

**W232CP
APPLICATION MINOR AMENDMENT
BPFT-20150327AMW
TO IF CHANNEL 285**

A change in site and primary station are also requested. It is also requested that this amendment be held in queue, if necessary, until LPFM application BNPL-20131112AGZ is dismissed.

Allocation discussion:

All exhibits utilize the V-Soft provided USGS 3 second terrain database.

E1	Channel study
E1A	WJJK interference analysis
E1B	Aerial view of interference area
E1C	DA
E2	60 dBu and 57 dBu contours plot
E3	ASR

A channel study is included as E1 demonstrating compliance with §74.1204. Analysis of 2nd adjacent channel WJJK is provided below. A plot of the proposed 60 dBu is provided as E2 showing that it overlaps the W232CP built facility for which a form 350 has been filed. The same exhibit demonstrates that the 57 dBu contour is contained within the WRWM 57 dBu.

WJJK analysis:

The proposed W232CP channel 285 facility will be located inside the protected contour of 2nd adjacent channel stations WJJK on 283B. Therefore, an interference analysis has been conducted based on the U/D ratio of +40 dB at the proposed site. The WJJB (50,50) contour at the proposed site is 96.95 dBu and the (50,10) interference contour is 136.95 dBu or 15.75 meters. Clearly this interference contour does not reach any populated area or major highway. An aerial photograph of the site is included as E1C. Based on this showing a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

RF Exposure Calculation:

The proposed facility will be located at an existing tower (ASR #1253064) using a single bay Shively 6014-1-3 circularly polarized antenna at 207 meters AGL. The RF contribution of

Anderson Communications, LLC

the proposed translator was calculated to be 0.93 $\mu\text{Watts}/\text{cm}^2$ using the formula included below and a worst case vertical factor of 1.0. This is 0.47% of the maximum permissible 200 microwatts/cm² exposure for general population/uncontrolled exposure, and well below 5% of that limit which requires consideration.

$$S \text{ (RF in } \mu\text{Watts}/\text{cm}^2) = \frac{33.4 (F^2 \text{ Vertical Factor}) X (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters - 2 m)}}$$

The proposed translator facility complies with Commission RF radiation limits.



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E1 CHANNEL STUDY

Kaspar Broadcasting Co, Inc

REFERENCE
39 53 40.0 N.
86 12 21.0 W.

CH# 285D - 104.9 MHz, Pwr= 0.25 kW DA, HAAT= 208.8 M, COR= 462 M
Average Protected F(50-50)= 18.92 km
Standard Directional

DISPLAY DATES
DATA 04-21-15
SEARCH 04-21-15

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* (in km)
285L1 Indianapolis	1632879	APP IN	___	0.0 0.0	0.00 BNPL20131112AGZ	39 53 40.0 86 12 21.0	0.011 89	345	North Indianapolis Communi	-33.4*	-61.2* (1)
283B Noblesville	AL9217	RSV-A IN	___	157.1 337.2	6.53 RM10153	39 50 25.0 86 10 34.0	50.000 150	5.5 393	62.0	-16.0*	-57.0*
283B Noblesville	WJJK	LIC IN	_CX	157.1 337.2	6.53 BMLH20030828AYT	39 50 25.0 86 10 34.0	50.000 150	5.5 390	61.5	-16.0*	-56.6* (2)
285A Muncie	WERK	LIC IN	_CX	66.0 246.5	72.13 BMLH20050322ADL	40 09 19.0 85 25 48.0	6.000 100	88.0 392	29.6	-30.9*	1.5
285A Columbus	WINN	LIC IN	_CN	165.0 345.1	81.54 BLH19910501KA	39 11 09.0 85 57 37.0	6.000 91	83.8 297	26.3	-21.4*	0.9
285L1 Kokomo	WTSX-LP	CP IN	___	5.3 185.4	67.46 BNPL20131022AEM	40 29 55.0 86 07 55.0	0.100 26	276	Table Setter Neighborhood	31.0	5.4
232D Noblesville	W232CP	APP IN	DC_	133.7 313.7	15.15 BPFT20150327AMW	39 48 01.0 86 04 39.0	0.250	60.4 388	19.5	9.5R	5.7M
287D Greenwood	W287BE	CP IN	_C_	164.6 344.6	24.12 BPFT20120319AHZ	39 41 07.0 86 07 51.0	0.080 25	0.6 260	5.9	6.0	17.0
285A Rockville	WAXI	LIC IN	_CX	259.2 78.5	95.14 BMLH20070802ADU	39 43 44.0 87 17 56.0	1.700 134	70.3 317	22.6	6.5	14.9
287D Greenwood	W287BE	LIC IN	_V_	167.9 347.9	30.35 BLFT20071114ABC	39 37 39.0 86 07 53.0	0.001 6	0.1 240	1.8	11.4	27.7
232D Noblesville	W232CP	LIC IN	DC_	54.2 234.3	22.10 BLFT20150326AAG	40 00 38.0 85 59 43.0	0.250	60.4 299	19.5	9.5R	12.6M
287B Lafayette	WKOA	CP IN	_CX	326.9 146.5	81.00 BPH20140310AAG	40 30 12.0 86 43 47.0	50.000 146	5.7 344	63.1	57.0	16.1
285D Lafayette	W285EY	CP IN	_C_	315.4 135.0	82.00 BNPFT20130829ABU	40 25 05.0 86 53 08.0	0.055 33	15.5 228	4.8	48.6	20.9
287B Lafayette	WKOA	LIC IN	_CN	316.1 135.7	78.62 BLH6529	40 24 08.0 86 50 59.0	50.000 94	4.3 291	52.2	56.4	24.5
286A Ellettsville	WHCC	LIC IN	_CX	208.4 28.1	89.10 BLH20130903ABN	39 11 19.0 86 41 53.0	1.850 182	43.5 405	28.6	26.1	31.0
287D Anderson	W287BC	LIC IN	_C_	76.7 257.0	43.28 BLFT20061002AED	39 58 59.0 85 42 41.0	0.038 59	0.4 330	6.9	26.2	35.8
287D Carthage	W287BR	LIC IN	_C_	110.5 290.9	62.22 BLFT20090818ACR	39 41 48.0 85 31 28.0	0.250 18	1.1 302	7.1	41.7	54.0
231D Martinsville	W231BT	LIC IN	DC_	203.8 23.6	55.38 BLFT20110209ADD	39 26 18.0 86 27 58.0	0.215 88	0.8 305	9.3	9.5R	45.9M

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= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
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.

(1) Hold in a queue until this LPFM is dismissed.

(2) See E1A and Technical Report for disproof of interference.

EXHIBIT E1A WJJJ INTERFERENCE ANALYSIS

W232CP Noblesville , IN
74.1204(d) Showing
Translator or LPFM Maximum Licensed ERP = 0.25
Translator or LPFM Antenna Height AG = 207 Meters
W232CP Antenna Model = SHIVELY 6014-1-3

Protected Station's Contour = 96.95348 dBu
Translator's or LPFM's full Interference contour 136.95348

Review Azimuth = 0 Degrees True
Relative Field on the horizon at Review Azimuth = 1.000
Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW
Distance between stations = 6.5 km
Protected Station= WJJJ, 50 kW, 390 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2500	015.7506	015.7506	207.000

X-Field™ By V-Soft Communications®LLC

E1B AERIAL VIEW OF SITE

Sardonyx St

W 79th St

39 53 40 -86 12 21

Walnut Dr

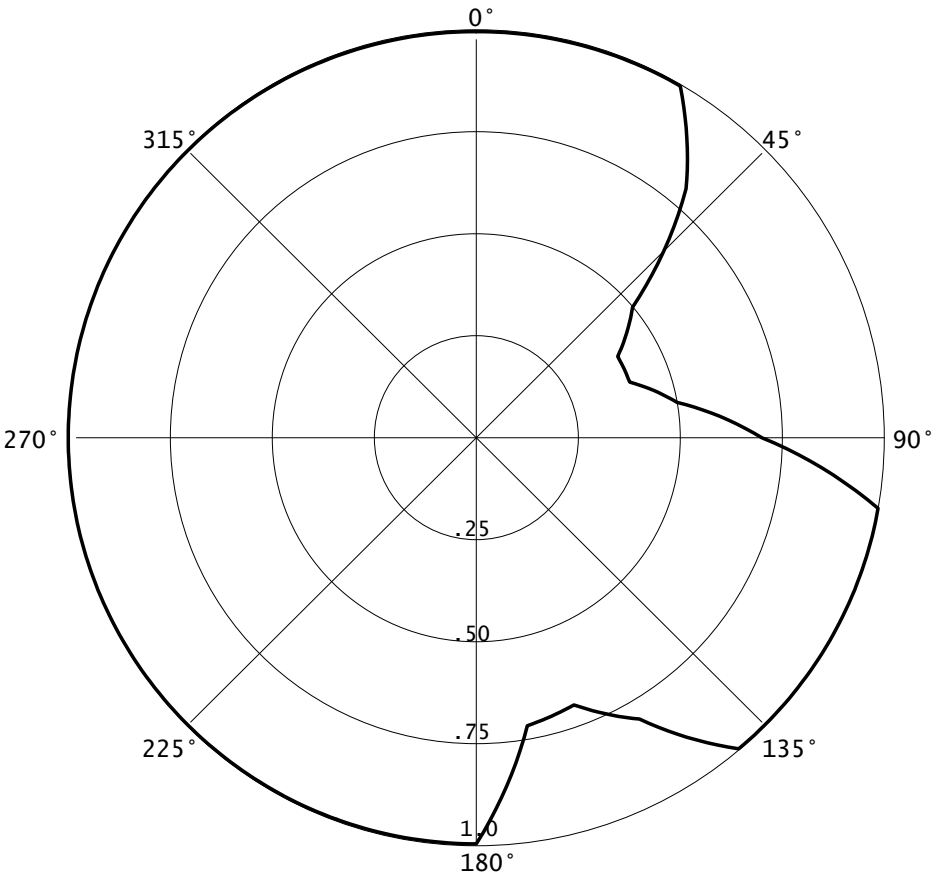
Township Dr



800 ft

Graph is Relative Field

Azi	Field	dBk	kw
000	1.000	-06.021	0.250
010	1.000	-06.021	0.250
020	1.000	-06.021	0.250
030	1.000	-06.021	0.250
040	0.800	-07.959	0.160
050	0.500	-12.041	0.063
060	0.400	-13.979	0.040
070	0.400	-13.979	0.040
080	0.500	-12.041	0.063
090	0.700	-09.119	0.122
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	0.800	-07.959	0.160
160	0.700	-09.119	0.122
170	0.720	-08.874	0.130
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	1.000	-06.021	0.250
320	1.000	-06.021	0.250
330	1.000	-06.021	0.250
340	1.000	-06.021	0.250
350	1.000	-06.021	0.250



E2 CONTOURS

W232CP-APP

BPFT-20150327AMW

Latitude: 39-53-40 N

Longitude: 086-12-21 W

ERP: 0.25 kW

Channel: 285

Frequency: 104.9 MHz

AMSL Height: 462.0 m

Elevation: 255.0 m

Horiz. Pattern: Directional

WRWM 57 DBU

W232CP 60 DBU

W232CP-APP

W232CP.C

WRWM

W232CP APP 60 DBU

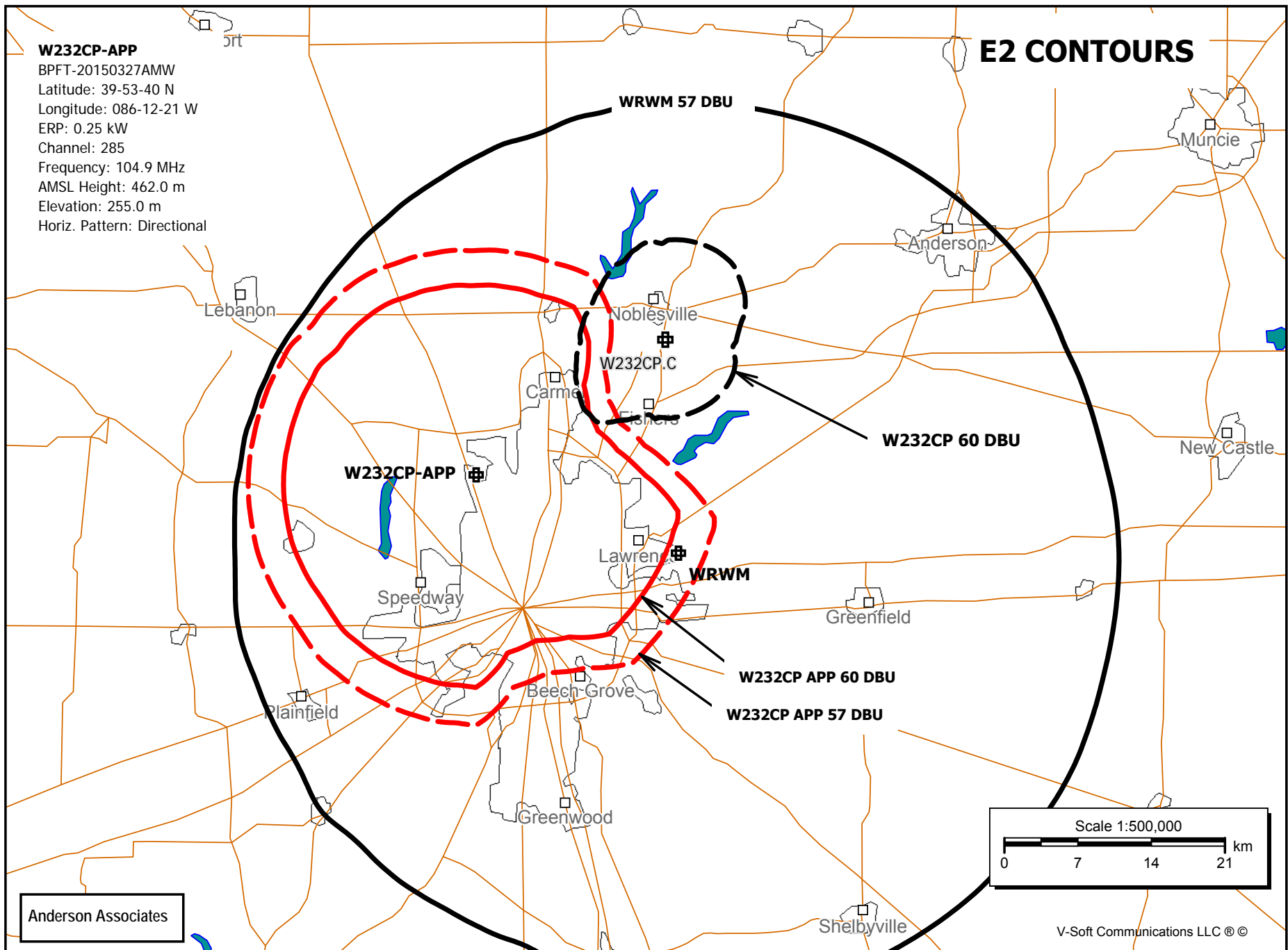
W232CP APP 57 DBU

Scale 1:500,000

0 7 14 21 km

Anderson Associates

V-Soft Communications LLC ©



E3 Registration 1253064

 [Map Registration](#)

Registration Detail

Reg Number	1253064	Status	Constructed
File Number	A0898199	Constructed	07/24/2006
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

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

Location (in NAD83 Coordinates)

Lat/Long	39-53-40.0 N 086-12-21.0 W	Address	7701 Walnut Drive
City, State	Indianapolis , IN		
Zip	46268	County	MARION
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
254.5	307.8
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
562.3	259.0

Painting and Lighting Specifications

FAA Chapters 4, 9, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2005-AGL-965-OE	FAA Issue Date	06/23/2005
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Owner & Contact Information

FRN	0011498342	Owner Entity Type	Limited Liability Company
Assignor FRN	0006154249	Assignor ID	L00167959

Owner

American Tower, LLC
Attention To: FAA/FCC
10 Presidential Way
Woburn , MA 01801

P: (781)926-4500
F:
E: FAA-FCC@americantower.com

Contact

Attention To: FAA/FCC
10 Presidential Way
Woburn , MA 01801

P: (561)886-3925
F:
E: FAA-FCC@americantower.com

Last Action Status

Status	Constructed	Received	04/14/2014
Purpose	Change Owner	Entered	04/14/2014
Mode	Interactive		

Related Applications

04/14/2014	A0898199	- Change Owner (OC)
11/12/2009	A0656926	- Admin Update (AU)

Output from NADCON for station W232CP

North American Datum Conversion

NAD 83 to NAD 27

NADCON Program Version 2.11

Transformation #: 1 Region: Conus

	Latitude	Longitude
NAD 27 datum values:	39 53 39.85374	86 12 21.03664
NAD 83 datum values:	39 53 40.00000	86 12 21.00000
NAD 27 - NAD 83 shift values:	-0.14626	0.03663(secs.)
	-4.511	0.870 (meters)
Magnitude of total shift:		4.594(meters)



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