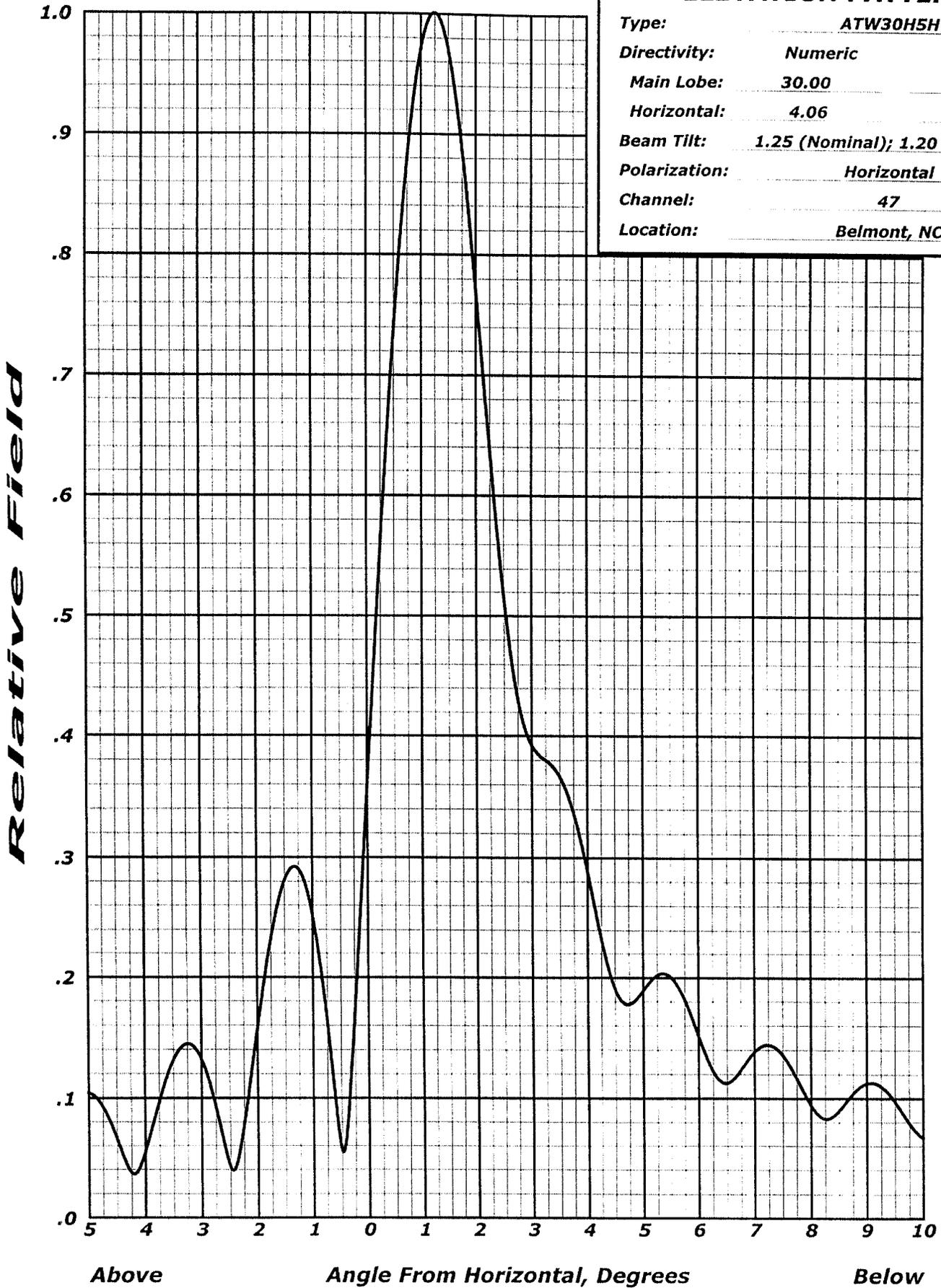
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Orland Park, Illinois U.S.A. 60462

AG121300-788 -5-



ANDREW ELEVATION PATTERN

Type:	ATW30H5H	
Directivity:	Numeric	dBd
Main Lobe:	30.00	(14.77)
Horizontal:	4.06	(6.09)
Beam Tilt:	1.25 (Nominal); 1.20 (Desired)	
Polarization:	Horizontal	
Channel:	47	
Location:	Belmont, NC	





TABULATED DATA FOR ELEVATION PATTERN
TYPE : ATW30H5H

Angle Field dB -5 To 10		Angle Field dB 10 To 90		Angle Field dB		Angle Field dB	
In 0.25 Increments		In 0.5 Increments					
-5.00	0.104-19.65	8.75	0.104-19.68	35.00	0.021-33.73	62.50	0.011-39.22
-4.75	0.093-20.65	9.00	0.112-18.99	35.50	0.015-36.68	63.00	0.004-48.34
-4.50	0.066-23.65	9.25	0.110-19.17	36.00	0.024-32.32	63.50	0.012-38.66
-4.25	0.038-28.47	9.50	0.097-20.25	36.50	0.029-30.64	64.00	0.020-33.96
-4.00	0.055-25.17	9.75	0.079-22.00	37.00	0.024-32.49	64.50	0.026-31.85
-3.75	0.097-20.26	10.00	0.067-23.48	37.50	0.014-37.18	65.00	0.027-31.23
-3.50	0.131-17.66	10.50	0.081-21.88	38.00	0.019-34.55	65.50	0.026-31.86
-3.25	0.145-16.80	11.00	0.091-20.78	38.50	0.028-31.20	66.00	0.020-33.86
-3.00	0.132-17.59	11.50	0.069-23.19	39.00	0.027-31.29	66.50	0.013-38.03
-2.75	0.093-20.64	12.00	0.054-25.28	39.50	0.018-34.82	67.00	0.004-49.02
-2.50	0.043-27.33	12.50	0.073-22.68	40.00	0.013-37.70	67.50	0.006-44.10
-2.25	0.077-22.29	13.00	0.073-22.68	40.50	0.022-33.06	68.00	0.015-36.63
-2.00	0.158-16.03	13.50	0.050-26.01	41.00	0.028-31.07	68.50	0.022-33.32
-1.75	0.232-12.69	14.00	0.049-26.12	41.50	0.024-32.34	69.00	0.026-31.69
-1.50	0.281-11.03	14.50	0.065-23.72	42.00	0.014-37.03	69.50	0.028-31.11
-1.25	0.290-10.75	15.00	0.057-24.84	42.50	0.014-37.11	70.00	0.027-31.39
-1.00	0.252-11.98	15.50	0.038-28.43	43.00	0.024-32.45	70.50	0.024-32.53
-0.75	0.164-15.69	16.00	0.048-26.45	43.50	0.028-31.13	71.00	0.018-34.73
-0.50	0.057-24.87	16.50	0.057-24.83	44.00	0.023-32.88	71.50	0.012-38.64
-0.25	0.169-15.43	17.00	0.044-27.06	44.50	0.013-37.79	72.00	0.004-46.94
0.00	0.362-8.83	17.50	0.032-29.99	45.00	0.015-36.77	72.50	0.004-47.69
0.25	0.559-5.04	18.00	0.045-26.87	45.50	0.024-32.32	73.00	0.011-39.18
0.50	0.739-2.63	18.50	0.049-26.13	46.00	0.028-31.04	73.50	0.017-35.27
0.75	0.881-1.10	19.00	0.035-29.22	46.50	0.023-32.60	74.00	0.022-33.04
1.00	0.971-0.25	19.50	0.030-30.56	47.00	0.014-37.37	74.50	0.026-31.74
1.25	1.001 0.01	20.00	0.043-27.35	47.50	0.012-38.17	75.00	0.028-31.06
1.50	0.971 -0.26	20.50	0.042-27.55	48.00	0.022-33.12	75.50	0.029-30.88
1.75	0.888 -1.03	21.00	0.027-31.39	48.50	0.028-31.15	76.00	0.028-31.12
2.00	0.769 -2.28	21.50	0.029-30.81	49.00	0.026-31.85	76.50	0.026-31.75
2.25	0.636 -3.93	22.00	0.041-27.81	49.50	0.017-35.42	77.00	0.023-32.78
2.50	0.515 -5.77	22.50	0.037-28.68	50.00	0.010-39.93	77.50	0.019-34.24
2.75	0.431 -7.31	23.00	0.023-32.65	50.50	0.018-35.09	78.00	0.016-36.18
3.00	0.392 -8.13	23.50	0.029-30.80	51.00	0.026-31.71	78.50	0.012-38.68
3.25	0.380 -8.41	24.00	0.038-28.33	51.50	0.028-31.02	79.00	0.008-41.58
3.50	0.367 -8.72	24.50	0.032-29.77	52.00	0.023-32.70	79.50	0.007-43.64
3.75	0.336 -9.46	25.00	0.020-33.86	52.50	0.014-37.33	80.00	0.007-42.90
4.00	0.288-10.80	25.50	0.028-31.05	53.00	0.010-40.09	80.50	0.009-40.71
4.25	0.233-12.65	26.00	0.036-28.77	53.50	0.019-34.49	81.00	0.012-38.75
4.50	0.190-14.41	26.50	0.030-30.42	54.00	0.026-31.59	81.50	0.014-37.29
4.75	0.178-15.00	27.00	0.019-34.48	54.50	0.028-31.09	82.00	0.015-36.27
5.00	0.189-14.46	27.50	0.027-31.44	55.00	0.023-32.73	82.50	0.017-35.60
5.25	0.202-13.90	28.00	0.035-29.18	55.50	0.014-37.13	83.00	0.017-35.21
5.50	0.201-13.95	28.50	0.029-30.74	56.00	0.008-41.76	83.50	0.018-35.06
5.75	0.182-14.81	29.00	0.018-34.87	56.50	0.016-35.88	84.00	0.018-35.11
6.00	0.151-16.40	29.50	0.025-32.18	57.00	0.024-32.28	84.50	0.017-35.34
6.25	0.123-18.22	30.00	0.033-29.70	57.50	0.028-31.08	85.00	0.016-35.75
6.50	0.113-18.96	30.50	0.028-30.96	58.00	0.026-31.75	85.50	0.015-36.33
6.75	0.123-18.18	31.00	0.017-35.18	58.50	0.019-34.51	86.00	0.014-37.08
7.00	0.138-17.18	31.50	0.022-33.13	59.00	0.009-40.61	86.50	0.013-38.03
7.25	0.144-16.82	32.00	0.031-30.16	59.50	0.008-41.71	87.00	0.011-39.20
7.50	0.136-17.33	32.50	0.029-30.84	60.00	0.017-35.23	87.50	0.009-40.66
7.75	0.116-18.67	33.00	0.018-35.04	60.50	0.025-32.18	88.00	0.007-42.50
8.00	0.094-20.51	33.50	0.018-34.71	61.00	0.028-31.17	88.50	0.006-44.93
8.25	0.083-21.61	34.00	0.029-30.82	61.50	0.026-31.73	89.00	0.004-48.41
8.50	0.090-20.93	34.50	0.030-30.47	62.00	0.020-34.03	89.50	0.002-54.40

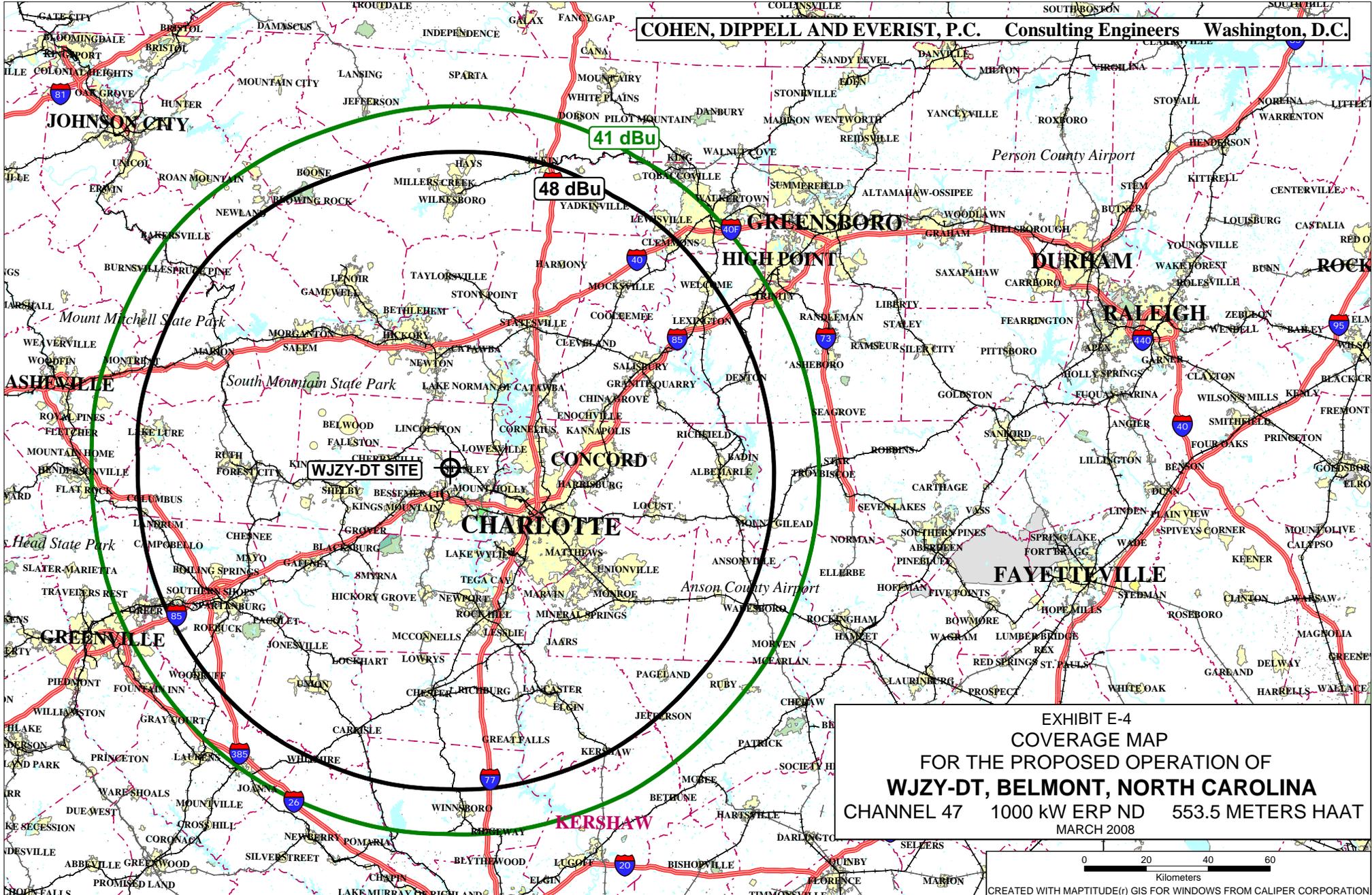


EXHIBIT E-4
COVERAGE MAP
FOR THE PROPOSED OPERATION OF
WJZY-DT, BELMONT, NORTH CAROLINA
CHANNEL 47 1000 kW ERP ND 553.5 METERS HAAT
MARCH 2008

0 20 40 60
Kilometers
CREATED WITH MAPITUDE(r) GIS FOR WINDOWS FROM CALIPER CORPORATION

SECTION III - D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

- 1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:
 - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. Yes No
 - (b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. Yes No
 - (c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. Yes No
 - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"). Yes No
 N/A
 - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B. Yes No
 N/A
- 2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Yes No

Applicant must **submit the Exhibit** called for in Item 13.

- 3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. Yes No
- 4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. Yes No
- 5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. Yes No

SECTION III - D DTV Engineering

TECHNICAL SPECIFICATIONS Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: DTV _____ Analog TV, if any _____

2. Zone: I II III

3. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " N S Latitude
 _____ ° _____ ' _____ " E W Longitude

4. Antenna Structure Registration Number: _____

Not applicable FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: _____ meters

6. Overall Tower Height Above Ground Level: _____ meters

7. Height of Radiation Center Above Ground Level: _____ meters

8. Height of Radiation Center Above Average Terrain: _____ meters

9. Maximum Effective Radiated Power (average power): _____ kW

10. Antenna Specifications:

Manufacturer	Model
--------------	-------

a. Not Applicable

b. Electrical Beam Tilt: _____ degrees Not Applicable

c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No.

d. Polarization: Horizontal Circular Elliptical

TECH BOX

e. Directional Antenna Relative Field Values: Not applicable (Nondirectional)
 Rotation: _____ ° No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No.

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? Yes No

Exhibit No.

If "No," attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

a. If **Certification Checklist Item 2** is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

Yes No N/A

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Martin R. Doczkat	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date March 14, 2008	
Mailing Address Cohen, Dippell and Everist, P.C, 1300 L Street, NW Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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