

ENGINEERING STATEMENT
RE DTV BROADCAST ENGINEERING DATA
APPLICATION FOR CONSTRUCTION PERMIT
ON BEHALF OF
GILMORE BROADCASTING CORPORATION
WEHT-DT, EVANSVILLE, INDIANA
CHANNEL 7 2.6 KW ERP 314 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)

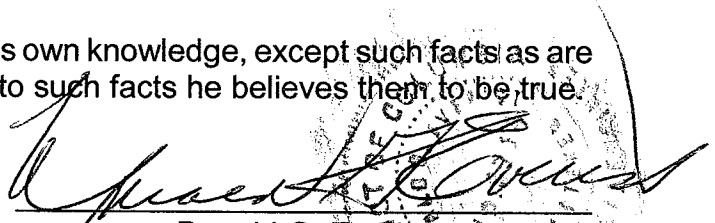
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

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;

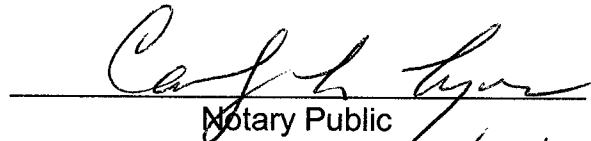
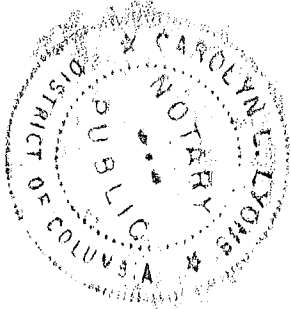
That the attached engineering report was prepared by him or under his supervision and direction and

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 17th day of March, 2008.



Notary Public

My Commission Expires: 2/28/2013

This engineering statement has been prepared in support of an application for outstanding construction permit on behalf of Gilmore Broadcasting Corporation, licensee of WEHT-DT, Evansville, Indiana. The purpose of the application is to regularize the azimuth pattern of the allotted Appendix B¹ facilities and to sufficiently replicate the currently licensed Grade B service with the WEHT-DT post-transition facilities using 2.6 kW non-directional effective radiated power (“ERP”) in accordance with the provisions of Paragraph 140 of the Third Periodic Review Report and Order.²

WEHT(TV) is licensed to operate on NTSC television Channel 25 with a maximum visual ERP of 1200 kW and an antenna height above average terrain (“HAAT”) of 314 meters (1030 feet). WEHT-DT has been allocated DTV Channel 7 with facilities of 3.2 kW and HAAT of 301 meters in the revised DTV Table of Allotments.³ WEHT-DT proposes to construct DTV facilities of 2.6 kW non-directional ERP on Channel 7 at a height above average terrain of 314 meters. These facilities essentially match and remain entirely within those facilities authorized in the revised Appendix B with a non-directional antenna.

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.

³Ibid.

Expedited Processing

An allocation study from the proposed site has not been performed as the predicted F(50,90) 36 dBu contour of the proposed DTV facilities at the currently authorized site fits entirely within the predicted F(50,90) 36 dBu contour of the WEHT-DT facility in Appendix B. WEHT-DT intends to use a replacement of its currently licensed non-directional NTSC antenna 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.⁴ The proposed operation does not extend beyond the WEHT-DT facility in the Appendix B and the proposed operation is predicted to serve 697,104 persons in an area of 21,286 square kilometers, which is 99.7% of the population served by the WEHT-DT facility in the Appendix B.

The DTV antenna will be located on the same tower as WEHT(TV) operates.

There are no AM stations located within 3.2 km of the proposed WEHT-DT tower site. There are no FM and no other full-service DTV facilities within 100 meters.

The TV antenna will be top-mounted on the existing tower. The WEHT-DT antenna will be located on an existing tower having a total overall structure height above ground of 301.1 meters (988 feet). The existing transmitter site is located at 800 Marywood Drive, Henderson, Kentucky. The registration number for the existing tower is 1042028.

Since there is no change in overall height, FAA airspace approval is not required. Exhibit E-2 is a vertical sketch of the existing tower and the proposed transmitting antenna.

⁴Ibid.

The geographic coordinates of the proposed site are as follows:

North Latitude: 37° 51' 56"

West Longitude: 87° 34' 04"

NAD-27

Equipment Data

Antenna: ERI, Model ATW9V3-CTO-7 (or equivalent) antenna with 0.75° electrical beam tilt. The vertical plane pattern and other exhibits required by Section 73.625(c) are herein included as Exhibit E-3.

Transmission Line: 305 meters (1000 ft) of ERI, Type MACX675, 75 ohm or equivalent

Power Data

Transmitter output	0.830 kW	-0.810 dBk
Transmission line efficiency/loss	87.1%	0.6 dB
Input power to the antenna	0.723 kW	-1.41 dBk
Antenna power gain, Main Lobe	3.6	5.56 dB
Effective Radiated Power, Maximum	2.6 kW	4.15 dBk

Elevation Data (unchanged)

Vertical dimension for Channel 7 antenna	18.9 meters 62 feet
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Overall height above ground of the existing antenna structure (including beacon and lightning rod)	301.1 meters 988 feet
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Center of radiation of Channel 7 antenna above ground	292.6 meters 960 feet
Elevation of site above mean sea level	140.5 meters 461 feet
Center of radiation of Channel 7 antenna above mean sea level	433 meters 1421 feet
Overall height above mean sea level of existing tower and stacked antenna (including beacon)	441.6 meters 1449 feet
Antenna height above average terrain	314 meters 1030 feet

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

Allocation

An allocation study from the proposed site has not been performed since the proposed DTV facilities do exceed the parameters in the revised Appendix B.

Interference Analysis

A study of predicted interference has not been performed as the proposed facilities are almost identical to the equivalent parameters allotted in the revised Appendix B.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial are based upon the 3-second NGDC profile data conforms very closely to the terrain information of that determined by using the 7.5 minute topographic maps on file at the Commission.

The F(50,90) DTV coverage contour has been computed from reference to the propagation data for Channels 7-13, as published by the FCC in Figure 10 and Figure 10a, Section 73.699 of the FCC Rules and Regulations.

Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights, it is found that the depression angle, A_h , varies from 0.477 to 0.499 degrees. Since the relative vertical field is greater than 90% of the maximum at these depression angles, the maximum power was used in determining the distance to the DTV contour.

Table I includes the distances to the 43 and 36 dBu F(50,90) coverage contours, the average elevation 3.2 to 16.1 km, and the antenna height above average terrain for the eight radials. Exhibit E-4 provides the 43 and 36 dBu F(50,90) coverage contours and demonstrates that the community of license is covered by the F(50,90) 43 dBu contour.

Total Radiofrequency Field Levels at WEHT-DT Tower Site

The total percentage of radiofrequency field levels ("RFF") can be calculated.

The total "worst-case" post-transition RFF contribution of the WEHT-DT two meters above the ground at the base of the WEHT-DT tower is no more than 1% of the FCC guidelines for an uncontrolled environment which is no more than 0.2% of the proposed FCC guidelines for a controlled environment. WEHT-DT will likely not operate its post-transition facilities until 2009, thereby potentially reducing the RFF at the site after analog operations are removed from the tower and the vicinity.

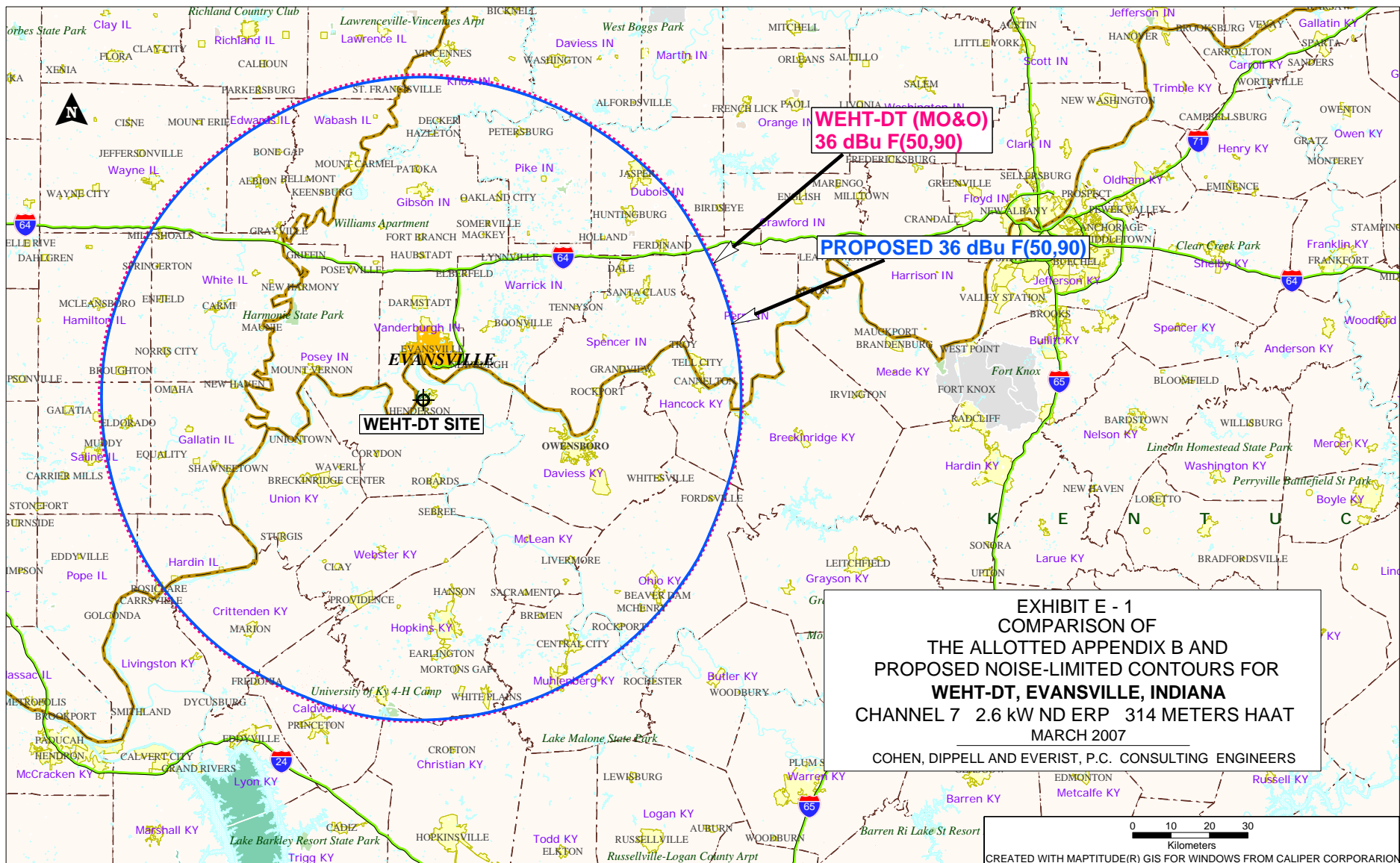
Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

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:

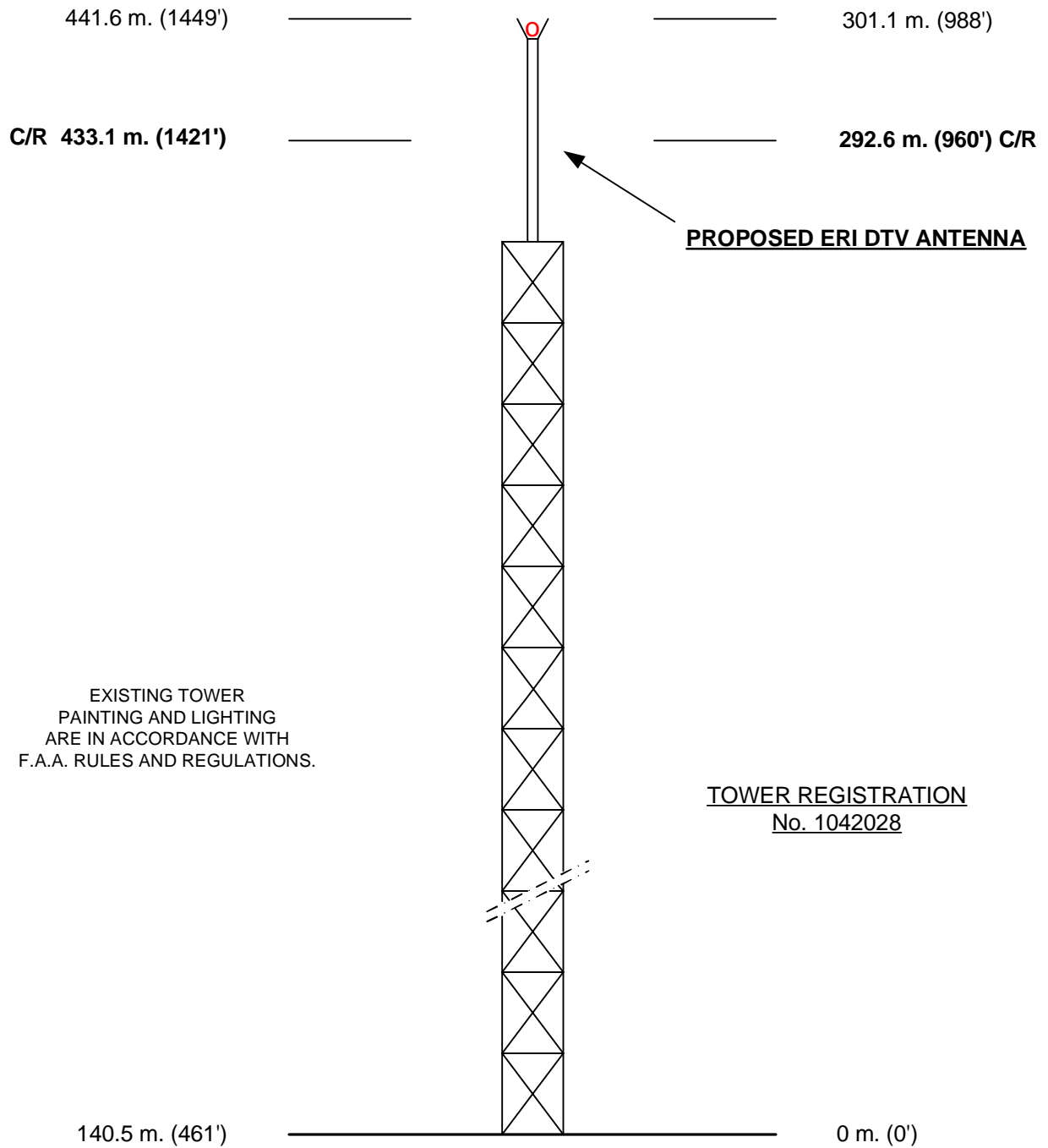
- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The 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 existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.

- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.



ABOVE MEAN SEA LEVEL

ABOVE GROUND



(NOT TO SCALE)

EXHIBIT E - 2
VERTICAL SKETCH
FOR THE PROPOSED DTV OPERATION OF
WEHT-DT, EVANSVILLE, INDIANA
MARCH 2008

COHEN, DIPPELL and EVERIST, P.C. Consulting Engineers Washington, D.C.

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-3

ANTENNA MANUFACTURER DATA

WEHT-DT, EVANSVILLE, INDIANA

***PRELIMINARY SPECIFICATION FOR
TRASAR[®] CIRCULARLY POLARIZED
COAXIAL SLOTTED ARRAY ANTENNA***

*Prepared for
WEHT-DT Channel 7 Evansville, IN
March 6, 2008*

***ANTENNA TYPE:
ATW9V3-CTO-7***

***SPECIFICATION NO :
KO022908-1841***



PRELIMINARY SPECIFICATION FOR TRASAR[®] CIRCULARLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

ELECTRICAL CHARACTERISTICS:

CHANNEL :		7
FREQUENCY RANGE :		174 - 180 MHz
AZIMUTH PATTERN NUMBER :	Hpol:	ATW-O
	Vpol:	ATW-O
ELEVATION PATTERN NUMBER :	Hpol:	ATW9V3H
	Vpol:	ATW6V3V
AZIMUTH DIRECTIVITY :	Hpol:	1.00 (0.00 dBd)
	Vpol:	1.00 (0.00 dBd)
ELEVATION DIRECTIVITY :	Hpol:	9.00 (9.54 dBd)
	Vpol:	6.00 (7.78 dBd)
PEAK POWER GAIN :	Hpol:	3.60 (5.56 dBd)
	Vpol:	3.60 (5.56 dBd)
GAIN AT HORIZONTAL :	Hpol:	3.44 (5.37 dBd)
	Vpol:	3.54 (5.48 dBd)
V/H RATIO:		1.00
ELECTRICAL BEAM TILT :		0.75 Degrees
INPUT POWER REQUIRED :		2.78 kW (4.44 dBk)
INPUT TYPE :		6 1/8-75 Ohm
INPUT POWER RATING (MAXIMUM):		42 kW, Average 8VSB Digital
ANTENNA VSWR (MAXIMUM) :		1.10 Over 6MHz of Channel

PRELIMINARY SPECIFICATION FOR TRASAR[®] CIRCULARLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION:

Top Mount*

*(Tower Interface supplied and installed by others)

HEIGHT OF ANTENNA (D) : 59.22 feet

HEIGHT OF CENTER OF RADIATION (B) : 29.61 feet

OVERALL HEIGHT (A) : 62.22 feet

(Includes two 3-foot Lightning Rods)

DEICING : Pressurized Radome Enclosure

RADOME DIAMETER (C): 28.50 inches, OD

RADOME COLOR : AVIATION ORANGE (Standard)

CLIMBING DEVICE : Galvanized Climbing Pole

CALCULATED WEIGHT : 14860.00 lbs

WINDLOAD DATA :	EIA/TIA-222-F²	CaAc :	103.80 sq.ft.	119.70 sq.ft.
	EFFECTIVE MOMENT ARM:		31.60 ft.	32.80 ft.
	WEIGHT w/ FACTORED RADIAL ICE (0.5" ice):			16150.00 lbs

MOUNTING FLANGE : BOLT CIRCLE : 28.00 in.

BOLT DIAMETER : 1.25 in.

NUMBER OF BOLTS : 24

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 that 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), and 61 MPH with ice, a height above average terrain (HAAT) of 1,030 feet, and a height above ground level (HAGL) of 958 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.

Broadcast Antenna System

Power Analysis

WEHT-DT
Evansville, IN
ATW9V3-CTO-7

Channel 7

ANTENNA PARAMETERS :

Azimuth Directivity :

Hor. Pol : 1.00 (0.00 dBd)
 Ver. Pol : 1.00 (0.00 dBd)

Elevation Directivity :

Hor. Pol : 9.00 (9.54 dBd)
 Ver. Pol : 6.00 (7.78 dBd)

TRANSMISSION LINE :

VERTICAL RUN :

Type: MACX675
 Length, ft. : 930
 Attenuation , dB/100 ft: 0.06

HORIZONTAL RUN :

Type: MACX675
 Length, ft. : 40
 Attenuation , dB/100 ft: 0.06

OTHER LINE LOSSES:

Type: N/A
 Length, ft. : 0
 Attenuation , dB/100 ft: 0

Line Efficiency : 87.46%

ERP :

Hor. Pol : 10.00 kW (10.00 dBk)
 Ver. Pol : 10.00 kW (10.00 dBk)

POWER GAIN :

Hor. Pol : 3.60 (5.56 dBd)
 Ver. Pol : 3.60 (5.56 dBd)

ANTENNA INPUT :

kW : 2.78
 dBk : 4.44

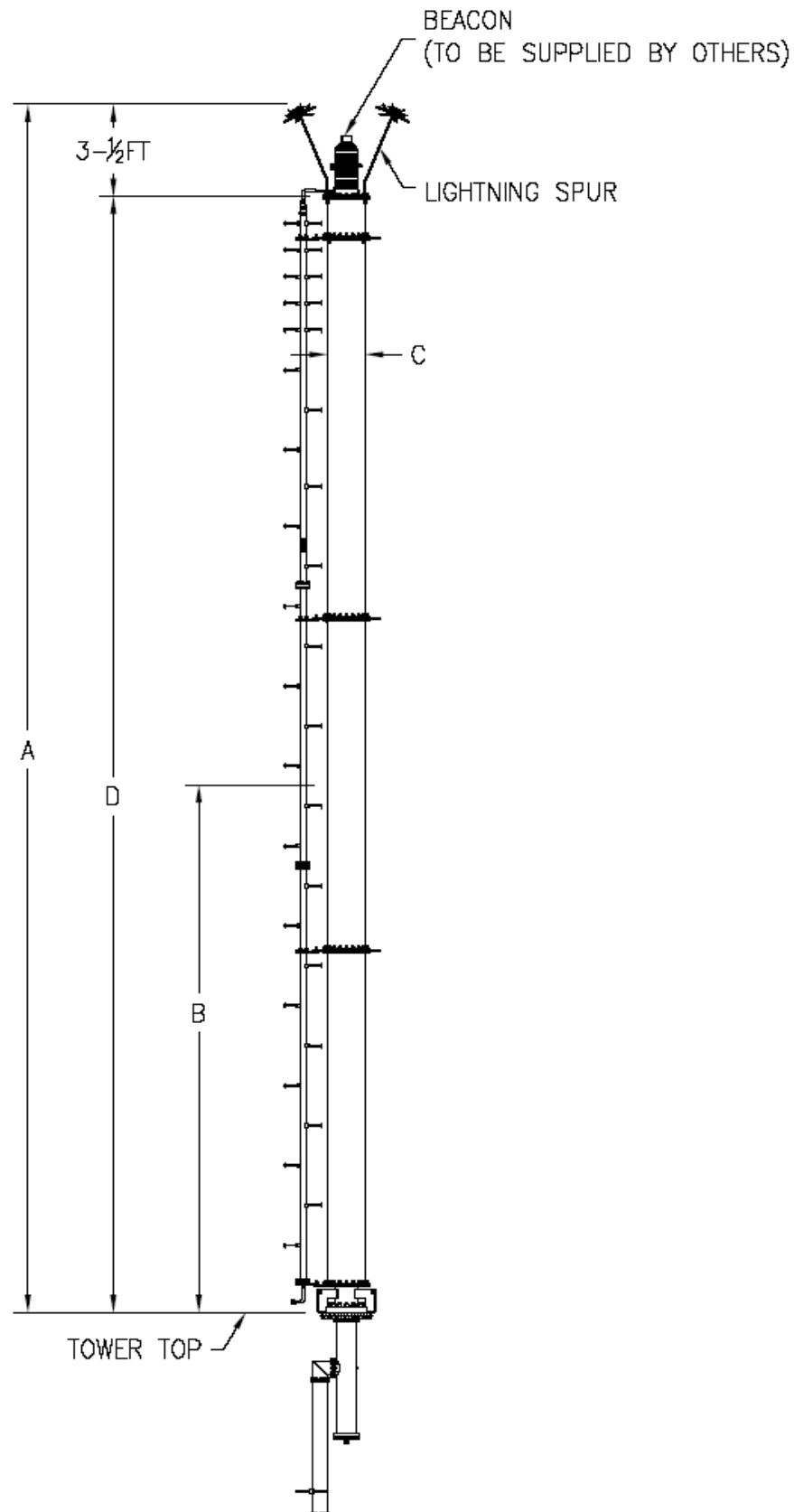
LINE LOSS :

kW : 0.40
 dB : 0.58

TRANSMITTER POWER :

kW : 3.18
 dBk : 5.02

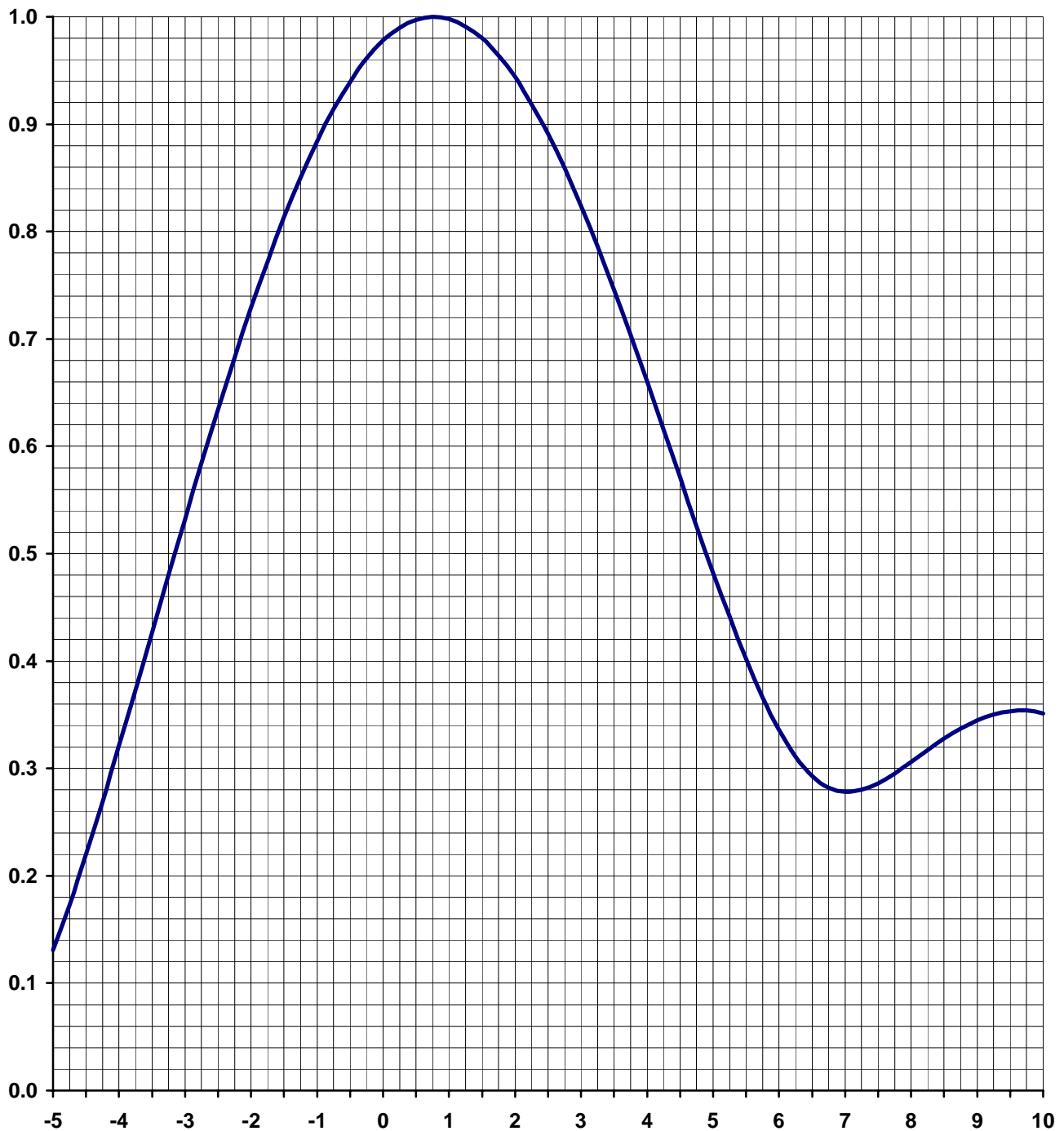
TYPICAL MOUNTING CONFIGURATION SHOWN. ACTUAL CONFIGURATION MAY VARY.



ELEVATION PATTERN

TYPE:	ATW9V3H	
Directivity:	Numeric	dBd
Main Lobe:	9.00	9.54
Horizontal:	8.61	9.35

Frequency:	7 (Digital)
Location:	Evansville, IN
Beam Tilt:	0.75
Polarization:	Horizontal



TABULATED DATA FOR ELEVATION PATTERN

TYPE: ATW9V3H

-5 to 10 degrees in 0.25 increments

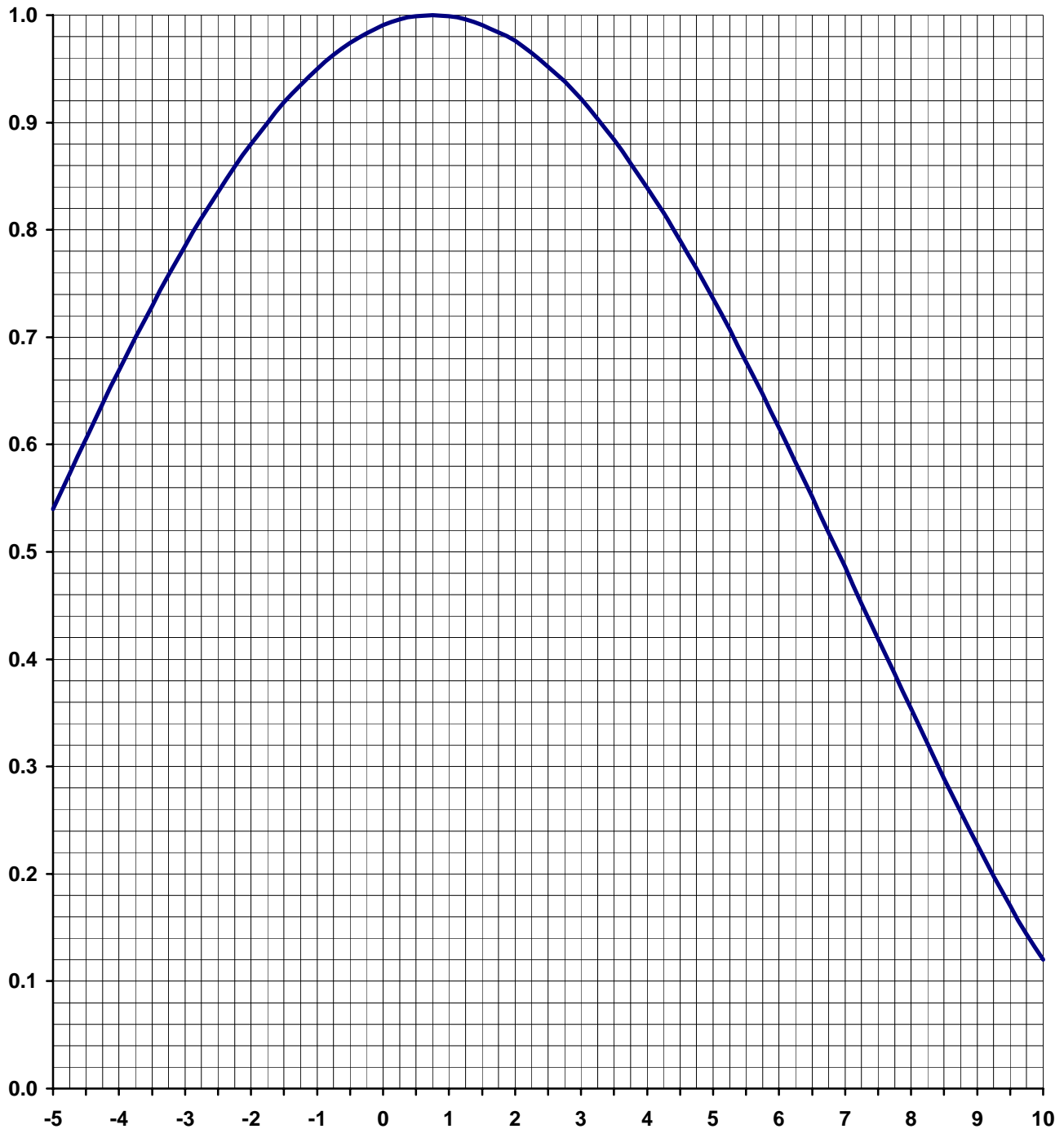
10 to 90 degrees in 0.50 increments

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.131	-17.65	6.75	0.282	-11.00	27.00	0.092	-20.72	50.50	0.095	-20.45	74.00	0.057	-24.88
-4.75	0.173	-15.24	7.00	0.278	-11.12	27.50	0.074	-22.62	51.00	0.095	-20.45	74.50	0.056	-25.04
-4.50	0.220	-13.15	7.25	0.280	-11.06	28.00	0.056	-25.04	51.50	0.093	-20.63	75.00	0.056	-25.04
-4.25	0.269	-11.40	7.50	0.286	-10.87	28.50	0.045	-26.94	52.00	0.089	-21.01	75.50	0.056	-25.04
-4.00	0.321	-9.87	7.75	0.295	-10.60	29.00	0.044	-27.13	52.50	0.083	-21.62	76.00	0.056	-25.04
-3.75	0.373	-8.57	8.00	0.306	-10.29	29.50	0.054	-25.35	53.00	0.076	-22.38	76.50	0.056	-25.04
-3.50	0.427	-7.39	8.25	0.317	-9.98	30.00	0.069	-23.22	53.50	0.067	-23.48	77.00	0.056	-25.04
-3.25	0.480	-6.38	8.50	0.328	-9.68	30.50	0.083	-21.62	54.00	0.057	-24.88	77.50	0.056	-25.04
-3.00	0.532	-5.48	8.75	0.337	-9.45	31.00	0.096	-20.35	54.50	0.046	-26.74	78.00	0.056	-25.04
-2.75	0.584	-4.67	9.00	0.345	-9.24	31.50	0.105	-19.58	55.00	0.034	-29.37	78.50	0.056	-25.04
-2.50	0.634	-3.96	9.25	0.350	-9.12	32.00	0.111	-19.09	55.50	0.021	-33.56	79.00	0.055	-25.19
-2.25	0.683	-3.31	9.50	0.353	-9.04	32.50	0.113	-18.94	56.00	0.009	-40.92	79.50	0.055	-25.19
-2.00	0.729	-2.75	9.75	0.354	-9.02	33.00	0.111	-19.09	56.50	0.006	-44.44	80.00	0.054	-25.35
-1.75	0.772	-2.25	10.00	0.351	-9.09	33.50	0.105	-19.58	57.00	0.018	-34.89	80.50	0.053	-25.51
-1.50	0.813	-1.80	10.50	0.338	-9.42	34.00	0.096	-20.35	57.50	0.031	-30.17	81.00	0.052	-25.68
-1.25	0.850	-1.41	11.00	0.316	-10.01	34.50	0.084	-21.51	58.00	0.043	-27.33	81.50	0.050	-26.02
-1.00	0.884	-1.07	11.50	0.285	-10.90	35.00	0.070	-23.10	58.50	0.054	-25.35	82.00	0.048	-26.38
-0.75	0.914	-0.78	12.00	0.249	-12.08	35.50	0.055	-25.19	59.00	0.065	-23.74	82.50	0.046	-26.74
-0.50	0.939	-0.55	12.50	0.209	-13.60	36.00	0.040	-27.96	59.50	0.075	-22.50	83.00	0.044	-27.13
-0.25	0.961	-0.35	13.00	0.171	-15.34	36.50	0.029	-30.75	60.00	0.084	-21.51	83.50	0.042	-27.54
0.00	0.978	-0.19	13.50	0.140	-17.08	37.00	0.029	-30.75	60.50	0.092	-20.72	84.00	0.039	-28.18
0.25	0.990	-0.09	14.00	0.124	-18.13	37.50	0.039	-28.18	61.00	0.098	-20.18	84.50	0.037	-28.64
0.50	0.997	-0.03	14.50	0.125	-18.06	38.00	0.052	-25.68	61.50	0.104	-19.66	85.00	0.034	-29.37
0.75	1.000	0.00	15.00	0.140	-17.08	38.50	0.065	-23.74	62.00	0.109	-19.25	85.50	0.031	-30.17
1.00	0.998	-0.02	15.50	0.160	-15.92	39.00	0.077	-22.27	62.50	0.112	-19.02	86.00	0.028	-31.06
1.25	0.991	-0.08	16.00	0.178	-14.99	39.50	0.087	-21.21	63.00	0.115	-18.79	86.50	0.025	-32.04
1.50	0.980	-0.18	16.50	0.191	-14.38	40.00	0.094	-20.54	63.50	0.116	-18.71	87.00	0.021	-33.56
1.75	0.964	-0.32	17.00	0.198	-14.07	40.50	0.099	-20.09	64.00	0.117	-18.64	87.50	0.018	-34.89
2.00	0.944	-0.50	17.50	0.198	-14.07	41.00	0.100	-20.00	64.50	0.116	-18.71	88.00	0.014	-37.08
2.25	0.919	-0.73	18.00	0.190	-14.42	41.50	0.098	-20.18	65.00	0.115	-18.79	88.50	0.011	-39.17
2.50	0.891	-1.00	18.50	0.176	-15.09	42.00	0.094	-20.54	65.50	0.113	-18.94	89.00	0.007	-43.10
2.75	0.859	-1.32	19.00	0.157	-16.08	42.50	0.087	-21.21	66.00	0.110	-19.17	89.50	0.004	-47.96
3.00	0.824	-1.68	19.50	0.133	-17.52	43.00	0.078	-22.16	66.50	0.107	-19.41	90.00	0.000	---
3.25	0.786	-2.09	20.00	0.109	-19.25	43.50	0.067	-23.48	67.00	0.103	-19.74			
3.50	0.746	-2.55	20.50	0.086	-21.31	44.00	0.054	-25.35	67.50	0.099	-20.09			
3.75	0.704	-3.05	21.00	0.070	-23.10	44.50	0.040	-27.96	68.00	0.095	-20.45			
4.00	0.660	-3.61	21.50	0.068	-23.35	45.00	0.027	-31.37	68.50	0.090	-20.92			
4.25	0.616	-4.21	22.00	0.079	-22.05	45.50	0.016	-35.92	69.00	0.086	-21.31			
4.50	0.571	-4.87	22.50	0.095	-20.45	46.00	0.017	-35.39	69.50	0.081	-21.83			
4.75	0.526	-5.58	23.00	0.112	-19.02	46.50	0.028	-31.06	70.00	0.077	-22.27			
5.00	0.482	-6.34	23.50	0.126	-17.99	47.00	0.041	-27.74	70.50	0.073	-22.73			
5.25	0.441	-7.11	24.00	0.136	-17.33	47.50	0.054	-25.35	71.00	0.069	-23.22			
5.50	0.402	-7.92	24.50	0.140	-17.08	48.00	0.065	-23.74	71.50	0.066	-23.61			
5.75	0.366	-8.73	25.00	0.140	-17.08	48.50	0.075	-22.50	72.00	0.063	-24.01			
6.00	0.336	-9.47	25.50	0.134	-17.46	49.00	0.083	-21.62	72.50	0.061	-24.29			
6.25	0.311	-10.14	26.00	0.124	-18.13	49.50	0.089	-21.01	73.00	0.059	-24.58			
6.50	0.293	-10.66	26.50	0.110	-19.17	50.00	0.093	-20.63	73.50	0.058	-24.73			

ELEVATION PATTERN

TYPE:	ATW6V3V	
Directivity:	Numeric	dBd
Main Lobe:	6.00	7.78
Horizontal:	5.89	7.70

Frequency:	7 (Digital)
Location:	Evansville, IN
Beam Tilt:	0.75
Polarization:	Vertical



TABULATED DATA FOR ELEVATION PATTERN

TYPE: ATW6V3V

-5 to 10 degrees in 0.25 increments

10 to 90 degrees in 0.50 increments

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.540	-5.35	6.75	0.518	-5.71	27.00	0.133	-17.52	50.50	0.124	-18.13	74.00	0.132	-17.59
-4.75	0.573	-4.84	7.00	0.486	-6.27	27.50	0.127	-17.92	51.00	0.129	-17.79	74.50	0.132	-17.59
-4.50	0.605	-4.36	7.25	0.452	-6.90	28.00	0.118	-18.56	51.50	0.133	-17.52	75.00	0.131	-17.65
-4.25	0.638	-3.90	7.50	0.419	-7.56	28.50	0.108	-19.33	52.00	0.136	-17.33	75.50	0.130	-17.72
-4.00	0.669	-3.49	7.75	0.386	-8.27	29.00	0.096	-20.35	52.50	0.137	-17.27	76.00	0.129	-17.79
-3.75	0.700	-3.10	8.00	0.354	-9.02	29.50	0.082	-21.72	53.00	0.137	-17.27	76.50	0.127	-17.92
-3.50	0.729	-2.75	8.25	0.321	-9.87	30.00	0.067	-23.48	53.50	0.137	-17.27	77.00	0.125	-18.06
-3.25	0.758	-2.41	8.50	0.289	-10.78	30.50	0.051	-25.85	54.00	0.135	-17.39	77.50	0.123	-18.20
-3.00	0.785	-2.10	8.75	0.258	-11.77	31.00	0.034	-29.37	54.50	0.132	-17.59	78.00	0.120	-18.42
-2.75	0.811	-1.82	9.00	0.227	-12.88	31.50	0.017	-35.39	55.00	0.129	-17.79	78.50	0.117	-18.64
-2.50	0.835	-1.57	9.25	0.198	-14.07	32.00	0.006	-44.44	55.50	0.124	-18.13	79.00	0.114	-18.86
-2.25	0.859	-1.32	9.50	0.170	-15.39	32.50	0.020	-33.98	56.00	0.119	-18.49	79.50	0.111	-19.09
-2.00	0.880	-1.11	9.75	0.144	-16.83	33.00	0.036	-28.87	56.50	0.113	-18.94	80.00	0.107	-19.41
-1.75	0.900	-0.92	10.00	0.120	-18.42	33.50	0.052	-25.68	57.00	0.106	-19.49	80.50	0.103	-19.74
-1.50	0.919	-0.73	10.50	0.083	-21.62	34.00	0.067	-23.48	57.50	0.099	-20.09	81.00	0.099	-20.09
-1.25	0.935	-0.58	11.00	0.073	-22.73	34.50	0.080	-21.94	58.00	0.092	-20.72	81.50	0.095	-20.45
-1.00	0.950	-0.45	11.50	0.090	-20.92	35.00	0.092	-20.72	58.50	0.084	-21.51	82.00	0.090	-20.92
-0.75	0.963	-0.33	12.00	0.118	-18.56	35.50	0.102	-19.83	59.00	0.076	-22.38	82.50	0.085	-21.41
-0.50	0.974	-0.23	12.50	0.146	-16.71	36.00	0.111	-19.09	59.50	0.068	-23.35	83.00	0.081	-21.83
-0.25	0.983	-0.15	13.00	0.172	-15.29	36.50	0.118	-18.56	60.00	0.060	-24.44	83.50	0.076	-22.38
0.00	0.991	-0.08	13.50	0.192	-14.33	37.00	0.124	-18.13	60.50	0.054	-25.35	84.00	0.071	-22.97
0.25	0.996	-0.03	14.00	0.208	-13.64	37.50	0.127	-17.92	61.00	0.048	-26.38	84.50	0.065	-23.74
0.50	0.999	-0.01	14.50	0.218	-13.23	38.00	0.128	-17.86	61.50	0.042	-27.54	85.00	0.060	-24.44
0.75	1.000	0.00	15.00	0.223	-13.03	38.50	0.127	-17.92	62.00	0.040	-27.96	85.50	0.055	-25.19
1.00	0.999	-0.01	15.50	0.223	-13.03	39.00	0.125	-18.06	62.50	0.040	-27.96	86.00	0.049	-26.20
1.25	0.996	-0.03	16.00	0.218	-13.23	39.50	0.121	-18.34	63.00	0.042	-27.54	86.50	0.044	-27.13
1.50	0.991	-0.08	16.50	0.209	-13.60	40.00	0.115	-18.79	63.50	0.047	-26.56	87.00	0.038	-28.40
1.75	0.984	-0.14	17.00	0.196	-14.15	40.50	0.108	-19.33	64.00	0.052	-25.68	87.50	0.032	-29.90
2.00	0.976	-0.21	17.50	0.180	-14.89	41.00	0.099	-20.09	64.50	0.058	-24.73	88.00	0.026	-31.70
2.25	0.965	-0.31	18.00	0.160	-15.92	41.50	0.089	-21.01	65.00	0.064	-23.88	88.50	0.021	-33.56
2.50	0.952	-0.43	18.50	0.139	-17.14	42.00	0.078	-22.16	65.50	0.071	-22.97	89.00	0.015	-36.48
2.75	0.938	-0.56	19.00	0.116	-18.71	42.50	0.066	-23.61	66.00	0.078	-22.16	89.50	0.009	-40.92
3.00	0.922	-0.71	19.50	0.093	-20.63	43.00	0.054	-25.35	66.50	0.084	-21.51	90.00	0.003	-50.46
3.25	0.903	-0.89	20.00	0.069	-23.22	43.50	0.041	-27.74	67.00	0.090	-20.92			
3.50	0.884	-1.07	20.50	0.046	-26.74	44.00	0.028	-31.06	67.50	0.096	-20.35			
3.75	0.862	-1.29	21.00	0.030	-30.46	44.50	0.019	-34.42	68.00	0.102	-19.83			
4.00	0.839	-1.52	21.50	0.030	-30.46	45.00	0.016	-35.92	68.50	0.107	-19.41			
4.25	0.816	-1.77	22.00	0.045	-26.94	45.50	0.024	-32.40	69.00	0.111	-19.09			
4.50	0.790	-2.05	22.50	0.063	-24.01	46.00	0.036	-28.87	69.50	0.115	-18.79			
4.75	0.764	-2.34	23.00	0.080	-21.94	46.50	0.048	-26.38	70.00	0.119	-18.49			
5.00	0.736	-2.66	23.50	0.096	-20.35	47.00	0.060	-24.44	70.50	0.122	-18.27			
5.25	0.707	-3.01	24.00	0.109	-19.25	47.50	0.072	-22.85	71.00	0.125	-18.06			
5.50	0.677	-3.39	24.50	0.120	-18.42	48.00	0.083	-21.62	71.50	0.127	-17.92			
5.75	0.647	-3.78	25.00	0.129	-17.79	48.50	0.093	-20.63	72.00	0.129	-17.79			
6.00	0.616	-4.21	25.50	0.134	-17.46	49.00	0.102	-19.83	72.50	0.131	-17.65			
6.25	0.583	-4.69	26.00	0.136	-17.33	49.50	0.111	-19.09	73.00	0.132	-17.59			
6.50	0.551	-5.18	26.50	0.136	-17.33	50.00	0.118	-18.56	73.50	0.132	-17.59			

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
COMPUTED COVERAGE DATA
FOR PROPOSED DTV OPERATION OF
WEHT-DT, EVANSVILLE, INDIANA
CHANNEL 7 2.6 KW ERP 314 METERS HAAT
MARCH 2008

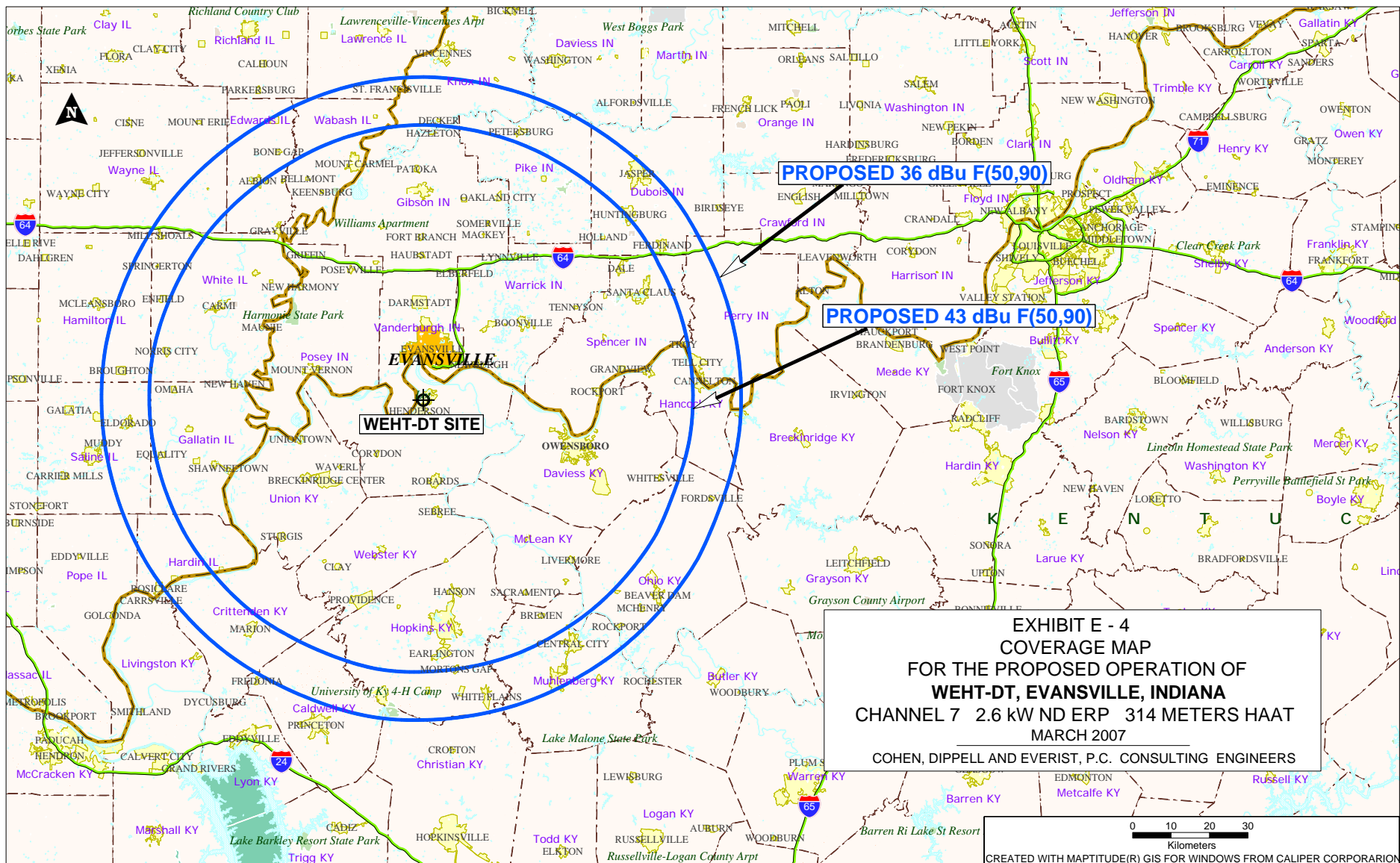
<u>Radial</u> N ° E, T	<u>Average*</u> <u>Elevation</u>	<u>Effective</u> <u>Height</u>	<u>Depression</u> <u>Angle</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	meters	meters	degrees		<u>43 dBu</u> km	<u>36 dBu</u> km
0	108.4	324.6	0.499	2.6	71.3	83.7
45	112.9	320.1	0.496	2.6	71.0	83.4
90	126.2	306.8	0.485	2.6	70.0	82.5
135	131.6	301.4	0.481	2.6	69.7	82.2
180	120.3	312.7	0.490	2.6	70.4	82.9
225	116.4	316.6	0.493	2.6	70.7	83.2
270	108.3	324.7	0.499	2.6	71.3	83.7
315	116.5	316.5	0.493	2.6	70.7	83.2

*Based on data from FCC 3-second data base.

DTV Channel 7 (174-180 MHz)
Average Elevation 3.2 to 16.1 km 117.6 meters AMSL
Center of Radiation 433 meters AMSL
Antenna Height Above Average Terrain 315.4 meters
Effective Radiated Power 2.6 kW (4.15 dBk) Max

North Latitude: 37° 51' 56"
West Longitude: 87° 34' 04"

(NAD-27)



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 pen-nit 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:
- a.

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

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

Exhibit No.

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 <i>Donald G. Everist</i>	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature <i>[Signature]</i>	Date <i>MARCH 17, 2008</i>	
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	

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).