

APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT

K258DL – TROY, MISSOURI
FACILITY ID: 201712 / BNPFT-20170802AES
105.3 MHz / 250 W ERP ND

KYRO GROUP, LLC

SEPTEMBER 2019

APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **KYRO Group, LLC** ("KYRO"), permittee of FM translator station K258DL at Wentzville, Missouri, and are in support of their application for modification of construction permit.¹ This application seeks to relocate the facility, change the community of license, and channel of operation. No change in the primary station associated with the facility is proposed under this application.

The facility is authorized to operate on FM channel 258 with an effective radiated power of 250 Watts at a center of radiation of 250 meters above mean sea level, 70 meters above ground, utilizing a non-directional antenna. The proposed facility would operate on FM channel 287, also with an effective radiated power of 250 Watts and a non-directional antenna, but with a center of radiation of 242 meters above mean sea level, 52 meters above ground level. The proposed changes to the facility would constitute a minor change to the existing authorization.

As previously mentioned, KYRO proposes a relocation of the facility. The current construction permit specifies an antenna location at the tower assigned 1004191 as its Antenna Structure Registration Number. At the time of the submission of the long-form application for K258DL, the applicant had reasonable site assurance for use of the site. Since the submission of that application, the reasonable availability has been rescinded. As a result, KYRO has had to identify a different site for use. Exhibit E-1 makes a comparison between the authorized and proposed 60 dBu service contours, and demonstrates that overlap would occur between both.

¹ The Facility ID for K258DL is 201712.

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The primary station for the facility is AM station KYRO at Troy, Missouri. No change in the primary station is proposed under this application. Exhibit E-2 provides a comparison between the proposed 60 dBu service contour of the translator, and both the 2 mV/m daytime service contour of KYRO and a twenty-five mile radius centered on the KYRO transmitter site. As this map demonstrates, the proposed 60 dBu service contour would be wholly contained within both of the KYRO constructs.

This application proposes a change in the channel specified on the current construction permit. The proposed change in the channel is an intra-band change and is necessary due to interference issues. Channel 258, the current channel, is usable at the current site when analyzed pursuant to Section 74.1204(d) of the Commission's Rules. However, at the site proposed under this application, that channel is no longer viable due to the low field strength of second adjacent FM station KLJY at Clayton, Missouri.² Simply put, at the proposed site, KYRO is unable to reasonably demonstrate compliance with Section 74.1204, regardless of whether an alternate method under 74.1204(d) is used or not. The proposed facility on channel 287 would comply with Section 74.1204 of the Commission's Rules without the necessity of using Section 74.1204(d).

Exhibit E-3 is a tabular interference study for the proposed facility on channel 287 from the proposed site. This study demonstrates that the proposed facility would comply with all of the contour overlap requirements under Section 74.1204 of the Commissions' Rules. This tabular study is graphically depicted in the contour map comprising Exhibit E-4.

² The Facility ID for KLJY(FM) at Clayton, Missouri is 65924.

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The proposed facility would not constitute a significant environmental impact and is exempt from environmental processing. This application proposes the use of an existing structure that does not require registration with the Commission. The addition of the proposed antenna to this structure will not increase the already existing environmental impact present from this structure.

Additionally, the proposed facility would not constitute a radiofrequency radiation hazard to persons at the site. The Commission's on-line *FM Model* utility calculates a maximum power density of $1.85 \mu\text{W}/\text{cm}^2$ at a distance of 51 meters from the tower base. This value complies with the uncontrolled environment condition of the Commission's safety standard and is sufficiently low to categorically exclude the facility. The calculated value was based on the specified height and ERP, and a type-2 antenna.

KYRO certifies that it will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

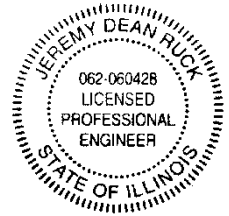
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9.16.2019

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, 2021

Jeremy D. Ruck, PE
September 16, 2019

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9.16.2019

K258DL.C

BNPFT20171220ABL
Latitude: 38-49-11 N
Longitude: 090-52-05 W
ERP: 0.25 kW
Channel: 258
Frequency: 99.5 MHz
AMSL Height: 250.0 m
Horiz. Pattern: Omni
Prop Model: None

K258DL.X

BNPFT20171220ABL
Latitude: 38-59-22 N
Longitude: 090-54-11 W
ERP: 0.25 kW
Channel: 287
Frequency: 105.3 MHz
AMSL Height: 242.0 m
Horiz. Pattern: Omni
Prop Model: None

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- Proposed 60 dBu Service Contour
- Authorized 60 dBu Service Contour
- Area of Contour Overlap

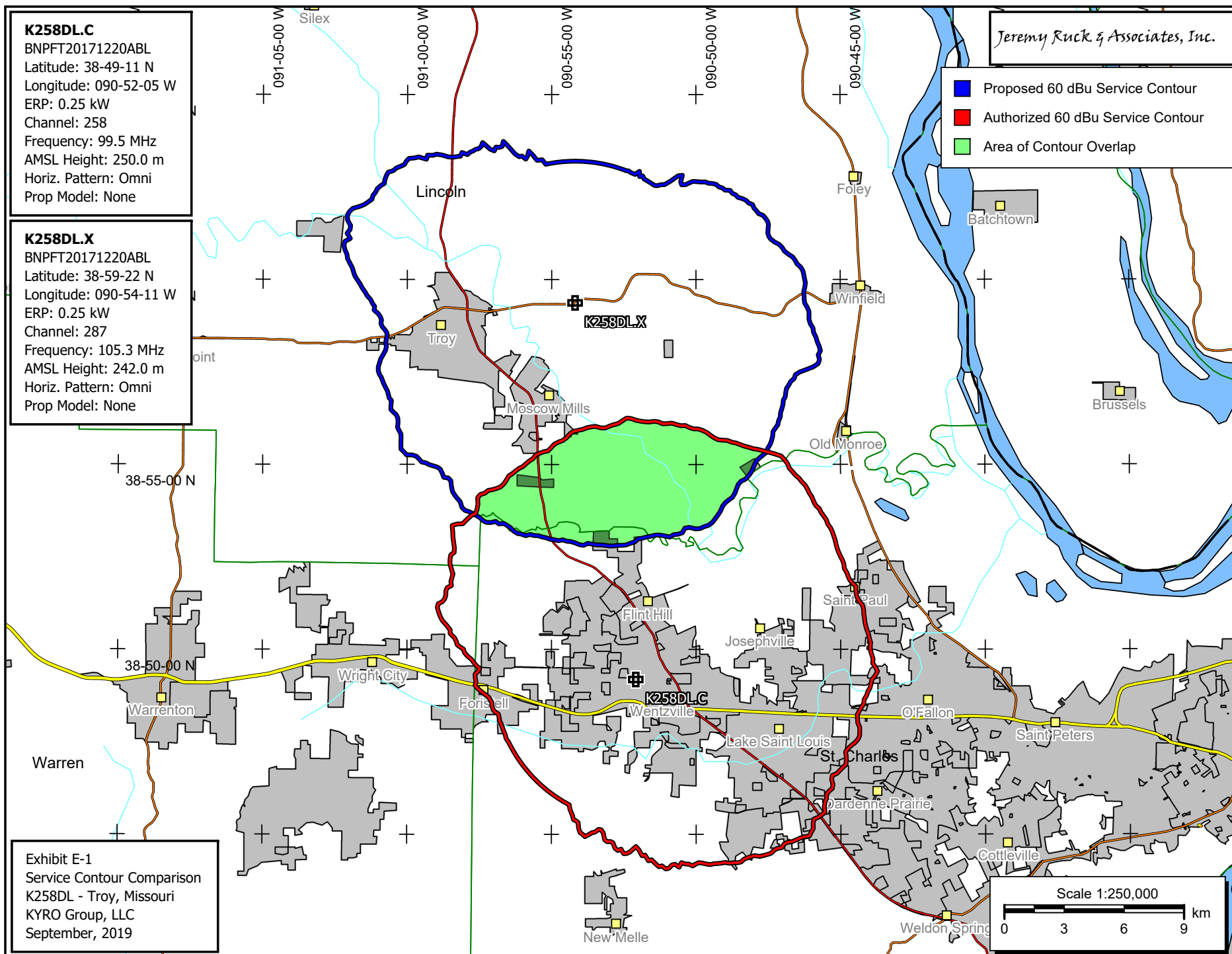


Exhibit E-1
Service Contour Comparison
K258DL - Troy, Missouri
KYRO Group, LLC
September, 2019

K258DL.X

BNPFT20171220ABL

Latitude: 38-59-22 N

Longitude: 090-54-11 W

ERP: 0.25 kW

Channel: 287

Frequency: 105.3 MHz

AMSL Height: 242.0 m

Elevation: 187.835 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

Jeremy Ruck & Associates, Inc.

■ K258DL Proposed 60 dBu Service Contour

■ KYRO Daytime 2 mV/m Contour

■ KYRO 25 mile site radius

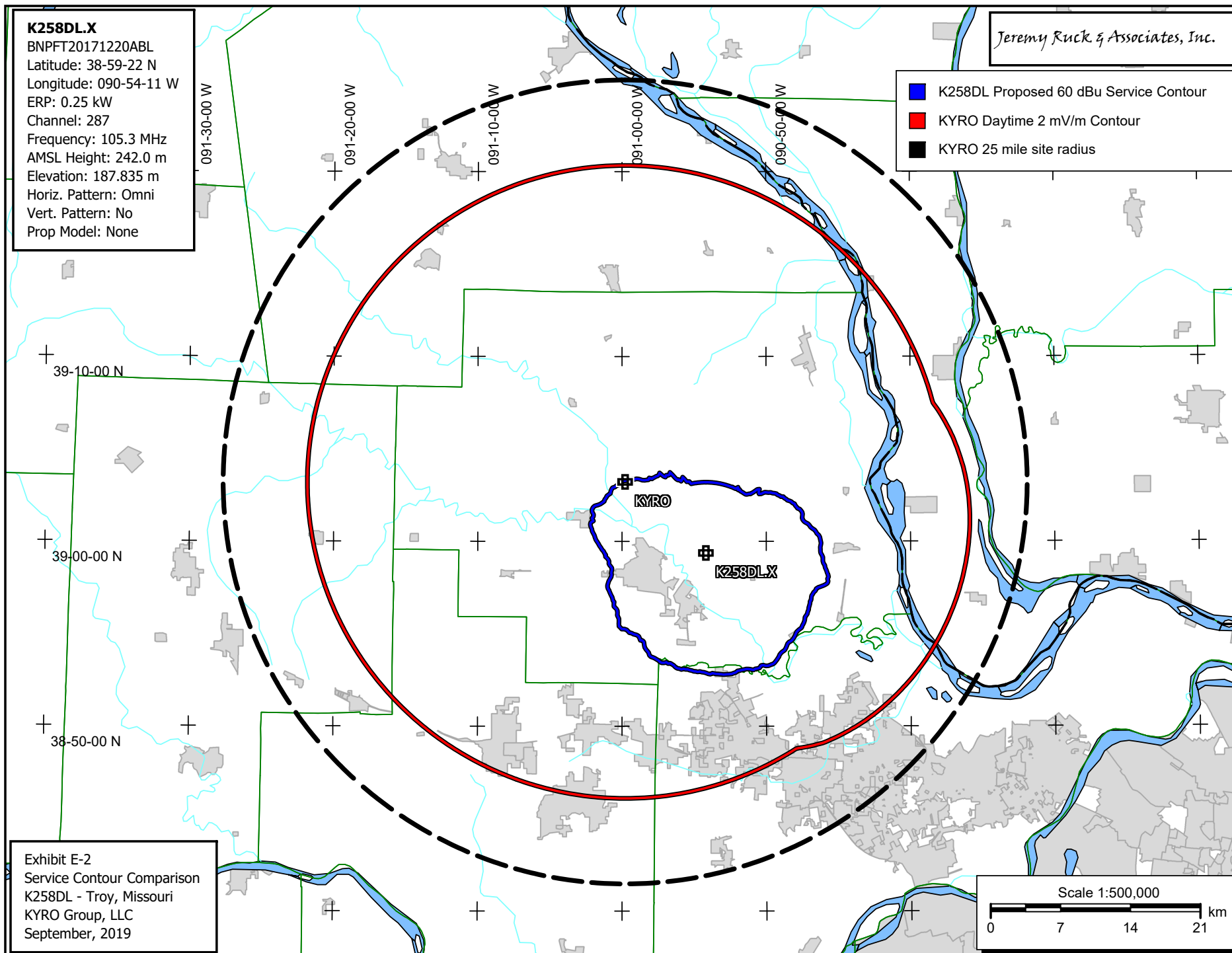


Exhibit E-2
Service Contour Comparison
K258DL - Troy, Missouri
KYRO Group, LLC
September, 2019

Scale 1:500,000
0 7 14 21 km

Exhibit E-3 - Tabular Interference Study

K258DL - Troy, Missouri

REFERENCE CH# 287D - 105.3 MHz, Pwr= 0.25 kW, HAAT= 65.7 M, COR= 242 M
38 59 22.2 N. Average Protected F(50-50)= 10.59 km
90 54 11.3 W. Omni-directional

DISPLAY DATES
DATA 09-16-19
SEARCH 09-16-19

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
287C1 Rolla	KZNN	LIC _CN MO	211.0 30.4	143.77 BLH19861103KB	37 52 39.0 91 44 45.0	100.000 192	160.6 498	62.7 Kttr-kznn, Inc.	-28.5*	41.2
287A Staunton	WAOX	LIC _C_ IL	86.2 266.9	99.88 BLH19991206AAL	39 02 37.0 89 44 56.0	6.000 87	85.0 272	26.7 Talley Broadcasting Corpor	2.9	33.4
289C1 Collinsville	KPNT	LIC NC_ IL	132.5 312.9	68.09 BLH20130125ABQ	38 34 27.7 90 19 31.5	54.000 254	7.6 407	61.2 St. Louis Fcc License Sub,	48.2	5.8
287D St. Louis	K287BY	LIC _C_ MO	130.2 310.6	64.55 BLFT20170915ACB	38 36 47.0 90 20 09.0	0.099	35.4 275	10.1 Salem Communications Holdi	17.0	12.2
286B Quincy	WGEM-FM	LIC _CX IL	341.2 160.9	113.05 BLH20090929ALD	39 57 04.0 91 19 53.0	26.500 209	76.2 399	64.3 wgem License, Llc	27.4	30.7
286D Washington	K286BG	LIC _C_ MO	190.3 10.2	49.34 BLFT20090709AMF	38 33 10.0 91 00 17.0	0.016 13	5.0 191	3.5 Kaspar Broadcasting Co. Of	32.4	28.6
285C3 Columbia	KLLT	LIC _CX IL	132.5 312.9	68.09 BLH20130612AAE	38 34 27.7 90 19 31.5	8.400 171	3.6 324	37.2 Citicasters Licenses, Inc.	52.2	29.7
288C2 Moberly	KZZT	LIC _C_ MO	293.6 112.8	125.31 BLH20000626AEW	39 26 02.0 92 14 24.0	50.000 150	77.9 384	52.0 Fm-105, Inc.	35.2	55.5
284D Jerseyville	W284DN	CP DC_ IL	74.5 254.9	53.11 BNPFT20180418AGN	39 06 56.0 90 18 35.0	0.250	1.1 245	10.4 Dj Two Rivers Radio, Inc	40.6	40.9
234C0 Crestwood	KSHE	LIC _CX MO	132.5 312.9	68.14 BLH20150227ACE	38 34 27.7 90 19 31.5	100.000 309	0.0 462	0.0 St. Louis Fcc License Sub,	24.5R	43.6M
288A South Jacksonville	WJVO	LIC _CN IL	36.5 217.0	101.68 BMLH19910514KD	39 43 20.0 90 11 43.0	6.000 100	43.4 291	28.2 Morgan County Media Llc	49.2	62.6

Terrain database is FCC 30 meter , 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), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

K258DLX

BNPFT20171220ABL

Latitude: 38-59-22 N

Longitude: 090-54-11 W

ERP: 0.25 kW

Channel: 287

Frequency: 105.3 MHz

AMSL Height: 242.0 m

Horiz. Pattern: Omni

Prop Model: None

Jeremy Ruck & Associates, Inc.

- 54 dBu F(50,50) Service Contour
- 60 dBu F(50,50) Service Contour
- 40 dBu F(50,10) Interference Contour
- 48 dBu F(50,10) Interference Contour
- 54 dBu F(50,10) Interference Contour
- 100 dBu F(50,10) Interference Contour
- KSHE IF Spacing Limit

