

AUCTION 83
SPECTRUM LIMITED SHORT FORM AMENDMENT
SAINT PETERS, MO FACILITY ID #155886 - BNPFT-20030317GPU

This short form amendment requests minor changes from channel 270 to adjacent channel 271, move to a new tower site, change in ERP and use of a directional antenna. All are minor changes. Even though this is a short form filing, a full engineering form and associated exhibits are provided in an abundance of caution. The translator will rebroadcast station KWRE(AM) (facility ID #33467) at Warrenton, MO.

An LPFM preclusion showing is included as exhibit 1 demonstrating that the proposal will not impact any protected LPFM channel points in the Saint Louis “spectrum limited” market and that it does not preclude the only LPFM availability at its site.

Allocation discussion:

All exhibits were developed utilizing the USGS 3 second terrain database.

Allocation exhibits are provided as follows:

- E1 Channel study
- E1A Interference plot to KEZK-FM
- E1B Aerial view of interference area
- E1C DA pattern
- E2 Contours
- E3 ASR-NADCON

A channel study is included as E1 and an interference plot as E1A demonstrating compliance with 74.1204. A plot of the proposed and short form 60 dBu contours is provided as E2 showing that they overlap and that the proposed 60 dBu is contained within the KWRE(AM) 2 mV/m and 40 km radius.

The proposed channel 271 facility will be located inside the protected contour of second adjacent channel station KEZK-FM on 273C. Therefore, an interference analysis has been conducted based on the D/U ratio of +40 dB at the proposed site. The KEZK-FM contour at that site is 67.44 dBu and the proposed interference contour of 107.44 dBu (50:10). When the depression angle of 7.9 degrees based on the mounting height of 70 meters AGL is considered the ERP reduces to 0.1403 kW yielding an interfering contour of 352.8 meters. This interference

Anderson Associates

contour has been evaluated at the initial depression angle and every five degrees through 90 degrees to establish the vertical clearance to ground level. An aerial photograph is included as E1B demonstrating that the tallest buildings in the area are two stores while the minimum clearance demonstrated below is 11.3 meters. Based on this showing that the interfering contour will not reach a populated area, a waiver of Section 74.1204 is requested.

Vertical clearance is demonstrated in the following table.

Angle (depression)	F	ERP X F ² kW	107.44 dBu meters	Vertical Clearance to ground meters
7.9	0.749	0.1403	352.8	21.5
10.0	0.617	0.095	290.3	19.6
15.0	0.272	0.0185	128.1	36.8
20.0	0.027	0.0002	13.3	65.5
25.0	0.201	0.0101	94.7	30.0
30.0	0.234	0.0137	110.0	14.9
35.0	0.161	0.0065	75.9	26.5
40.0	0.043	0.0005	21.1	56.4
45.0	0.066	0.0011	31.2	47.9
50.0	0.133	0.0044	62.5	22.1
55.0	0.152	0.0058	71.7	11.3
60.0	0.133	0.0044	62.5	15.9
65.0	0.097	0.0003	16.3	55.2
70.0	0.057	0.0008	26.6	45.0
75.0	0.027	0.0002	4.2	65.9
85.0	0.000	0.0000	0.0	00.0
90.0	0.000	0.0000	0.0	00.0


RF Exposure Calculation:

The RF contribution of the proposed translator was calculated using FMMODEL based on the Jampro double V design for the PSI FML-4 0.75 wavelength circularly polarized antenna mounted at 70 meters AG to be 5.2 $\mu\text{Watts}/\text{cm}^2$ or 2.6% of the maximum permissible 200 $\mu\text{Watts}/\text{cm}^2$ exposure for general population/uncontrolled exposure, and less than the 5% requiring consideration. The Commission RF formula using a worst case 1.0 F factor yields 3.6 $\mu\text{Watts}/\text{cm}^2$.

60 dBu contour and HAAT:

N. Lat. = 38-49-11 W. Lng. = 90-52-05				
HAAT and Distance to Contour,				
FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC				
Azi.	AV EL	HAAT	dBk	60-F5

000	148.8	101.2	-13.98	8.25
030	145.7	104.3	-6.02	13.13
060	163.2	86.8	-6.02	12.02
090	161.9	88.1	-6.02	12.11
120	176.0	74.0	-6.02	11.17
150	184.4	65.6	-6.02	10.58
180	200.2	49.8	-6.02	9.25
210	218.6	31.4	-6.02	7.24
240	220.4	29.6	-6.02	7.09
270	209.6	40.4	-6.02	8.21
300	180.4	69.6	-6.02	10.86
330	157.8	92.2	-13.98	7.84
Ave El= 180.60 M HAAT= 69.40 M AMSL= 250 M				
REFERENCE 60 DBU = 10.9 KM				


Charles M. Anderson, March 30, 2013

E1 CHANNEL STUDY

REFERENCE
38 49 11.0 N.
90 52 05.0 W.

CH# 271D - 102.1 MHz, Pwr= 0.25 kW DA, HAAT= 69.5 M, COR= 250 M
Average Protected F(50-50)= 11.0 km
Standard Directional

DISPLAY DATES
DATA 03-30-13
SEARCH 03-30-13

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*
271A Louisiana	KJFM	LIC _CX MO		348.0 167.9	70.57 BMLH20041210ABK	39 26 29.0 91 02 19.0	3.700 118	80.7 295	26.6 Foxfire Communications, In	-19.2*	16.5
271A Sullivan	KTUI-FM	LIC _CX MO		201.9 21.7	74.70 BLH20080321ABQ	38 11 42.0 91 11 12.0	6.000 84	84.9 339	27.0 Fidelity Broadcasting, Inc	-18.5*	20.6
273C0 St. Louis	KEZK-FM	LIC _CX MO		119.9 300.3	54.50 BLH20110919ADL	38 34 27.7 90 19 31.5	100.000 309	9.9 462	71.1 Cbs Radio Stations Inc.	33.3	-17.7*(1)
270D Saint Peters	649143	APP _C_ MO		95.8 275.9	18.91 BNPFT20030317GPU	38 48 09.0 90 39 05.0	0.250 19	10.1 170	7.1 Kaspar Broadcasting Co. Of	-3.1	-5.8
269A Elsberry	KXQX	LIC NCX MO		7.0 187.1	31.63 BLH20080318ACV	39 06 09.0 90 49 23.0	3.100 142	2.6 321	27.0 Broadcast Enterprises, Inc	17.7	3.7
218C1 St. Louis	KSIV-FM	LIC _CX MO		119.9 300.3	54.50 BLED20120626ABO	38 34 27.7 90 19 31.5	85.000 309	0.0 462	0.0 Community Broadcasting, In	22.0R	33.0M
268D Bellevue	K268BF	APP _C_ MO		119.9 300.2	54.50 BMPFT20130328AQZ	38 34 28.0 90 19 31.0	0.075 155	0.6 351	12.7 Educational Media Foundati	42.5	40.6
271B1 Mount Vernon	WIBV	LIC _C_ IL		106.6 287.7	157.84 BLH20010216AAN	38 24 07.0 89 08 09.0	10.500 155	104.5 310	45.3 Benjamin Stratemeyer	41.7	65.7
268D Bellevue	K268BF	CP _C_ MO		119.9 300.2	54.50 BPFT20130321ABZ	38 34 28.0 90 19 31.0	0.050 155	0.5 351	11.5 Educational Media Foundati	42.6	41.8

(1) See technical report for disproval of interference.

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

#155866

BNPFT20030317GPU

Latitude: 38-49-11 N

Longitude: 090-52-05 W

ERP: 0.1403 kW

Channel: 271

Frequency: 102.1 MHz

AMSL Height: 250.0 m

Elevation: 180.0 m

Horiz. Pattern: Directional

EXHIBIT E1A

KEZK-FM 67.44 DBU

#155866

PROPOSED REDUCED ERP 107.44 DBU (50:10)
(0.1403 kW BASED ON 7.9 DEGREE DEPRESSION ANGLE AND $F = .749$)
SEE TECHNICAL REPORT FOR DISPROVAL OF INTERFERENCE.

Scale 1:10,000

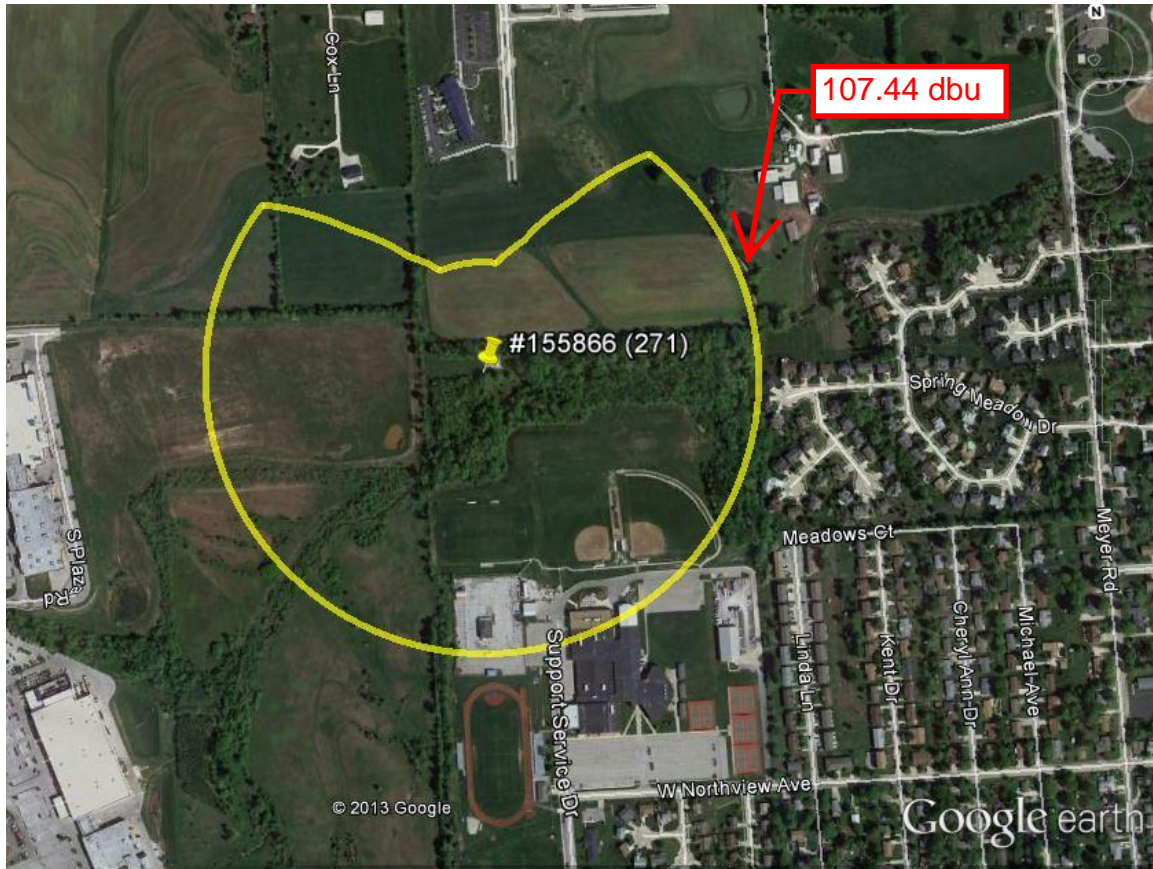
0 0.13 0.27 0.4 km

W Koenig St
V-Soft Communications LLC ©

E1B

AERIAL VIEW

NEW 107.44 DBU (50:10) KEZK-FM INTERFERENCE CONTOUR



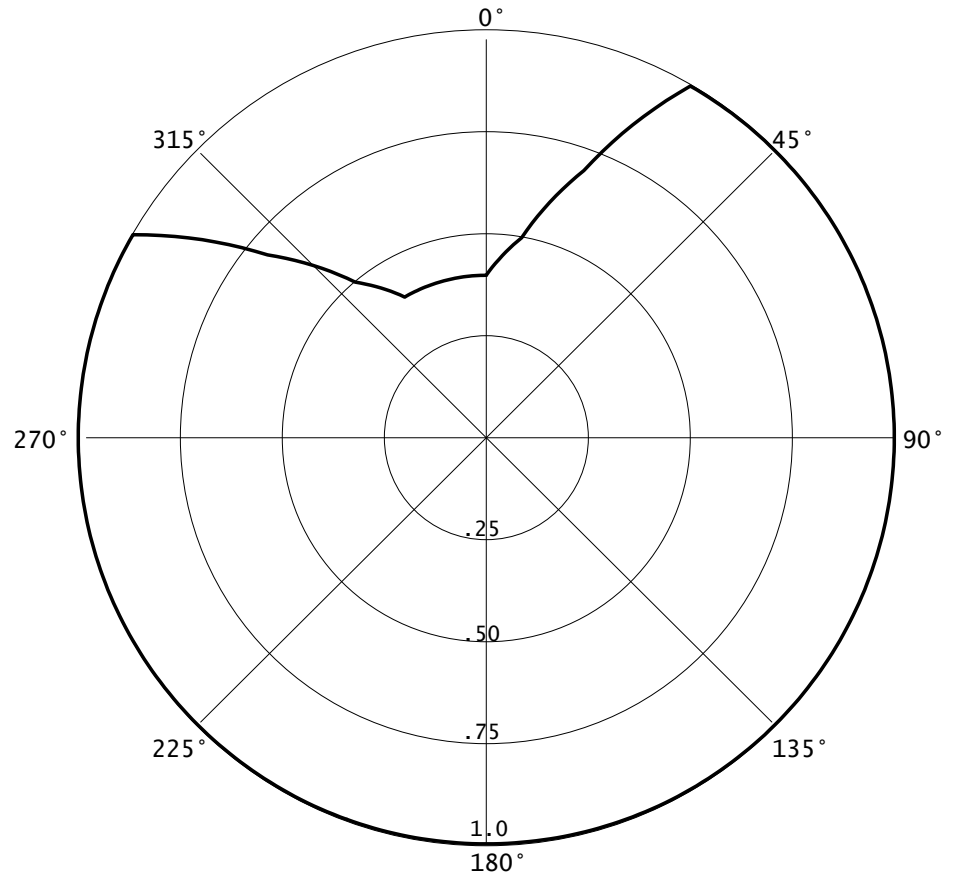
E1C DA

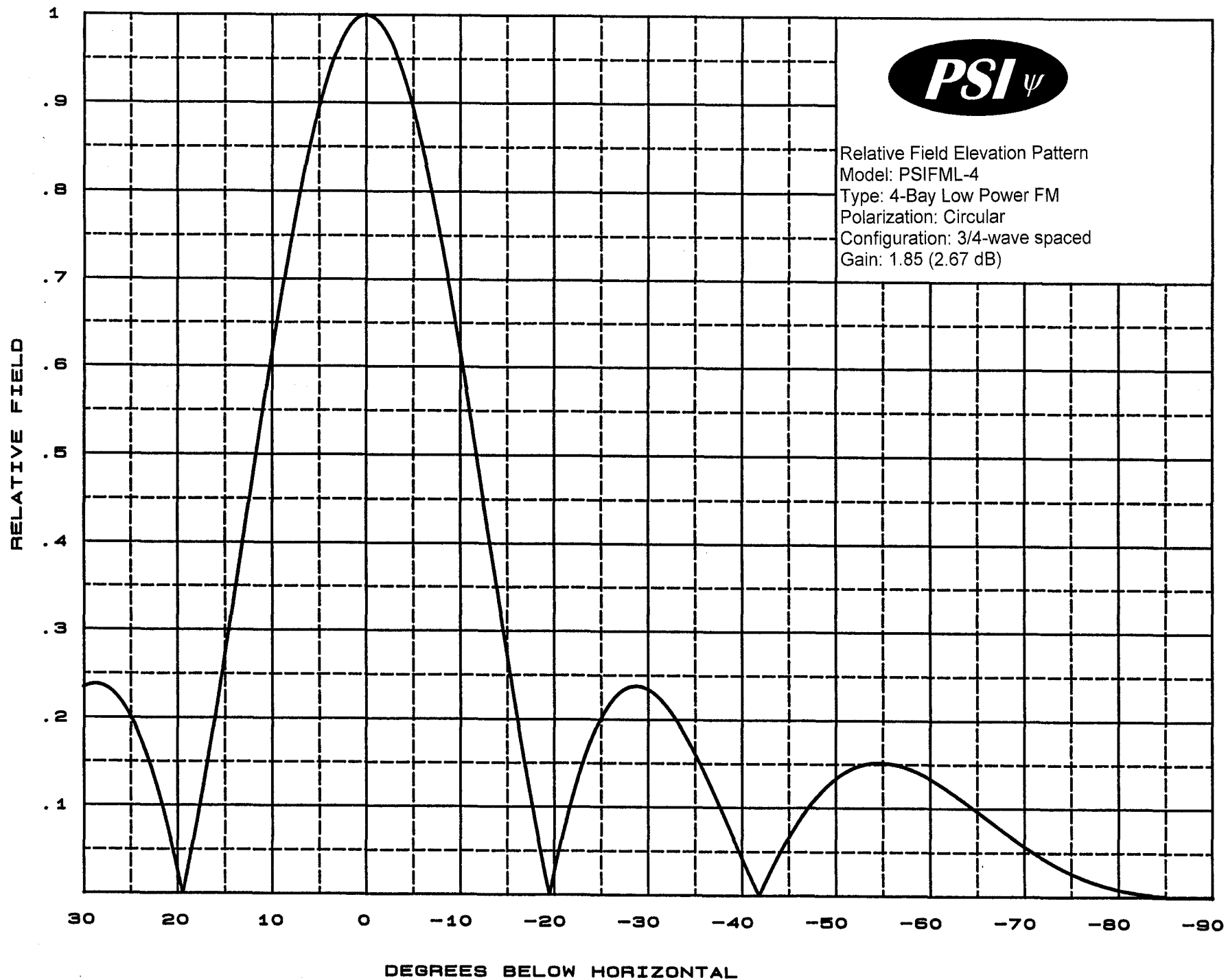
03-30-2013

RMS(V)= .914

Graph is Relative Field

Azi	Field	dBk	kw
000	0.400	-13.979	0.040
010	0.500	-12.041	0.063
020	0.700	-09.119	0.122
030	1.000	-06.021	0.250
040	1.000	-06.021	0.250
050	1.000	-06.021	0.250
060	1.000	-06.021	0.250
070	1.000	-06.021	0.250
080	1.000	-06.021	0.250
090	1.000	-06.021	0.250
100	1.000	-06.021	0.250
110	1.000	-06.021	0.250
120	1.000	-06.021	0.250
130	1.000	-06.021	0.250
140	1.000	-06.021	0.250
150	1.000	-06.021	0.250
160	1.000	-06.021	0.250
170	1.000	-06.021	0.250
180	1.000	-06.021	0.250
190	1.000	-06.021	0.250
200	1.000	-06.021	0.250
210	1.000	-06.021	0.250
220	1.000	-06.021	0.250
230	1.000	-06.021	0.250
240	1.000	-06.021	0.250
250	1.000	-06.021	0.250
260	1.000	-06.021	0.250
270	1.000	-06.021	0.250
280	1.000	-06.021	0.250
290	1.000	-06.021	0.250
300	1.000	-06.021	0.250
310	0.700	-09.119	0.122
320	0.500	-12.041	0.063
330	0.400	-13.979	0.040
340	0.400	-13.979	0.040
350	0.400	-13.979	0.040







Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-4 Special

Bay spacing: 3/4 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.828	-50.0	0.133	-17.511	-10.0	0.617	-4.190
-89.0	0.001	-60.828	-49.0	0.124	-18.146	-9.0	0.682	-3.325
-88.0	0.001	-60.828	-48.0	0.112	-18.995	-8.0	0.743	-2.583
-87.0	0.001	-60.828	-47.0	0.099	-20.093	-7.0	0.799	-1.950
-86.0	0.001	-60.828	-46.0	0.083	-21.568	-6.0	0.850	-1.415
-85.0	0.001	-60.828	-45.0	0.066	-23.581	-5.0	0.894	-0.974
-84.0	0.002	-54.807	-44.0	0.047	-26.536	-4.0	0.931	-0.618
-83.0	0.003	-50.816	-43.0	0.027	-31.530	-3.0	0.961	-0.346
-82.0	0.004	-47.448	-42.0	0.004	-47.143	-2.0	0.982	-0.154
-81.0	0.006	-44.350	-41.0	0.018	-34.664	-1.0	0.996	-0.038
-80.0	0.008	-41.584	-40.0	0.043	-27.417	0.0	1.000	0.000
-79.0	0.011	-39.244	-39.0	0.067	-23.482	1.0	0.996	-0.038
-78.0	0.014	-37.021	-38.0	0.092	-20.770	2.0	0.983	-0.153
-77.0	0.018	-35.027	-37.0	0.116	-18.740	3.0	0.961	-0.345
-76.0	0.022	-33.164	-36.0	0.139	-17.134	4.0	0.931	-0.618
-75.0	0.027	-31.481	-35.0	0.161	-15.860	5.0	0.894	-0.972
-74.0	0.032	-29.946	-34.0	0.181	-14.829	6.0	0.850	-1.415
-73.0	0.037	-28.537	-33.0	0.199	-14.006	7.0	0.799	-1.948
-72.0	0.044	-27.203	-32.0	0.215	-13.370	8.0	0.743	-2.582
-71.0	0.050	-25.968	-31.0	0.226	-12.904	9.0	0.682	-3.325
-70.0	0.057	-24.841	-30.0	0.234	-12.607	10.0	0.617	-4.188
-69.0	0.065	-23.782	-29.0	0.238	-12.473	11.0	0.550	-5.193
-68.0	0.072	-22.802	-28.0	0.237	-12.517	12.0	0.481	-6.361
-67.0	0.080	-21.905	-27.0	0.230	-12.748	13.0	0.411	-7.728
-66.0	0.088	-21.078	-26.0	0.219	-13.200	14.0	0.341	-9.347
-65.0	0.097	-20.308	-25.0	0.201	-13.920	15.0	0.272	-11.305
-64.0	0.105	-19.614	-24.0	0.178	-14.983	16.0	0.205	-13.752
-63.0	0.112	-18.995	-23.0	0.149	-16.540	17.0	0.141	-16.993
-62.0	0.120	-18.427	-22.0	0.114	-18.867	18.0	0.081	-21.840
-61.0	0.127	-17.926	-21.0	0.073	-22.712	19.0	0.025	-32.147
-60.0	0.133	-17.491	-20.0	0.027	-31.431	20.0	0.027	-31.481
-59.0	0.139	-17.125	-19.0	0.025	-32.201	21.0	0.073	-22.730
-58.0	0.144	-16.827	-18.0	0.081	-21.840	22.0	0.114	-18.867
-57.0	0.148	-16.602	-17.0	0.141	-16.993	23.0	0.149	-16.540
-56.0	0.150	-16.452	-16.0	0.205	-13.752	24.0	0.178	-14.990
-55.0	0.152	-16.374	-15.0	0.272	-11.310	25.0	0.201	-13.920
-54.0	0.152	-16.391	-14.0	0.341	-9.351	26.0	0.219	-13.200
-53.0	0.150	-16.496	-13.0	0.411	-7.731	27.0	0.230	-12.748
-52.0	0.146	-16.709	-12.0	0.481	-6.364	28.0	0.237	-12.517
-51.0	0.141	-17.040	-11.0	0.550	-5.195	29.0	0.238	-12.473
						30.0	0.234	-12.607

file: FML 4-bay elevation tabulation

revision: A

Date: 1/28/08

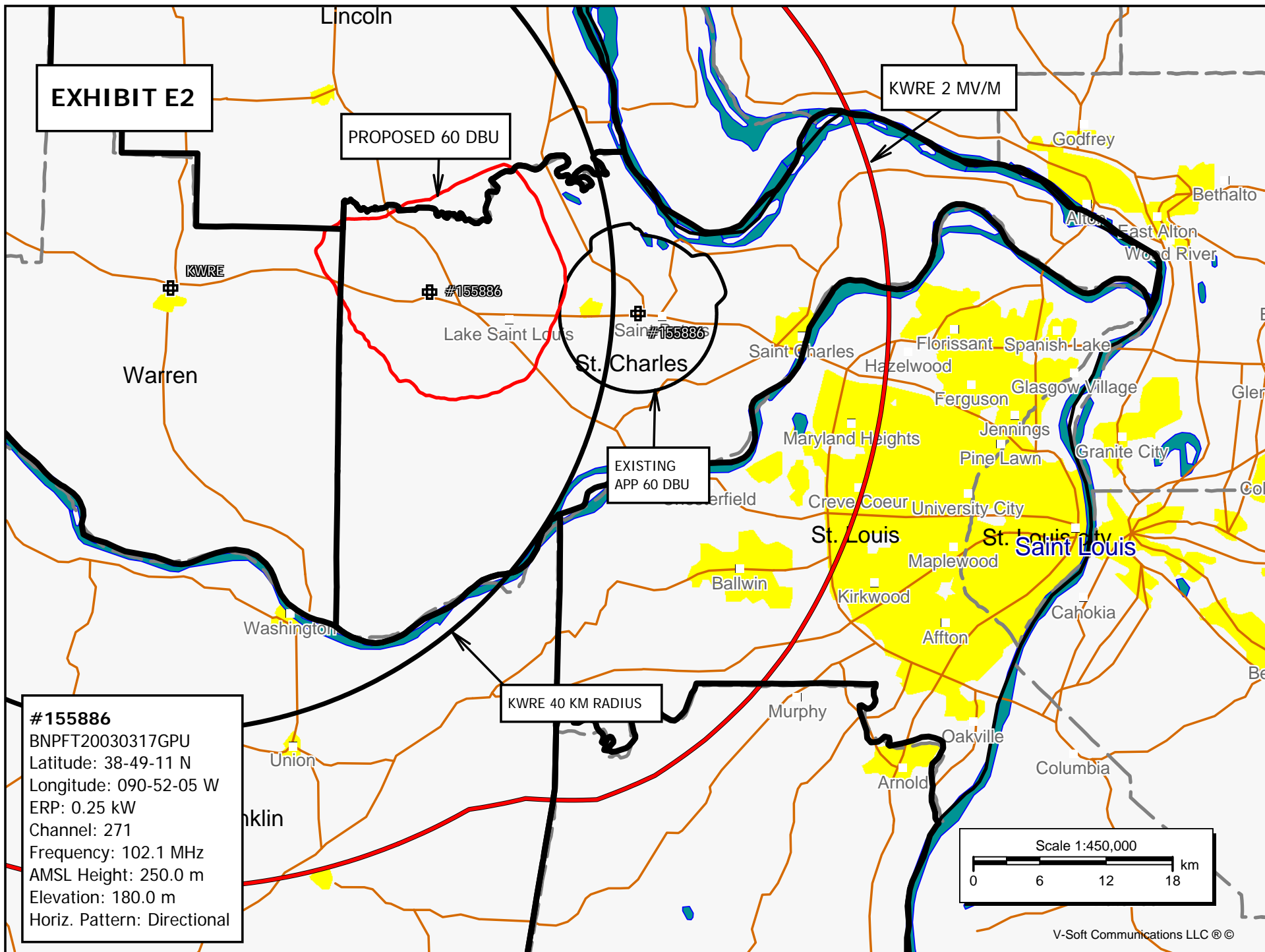


EXHIBIT E2A

PROPOSED 60 DBU

#155886

OVERLAP

Wentzville

Lake Saint Louis

O'Fallon

#155886

Saint Peters

St. Charles

Saint Charles

Bridgeton

Maryland Heights

St. Louis

#155886

BNPFT20030317GPU

Latitude: 38-49-11 N

Longitude: 090-52-05 W

ERP: 0.25 kW

Channel: 271

Frequency: 102.1 MHz

AMSL Height: 250.0 m

Elevation: 180.0 m

Horiz. Pattern: Directional

EXISTING
APP 60 DBU

Scale 1:222,500

0 3 6 9 km

V-Soft Communications LLC ©

E3 Registration 1004191

 [Map Registration](#)

Registration Detail

Reg Number	1004191	Status	Constructed
File Number	A0790322	Constructed	04/01/1994
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	38-49-11.6 N 090-52-05.0 W	Address	975 MEYER ROAD
City, State	WENTZVILLE , MO		
Zip	63385	County	ST. CHARLES
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
179.8	77.7
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
257.5	76.2

Painting and Lightings Specifications

FCC Paragraphs A1, H, 3, 11, 21, 23

FAA Notification

FAA Study	94-ACE-0274-OE	FAA Issue Date	01/19/1995
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Owner & Contact Information

FRN	0004334249	Owner Entity Type	Limited Liability Company
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Owner

SBC TOWER HOLDINGS LLC	P: (972)234-7003
Attention To: FCC GROUP	F:
2200 N. GREENVILLE AVE., 1W	E: FCCMW@att.com
RICHARDSON , TX 75082	

Contact

YOUNGBLOOD , REGINALD	P: (972)234-7003
2200 N. GREENVILLE AVE., 1W	F:
RICHARDSON , TX 75082	E: FCCMW@att.com

Last Action Status

Status	Constructed	Received	11/12/2012
Purpose	Admin Update	Entered	11/12/2012
Mode	Interactive		

Output from NADCON for station NEW 271

North American Datum Conversion

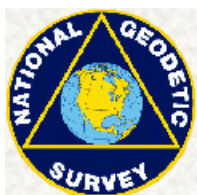
NAD 83 to NAD 27

NADCON Program Version 2.11

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Transformation #: 1 Region: Conus

	Latitude	Longitude
NAD 27 datum values:	38 49 11.41677	90 52 4.51873
NAD 83 datum values:	38 49 11.60000	90 52 5.00000
NAD 27 - NAD 83 shift values:	-0.18323	-0.48127(secs.)
	-5.650	-11.610 (meters)
Magnitude of total shift:		12.912(meters)



[NGS HOME PAGE](http://www.ngs.noaa.gov/cgi-bin/nadcon.prl)http://www.ngs.noaa.gov/cgi-bin/nadcon.prl