

***COMPREHENSIVE TECHNICAL EXHIBIT
REQUEST FOR SPECIAL TEMPORARY AUTHORITY***

FM Translator Station K209EC
BLFT-20010724ABT / Facility ID: 92765
Kansas City, Missouri

Community Broadcasting, Inc.

June, 2012

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6.15.2012

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

The following engineering statement and attached exhibits have been prepared for **Community Broadcasting, Inc.** ("CBI"), licensee of FM translator station K209EC at Kansas City, Missouri, and are in support of their request for special temporary authority.¹

This request proposes the use of an alternate site by the translator in order to return to operation on a temporary basis until the construction of the new permanent facility can be implemented. The translator was acquired by the current licensee in 2010. The licensed transmitter site is no longer available. The translator has been silent since June 29, 2011, thus implementation of this STA is necessary to preserve the license until issues plaguing the facility authorized in BPFT-20111214ADM can be rectified. CBI has been working to implement a final facility for the translator, and will continue to do so while operating pursuant to the parameters proposed in this STA.

K209EC is licensed to operate with an effective radiated power of 205 Watts at a center of radiation of 343 meters AMSL from the tower bearing 1057465 as its antenna structure registration number utilizing a directional antenna. The proposed STA facility would operate with an effective radiated power of 3 Watts at a center of radiation of 482 meters AMSL utilizing an Electronics Research, Inc. (ERI) LPX-2E non-directional antenna. The tower on which this antenna is located has been assigned 1211744 as its antenna structure registration number. This combination of parameters causes the predicted 60 dBu service contour of the STA to be wholly contained within

¹ The Facility ID for K209EC at Kansas City, Missouri is 92765.

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the predicted 60 dBu service contour of the licensed facility. Exhibit E-1 illustrates the predicted 60 dBu contour of the licensed translator facility, and the proposed STA facility.

The primary station during the operation of the special temporary authority would be co-owned KSIV-FM at St. Louis, Missouri.² Due to the distance separation between the two facilities, the translator would not function as a fill-in translator. Of the twelve translator cardinal radials, the 180 degree true radial has the lowest average elevation at 191.9 meters above mean sea level. This results in the transmitting antenna having a center of radiation of 191.9 meters above average terrain. The proposed maximum effective radiated power of 3 Watts is consistent with the power/height limitation table in Section 74.1235(b)(2) of the Commission's Rules. Delivery of program material to the translator will be via an internet stream.

The proposed STA would not result in predicted interference to any proposed or authorized facility. Exhibit E-2 is a tabular allocation study for the proposed facility. This study demonstrates that there is predicted contour overlap with KCUR-FM and KKFI, both at Kansas City, Missouri, but this overlap would not result in predicted interference to either facility.³ The tabular allocation study is illustrated in the map that is Exhibit E-3.

Although there would be normally prohibited contour overlap between the proposed facility and both KCUR-FM and KKFI, no interference to either facility would result. Both KCUR-FM and KKFI are located in close proximity to the proposed K209EC STA site. Respectively they are

² The Facility ID for KSIV-FM at St. Louis, Missouri is 4276.

³ The Facility ID for KCUR-FM at Kansas City, Missouri is 14738. The Facility ID for KKFI at Kansas City, Missouri is 41857.

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located 1.11 and 0.95 kilometers distant. Exhibit E-4 illustrates the predicted field strength by the FCC method of these two stations in the immediate vicinity of the STA facility.

The predicted field strength of KCUR-FM is 126 dBu, while that of KKFI is 127.5 dBu. Since KCUR-FM and KKFI are both second adjacent to the proposed translator STA, interference is assumed to occur when the undesired signal from the translator is more than 40 dB above the signal level of the desired FM facilities. For brevity it will be assumed that the field strength in both cases is 126 dBu, thus interference is predicted to occur only in those areas where the translator field strength is 166 dBu or greater. It can logically be inferred that this area would be at an extremely close range from the proposed translator antenna. Since the translator antenna is located 213 meters above ground level, it logically follows that any interference area, should it exist, would be highly localized in the vicinity of the antenna some 700 feet above ground level.

More simply the effective radiated power of both KCUR-FM and KKFI is 100 kW. The proposed ERP of the translator is 3 Watts. The difference between these two values is 45 dB. By this difference alone it can logically be inferred that no interference would result to either station.

The proposed facility would comply with the television channel six interference provisions of Section 74.1205. The closed proposed or authorized facility operating on channel six of any type is at Columbia, MI, and is located 186 kilometers from the site of the proposed translator. The table in Section 74.1205 specifies that a channel six station located less than 135 kilometers from the proposed translator must be considered. The actual distance between the proposed STA site and the site of any television channel six facility is 185.94 kilometers. Therefore, the proposed facility would not affect any channel six facilities.

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The proposed facility would not constitute a significant environmental impact. An existing tower registered with the Commission would be utilized. Thus, the addition of the translator would not increase the existing environmental impact already present from the structure. The facility would not result in general population exposure to levels of non-ionizing radiation in excess of the applicable safety standards.

From the Commission's *FM Model* software package, the predicted power density at ground level is $0.00065 \mu\text{W}/\text{cm}^2$. This is 0.0003 percent of the upper limit of $200 \mu\text{W}/\text{cm}^2$ permissible. The proposed facility is therefore categorically excluded. CBI certifies that it will coordinate with all other users of the site to ensure that workers are not exposed to levels of non-ionizing radiation in excess of the applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in power or cessation of operation as necessary.

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, 2013

Jeremy D. Ruck, PE
June 15, 2012

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K209EC

BLFT20010724ABT
Latitude: 39-04-59 N
Longitude: 094-28-49 W
ERP: 0.205 kW
Channel: 209
Frequency: 89.7 MHz
AMSL Height: 343.0 m
Elevation: 252.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

K209EC.STA

PROPOSED STA
Latitude: 39-05-26 N
Longitude: 094-28-18 W
ERP: 0.003 kW
Channel: 209
Frequency: 89.7 MHz
AMSL Height: 482.0 m
Elevation: 269.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

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- Licensed K209EC 60 dBu Service Contour
- STA K209EC 60 dBu Service Contour

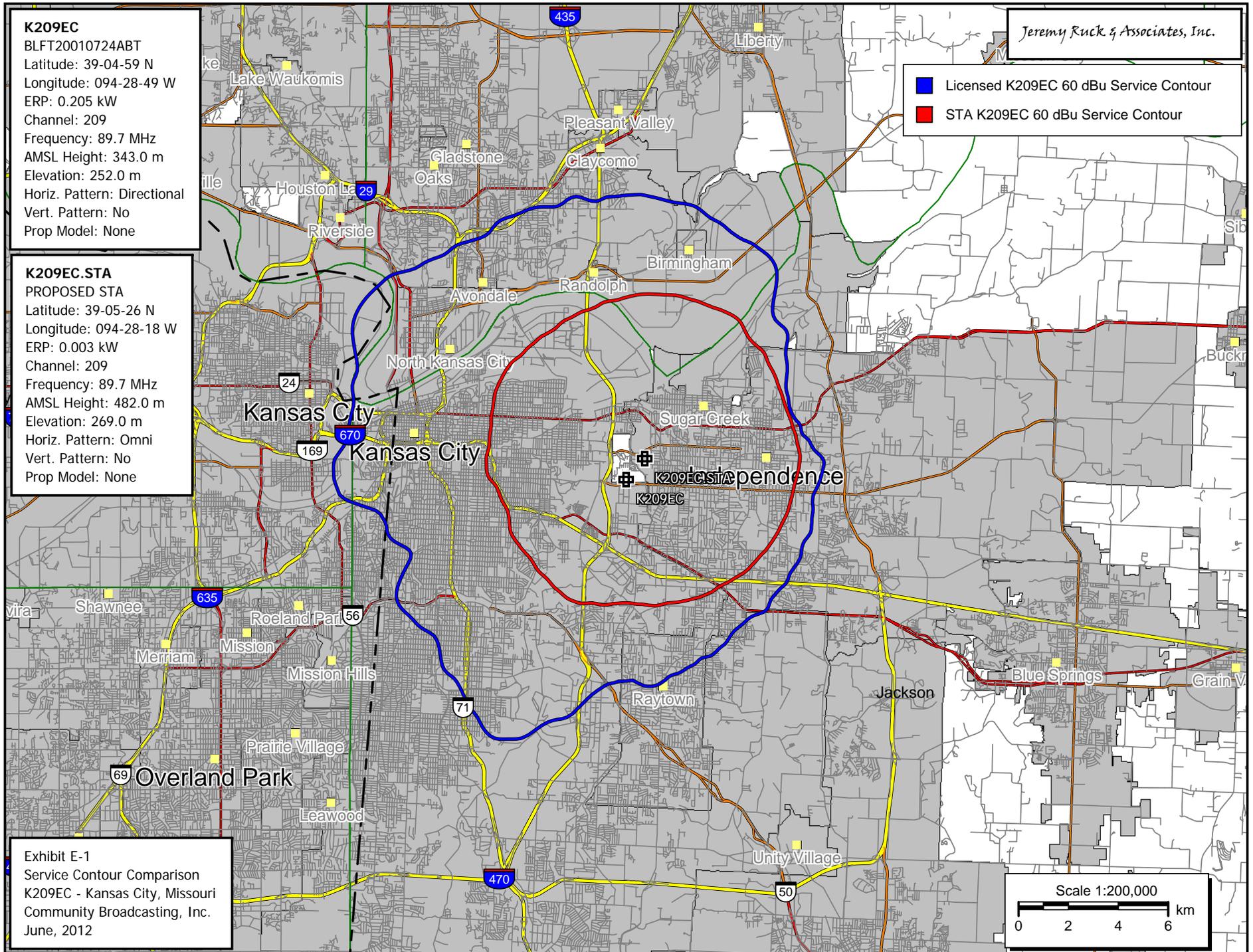
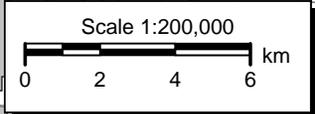


Exhibit E-1
Service Contour Comparison
K209EC - Kansas City, Missouri
Community Broadcasting, Inc.
June, 2012



Jeremy Ruck & Associates, Inc.
 Consulting Engineers - Canton, Illinois

Exhibit E-2 - Tabular Allocation Study
 K209EC - Kansas City, Missouri
 CH# 209D - 89.7 MHz, Pwr= 0.003 kW DA, HAAT= 224.9 M, COR= 482 M
 Average Protected F(50-50)= 6.27 km
 Standard Directional

REFERENCE
 39 05 26.0 N.
 94 28 18.0 W.

DISPLAY DATES
 DATA 06-13-12
 SEARCH 06-15-12

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
207C1 Kansas City	KCUR-FM	LIC_CN	MO	221.7 41.7	1.11 BMLED19920728KC	39 04 59.0 94 28 49.0	100.000 250	9.4 512	69.0 The Curators Of The Uni ver	-14.4*	-68.0*
211C1 Kansas City	KKFI	LIC_CN	MO	227.0 47.0	0.95 BLED19880302KA	39 05 05.0 94 28 47.0	100.000 129	7.0 392	57.8 Mid-coast Radio Project, I	-12.1*	-57.0*
209C2 Country Club	KJCV-FM	LIC DCX	MO	341.8 161.6	76.63 BLED20100707FCN	39 44 42.0 94 45 06.0	25.000 106	116.4 386	41.3 Community Broadcasting, In	-45.7*	13.8
209D Kansas City	K209EC	LIC DV_	MO	221.7 41.7	1.11 BLFT20010724ABT	39 04 59.0 94 28 49.0	0.205 81	30.0 343	9.0 Community Broadcasting, In	-35.0*	-29.0*
209C3 Knob Noster	KCVQ	LIC_C_	MO	106.9 287.4	83.40 BLED20120202ACI	38 52 10.0 93 32 58.0	7.700 70	86.4 296	26.1 Lake Area Educational Broa	-7.2*	42.6
209A Paola	KWJP	LIC DCX	KS	211.5 31.2	79.42 BLED20110623ACP	38 28 49.0 94 56 53.0	4.500 68	67.1 349	19.4 Gospel To The Nations Mini	6.4	36.2
209D St. Joseph	K209CT	LIC_C_	MO	339.2 159.0	76.67 BLFT19991104ABZ	39 44 05.0 94 47 26.0	0.170 90	37.4 367	10.9 Community Broadcasting, In	33.4	44.9
209A Baldwin City	KNBU	LIC_CN	KS	241.0 60.6	70.92 BLED19920407KF	38 46 45.0 95 11 15.0	0.100 36	21.4 338	6.4 Baker University	43.5	43.3
06 D Columbia	1337131	AP __N	MO	94.6 276.0	185.46 BNPDVL20091020AAM	38 56 12.0 92 20 02.0	0.300 58	0.1 236	46.6 Live Sports Radio, Inc.	0. OR	185.5M
06 D Rolla	1330630	AP __N	MO	117.3 299.0	265.16 BNPDVL20090825BJS	37 57 54.0 91 47 01.0	0.300 214	0.1 470	46.6 Alma Corporation	0. OR	265.2M
06Z2 Hutchinson	616942	AP __HN	KS	250.1 67.7	358.00 BPRM20011009AEG	37 55 43.0 98 18 36.0	0.000	0.1 0	46.6 Sierra Grande Broadcasti ng	0. OR	358.0M
06 D Sioux City	K06QG-D	CP __N	IA	339.8 158.7	415.61 BMJADVL20100519AAZ	42 35 12.0 96 13 19.0	0.300 593	0.1 956	46.6 Hispanic Family Christian	0. OR	415.6M

Terrain database is NED 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beam tilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside protected contour.
 Reference station has protected zone issue: AM tower

K209EC.STA
PROPOSED STA
 Latitude: 39-05-26 N
 Longitude: 094-28-18 W
 ERP: 0.003 kW
 Channel: 209
 Frequency: 89.7 MHz
 AMSL Height: 482.0 m
 Elevation: 269.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

Jeremy Ruck & Associates, Inc.

- 60 dBu F(50,50) Service Contour
- 40 dBu F(50,10) Interference Contour
- 54 dBu F(50,10) Interference Contour
- 100 dBu F(50,10) Interference Contour

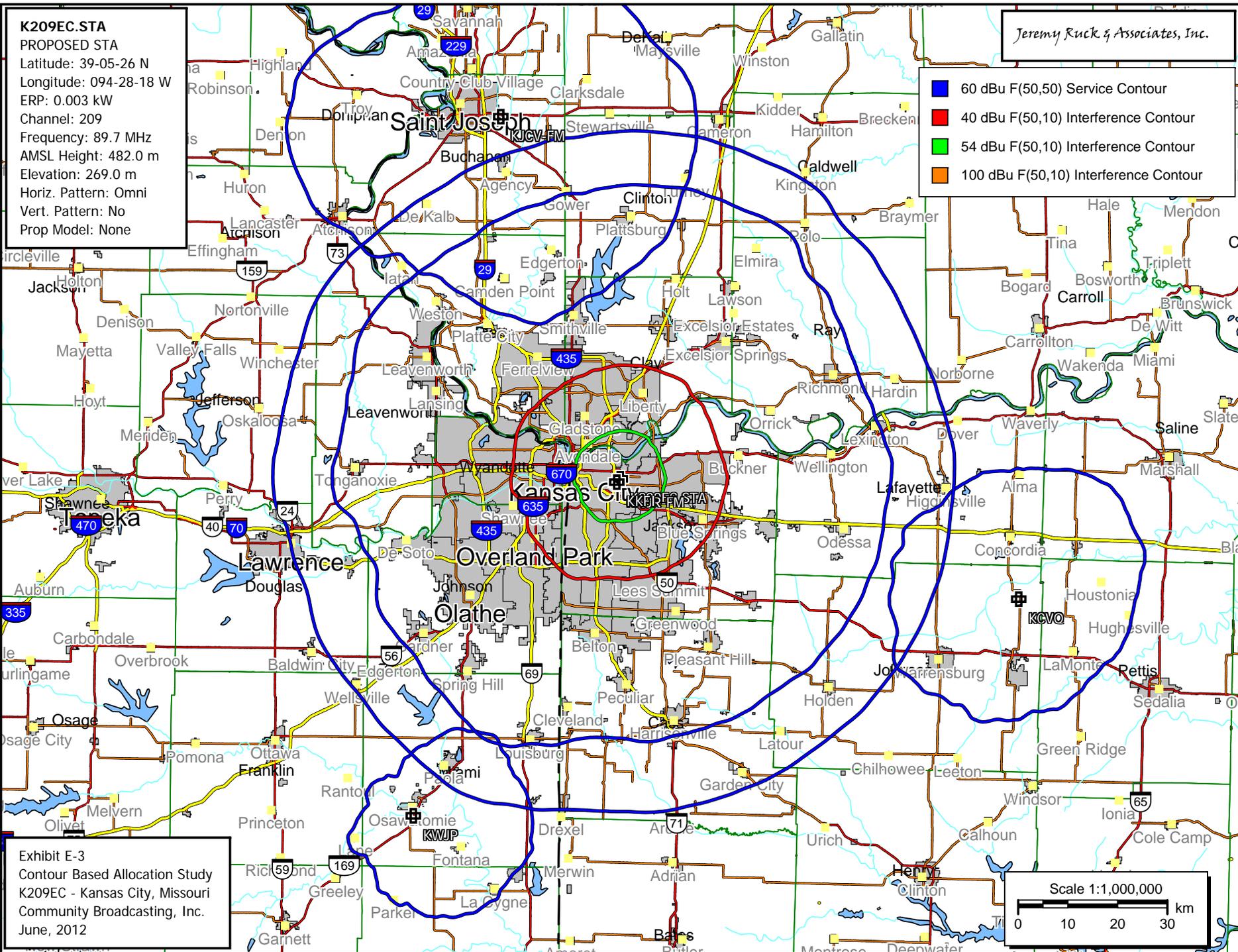


Exhibit E-3
 Contour Based Allocation Study
 K209EC - Kansas City, Missouri
 Community Broadcasting, Inc.
 June, 2012



K209EC.STA
 Proposed STA
 Latitude: 39-05-26 N
 Longitude: 094-28-18 W
 ERP: 0.003 kW
 Channel: 209
 Frequency: 89.7 MHz
 AMSL Height: 482.0 m
 Elevation: 269.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

KCUR-FM
 BMLD19920728KC
 Latitude: 39-04-59 N
 Longitude: 094-28-49 W
 ERP: 100.00 kW
 Channel: 207
 Frequency: 89.3 MHz
 AMSL Height: 512.0 m
 Elevation: 251.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

KKFI
 BLE19880302KA
 Latitude: 39-05-05 N
 Longitude: 094-28-47 W
 ERP: 100.00 kW
 Channel: 211
 Frequency: 90.1 MHz
 AMSL Height: 392.0 m
 Elevation: 253.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

Exhibit E-4
 Allocation Study
 K209EC - Kansas City
 Community Broadcasting, Inc.
 June, 2012

Jeremy Ruck & Associates, Inc.

 KCUR-FM 126 dBu F(50,50) Service Contour
 KKFI 127.5 dBu F(50,50) Service Contour

K209EC STA
 Transmitter Site

Site of KKFI
 Transmitter

Site of KCUR-FM
 Transmitter

