Comprehensive Technical Exhibit

Application for License

WECV(FM) - Nashville, Tennessee

Community Broadcasting, Inc.

September, 2011

Application for License

The following engineering statement and attached exhibits have been prepared for **Community Broadcasting, Inc.** ("CBI"), licensee of non-commercial educational station WECV(FM) at Nashville, Tennessee, and are in support of their application for license.[1] This application is being filed to cover modifications to the facility authorized under construction permit BPED-20101122AHU. CBI respectfully requests a grant of full program test authority with the submission of this application. CBI will, however, operate WECV pursuant to the limited program test authority discussed in Section 73.1620(a)(2) of the Commission's Rules.

The main studio for WECV is located at 15 Century Boulevard in Nashville, Tennessee. As such, the facility complies with the provisions of Section 73.1125 of the Commission's Rules. No change in the location of the main studio was made as a result of the upgrade to WECV.

The facility as constructed utilizes a directional antenna. The antenna is a model 1091-2CP-DA manufactured by Electronics Research Inc. (ERI). Mechanically the antenna consists of two directional elements spaced one wavelength apart. It operates with circular polarization. The gain specified by the manufacturer is 4.013. The necessary antenna input power to achieve the authorized effective radiated power is 5.48 kilowatts.

Ahead of the antenna is the run of transmission line, which consists of 371 feet of Andrew/Commscope HJ7-50A air dielectric coaxial cable. The decimal efficiency of this line is 0.8435 from manufacturer's data. In order to achieve the antenna input power, the line input power must be 6.49 kW.

[1] The Facility ID for WECV(FM) at Nashville, Tennessee is 67633.

Ahead of the transmission line is a coaxial switch, which presents an insertion loss of 0.1 dB to the system. In decimal terms, this is an efficiency of 0.9772. The input power to the switch, which is the output of the transmitter, must therefore be 6.65 kW, which rounds to 6.7 kW under the provisions of Section 73.212 of the Commission's Rules. The specified TPO achieves the authorized effective radiated power.

The construction permit as issued by the Commission listed eight (8) special conditions or restrictions. Each of these conditions or restrictions will be subsequently discussed and addressed in this portion of the technical exhibit.

The first special condition pertains to the submission of a directional antenna proof of performance. Immediately following the text of this engineering statement is the directional antenna proof of performance provided by ERI. This proof demonstrates compliance with the relevant provisions of the Commission's Rules, and demonstrates the directional pattern envelope, as measured, does not exceed the authorized envelope at any azimuth.

The second special condition requires the submission of an affidavit from a registered land surveyor. Following the directional antenna proof is a signed and stamped letter from Mr. Thomas Young of L.I. Smith & Associates, Inc. This letter certifies that the antenna is oriented at the azimuth specified by the manufacturer.

Under special condition number three, Leech Lake is required to submit the affidavit of a competent engineer who oversaw the installation of the antenna. Following the surveyor's certification is a letter from Mr. Michael Rogers of Rogers Broadcast Service. Mr. Rogers oversaw

the installation of the antenna. He certifies that it was installed strictly in accordance with the instructions of the manufacturer.

The fourth special condition or restriction pertains to the directional pattern envelope for WECV. Under this condition, the relative field of neither the horizontally polarized component nor the vertically polarized component may exceed the authorized envelope relative field. This condition furthermore is used to state other relevant information about the directional antenna pattern envelope. The proof of performance from ERI demonstrates that the pattern envelope restrictions under this condition are met.

Under the fifth special condition, CBI is required to demonstrate that the measured directional antenna pattern complies with the community coverage provisions. Exhibit E-1 is a computer generated coverage map illustrating the predicted 60 dBu service contour of WECV. Also indicated on the map is the licensed 60 dBu service contour based on the authorized pattern envelope. The facility as constructed complies with Section 73.316(c)(2)(ix)(B) in that much of Nashville would receive a signal level of 60 dBu or greater.[2]

Special condition number six refers to potential FAA interference. Under this condition, CBI is advised that they must immediately reduce power to the point of no interference, cease operation, or take immediate corrective action to eliminate harmful interference to FAA communications. CBI is cognizant of this condition, and will abide by the condition until its sunset date.[3]

[2] The referenced provision of the Commission's Rules requires only that the 60 dBu contour resulting from the measured pattern serve a portion of the community of license. It should be noted that the authorized facility serves a greater portion of Nashville than the currently licensed WECV facility (See FCC File No. BLED-19980805KB).
[3] The sunset of this condition follows one year of interference-free operation.

The seventh special condition pertains to radiofrequency radiation safety. CBI certifies that it will comply with this condition through coordination with other users of the site. Such coordination will include, but is not necessarily limited to a reduction in power or cessation of operation.

The final special condition pertains to operation of the facility in close proximity to two AM stations. The construction permit requires impedance measurements to be made on WENO at Nashville, TN (Facility ID 71507) and WNSR at Brentwood, TN (Facility ID 41062). WENO operates using a folded unipole antenna configuration on the tower that is the WECV antenna supporting structure. The most recent license for WENO specifies an antenna resistance of 50 Ohms.[4] Following the installation of the WECV antenna system, the antenna impedance was measured at 44+j103 Ohms.[5] Since this is a variance of 12 ohms of resistance, FCC Form 302-AM for direct measurement of power for WENO is being submitted concurrently with this application for license.

In the case of WNSR, the Commission's database indicates a vertical antenna 64.2 degrees in height at the WECV site. This height would directly correlate to the height of the tower utilized by WECV. That tower, however, did not appear to be utilized by WNSR other than physically to support a long-wire antenna. The long-wire antenna is referenced under a recently granted special temporary authority for WNSR (See FCC File No. BSTA-20110915ABH).

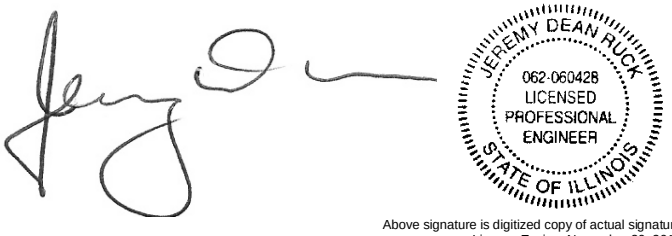
[4] See FCC File No. BZ-20060703ADH.
[5] Impedance measurements were obtained using a Delta Electronics OIB-3 Operating Impedance Bridge. Reactance component of the measured impedance has been frequency compensated per the manufacturer's instructions.

The long wire antenna referred to in the previous paragraph is apparently being utilized for both daytime and nighttime operations by WNSR. Although there is an impedance matching network for this long-wire antenna, there are no apparent connections between this network and the tower, which appears to be the authorized antenna system for WNSR during nighttime hours. Furthermore, there were not present on site any networks typically associated with the diplexing or combining of multiple AM signals on a single antenna.

The impedance of this long-wire antenna was, however, measured at 20+j25 Ohms using the above-described Delta OIB-3 operating impedance bridge. Since this does not appear to be an antenna system authorized other than under a special temporary authority, and there appears to be no connection between the WNSR transmitter and the nighttime antenna system authorized under BL-20040719AEW, it is respectfully requested that this special condition with regard to WNSR be removed.

Affidavit

The preceding statement and attached exhibits have been prepared by me, under my direction, or at my request, and are true and accurate to the best of my belief and knowledge or to the best of the belief and knowledge of the appropriate signatory party of the exhibit in question.



Above signature is digitized copy of actual signature
License Expires November 30, 2013
Jeremy D. Ruck, PE
September 20, 2011

ELECTRONICS RESEARCH, INC. ERI®

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone (812) 925-6000 Fax (812) 925-4030 http://www.eriinc.com/

Directional Antenna System for WECV, Nashville, Tennessee

July 13, 2011

Electronics Research Inc. is providing a custom fabricated antenna system that is specially designed to meet the FCC requirements and the general needs of radio station WECV.

The antenna is the ERI model 1091-2CP-DA configuration. The circular polarized system consists of 2 full-wavelength spaced bays using one driven circular polarized radiating element, two horizontal parasitic elements placed one quarter wave above and below each bay and two vertical parasitic elements per bay. The antenna was mounted on the North 188 degrees East tower face with bracketry to provide an antenna orientation of North 160 degrees East. The antenna was tested on a 24" face tower, which is the structure the station plans to use to support the array. All tests were performed on a frequency of 89.1 megahertz, which is the center of the FM broadcast channel assigned to WECV.

Pattern measurements were made on a sixty-acre antenna pattern range that is owned and operated by Electronics Research, Inc. The tests were performed under the direction of Thomas B. Silliman, president of Electronics Research, Inc. Mr. Silliman has the Bachelor of Electrical Engineering and the Master of Electrical Engineering degrees from Cornell University and is a registered professional engineer in the states of Indiana, Maryland and Minnesota.

Directional Antenna System
For
WECV, Nashville, Tennessee

(Continued)

DESCRIPTION OF THE TEST PROCEDURE

The test antenna consisted of one bay level of the circular polarized system with the associated horizontal and vertical parasitic elements. The elements and brackets that were used in this test are electrically equivalent to those that will be supplied with the antenna.

The power distribution and phase relationship to the antenna elements was adjusted in order to achieve the directional radiation patterns for both horizontal and vertical polarization components.

The proof-of-performance was accomplished using a 24" face tower with identical dimension and configuration including all braces, ladders, conduits, coaxial lines and other appurtenances that are included in the actual aperture at which the antenna will be installed. The structure was erected vertically on a turntable mounted on a non-metallic building with the antenna centered vertically on the structure, making the center of radiation of the test approximately 30 feet above ground. The turntable is equipped with a motor drive and a US Digital angle position indicator. The resolution of this angle position indicator is one-hundredth of a degree.

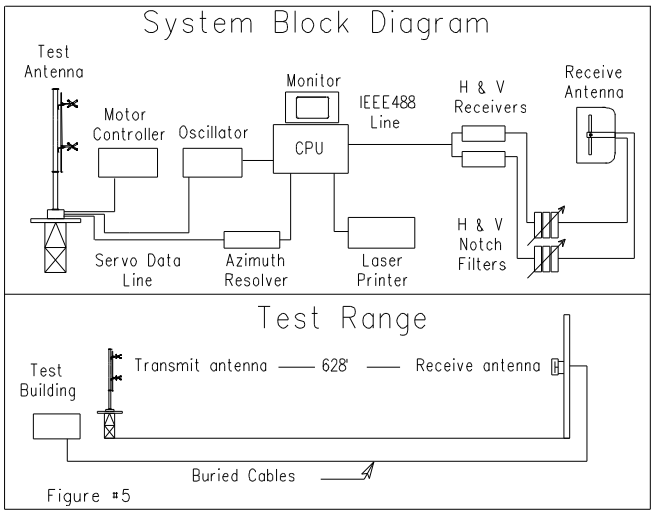


Figure #5

The antenna under test was operated in the transmitting mode and fed from a HP8657D signal generator. The frequency of the signal source was set at 89.1 MHz and was constantly monitored by a Rohde & Schwarz ESVD measuring receiver.

A broadband horizontal and vertical dipole system, located approximately 628 feet from the test antenna, was used to receive the emitted test signals. The dipole system was mounted at the same height above terrain as the center of the antenna under test.

(Continued)

The signals received by the dipole system were fed to the test building by way of two buried Heliax cables to a Rohde & Schwarz measuring receiver. This data was interfaced to a laser jet printer by means of a computer system. Relative field strength was plotted as a function of azimuth.

The measurements were performed by rotating the test antenna in a counter-clockwise direction and plotting the received signal on polar co-ordinated graph paper in a clockwise direction. Both horizontal and vertical components were recorded separately.

CONCLUSIONS

The circular polarized system consists of 2 full-wavelength spaced bays using one driven circular polarized radiating element, two horizontal parasitic elements placed one quarter wave above and below each bay and two vertical parasitic elements per bay. The power distribution and phase relationship will be fixed when antenna is manufactured. Proper maintenance of the elements should be all that is required to maintain the pattern in adjustment.

The 1091-2CP-DA array is to be mounted on the North 188 degrees East tower face of the 24" face tower at a bearing of North 160 degrees East. Blue prints provided with the antenna will show the proper antenna orientation alignment. The antenna alignment procedure should be directed by a licensed surveyor as prescribed by the FCC.

Figure #1 represents the measured individual horizontal and vertical components, the composite maximum of either the horizontal or vertical component at any azimuth and the FCC filed envelope pattern. The horizontal plane relative field list for the composite pattern and the individual H & V components are shown as Figure #1 & 1A respectively. The actual measured pattern does not exceed the authorized FCC composite pattern at any azimuth. A calculated vertical plane relative field pattern is shown on Figure #3 attached. The power in the maximum will reach 22.000 kilowatts (13.424 dBk).

The power at North 260-270 degrees East does not exceed 1.600 kilowatts (2.041 dBk).

The power at North 350 degrees East does not exceed 0.71 kilowatts (-1.487 dBk).

(Continued)

The RMS of the vertically polarized horizontal plane component does not exceed the RMS of the horizontally polarized horizontal plane component.

The composite horizontal and vertical maximum relative field pattern obtained from the measured data as shown on Figure #1 has an RMS that is greater that 85% of the filed composite pattern.

The clear vertical length of the structure required to support the antenna is 31 feet.

The directional antenna should not be mounted on the top of an antenna tower that includes a top-mounted platform larger than the cross-sectional area of the tower in the horizontal plane. No obstructions other than those that are specified by the blue prints supplied with the antenna are to be mounted within 75 ft. horizontally of the system. The vertical distance to the nearest obstruction should be a minimum of 10 ft. from the directional antenna. Metallic guy wires should be a minimum distance of forty feet horizontally from the antenna.

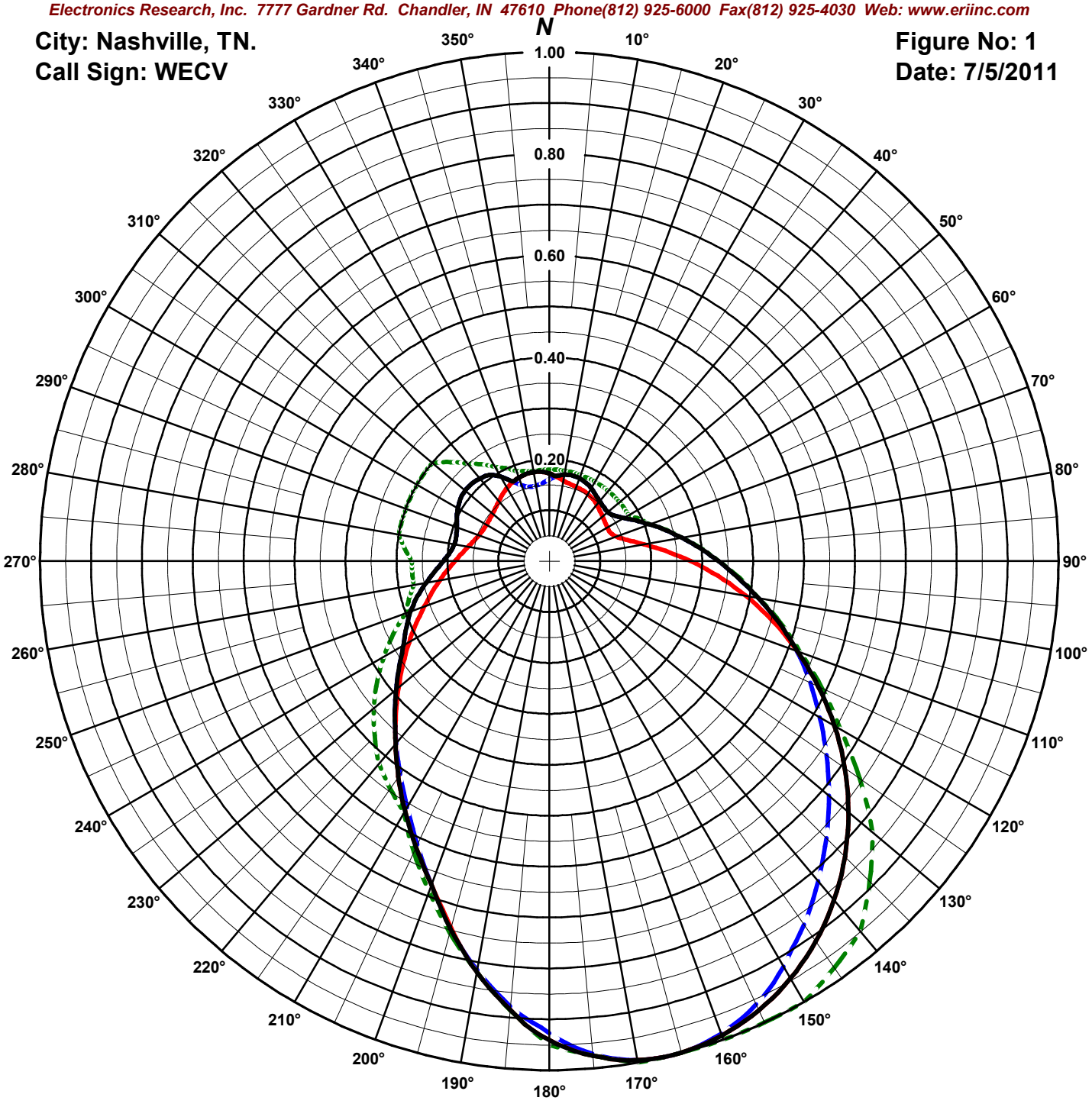
ELECTRONICS RESEARCH, INC.

ERI® Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

City: Nashville, TN.
Call Sign: WECV

Figure No: 1
Date: 7/5/2011



Antenna Orientation: 160° True

Frequency: 89.1 MHz
Antenna Type: 1091-2CP-DA

Antenna Mounting: Custom
Tower Type: 24" Tower

HORIZONTAL	VERTICAL	COMPOSITE	FCC ENVELOPE
RMS: .486	RMS: .486	RMS: .495	RMS: .518
Maximum: 1 @ 166°	Maximum: 1 @ 166°	Maximum: 1 @ 166°	Maximum: 1 @ 150°
Minimum: .131 @ 62°	Minimum: .15 @ 48°	Minimum: .15 @ 48°	Minimum: .179 @ 350°

Measured patterns of the horizontal and vertical components, with the composite maximum of either the the H or V components and the filed FCC envelope pattern BPED-20101122AHU.

ERI® Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure# 1 **Date: 7/5/2011**
Station: WECV **Antenna: 1091-2CP-DA**
Location: Nashville, TN. **Antenna Orientation: 160° True**
Frequency: 89.1 MHz **Number of Bays: 2**

Azimuth	Envelope			Polarization	Azimuth	Envelope			Polarization
	Field	kW	dBk	Maximum		Field	kW	dBk	Maximum
0°	0.172	0.653	-1.849	Horizontal	180°	0.941	19.476	12.895	Horizontal
5°	0.168	0.618	-2.091	Vertical	185°	0.885	17.212	12.358	Horizontal
10°	0.172	0.654	-1.845	Vertical	190°	0.819	14.762	11.692	Horizontal
15°	0.174	0.667	-1.756	Vertical	195°	0.748	12.308	10.902	Vertical
20°	0.173	0.660	-1.807	Vertical	200°	0.677	10.074	10.032	Horizontal
25°	0.170	0.636	-1.966	Vertical	205°	0.620	8.446	9.267	Horizontal
30°	0.165	0.598	-2.231	Vertical	210°	0.567	7.068	8.493	Horizontal
35°	0.159	0.554	-2.563	Vertical	215°	0.517	5.872	7.688	Horizontal
40°	0.154	0.520	-2.843	Vertical	220°	0.469	4.849	6.857	Horizontal
45°	0.151	0.499	-3.022	Vertical	225°	0.429	4.040	6.064	Vertical
50°	0.150	0.494	-3.059	Vertical	230°	0.393	3.391	5.303	Vertical
55°	0.156	0.532	-2.739	Vertical	235°	0.360	2.845	4.541	Vertical
60°	0.169	0.628	-2.019	Vertical	240°	0.330	2.403	3.807	Vertical
65°	0.188	0.781	-1.072	Vertical	245°	0.310	2.110	3.244	Vertical
70°	0.210	0.967	-0.145	Vertical	250°	0.290	1.845	2.660	Vertical
75°	0.236	1.226	0.885	Vertical	255°	0.268	1.578	1.982	Vertical
80°	0.264	1.533	1.855	Vertical	260°	0.246	1.328	1.233	Vertical
85°	0.297	1.935	2.866	Vertical	265°	0.225	1.114	0.470	Vertical
90°	0.332	2.424	3.846	Vertical	270°	0.208	0.950	-0.221	Vertical
95°	0.372	3.048	4.840	Vertical	275°	0.196	0.843	-0.743	Vertical
100°	0.417	3.822	5.822	Vertical	280°	0.190	0.790	-1.022	Vertical
105°	0.467	4.795	6.808	Vertical	285°	0.189	0.787	-1.041	Vertical
110°	0.518	5.913	7.718	Horizontal	290°	0.193	0.822	-0.851	Vertical
115°	0.583	7.477	8.737	Horizontal	295°	0.200	0.881	-0.549	Vertical
120°	0.647	9.199	9.638	Horizontal	300°	0.207	0.946	-0.241	Vertical
125°	0.708	11.037	10.428	Horizontal	305°	0.213	0.998	-0.008	Vertical
130°	0.767	12.933	11.117	Horizontal	310°	0.216	1.024	0.102	Vertical
135°	0.821	14.824	11.710	Horizontal	315°	0.215	1.018	0.078	Vertical
140°	0.870	16.636	12.210	Horizontal	320°	0.212	0.986	-0.061	Vertical
145°	0.912	18.293	12.623	Horizontal	325°	0.206	0.935	-0.290	Vertical
150°	0.947	19.720	12.949	Horizontal	330°	0.192	0.809	-0.922	Vertical
155°	0.973	20.846	13.190	Horizontal	335°	0.173	0.660	-1.806	Vertical
160°	0.991	21.619	13.348	Horizontal	340°	0.175	0.671	-1.735	Horizontal
165°	1.000	21.987	13.422	Horizontal	345°	0.177	0.688	-1.625	Horizontal
170°	0.996	21.806	13.386	Horizontal	350°	0.177	0.693	-1.594	Horizontal
175°	0.975	20.910	13.204	Horizontal	355°	0.176	0.681	-1.667	Horizontal

Horizontal Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Vertical Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Total Input Power: 5.482 kW
Reference: WECV1M.FIG

This list shows the the maximum azimuth values of either the horizontal or vertical components.

ERI® Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure# 1A **Date: 7/5/2011**
Station: WECV **Antenna: 1091-2CP-DA**
Location: Nashville, TN. **Antenna Orientation: 160° True**
Frequency: 89.1 MHz **Number of Bays: 2**

Azimuth	Horizontal			Vertical			Azimuth	Horizontal			Vertical		
	Field	kW	dBk	Field	kW	dBk		Field	kW	dBk	Field	kW	dBk
0°	0.172	0.653	-1.849	0.160	0.565	-2.477	180°	0.941	19.476	12.895	0.927	18.920	12.769
5°	0.166	0.608	-2.162	0.168	0.618	-2.091	185°	0.885	17.212	12.358	0.878	16.943	12.290
10°	0.160	0.567	-2.467	0.172	0.654	-1.845	190°	0.819	14.762	11.692	0.816	14.645	11.657
15°	0.157	0.540	-2.676	0.174	0.667	-1.756	195°	0.745	12.209	10.867	0.748	12.308	10.902
20°	0.155	0.528	-2.774	0.173	0.660	-1.807	200°	0.677	10.074	10.032	0.677	10.074	10.032
25°	0.154	0.520	-2.840	0.170	0.636	-1.966	205°	0.620	8.446	9.267	0.614	8.290	9.185
30°	0.152	0.507	-2.947	0.165	0.598	-2.231	210°	0.567	7.068	8.493	0.558	6.859	8.363
35°	0.149	0.488	-3.118	0.159	0.554	-2.563	215°	0.517	5.872	7.688	0.511	5.738	7.588
40°	0.145	0.462	-3.358	0.154	0.520	-2.843	220°	0.469	4.849	6.857	0.468	4.814	6.825
45°	0.140	0.433	-3.636	0.151	0.499	-3.022	225°	0.426	3.990	6.010	0.429	4.040	6.064
50°	0.136	0.409	-3.886	0.150	0.494	-3.059	230°	0.386	3.280	5.158	0.393	3.391	5.303
55°	0.133	0.391	-4.075	0.156	0.532	-2.739	235°	0.350	2.696	4.307	0.360	2.845	4.541
60°	0.132	0.381	-4.194	0.169	0.628	-2.019	240°	0.317	2.217	3.457	0.330	2.403	3.807
65°	0.132	0.385	-4.144	0.188	0.781	-1.072	245°	0.288	1.821	2.603	0.310	2.110	3.244
70°	0.141	0.434	-3.621	0.210	0.967	-0.145	250°	0.261	1.501	1.763	0.290	1.845	2.660
75°	0.159	0.558	-2.531	0.236	1.226	0.885	255°	0.238	1.250	0.968	0.268	1.578	1.982
80°	0.189	0.787	-1.042	0.264	1.533	1.855	260°	0.218	1.049	0.206	0.246	1.328	1.233
85°	0.229	1.154	0.621	0.297	1.935	2.866	265°	0.201	0.886	-0.524	0.225	1.114	0.470
90°	0.277	1.692	2.284	0.332	2.424	3.846	270°	0.185	0.757	-1.211	0.208	0.950	-0.221
95°	0.332	2.427	3.851	0.372	3.048	4.840	275°	0.172	0.655	-1.840	0.196	0.843	-0.743
100°	0.392	3.375	5.283	0.417	3.822	5.822	280°	0.162	0.576	-2.394	0.190	0.790	-1.022
105°	0.454	4.540	6.570	0.467	4.795	6.808	285°	0.154	0.518	-2.853	0.189	0.787	-1.041
110°	0.518	5.913	7.718	0.517	5.886	7.698	290°	0.147	0.479	-3.200	0.193	0.822	-0.851
115°	0.583	7.477	8.737	0.565	7.031	8.470	295°	0.144	0.455	-3.421	0.200	0.881	-0.549
120°	0.647	9.199	9.638	0.613	8.278	9.179	300°	0.142	0.446	-3.504	0.207	0.946	-0.241
125°	0.708	11.037	10.428	0.664	9.707	9.871	305°	0.143	0.450	-3.466	0.213	0.998	-0.008
130°	0.767	12.933	11.117	0.717	11.305	10.533	310°	0.145	0.464	-3.334	0.216	1.024	0.102
135°	0.821	14.824	11.710	0.769	13.017	11.145	315°	0.149	0.487	-3.120	0.215	1.018	0.078
140°	0.870	16.636	12.210	0.821	14.827	11.711	320°	0.154	0.521	-2.833	0.212	0.986	-0.061
145°	0.912	18.293	12.623	0.872	16.733	12.236	325°	0.160	0.563	-2.494	0.206	0.935	-0.290
150°	0.947	19.720	12.949	0.919	18.599	12.695	330°	0.166	0.606	-2.172	0.192	0.809	-0.922
155°	0.973	20.846	13.190	0.961	20.314	13.078	335°	0.171	0.643	-1.916	0.173	0.660	-1.806
160°	0.991	21.619	13.348	0.988	21.456	13.316	340°	0.175	0.671	-1.735	0.159	0.553	-2.569
165°	1.000	21.987	13.422	0.999	21.974	13.419	345°	0.177	0.688	-1.625	0.151	0.501	-3.001
170°	0.996	21.806	13.386	0.995	21.790	13.383	350°	0.177	0.693	-1.594	0.150	0.497	-3.038
175°	0.975	20.910	13.204	0.971	20.754	13.171	355°	0.176	0.681	-1.667	0.154	0.520	-2.836

Horizontal Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Vertical Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Total Input Power: 5.482 kW
Reference: WECV1M.FIG

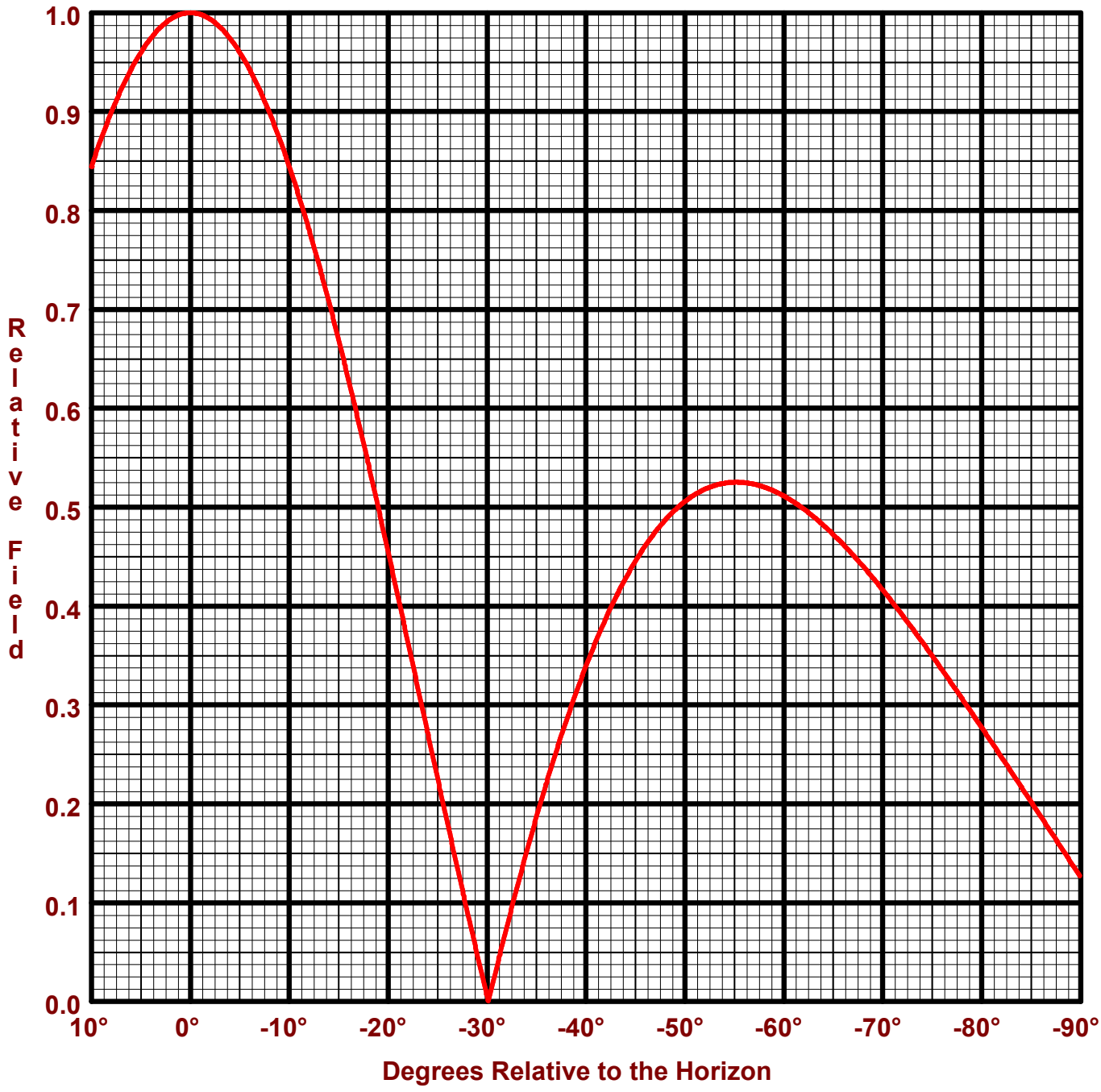
This list shows the azimuth values for the horizontal and vertical components.

ERI® Vertical Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure No: 3
Call Sign: WECV
Location: Nashville, TN.
Frequency: 89.1 MHz
2 bay 1091-2CP-DA antenna

Date: 7/5/2011
H/V Power Ratio: 1
1 Wave-length Spacing
0° Beam Tilt
0% First Null Fill



Horizontal Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Vertical Polarization:
Maximum: 4.013 (6.035 dB)
Horizontal Plane: 4.013 (6.035 dB)
Maximum ERP: 22.000 kW

Directional Antenna System
for
WECV, Nashville, Tennessee

(Continued)

ANTENNA SPECIFICATIONS

Antenna Type:	1091-2CP-DA
Frequency:	89.1 MHz
Number of Bays:	Two

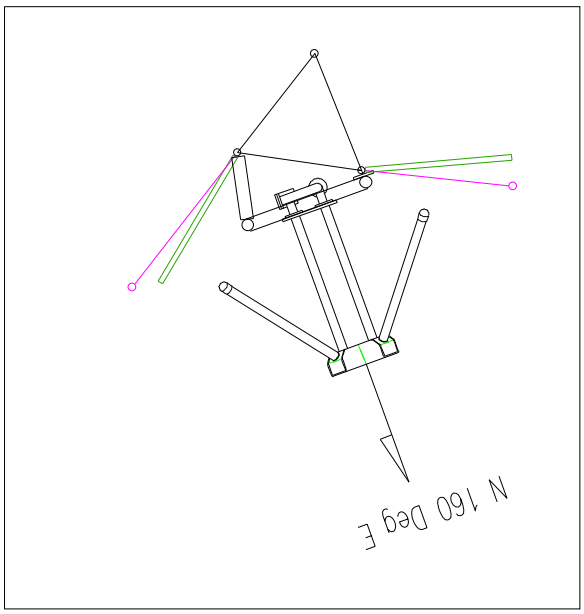
MECHANICAL SPECIFICATIONS

Mounting:	Custom
System length:	11 ft
Aperture length required:	31 ft
Orientation:	160° true

Input flange to the antenna 1 5/8” female.

ELECTRICAL SPECIFICATIONS
(For directional use)

Maximum horizontal ERP:	22.000 kW (13.424 dBk)
Horizontal maximum power gain:	4.013 (6.035 dB)
Maximum vertical ERP:	22.000 kW (13.424 dBk)
Vertical maximum power gain:	4.013 (6.035 dB)
Total input power:	5.482 kW (7.389 dBk)



ELECTRONICS RESEARCH, INC. ERI®

PRELIMINARY MECHANICAL SPECIFICATION FOR 1091-2CP-DA Nashville, TN

July 13, 2011

PREPARED FOR:
WECV (89.1 MHz)

ANTENNA TYPE:
1091-2CP-DA

PREPARED BY:
James Ruedlinger, P.E.
+1 812 925-6000 ext.282
jruedlinger@eriinc.com

*PRELIMINARY MECHANICAL SPECIFICATION FOR 1091-2CP-DA WECV (89.1 MHz) * Nashville, TN*

MECHANICAL CHARACTERISTICS:

EXISTING TOWER FACE WIDTH:	*24"-TRI*
ELEMENT SPACING:	*131.99"*
ELEMENT ARM SIZE:	*1090*
DEICING/RADOME:	*NONE*
DIRECTORS:	*(2) 61.00" & (2) 64.00"*
PARASITES:	*(4) 28.00" & (4) 31.00"*

CALCULATED WEIGHT:

No Ice:	*350 lbs*
With 1/2" Ice:	*625 lbs*

CALCULATED EFFECTIVE PROJECTED AREA (EPA):

NORMAL EXPOSURE

No Ice:	*17 ft²*
With 1/2" Ice:	*26 ft²*

TRANSVERSE EXPOSURE

No Ice:	*14 ft²*
With 1/2" Ice:	*22 ft²*

NOTES:

1. Please note, the listed weights and effective wind areas are based upon the ***PRELIMINARY*** *design of the antenna.*

2. Loads calculated in accordance with the ANSI/TIA-222-G standard.

3. No wind shielding taken into account for supporting structure.

4. Loading includes preliminary design for all aperture components including radiating elements, parasitic elements, feed harnessing, and mount brackets. Loading does ***NOT*** *include support mast.*

Please contact ERI's Structural Division if you have any questions concerning the provided Mechanical Specifications.

ROGERS BROADCAST SERVICE

12508 Walmer, Leawood Kansas 66209

John Beck
Bott Radio Network
10550 Barkley
Overland Park Kansas, 66212

On September 12th 2011, RBS was engaged by Bott Radio Network to oversee the construction of WECV-FM 89.1 with a new directional array in Nashville Tennessee, at the tower site located on the Campus of Trevecca Nazarene University.

Michael Rogers has more than 30 years in broadcast engineering experience and has constructed many FM and AM radio stations including systems for the US military. Michael has submitted information to the FCC that has been accepted in various system upgrades and installations.

Michael is also a consultant for GLG, a global consulting firm, engaging in confidential studies for large corporations in communications industry and has published more than a dozen articles in major broadcast periodicals over the years and is currently the President of the Kansas City SBE Chapter.

WECV 89.1 Installation:

The installed antenna is the ERI 1091-2CP-DA configuration. The antenna system consists of two full wavelength bays. Each bay of the 1090 element is attached to one flat panel.

The antenna system was installed in accordance with the manufacturer's instructions and implicitly followed, in detail, the ERI project drawing IA24281-1, and subsequent engineering study in the antenna placement and assembly report.

Michael Rogers

Rogers Broadcasting Services

Rogers Broadcast Service

L.I. Smith & Associates, Inc.

www.lismith.com

Surveyors and Engineers

CORPORATE OFFICE 302 North Caldwell Street, Paris, Tennessee 38242
Phone: 731.644.1014 | Tollfree: 1.800.247.6847 | Fax: 731.644.0109 | Email: lsmith *a* lismith.com

NASHVILLE OFFICE 1100 Lebanon Pike, Suite 105 Nashville, Tennessee 37210 | Phone: 615.351.7143
HUNTSVILLE FIELD OFFICE P.O. Box 6816, Huntsville, Alabama 35813 | Phone: 256.847.1382

September 19, 2011

John Beck
Network Development Manager
Bott Radio Network
10550 Barkley
Overland Park, KS 66212

RE: WECV Antenna Survey, Nashville, TN

Mr. Beck:

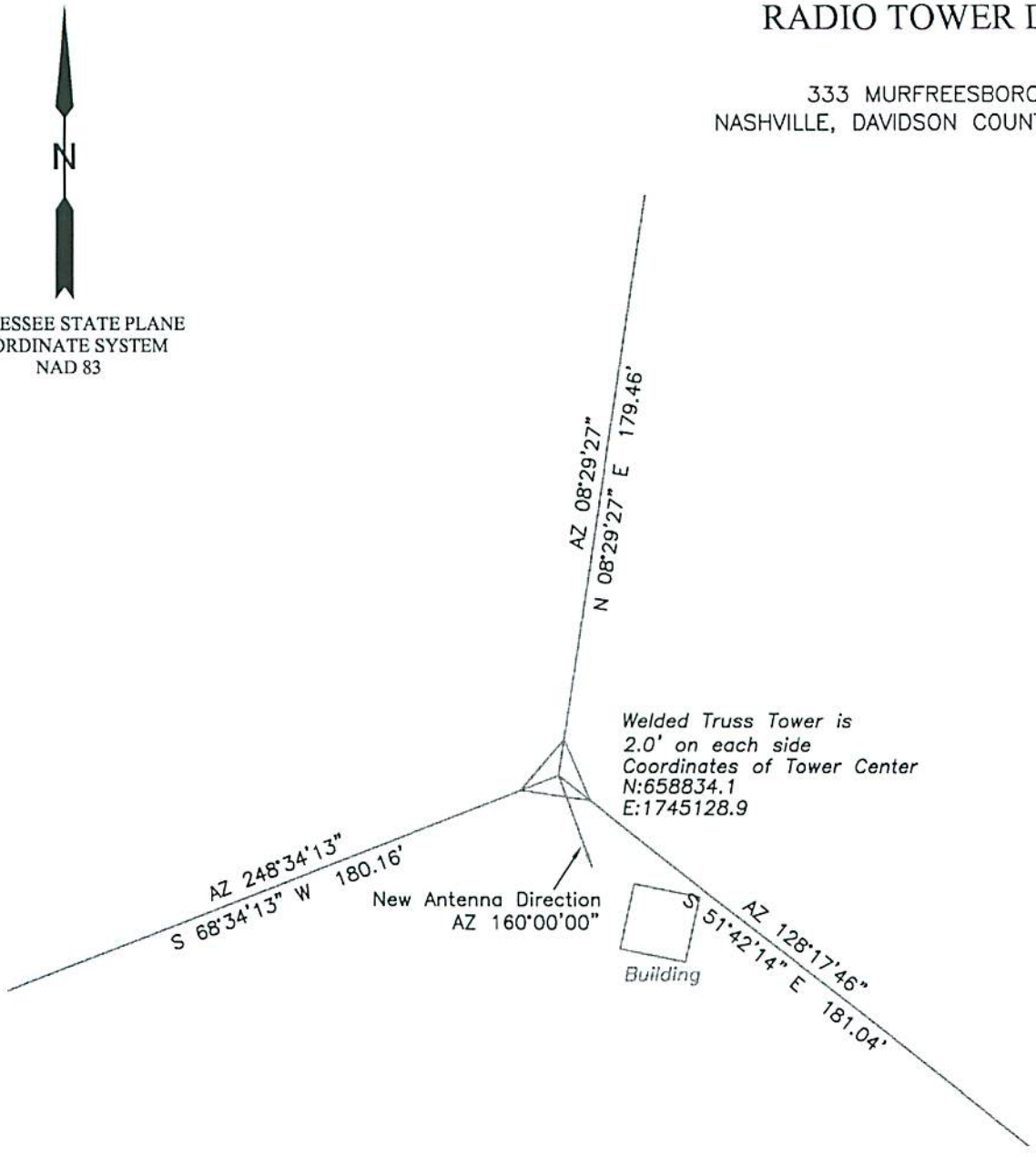
This is a certification of the antenna direction on the radio truss tower located on the campus of Trevecca Nazerene University, in Nashville, Tennessee. Attached is a pdf file showing the azimuths and bearings of the three guy legs and the direction of the antenna on the radio truss tower. The antenna has an azimuth direction of 160 degrees.

If you have any questions, feel free to call.

Thomas A. Young
Survey Manager

RADIO TOWER DETAIL

333 MURFREESBORO ROAD
NASHVILLE, DAVIDSON COUNTY, TENNESSEE



L. I. SMITH & ASSOCIATES, INC.
SURVEYORS · ENGINEERS

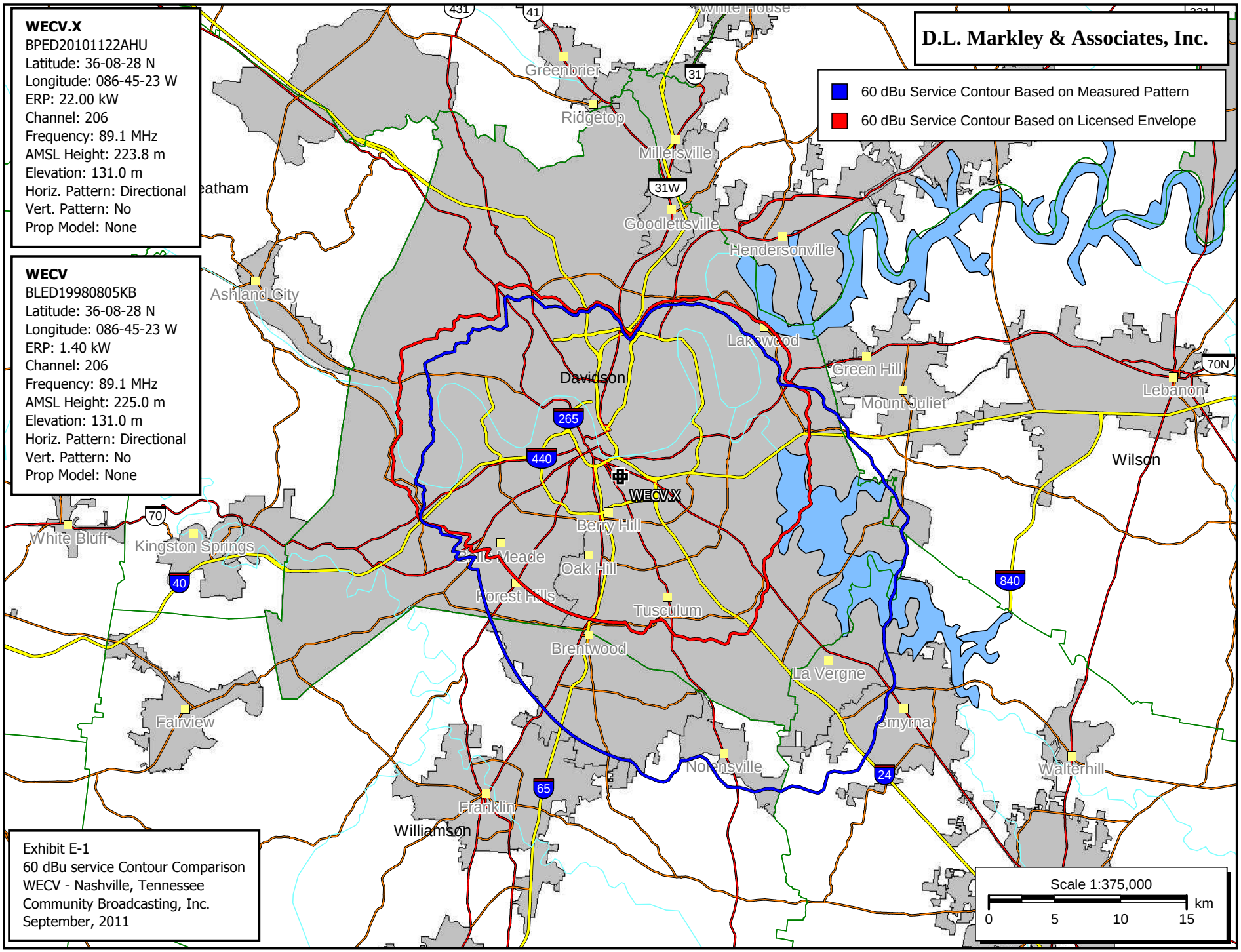
302 North Caldwell Street
Paris, Tennessee 38242
731-644-1014 800-247-6847 FAX 731-644-0109

1100 Lebanon Pike, Suite 105
Nashville, Tennessee 37210
615-351-7143 FAX 615-256-0290

Website: www.lismith.com

SHEET: 1 of 1		
DRAWN BY: TAY	CHECKED BY: TAY	SCALE: 1" = 50'
PROJECT # 6851		DATE: 3/2/2011

Revised 9/18/2011 to show installed antenna.


WECV.X
BPED20101122AHU
Latitude: 36-08-28 N
Longitude: 086-45-23 W
ERP: 22.00 kW
Channel: 206
Frequency: 89.1 MHz
AMSL Height: 223.8 m
Elevation: 131.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
WECV
BLED19980805KB
Latitude: 36-08-28 N
Longitude: 086-45-23 W
ERP: 1.40 kW
Channel: 206
Frequency: 89.1 MHz
AMSL Height: 225.0 m
Elevation: 131.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
D.L. Markley & Associates, Inc.
60 dBu Service Contour Based on Measured Pattern
60 dBu Service Contour Based on Licensed Envelope
Exhibit E-1
60 dBu service Contour Comparison
WECV - Nashville, Tennessee
Community Broadcasting, Inc.
September, 2011
Scale 1:375,000
0 5 10 15 km
Greenbrier
Ridgetop
Millersville
Goodlettsville
Hendersonville
Ashland City
Lakewood
Green Hill
Mount Juliet
Lebanon
Wilson
Davidson
WECV.X
Berry Hill
Oak Hill
Forest Hills
Tusculum
Brentwood
La Vergne
Smyrna
Nolensville
Walterhill
Fairview
White Bluff
Kingston Springs
Franklin
Williamson
431
41
31
31W
265
440
70
40
65
24
840
70N