

**Comprehensive Technical Exhibit**  
*Application for Modification of Construction Permit*  
KRKR(FM) – Lincoln, Nebraska  
FM Channel 236A – 95.1 MHz  
Chapin Enterprises, LLC  
November, 2008

**Application for Modification of Construction Permit**

The following engineering statement and attached exhibits have been prepared for **Chapin Enterprises, LLC** (“Chapin”), licensee of FM broadcast station KRKR(FM) at Lincoln, Nebraska, and are in support of their application for modification of construction permit.<sup>1</sup>

KRKR(FM) is currently licensed to Lincoln, Nebraska on channel 236C2.<sup>2</sup> In addition, Chapin holds an outstanding construction permit, BPH-20070419ADV as modified by BMPH-20080617ACC. Under this construction permit, the city of license was changed from Lincoln, Nebraska to Valley, Nebraska. In addition, the channel of operation and station class of KRKR(FM) was changed from 236C2 to 235A for use at a different transmitter site.

The construction permit for KRKR(FM) was never implemented at Valley, Nebraska, and Chapin seeks now to return KRKR(FM) to its current community of license, Lincoln, Nebraska. The licensee of KCSI(FM) has filed an application to modify the existing construction permit for that facility to change the transmitter site, class, and return the allocation to Red Oak, Iowa from Treynor, Iowa.<sup>3</sup> These changes effectively preclude KRKR(FM) from continuing operation under its licensed parameters. Chapin therefore seeks to return KRKR(FM) to Lincoln, Nebraska as a class A facility authorized under Section 73.215 of the Commission’s Rules.

The proposed facility would operate on channel 236A. The licensed facilities for KRKR(FM) at Lincoln, Nebraska specify operation on channel 236C2. The outstanding construction permit at

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<sup>1</sup> The Facility ID for KRKR(FM) is 54707.

<sup>2</sup> See FCC File No. BLH-19880609KA.

<sup>3</sup> The Facility ID for KCSI(FM) is 26456. See FCC File No. BMPH-20081020AGI.

Valley, Nebraska specifies operation on channel 235A. The proposed facility is therefore in compliance with the provisions of Section 73.203 of the Commission's Rules as it proposes to continue to utilize the currently authorized channel and class but with a change to the community of license. The change in the community of license as well as other items required under paragraph (g) of Section 73.3573 will be subsequently discussed in this exhibit.

As previously discussed, the proposed facility would operate on channel 236A pursuant to Section 73.215 of the Commission's Rules. The allocation for KRKR(FM) at Lincoln, NE on channel 236A would have geographic coordinates of 40-46-07 North Latitude and 96-43-44 West Longitude in the NAD27 datum. This location, suitable for the allocation complies with the applicable sections of the Commission's Rules.

Exhibit E-1 illustrates the predicted 70 dBu service contour for a facility at the allocation site based on class A reference parameters. In addition to this contour plotted in blue, a circle of radius 16.2 kilometers is plotted in red on the map. Both of these constructs fully encompass the proposed community of license, Lincoln, Nebraska. Therefore, sufficient coverage would result from the reference site based not only on real world terrain, but also on uniform flat terrain.<sup>4</sup>

The proposed allocation site also complies with the spacing requirements of Section 73.207 of the Commission's Rules. Exhibit E-2 contains a single channel spacing study for the proposed allocation site. As this study, the spacings would be met to all other existing, authorized, or proposed facilities. The specified allocation coordinates are therefore suitable for use.

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<sup>4</sup> Exhibit E-1 and all subsequent similar exhibits in this application are based on the use of a 30-second linearly interpolated terrain database from NGDC.

The proposed facility, however, would be located at a different set of coordinates, one occupied by an existing tower structure. At this location and the parameters specified on the form pages, the proposed facility would comply with the community coverage requirements of Section 73.315 of the Commission's Rules. Exhibit E-3 illustrates the predicted 70 dBu and 60 dBu service contours for the proposed facility, and demonstrates that the 70 dBu contour would encompass all of Lincoln, Nebraska.

The main studio for the facility complies with the provisions of Section 73.1125 of the Commission's Rules. The physical address for the main studio is 3800 Cornhusker Highway within the city limits of Lincoln, NE. The main studio is not only within the predicted 70 dBu service contour of the proposed facility, but also within the corporate boundaries of the community of license.

As previously discussed, the applicant seeks authorization pursuant to Section 73.215 of the Commission's Rules. Exhibit E-4 contains a single channel spacing study and demonstrates that all spacings under Section 73.207 would be met with the exception of those to the allocation and pending application for KCSI(FM) at Red Oak, Iowa. KCSI(FM) is the facility to which contour protection will be demonstrated.

In Exhibit E-5 the allocation situation relative to the pending application for KCSI(FM) is illustrated. The contours depicted for KRKR(FM) are based on the proposed parameters, while those for KCSI(FM) are based on reference power and height of 50 kW at 150 meters above average terrain. Although the pending application for KCSI(FM) specifies an ERP of 35 kW at a center of radiation of 178 meters above average terrain, the reference power and height have been

utilized since that application was filed under Section 73.207 of the Rules. This exhibit demonstrates that the proposed facility would comply with the contour protection requirements under Section 73.215.

The proposed facility would not constitute a substantial environmental impact. This statement is predicated on the fact that the proposed facility would utilize an existing tower with its addition to this structure not increasing the existing environmental impact. Furthermore, the addition of the proposed facility to this structure would not constitute an RF exposure hazard to persons at the site.

It is proposed that a 3-bay full-wave spaced roto-tiller style antenna be utilized by the facility. The Commission's FM Model software package predicts a maximum power density of 5.17 mW/cm<sup>2</sup> at a distance of 46 meters from the base of the tower. Since this value is less than the 200  $\mu$ W/cm<sup>2</sup> permissible under the uncontrolled environment condition of the applicable safety standard, it is apparent that the proposed facility will not constitute an RF exposure hazard.

No other licensed, authorized, or proposed broadcast facilities would utilize the structure.<sup>5</sup> The applicant will, however, coordinate with any other current and all future users of the site to ensure that workers having access to the tower or other areas of the site are not exposed to levels of radiofrequency radiation which may exceed applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in power or cessation of operation as necessary.

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<sup>5</sup> The CDBS continues to list an STA for KLKN-DT on the proposed tower. See FCC File No. BDSTA-20020812ADA. This STA expired in 2003. In addition, the STA was modified under BMDSTA-20060525AER to specify a different site.

As previously discussed, the applicant seeks to make a minor change to the existing construction permit. As part of the change to the construction permit, a change in the community of license from Valley, Nebraska to Lincoln, Nebraska is requested. This change in the community of license does not strictly represent an increase in the number of facilities serving Lincoln, NE nor does it deprive Valley, NE of an operational full-time aural service.

The outstanding construction permit for KRKR(FM) specifies Valley, Nebraska as the community of license for the allocation, however, the facilities described in that construction permit were never implemented. As a result, KRKR(FM) was never operational from Valley, NE, and therefore is not in the situation of removing a full-time service licensed to that community. The change in the community of license to Lincoln, Nebraska merely is a return to the community currently served by the licensed facility. As a result, a traditional 307(b) analysis does not appear necessary.

It should also be noted that the proposed facility and the current KRKR(FM) construction permit are mutually exclusive with each other. As indicated in Exhibit E-4, the proposed facility would be short spaced to the Valley construction permit under Section 73.207 of the Commission's Rules.<sup>6</sup> The mutual exclusivity is further demonstrated in Exhibit E-6 where it is apparent that prohibited contour overlap would exist between the outstanding construction permit and the proposed KRKR(FM) facilities.

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<sup>6</sup> Exhibit E-2 demonstrates that the proposed allocation site is also short-spaced under Section 73.207 to the Valley construction permit.

Affidavit

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature  
License Expires November 30, 2009

Jeremy D. Ruck, PE  
November 18, 2008

**KRKR.ALLOC**  
ALLOCATION  
Latitude: 40-46-07 N  
Longitude: 096-43-44 W  
ERP: 6.00 kW  
Channel: 236  
Frequency: 95.1 MHz  
AMSL Height: 483.932 m  
Elevation: 366.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Method

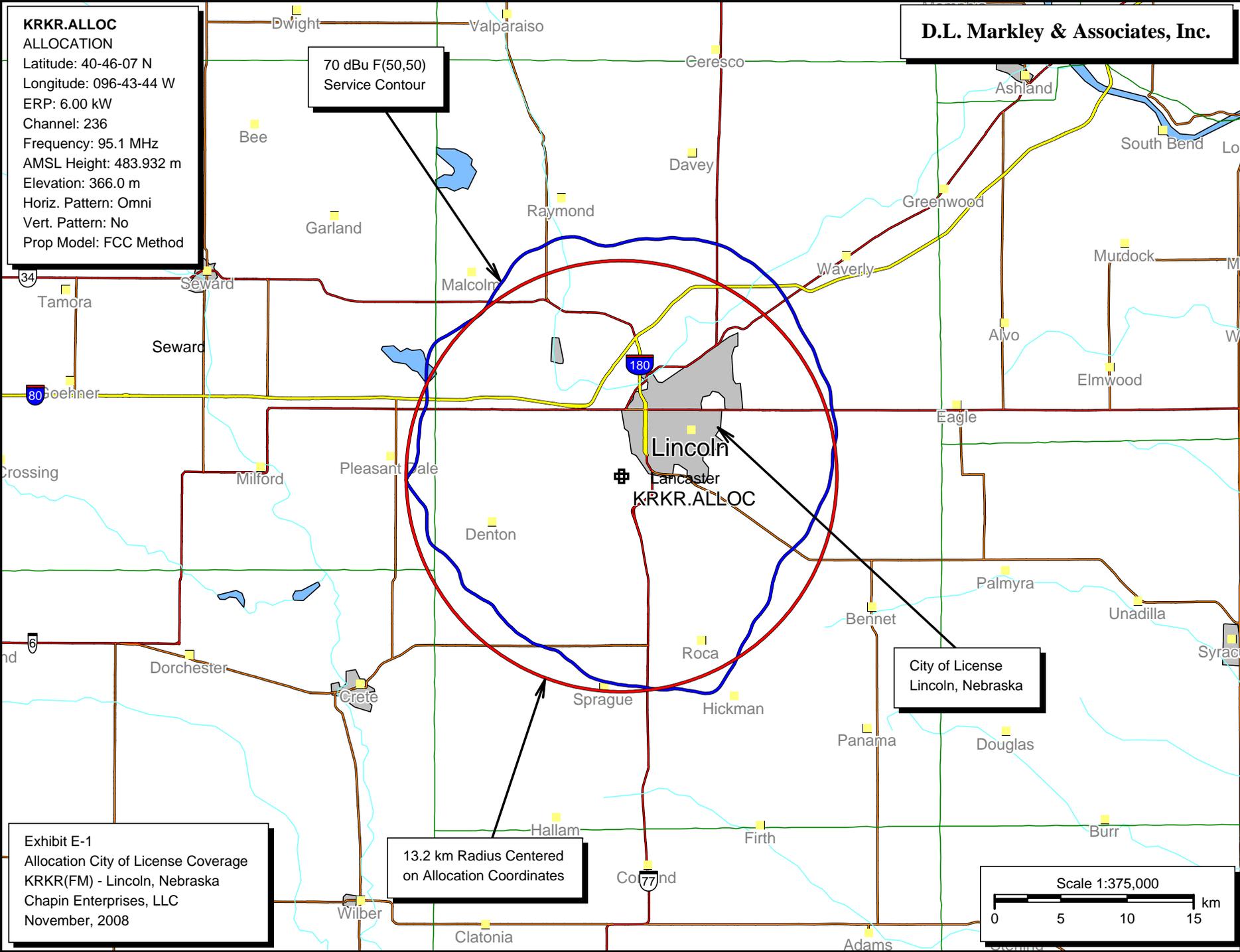
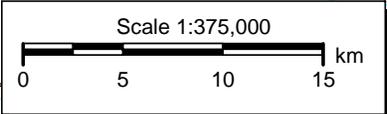
**D.L. Markley & Associates, Inc.**

70 dBu F(50,50)  
Service Contour

City of License  
Lincoln, Nebraska

13.2 km Radius Centered  
on Allocation Coordinates

Exhibit E-1  
Allocation City of License Coverage  
KRKR(FM) - Lincoln, Nebraska  
Chapin Enterprises, LLC  
November, 2008



D.L. Markley & Associates, Inc.  
 Consulting Engineers  
 Exhibit E-2 - Allocation Spacing Study  
 KRKR(FM) - Lincoln, NE - Chapin Enterprises, LLC

REFERENCE		DISPLAY DATES
40 46 07.0 N.	CLASS = A	DATA 11-18-08
96 43 44.0 W.	Current Spacings	SEARCH 11-18-08
----- Channel 236 - 95.1 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
KRKR	LIC 236C2	Lincoln	NE 6.7	23.67	165.5	-141.83
KRKR.C	CP -Z 235A	Valley	NE 30.4	68.81	71.5	-2.69
KCSI	RSV 237C2	Red Oak	IA 69.2	105.60	105.5	0.10
KCSI.A	APP 237C2	Red Oak	IA 69.2	105.60	105.5	0.10
KCSI.C	CP 237C3	Treynor	IA 58.3	102.01	88.5	13.51
KCKS.A	APP-N 235C1	Concordia	KS 209.7	169.15	132.5	36.65
KCKS	LIC-N 235C1	Concordia	KS 209.6	169.49	132.5	36.99
KCSI	LIC 237C3	Red Oak	IA 76.9	131.86	88.5	43.36
KNDY-FM	LIC 238C3	Marysville	KS 180.3	89.78	41.5	48.28
KROA	LIC 239C1	Grand Island	NE 271.4	138.27	74.5	63.77
KKCD	LIC-N 290C2	Omaha	NE 53.3	81.03	14.5	66.53
KNEN	LIC 234C1	Norfolk	NE 330.6	147.87	74.5	73.37
KHCA	LIC 237A	Wamego	KS 169.4	176.06	71.5	104.56
KLIQ	LIC-N 233C1	Hastings	NE 264.8	179.34	74.5	104.84
KCMO-FM.C	CP 235C0	Shawnee	KS 133.4	268.22	151.5	116.72
KCMO-FM	LIC 235C0	Kansas City	MO 133.4	268.22	151.5	116.72
WIBW-FM	LIC 233C0	Topeka	KS 163.3	204.14	85.5	118.64
WIBW-FM.C	CP 233C0	Topeka	KS 160.1	205.55	85.5	120.05
KGLI	LIC 238C1	Sioux City	IA 10.2	197.14	74.5	122.64
RDEL	DEL 235C	Des Moines	IA 69.6	290.73	164.5	126.23
KWOA-FM	LIC 236C1	Worthington	MN 14.9	329.52	199.5	130.02
KSWI	LIC-Z 239C3	Atlantic	IA 64.4	175.61	41.5	134.11
KICT-FM	LIC 236C1	Wichita	KS 192.1	336.85	199.5	137.35
KGGO	LIC 235C0	Des Moines	IA 69.6	290.73	151.5	139.23
RADD	ADD 235C0	Des Moines	IA 69.6	290.73	151.5	139.23
KQKY	LIC 290C	Kearney	NE 264.8	179.34	28.5	150.84
KSUX	LIC-N 289C2	Winnebago	NE 5.6	175.66	14.5	161.16
KBBN-FM	LIC 237C2	Broken Bow	NE 285.9	268.76	105.5	163.26
KCHZ	LIC-N 239C1	Ottawa	KS 142.9	243.20	74.5	168.70
KAAN-FM	LIC 238C2	Bethany	MO 103.8	225.32	54.5	170.82
KKAN-FM	LIC 237A	Phillipsburg	KS 244.7	246.50	71.5	175.00
KLZR	LIC 290C1	Lawrence	KS 150.0	220.99	21.5	199.49
KVOB	LIC 238C3	Lindsborg	KS 199.7	247.54	41.5	206.04
KKEZ	LIC 233C1	Fort Dodge	IA 46.7	284.36	74.5	209.86
KJLT-FM	LIC 235C1	North Platte	NE 275.5	350.77	132.5	218.27

**KRKR.PRO**  
PROPOSED  
Latitude: 40-46-47 N  
Longitude: 096-42-17 W  
ERP: 6.00 kW  
Channel: 236  
Frequency: 95.1 MHz  
AMSL Height: 437.4 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Method

City of License  
Lincoln, Nebraska

**D.L. Markley & Associates, Inc.**

■ 70 dBu Service Contour  
■ 60 dBu Service Contour

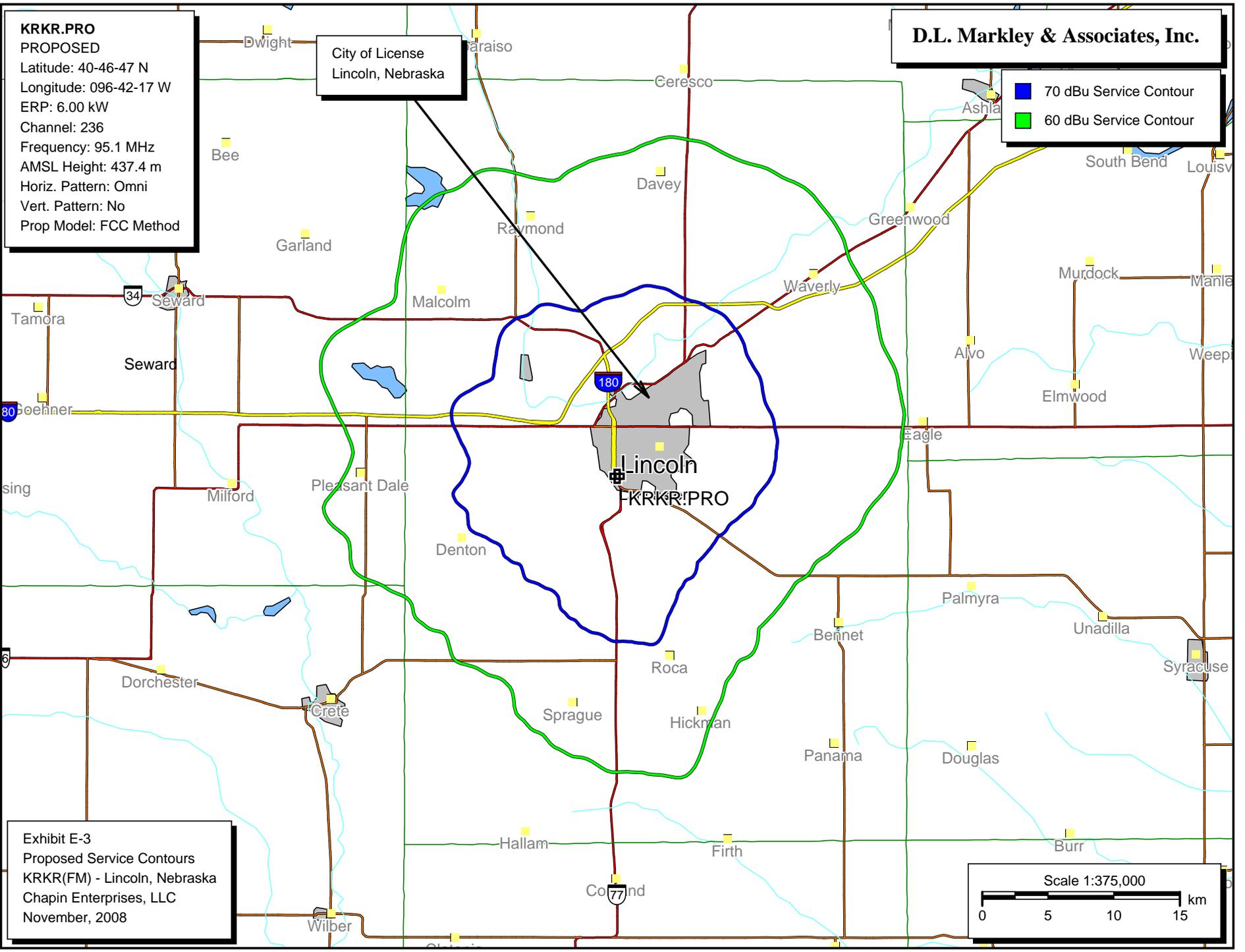
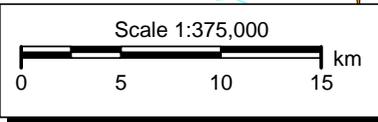


Exhibit E-3  
Proposed Service Contours  
KRKR(FM) - Lincoln, Nebraska  
Chapin Enterprises, LLC  
November, 2008



D.L. Markley & Associates, Inc.  
 Consulting Engineers  
 Exhibit E-4 - Spacing Study  
 KRKR(FM) - Lincoln, NE - Chapin Enterprises, LLC

REFERENCE

40 46 47.0 N.  
 96 42 17.0 W.

CLASS = A  
 Current Spacings

DISPLAY DATES  
 DATA 11-18-08  
 SEARCH 11-18-08

----- Channel 236 - 95.1 MHz -----

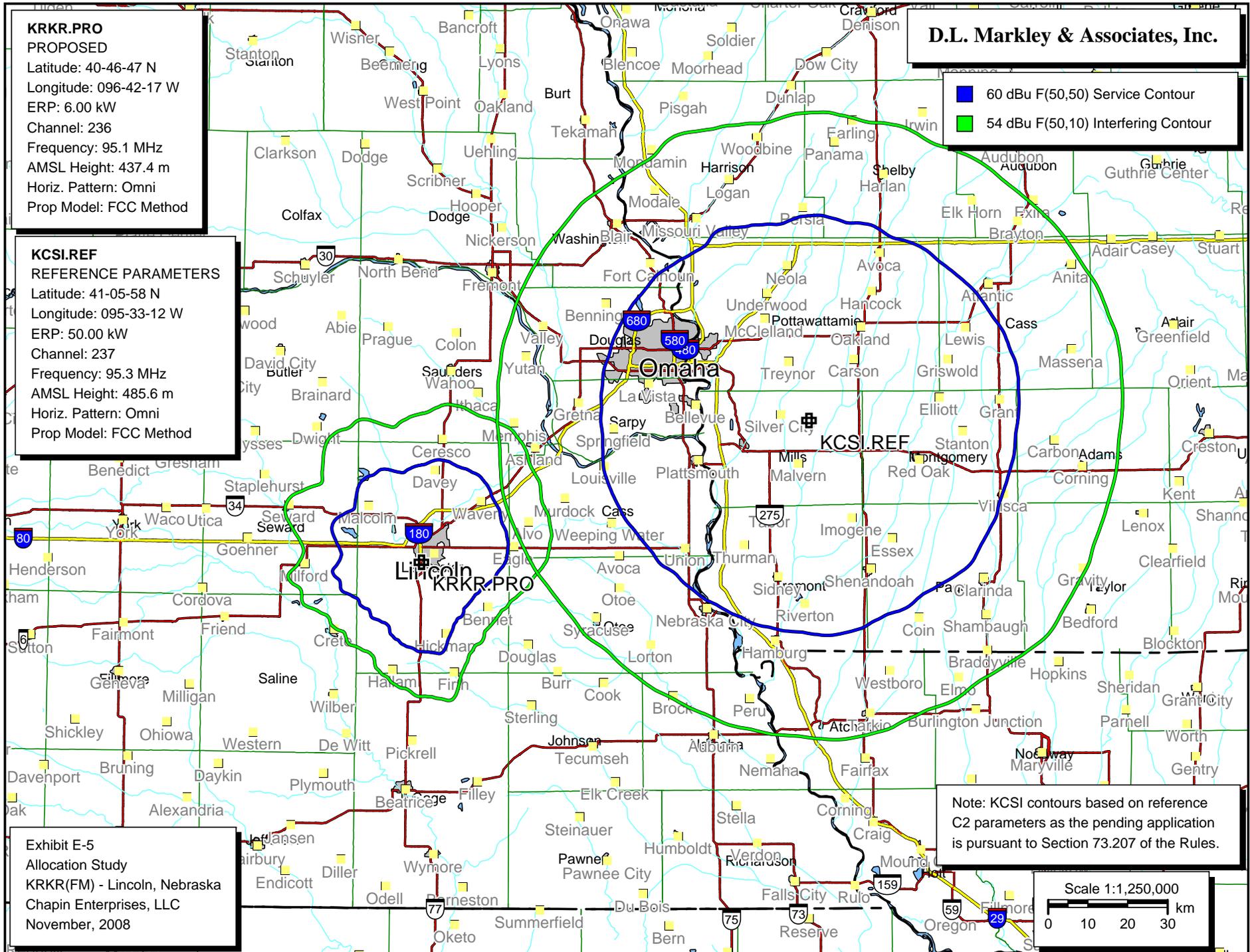
Call	Channel	Location	Azi	Dist	FCC	Margin
KRKR	LIC 236C2	Lincoln	NE 1.9	22.28	165.5	-143.22
KRKR.C	CP -Z 235A	Valley	NE 29.4	66.72	71.5	-4.78
KCSI	RSV 237C2	Red Oak	IA 69.4	103.25	105.5	-2.25
KCSI.A	APP 237C2	Red Oak	IA 69.4	103.25	105.5	-2.25
KCSI.C	CP 237C3	Treynor	IA 58.3	99.63	88.5	11.13
KCKS.A	APP-N 235C1	Concordia	KS 210.1	171.24	132.5	38.74
KCKS	LIC-N 235C1	Concordia	KS 210.0	171.57	132.5	39.07
KCSI	LIC 237C3	Red Oak	IA 77.3	129.59	88.5	41.09
KNDY-FM	LIC 238C3	Marysville	KS 181.6	91.05	41.5	49.55
KKCD	LIC-N 290C2	Omaha	NE 53.1	78.66	14.5	64.16
KROA	LIC 239C1	Grand Island	NE 270.8	140.29	74.5	65.79
KNEN	LIC 234C1	Norfolk	NE 329.7	147.82	74.5	73.32
KHCA	LIC 237A	Wamego	KS 170.1	176.91	71.5	105.41
KLIQ	LIC-N 233C1	Hastings	NE 264.4	181.49	74.5	106.99
KCMO-FM	LIC 235C0	Kansas City	MO 133.9	267.59	151.5	116.09
KCMO-FM.C	CP 235C0	Shawnee	KS 133.9	267.59	151.5	116.09
WIBW-FM	LIC 233C0	Topeka	KS 164.0	204.75	85.5	119.25
WIBW-FM.C	CP 233C0	Topeka	KS 160.7	206.03	85.5	120.53
KGLI	LIC 238C1	Sioux City	IA 9.7	195.57	74.5	121.07
RDEL	DEL 235C	Des Moines	IA 69.7	288.39	164.5	123.89
KWOA-FM	LIC 236C1	Worthington	MN 14.6	327.80	199.5	128.30
KSWI	LIC-Z 239C3	Atlantic	IA 64.5	173.23	41.5	131.73
RADD	ADD 235C0	Des Moines	IA 69.7	288.39	151.5	136.89
KGGO	LIC 235C0	Des Moines	IA 69.7	288.39	151.5	136.89
KICT-FM	LIC 236C1	Wichita	KS 192.4	338.49	199.5	138.99
KQKY	LIC 290C	Kearney	NE 264.4	181.49	28.5	152.99
KSUX	LIC-N 289C2	Winnebago	NE 5.0	174.24	14.5	159.74
KBBN-FM	LIC 237C2	Broken Bow	NE 285.5	270.40	105.5	164.90
KCHZ	LIC-N 239C1	Ottawa	KS 143.4	242.95	74.5	168.45
KAAN-FM	LIC 238C2	Bethany	MO 104.3	223.64	54.5	169.14
KKAN-FM	LIC 237A	Phillipsburg	KS 244.6	248.87	71.5	177.37
KLZR	LIC 290C1	Lawrence	KS 150.6	221.05	21.5	199.55
KKEZ	LIC 233C1	Fort Dodge	IA 46.6	282.02	74.5	207.52
KVOB	LIC 238C3	Lindsborg	KS 200.1	249.40	41.5	207.90

**KRKR.PRO**  
PROPOSED  
Latitude: 40-46-47 N  
Longitude: 096-42-17 W  
ERP: 6.00 kW  
Channel: 236  
Frequency: 95.1 MHz  
AMSL Height: 437.4 m  
Horiz. Pattern: Omni  
Prop Model: FCC Method

**KCSI.REF**  
REFERENCE PARAMETERS  
Latitude: 41-05-58 N  
Longitude: 095-33-12 W  
ERP: 50.00 kW  
Channel: 237  
Frequency: 95.3 MHz  
AMSL Height: 485.6 m  
Horiz. Pattern: Omni  
Prop Model: FCC Method

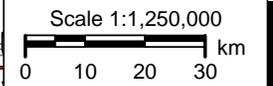
**D.L. Markley & Associates, Inc.**

60 dBu F(50,50) Service Contour  
54 dBu F(50,10) Interfering Contour



Note: KCSI contours based on reference C2 parameters as the pending application is pursuant to Section 73.207 of the Rules.

Exhibit E-5  
Allocation Study  
KRKR(FM) - Lincoln, Nebraska  
Chapin Enterprises, LLC  
November, 2008



**KRKR.PRO**  
PROPOSED  
Latitude: 40-46-47 N  
Longitude: 096-42-17 W  
ERP: 6.00 kW  
Channel: 236  
Frequency: 95.1 MHz  
AMSL Height: 437.4 m  
Horiz. Pattern: Omni  
Prop Model: FCC Method

**KRKR.CP**  
BMPH20080617ACC  
Latitude: 41-18-07 N  
Longitude: 096-18-44 W  
ERP: 6.00 kW  
Channel: 235  
Frequency: 94.9 MHz  
AMSL Height: 459.9 m  
Horiz. Pattern: Directional  
Prop Model: FCC Method

Exhibit E-6  
Mutual Exclusivity Study  
KRKR(FM) - Lincoln, Nebraska  
Chapin Enterprises, LLC  
November, 2008

**D.L. Markley & Associates, Inc.**

- 60 dBu F(50,50) Service Contour
- 54 dBu F(50,10) Interference Contour
- Areas of Prohibited Contour Overlap

