

ENGINEERING REPORT RE
APPLICATION FOR CONSTRUCTION PERMIT
KWTB-DT, OKLAHOMA CITY, OKLAHOMA
CHANNEL 39 1000 KW (MAX DA) 478 METERS

APRIL 2010

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)

Ross J. Heide, being duly sworn upon his oath, deposes and states that:

He is a graduate of the Massachusetts Institute of Technology in Operations Research and Management Science, a Registered Professional Engineer in the District of Columbia, and employed by 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.



Ross J. Heide
District of Columbia
Professional Engineer
Registration No. PE900748

Subscribed and sworn to before me this 15th day of April, 2010.



Notary Public

My Commission Expires: 2/28/2013



Introduction

This engineering report is prepared on behalf of Griffin Licensing, L.L.C. for its station KWTB-DT, Oklahoma City, OK ("KWTB"). KWTB has been granted Temporary Experimental Authority to operate Channel 39 with an ERP up to 1000 kW (Max DA) by simulcasting the programming of KWTB's Channel 9 (FCC File No. BDSTA-20091008ADE). A Report & Order ("R&O") has been issued amending the DTV Table of Allotments to substitute DTV Channel 39 for DTV Channel 9 in Tulsa, Oklahoma [MB Docket No. 10-19, RM-11589]. The engineering data provided herein describes the operating facility for which KWTB is requesting a permit to construct for subsequent license. This facility is identical to the current STA with maximum ERP of 1000 kW.

Antenna Site

The operating Channel 39 DTV antenna is installed on a guyed tower, located at corner of North Kelley Avenue and 122nd Street, Oklahoma City, Oklahoma County, Oklahoma. The geographic coordinates (NAD-27) of the tower are as follows.

North Latitude: 35° 35' 52"

West Longitude: 97° 29' 22"

The tower structure registration number ("ASRN") is 1045226.

The following data shows the pertinent information concerning the proposed DTV operation.

Antenna and Power Data

Antenna:	Andrew	Model ATW25H3H
	Beam Tilt	0.75 degrees electrical
Transmitter Power Output	47.91 kW	16.80 dBk
Transmission Line Efficiency/Loss	69.0%	-1.61 dB
Input to Ch. 39 Antenna	33.06 kW	15.19 dBk
Antenna Gain, Main Lobe	30.25	14.81 dB
Effective Radiated Power	1000 kW	30.00 dBk

Elevation Data

Elevation of the site above mean sea level:	335.9 meters
Elevation of the top of supporting structure: above ground	502.0 meters
Elevation of the top of supporting structure: above mean sea level	837.9 meters
Height of DTV antenna radiation center: meters above ground	491.1 meters
Height of DTV antenna radiation center: above mean sea level	827.0 meters
Height of DTV antenna radiation center: above average terrain	478 meters

The attached Exhibit E-1 shows a vertical sketch of the existing KWTB-DT antenna supporting structure. The FCC tower registration number is 1045226. Exhibit E-3 shows the manufacturer's antenna data as specified in §73.625(c)(3).

Topographic Data

The average elevation data of the eight cardinal and other radials, from 3.2 to 16.1 kilometers, is based on the NGDC 3-second 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 relative field values have been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90% of the maximum.

The distances along each radial to the limits of F(50,90) 41 dBu and 48 dBu contours 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.

The distances along 36 radials (every 10 degrees) to the 41 dBu and 48 dBu contours, the average elevations, and the effective antenna heights are included on the attached tabulation (Table I). The 41 dBu and 48 dBu contours determined from these distances are shown on the attached map (Exhibit E-2). The 48 dBu contour encompasses the principal community.

Interference Situation

The attached Table II shows the pertinent authorized stations potentially affected by the 1000 kW operation. The interference analysis was performed using the higher-resolution 1 km cell size, and KWTB hereby requests that the FCC use the 1 km cell size when evaluating this proposal. Only a non-operating authorized facility, the allotment of KWOG-DT, Ch. 39, Springdale, Arkansas, is predicted to receive greater than 0.5% interference.

Largest in DMA Comparison

The following table compares the area within the noise-limited contour for the proposed 1000 kW ERP to the larger areas of several authorized stations in the Oklahoma City DMA.

Therefore, KWTB will not exceed the service area of the largest authorized station in the market.

<u>Call</u>	<u>Ch.</u>	<u>Status</u>	<u>ERP</u> kW	<u>HAAT</u> (m)	<u>FCC File No.</u>	<u>Area</u> sq.km
KTUZ	29	CP Mod	1000	474	BMPCDT-20080619AKA	39,816
KAUT	40	Lic	1000	475	BLCDT-20060504ACH	39,347
KSBI	51	CP	1000	458	BPCDT-19991028AFH	38,965
KWTB	39	R&O	1000	478	proposed	38,720

Environmental Statement

Since the proposal will utilize the presently installed and operating antenna, it is believed the environmental concerns listed in Section 1.1307(a) the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. KWTB-DT will be operating with an effective radiated power of 1000 kW and a radiation center of 491.1 meters above ground level. The maximum antenna relative field factor is 0.05 towards the ground at the base of the tower. It is calculated that proposed operation would have less than 0.6 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower. The Commission's MPE guidelines for Channel 39 (620-626 MHz) TV operation are

2,067 $\mu\text{W}/\text{cm}^2$ for the occupational/controlled and 413 $\mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment. The computed RF field due to the proposed operation would be less than 0.2% of the MPE for the general population/uncontrolled environment.

Therefore, members of the public and personnel working around the proposed TV facility would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, station KWTV-DT in coordination with other TV stations will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from the environmental processing.

ABOVE GROUND

ABOVE MEAN SEA LEVEL

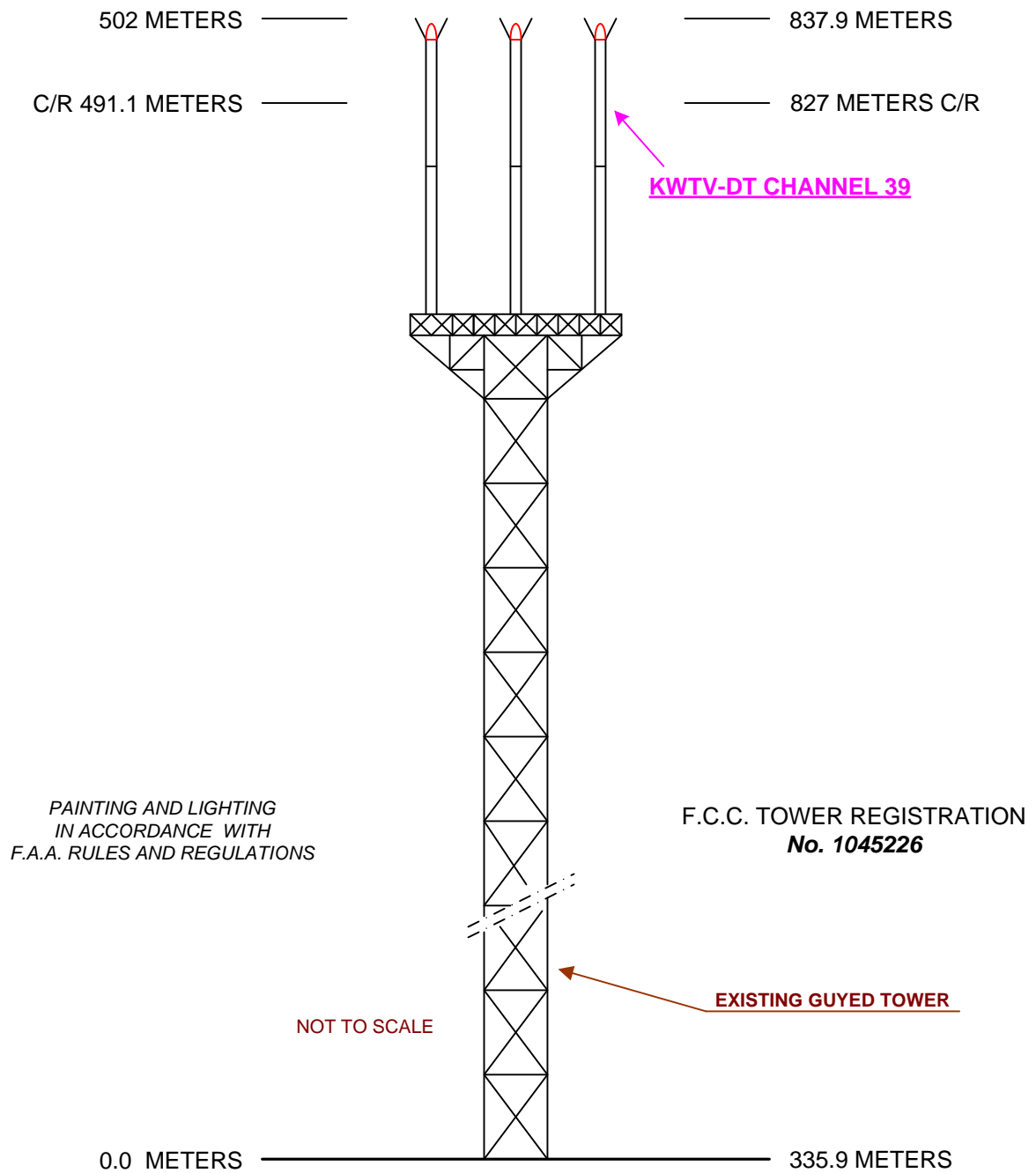


EXHIBIT E-1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
KWTV-DT, OKLAHOMA CITY, OKLAHOMA
APRIL 2010

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KWTB-DT, OKLAHOMA CITY, OKLAHOMA
CHANNEL 39 1000 KW ERP 478 METERS HAAT
APRIL 2010

<u>Radial</u> N ° E, T	<u>Average*</u>	<u>Effective</u>	<u>Depression</u>	<u>ERP</u> kW	<u>Distance to Contour</u>	
	<u>Elevation</u> meters	<u>Height</u> meters	<u>Angle</u> degrees		<u>48 dBu</u> km	<u>41 dBu</u> km
0	351.7	475.2	0.604	776.2	95.0	110.1
10	352.6	474.3	0.603	748.2	94.6	109.7
20	349.0	477.9	0.606	687.2	94.2	109.1
30	341.5	485.4	0.610	649.6	94.2	109.2
40	341.1	485.8	0.611	679.0	94.6	109.6
50	333.4	493.5	0.615	788.5	96.5	111.7
60	325.4	501.5	0.620	919.7	98.5	113.8
70	319.0	507.9	0.624	974.2	99.6	114.8
80	331.7	495.2	0.616	935.1	98.1	113.5
90	336.6	490.3	0.613	902.5	97.4	112.8
100	342.4	484.5	0.610	904.4	97.0	112.4
110	345.9	481.0	0.607	883.6	96.5	111.9
120	346.9	480.0	0.607	819.0	95.8	111.0
130	351.0	475.9	0.604	753.4	94.8	109.9
140	351.5	475.4	0.604	729.3	94.5	109.5
150	350.2	476.7	0.605	769.1	95.0	110.1
160	350.8	476.1	0.604	863.0	95.9	111.3
170	350.7	476.2	0.604	958.4	96.8	112.3
180	353.8	473.1	0.602	1000.0	97.0	112.5
190	355.1	471.8	0.602	958.4	96.5	112.0
200	355.8	471.1	0.601	863.0	95.5	110.8
210	356.6	470.3	0.601	769.1	94.5	109.6
220	368.3	458.6	0.593	729.3	93.3	108.1
230	379.0	447.9	0.586	753.4	92.8	107.5
240	374.0	452.9	0.589	819.0	93.8	108.8
250	366.2	460.7	0.595	883.6	95.0	110.2
260	361.2	465.7	0.598	904.4	95.5	110.9
270	350.0	476.9	0.605	902.5	96.4	111.8
280	343.8	483.1	0.609	935.1	97.2	112.6

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
KWTV-DT, OKLAHOMA CITY, OKLAHOMA
CHANNEL 39 1000 kW ERP 478 METERS HAAT
APRIL 2010
(continued)

<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>48 dBu</u> km	<u>41 dBu</u> km
290	338.7	488.2	0.612	974.2	97.9	113.4
300	334.6	492.3	0.615	919.7	97.8	113.1
310	334.1	492.8	0.615	788.5	96.5	111.7
320	330.5	496.4	0.617	679.0	95.5	110.5
330	331.3	495.6	0.617	649.6	95.0	110.0
340	337.7	489.2	0.613	687.2	95.0	110.0
350	339.4	487.5	0.612	748.2	95.6	110.7

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

DTV Channel 39 (620-626 MHz)
Average Elevation 3.2 to 16.1 km 346.7 meters AMSL
Center of Radiation 827.0 meters AMSL
Antenna Height Above Average Terrain 478 meters
Effective Radiated Power 1000 kW (30 dBk) Max

North Latitude: 35° 35' 52"
West Longitude: 97° 29' 22"

(NAD-27)

COHEN, DIPPELL AND EVERIST, P.C.

TABLE II
PREDICTED INTERFERENCE
FOR THE PROPOSED DTV OPERATION OF
KWTV, OKLAHOMA CITY, OKLAHOMA
CHANNEL 39 1000 KW ERP 478 METERS HAAT
APRIL 2010

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
24	KOMI-CD	WOODWARD OK	191.4	LIC	BLTTL-19950922IB	0.00%
25	KGCT-LP	NOWATA OK	206.5	LIC	BLTTA-20020805AAQ	0.00%
25	KUTU-CA	TULSA OK	148.3	LIC	BLTTL-20001120AAE	0.00%
36	KCHM-LP	OKLAHOMA CITY OK	25.5	APP	BMPTTA-20050707AAW	No interference
36	KCHM-LP	OKLAHOMA CITY OK	3.2	CP	BMJPTTA-20040504ABL	0.00%
38	K38GL	LAWTON OK	150.6	LIC	BLTTA-20031008AAD	No interference
38	KOHC-CA	OKLAHOMA CITY OK	26.4	LIC	BLTTA-20050808ACU	0.49%
39	KWOG	SPRINGDALE AR	294.8	PLN	DTVPLN-DTVPLN67347	1.50%
39	KWOG	SPRINGDALE AR	294.8	LIC	BLCDDT-20070820ABS	0.44%
39	KLDT	LAKE DALLAS TX	338.3	CP	BPCDDT-20080619AEY	0.01%
39	KLDT	LAKE DALLAS TX	343	PLN	DTVPLN-DTVPLN17433	0.00%
40	KAUT-TV	OKLAHOMA CITY OK	1.1	CP	BPCDDT-20080620AFC	0.01%
40	KAUT-TV	OKLAHOMA CITY OK	1	PLN	DTVPLN-DTVPLN50182	0.45%
40	KAUT-TV	OKLAHOMA CITY OK	0	LIC	BLCDDT-20060504ACH	0.00%

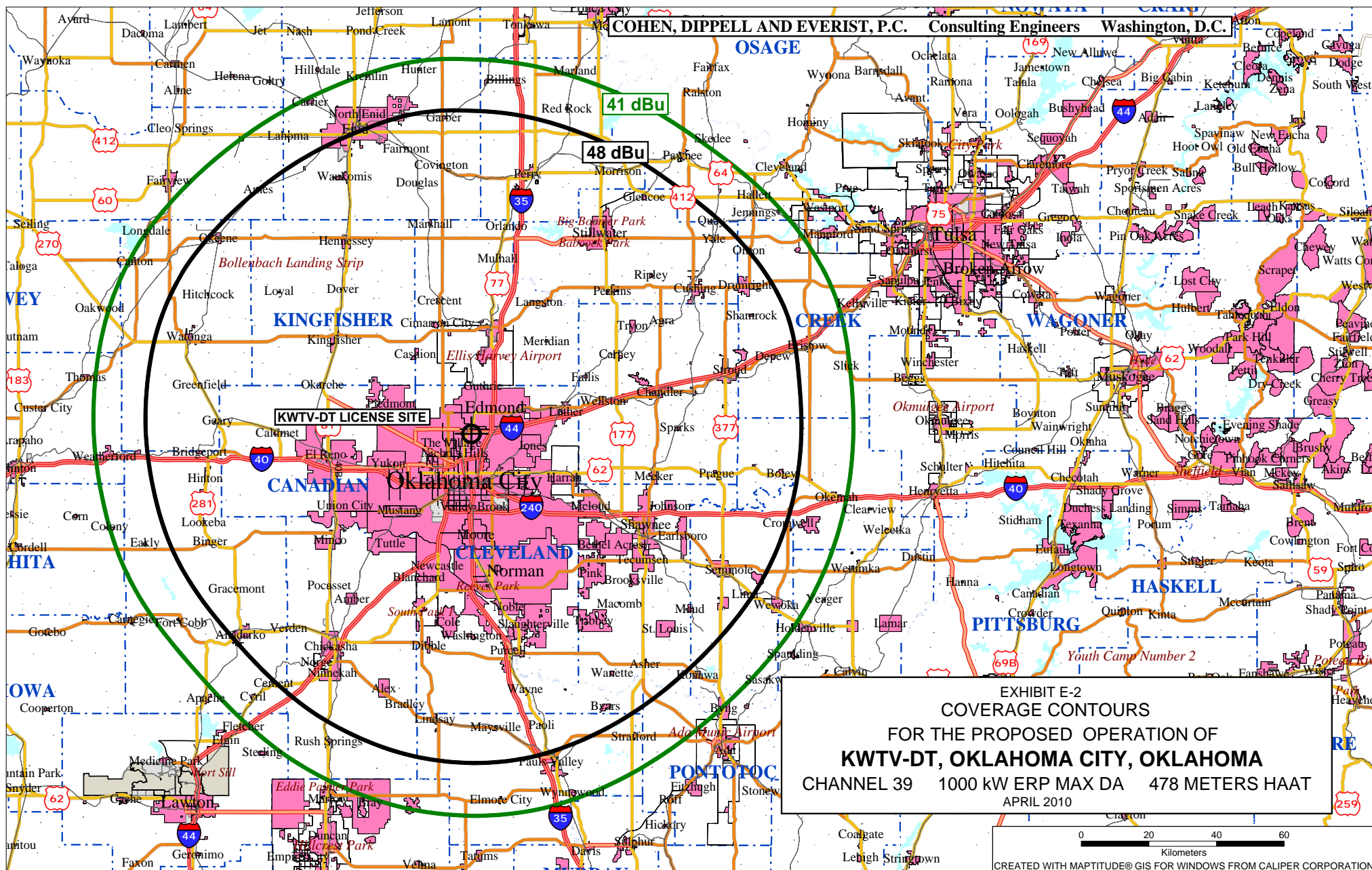


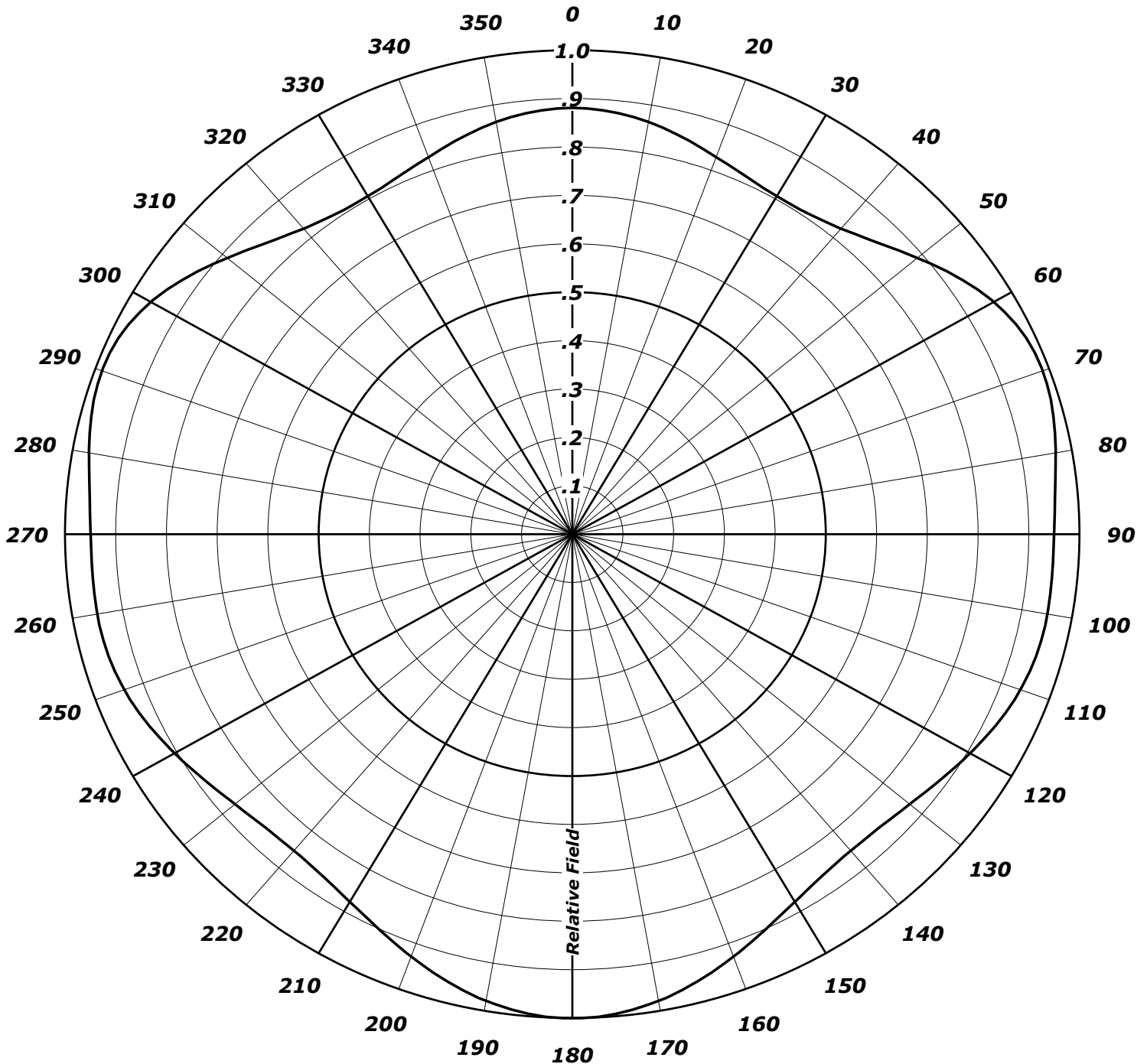
EXHIBIT E-3

ANTENNA MANUFACTURER'S DATA

ANDREW
AZIMUTH PATTERN

Type: CH39 Computed

	Numeric	dBd
Directivity:	<u>1.21</u>	<u>(0.83)</u>
Peak(s) At:	<u></u>	
Polarization:	<u>Horizontal</u>	
Channel:	<u>39</u>	
Location:	<u>Oklahoma City, OK</u>	



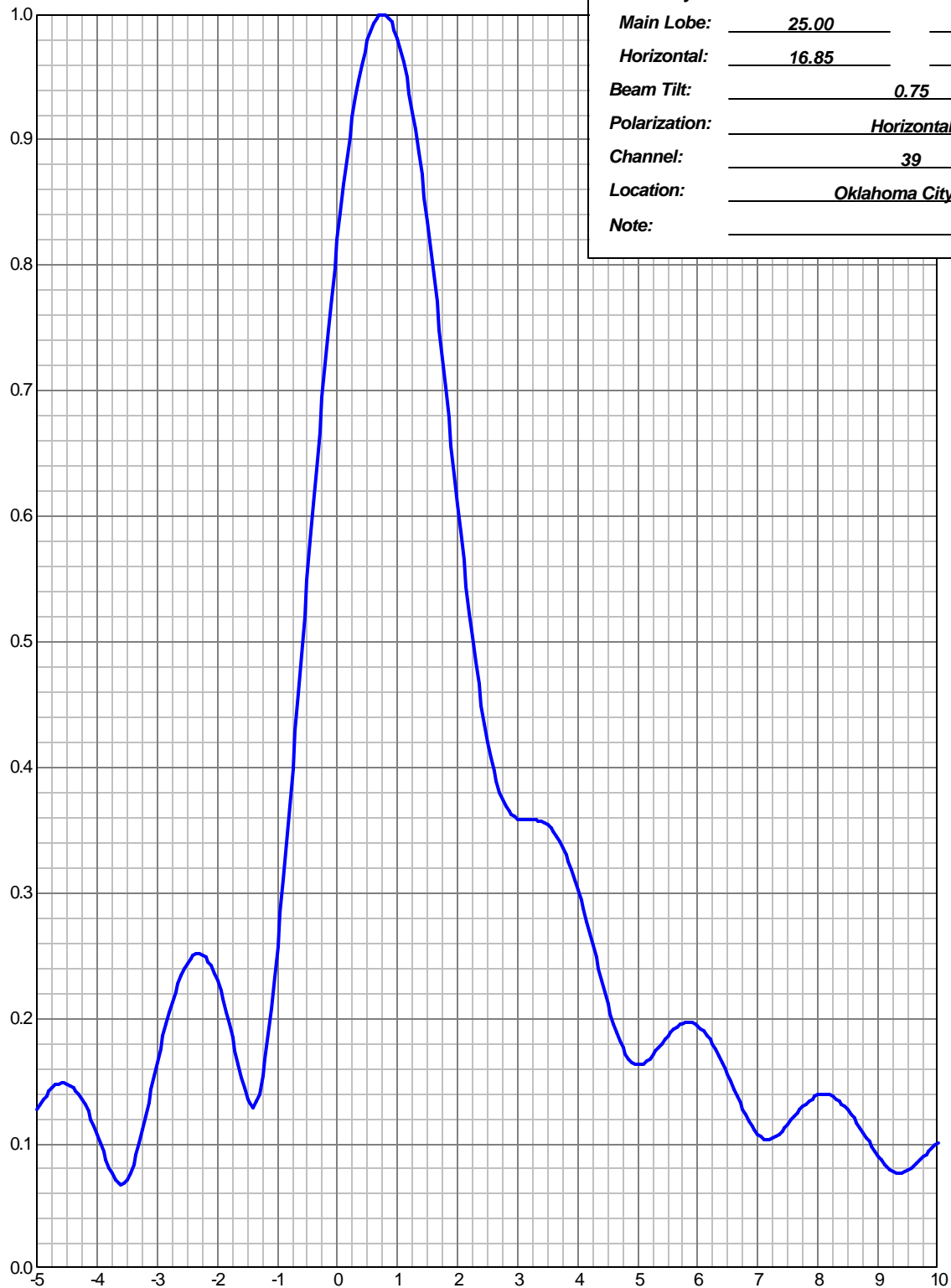


TABULATED DATA FOR AZIMUTH PATTERN
TYPE : CH39 Computed

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.881	-1.10	110	0.940	-0.54	220	0.854	-1.37	330	0.806	-1.87
2	0.880	-1.11	112	0.935	-0.59	222	0.854	-1.37	332	0.808	-1.85
4	0.878	-1.13	114	0.928	-0.65	224	0.855	-1.36	334	0.812	-1.81
6	0.875	-1.16	116	0.921	-0.72	226	0.858	-1.33	336	0.817	-1.76
8	0.870	-1.21	118	0.913	-0.79	228	0.863	-1.28	338	0.823	-1.69
10	0.865	-1.26	120	0.905	-0.86	230	0.868	-1.23	340	0.829	-1.63
12	0.859	-1.32	122	0.897	-0.94	232	0.874	-1.17	342	0.836	-1.55
14	0.851	-1.40	124	0.889	-1.02	234	0.882	-1.09	344	0.844	-1.47
16	0.844	-1.47	126	0.882	-1.09	236	0.889	-1.02	346	0.851	-1.40
18	0.836	-1.55	128	0.874	-1.17	238	0.897	-0.94	348	0.859	-1.32
20	0.829	-1.63	130	0.868	-1.23	240	0.905	-0.86	350	0.865	-1.26
22	0.823	-1.69	132	0.863	-1.28	242	0.913	-0.79	352	0.870	-1.21
24	0.817	-1.76	134	0.858	-1.33	244	0.921	-0.72	354	0.875	-1.16
26	0.812	-1.81	136	0.855	-1.36	246	0.928	-0.65	356	0.878	-1.13
28	0.808	-1.85	138	0.854	-1.37	248	0.935	-0.59	358	0.880	-1.11
30	0.806	-1.87	140	0.854	-1.37	250	0.940	-0.54	360	0.881	-1.10
32	0.806	-1.87	142	0.855	-1.36	252	0.944	-0.50			
34	0.807	-1.86	144	0.859	-1.32	254	0.947	-0.47			
36	0.811	-1.82	146	0.863	-1.28	256	0.949	-0.45			
38	0.817	-1.76	148	0.870	-1.21	258	0.951	-0.44			
40	0.824	-1.68	150	0.877	-1.14	260	0.951	-0.44			
42	0.834	-1.58	152	0.886	-1.05	262	0.950	-0.44			
44	0.845	-1.46	154	0.896	-0.96	264	0.950	-0.45			
46	0.858	-1.33	156	0.906	-0.85	266	0.949	-0.45			
48	0.873	-1.18	158	0.918	-0.75	268	0.949	-0.45			
50	0.888	-1.03	160	0.929	-0.64	270	0.950	-0.45			
52	0.904	-0.88	162	0.940	-0.54	272	0.951	-0.43			
54	0.919	-0.73	164	0.951	-0.44	274	0.954	-0.41			
56	0.933	-0.60	166	0.961	-0.35	276	0.957	-0.38			
58	0.947	-0.47	168	0.971	-0.26	278	0.962	-0.34			
60	0.959	-0.36	170	0.979	-0.18	280	0.967	-0.29			
62	0.969	-0.27	172	0.986	-0.12	282	0.973	-0.24			
64	0.977	-0.20	174	0.992	-0.07	284	0.978	-0.19			
66	0.983	-0.15	176	0.997	-0.03	286	0.983	-0.15			
68	0.986	-0.12	178	0.999	-0.01	288	0.985	-0.13			
70	0.987	-0.12	180	1.000	0.00	290	0.987	-0.12			
72	0.985	-0.13	182	0.999	-0.01	292	0.986	-0.12			
74	0.983	-0.15	184	0.997	-0.03	294	0.983	-0.15			
76	0.978	-0.19	186	0.992	-0.07	296	0.977	-0.20			
78	0.973	-0.24	188	0.986	-0.12	298	0.969	-0.27			
80	0.967	-0.29	190	0.979	-0.18	300	0.959	-0.36			
82	0.962	-0.34	192	0.971	-0.26	302	0.947	-0.47			
84	0.957	-0.38	194	0.961	-0.35	304	0.933	-0.60			
86	0.954	-0.41	196	0.951	-0.44	306	0.919	-0.73			
88	0.951	-0.43	198	0.940	-0.54	308	0.904	-0.88			
90	0.950	-0.45	200	0.929	-0.64	310	0.888	-1.03			
92	0.949	-0.45	202	0.918	-0.75	312	0.873	-1.18			
94	0.949	-0.45	204	0.906	-0.85	314	0.858	-1.33			
96	0.950	-0.45	206	0.896	-0.96	316	0.845	-1.46			
98	0.950	-0.44	208	0.886	-1.05	318	0.834	-1.58			
100	0.951	-0.44	210	0.877	-1.14	320	0.824	-1.68			
102	0.951	-0.44	212	0.870	-1.21	322	0.817	-1.76			
104	0.949	-0.45	214	0.863	-1.28	324	0.811	-1.82			
106	0.947	-0.47	216	0.859	-1.32	326	0.807	-1.86			
108	0.944	-0.50	218	0.855	-1.36	328	0.806	-1.87			

**ANDREW®****ELEVATION PATTERN**

Type:	ATW25H3H	
Directivity:	Numeric	dBd
Main Lobe:	25.00	13.98
Horizontal:	16.85	12.27
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	39	
Location:	Oklahoma City, OK	
Note:		

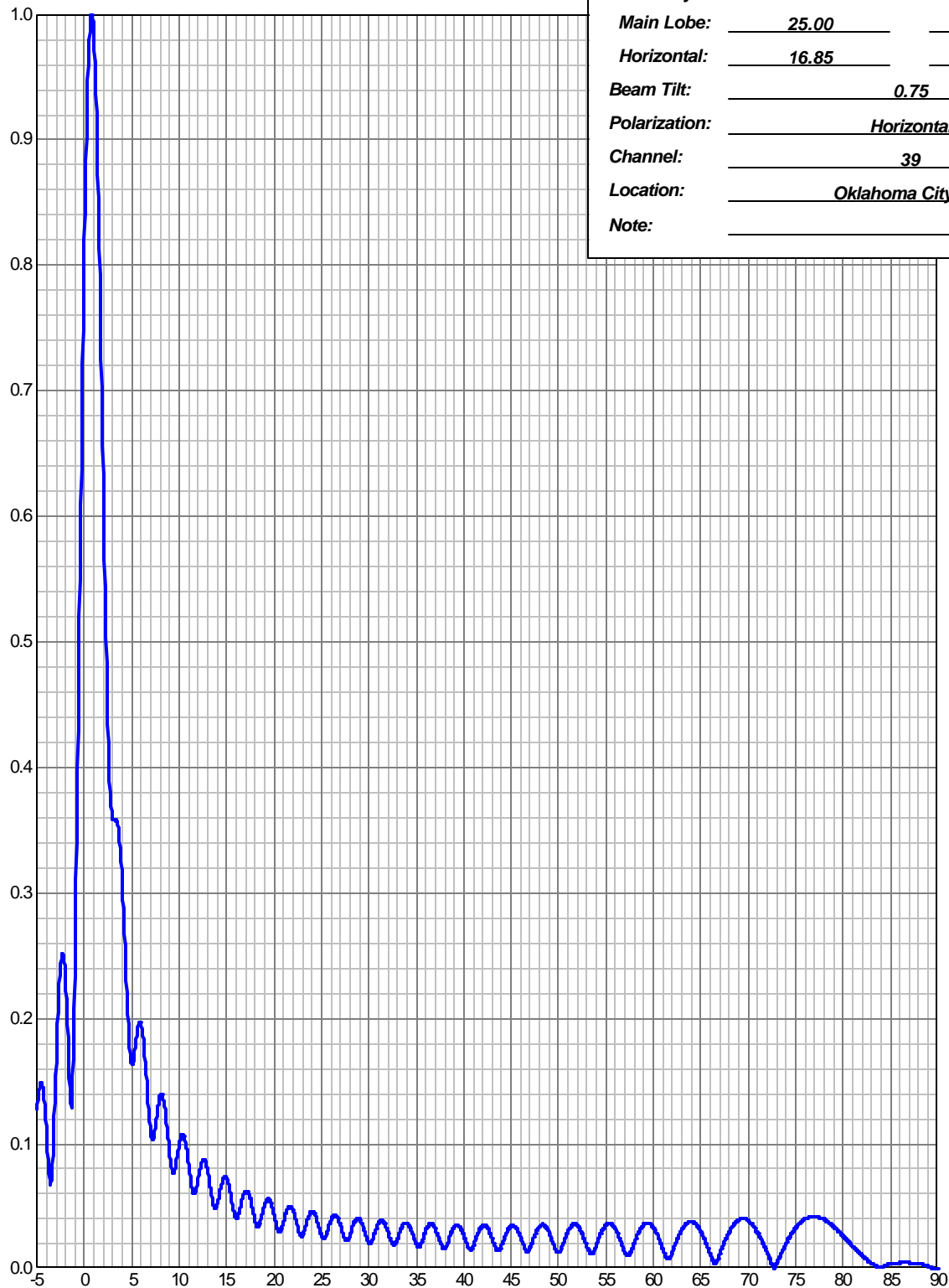
Relative Field

ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462

ATW25H3-HTO-39S -9-

**ANDREW®****ELEVATION PATTERN**

Type:	ATW25H3H	
Directivity:	Numeric	dBd
Main Lobe:	25.00	13.98
Horizontal:	16.85	12.27
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	39	
Location:	Oklahoma City, OK	
Note:		

Relative Field

ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462

ATW25H3-HTO-39S -1-

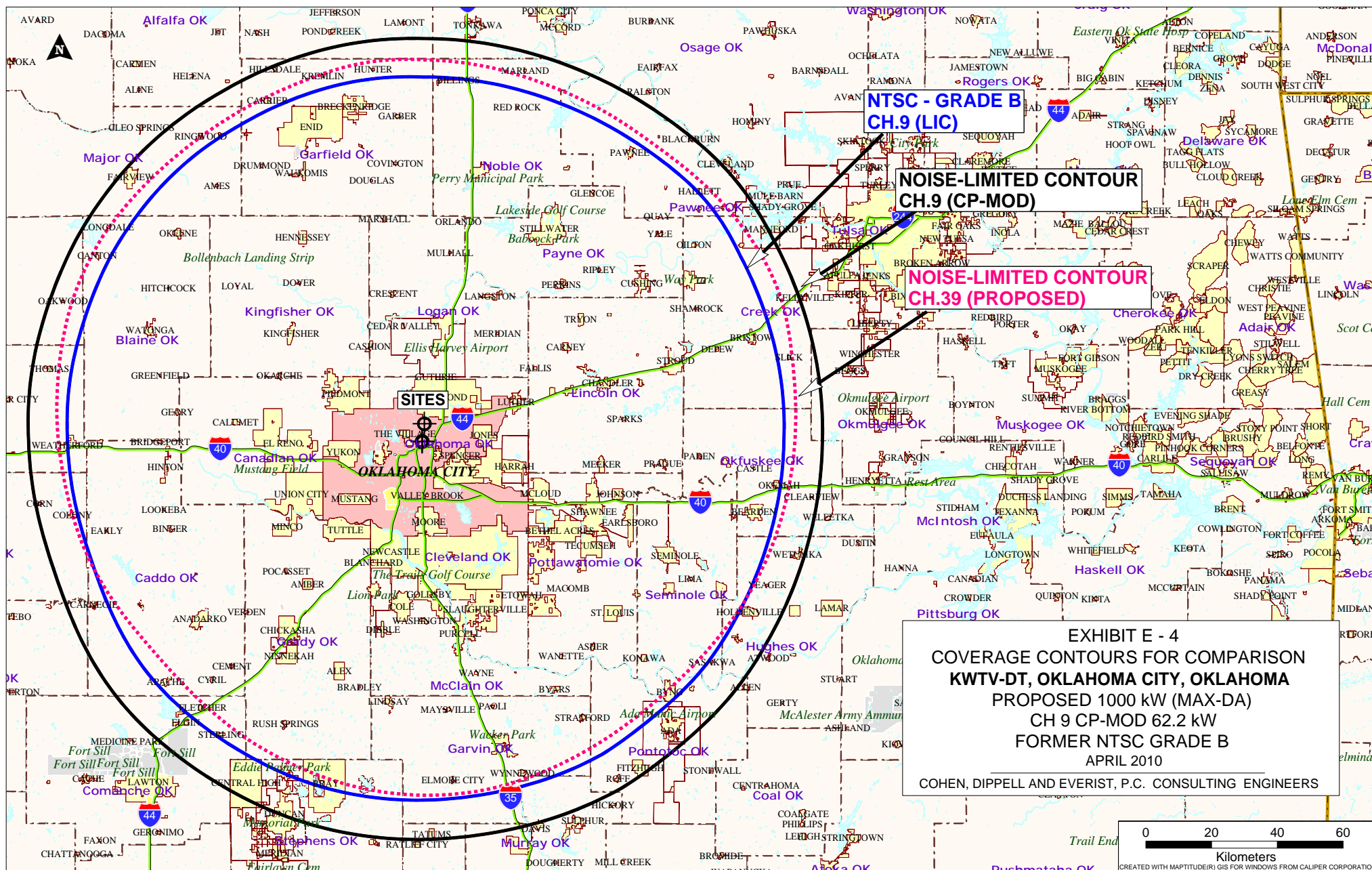
**ANDREW®****ELEVATION TABULATED DATA**Type: ATW25H3HPolarization: Horizontal

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.127	-17.92	6.50	0.155	-16.19	42.00	0.035	-29.12	88.00	0.004	-47.96
-4.75	0.144	-16.80	6.75	0.128	-17.86	43.00	0.024	-32.40	89.00	0.002	-53.98
-4.50	0.148	-16.59	7.00	0.108	-19.33	44.00	0.019	-34.42	90.00	0.000	0.00
-4.25	0.135	-17.39	7.25	0.105	-19.58	45.00	0.035	-29.12			
-4.00	0.108	-19.33	7.50	0.116	-18.71	46.00	0.025	-32.04			
-3.75	0.076	-22.38	7.75	0.130	-17.75	47.00	0.018	-34.89			
-3.50	0.071	-22.97	8.00	0.139	-17.14	48.00	0.034	-29.37			
-3.25	0.112	-19.05	8.25	0.138	-17.23	49.00	0.029	-30.75			
-3.00	0.165	-15.65	8.50	0.127	-17.92	50.00	0.014	-37.08			
-2.75	0.213	-13.43	8.75	0.109	-19.25	51.00	0.031	-30.17			
-2.50	0.244	-12.25	9.00	0.090	-20.92	52.00	0.035	-29.12			
-2.25	0.251	-12.02	9.25	0.078	-22.16	53.00	0.018	-34.89			
-2.00	0.230	-12.77	9.50	0.079	-22.05	54.00	0.020	-33.98			
-1.75	0.184	-14.68	9.75	0.089	-20.96	55.00	0.035	-29.12			
-1.50	0.136	-17.33	10.00	0.101	-19.91	56.00	0.032	-29.90			
-1.25	0.154	-16.28	11.00	0.083	-21.62	57.00	0.013	-37.72			
-1.00	0.257	-11.80	12.00	0.073	-22.73	58.00	0.021	-33.56			
-0.75	0.399	-7.98	13.00	0.078	-22.16	59.00	0.036	-28.87			
-0.50	0.550	-5.19	14.00	0.052	-25.68	60.00	0.033	-29.63			
-0.25	0.695	-3.17	15.00	0.072	-22.85	61.00	0.016	-35.92			
0.00	0.821	-1.71	16.00	0.041	-27.74	62.00	0.014	-37.08			
0.25	0.918	-0.74	17.00	0.062	-24.15	63.00	0.032	-29.90			
0.50	0.980	-0.18	18.00	0.038	-28.40	64.00	0.038	-28.40			
0.75	1.000	0.00	19.00	0.052	-25.68	65.00	0.030	-30.46			
1.00	0.981	-0.17	20.00	0.043	-27.33	66.00	0.012	-38.42			
1.25	0.923	-0.70	21.00	0.038	-28.40	67.00	0.012	-38.42			
1.50	0.835	-1.57	22.00	0.047	-26.56	68.00	0.030	-30.46			
1.75	0.726	-2.78	23.00	0.027	-31.37	69.00	0.039	-28.18			
2.00	0.610	-4.29	24.00	0.046	-26.74	70.00	0.039	-28.18			
2.25	0.504	-5.96	25.00	0.027	-31.37	71.00	0.029	-30.75			
2.50	0.420	-7.54	26.00	0.039	-28.18	72.00	0.013	-37.72			
2.75	0.375	-8.53	27.00	0.035	-29.12	73.00	0.005	-46.02			
3.00	0.359	-8.90	28.00	0.028	-31.06	74.00	0.021	-33.56			
3.25	0.358	-8.92	29.00	0.040	-27.96	75.00	0.033	-29.63			
3.50	0.354	-9.02	30.00	0.021	-33.56	76.00	0.040	-27.96			
3.75	0.336	-9.47	31.00	0.037	-28.64	77.00	0.042	-27.54			
4.00	0.303	-10.37	32.00	0.030	-30.46	78.00	0.040	-27.96			
4.25	0.259	-11.75	33.00	0.024	-32.40	79.00	0.034	-29.37			
4.50	0.212	-13.47	34.00	0.037	-28.64	80.00	0.027	-31.37			
4.75	0.176	-15.07	35.00	0.020	-33.98	81.00	0.018	-34.89			
5.00	0.163	-15.76	36.00	0.031	-30.17	82.00	0.011	-39.17			
5.25	0.171	-15.34	37.00	0.032	-29.90	83.00	0.005	-46.02			
5.50	0.186	-14.61	38.00	0.017	-35.39	84.00	0.002	-53.98			
5.75	0.196	-14.15	39.00	0.034	-29.37	85.00	0.004	-47.96			
6.00	0.194	-14.24	40.00	0.027	-31.37	86.00	0.005	-46.02			
6.25	0.179	-14.94	41.00	0.019	-34.42	87.00	0.005	-46.02			



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A 60462

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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 on or before March 17, 2008 (45 days of 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.

10. **Auction Authorization.** If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.

Exhibit No.

An exhibit is required unless this question is inapplicable.

11. **Anti-Drug Abuse Act Certification.** Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

☐ Yes ☐ No

12. **Equal Employment Opportunity (EEO).** If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.

☐ Yes ☐ No ☐ N/A

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

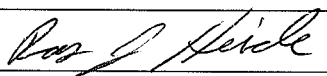
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in 'good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular 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 Ross J. Heide	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 	Date April 15, 2010	
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, N.W., 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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