

Comprehensive Engineering Exhibit

Minor Modification of BNPFT-20130830AQA

Facility ID No. 156380

This exhibit is for the Minor Modification of translator permit BNPFT-20130830AQA to change transmitter location, power, and antenna orientation.

Antenna Location

The proposed antenna location is 160 meters above ground level upon an existing tower identified by structure registration number 1050337, utilizing the antenna pattern depicted in **Figure 1**, with an effective radiated power of 99 watts.

Below as **Figure 2** is an overlap and spacing study, incorporating the antenna pattern, from which it can be determined that this proposal is within the protected contour of **second** adjacent channel station WBPT and thus the potential for interference exists.

It is noted that because of the proximity of WBHJ operating on intermediate frequency channel 239 this proposal is limited to 99 watts.

Concerning potential interference created: Section 74.1204(d) states that "The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable."

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called "Living Way", allows for the use of U/D Analysis, also known as "signal strength ratio methodology" to be utilized. In this instant case the facilities to be protected are second adjacent and are to be afforded protection from signals 40 dB stronger than they present in the location of the proposed antenna location.

In **Figure 3** is a map showing the predicted 103.9 dBu signal contour of the protected facility at the proposed translator antenna location. This proposal is only predicted to cause predicted interference to the protected facility by having a signal exceeding 143.9 dBu in a habitable area. Utilizing the line of sight equation shown in **Figure 4** it has been determined that a 143.9 dBu signal developed by 99 watts, as proposed, emitted by the proposed antenna mounted 160 meters above ground, will not reach ground level or any habitable space. With examination of the images in **Figure 5** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Minor Change Status and Primary Station Fill-In

Attached as **Figure 6** is a contour map depicting the 60 dBu contours of the existing permit, the proposed facility, as well as that of primary station WQEN, demonstrating compliance with the rules for minor change, and contour overlap.

RF Statement

In accordance with 47 C.F.R. 1.1307(b)(1) Table 1, only "Part 74 – Subpart L" facility with an ERP greater than 100 watts, is subject to routine environmental evaluation. Since the facility proposed in this application will operate with an ERP of less than 100 watts, it is "categorically excluded from making such studies or preparing an EA" [1.1307(b)(1)] the licensee will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

Figure 1. Antenna Pattern

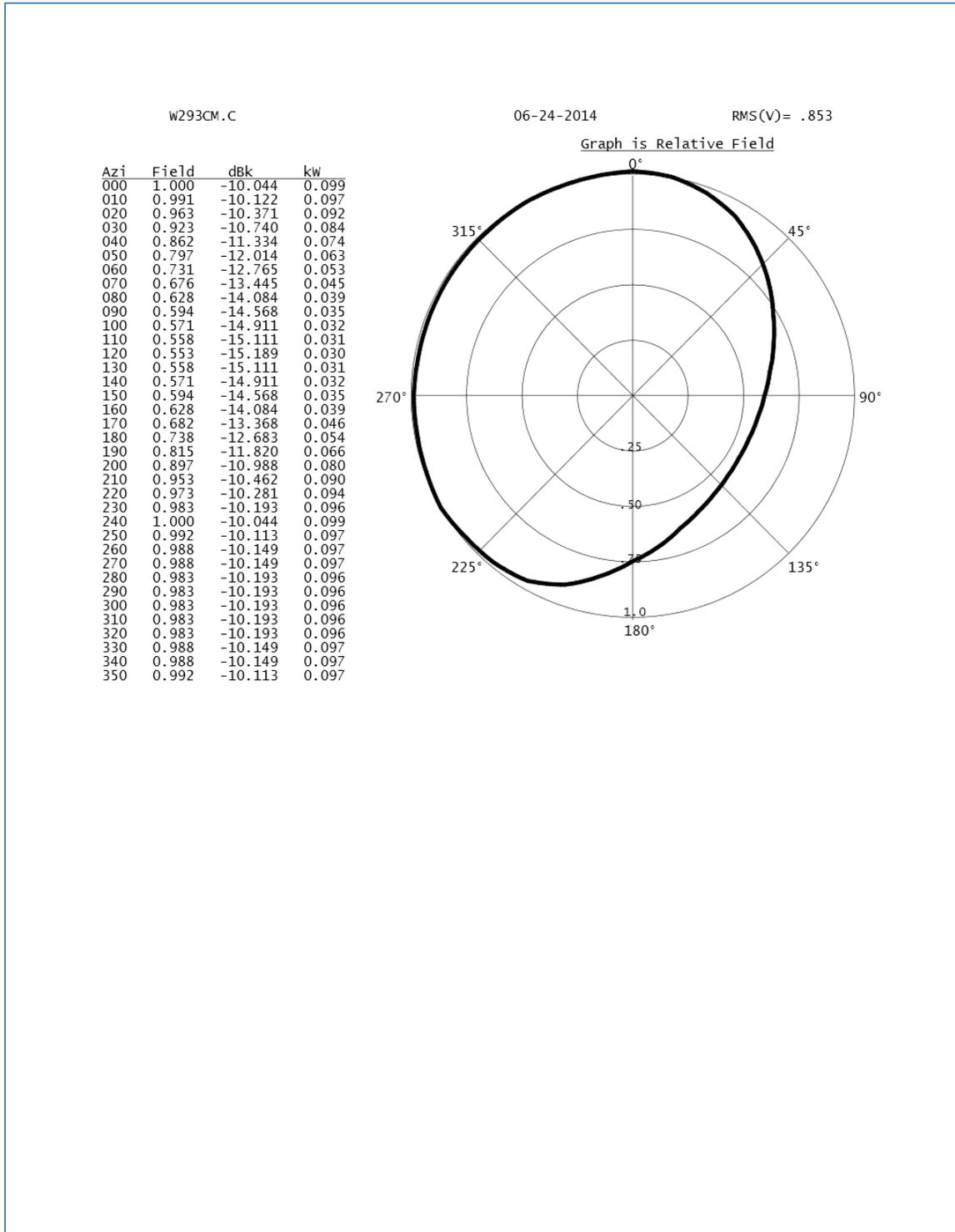


Figure 2. Overlap and Spacing Study

w293CM Proposed Educational Media Foundation										
REFERENCE		CH#	293D - 106.5 MHz, Pwr= 0.099 kw DA, HAAT= 267.2 M, COR= 448 M		Average Protected F(50-50)= 16.88 km		DISPLAY DATES			
33 26 37.6 N. 86 52 47.0 W.							DATA	06-24-14		
					Standard Directional		SEARCH	06-24-14		
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*
295C0	WBPT	LIC NCY	56.2	8.13	33 29 04.0	100.000	11.4	78.7	-15.4*<	-71.1*<
Homewood		AL	236.2	BLH20130207ABS	86 48 25.0	404	597	Sm-wbpt, Llc		
293D	w293CM	CP DC_	56.2	8.13	33 29 04.0	0.022	36.1	10.8	-40.2*	-43.0*
Graysville		AL	236.2	BNPFT20130830AQA	86 48 25.0	346	533	Educational Media Foundati		
290D	w290CN	CP _C_	44.8	10.95	33 30 49.0	0.038	0.4	4.4	-4.8*<	6.0
Birmingham		AL	224.9	BNPFT20130816AAJ	86 47 47.0	28	220	Radio Assist Ministry, Inc		
293D	w292EH	CP DC_	122.2	65.24	33 07 47.1	0.250	49.4	15.1	3.4	8.7
Sylacauga		AL	302.5	BMPFT20140402AQF	86 17 14.6		340	Marble City Media, Llc		
292D	w292EI	APP DC_	34.8	44.86	33 46 31.0	0.250	22.6	15.1	6.0	5.5
warrrior		AL	214.9	BMPFT20140611ACV	86 36 10.0		523	way Media , Inc.		
293C3	wzNJ	LIC _CX	220.2	136.40	32 30 08.0	25.000	113.8	39.3	6.3	44.2
Demopolis		AL	39.7	BMLH20100205ABH	87 49 07.0	93	130	westburg Broadcasting Alab		
293A	wJEC	LIC _C_	293.5	116.17	33 51 15.0	6.000	86.3	28.0	13.0	33.8
Vernon		AL	112.8	BMLH20001026AAB	88 01 55.0	100	240	Lamar County Broadcasting		
292D	w292EI	CP _C_	5.5	45.88	33 51 20.0	0.010	10.0	7.1	18.6	13.1
warrrior		AL	185.5	BNPFT20130325AKF	86 49 56.0	135	295	way Media , Inc.		
292D	w292DU	LIC DC_	242.1	67.01	33 09 36.0	0.200	22.6	15.0	26.6	25.7
Tuscaloosa		AL	61.7	BLFT20140529AGY	87 30 54.0	174	248	Tti, Inc.		
290C3	AL4924	RSV-A	242.4	55.85	33 12 36.0	25.000	2.9	28.4	35.2	26.8
Brookwood		AL	62.1	RML10114	87 24 40.0	100	203			
290C3	WRTR	LIC ZCX	248.0	60.79	33 14 17.0	25.000	3.4	32.7	39.7	27.4
Brookwood		AL	67.7	BLH20050829ACW	87 29 06.0	82	178	Capstar Tx Llc		
292D	w292EH	LIC DC_	122.2	65.24	33 07 47.1	0.200	21.0	13.9	31.9	33.0
Sylacauga		AL	302.5	BLFT20140121ABF	86 17 14.6	133	340	Marble City Media, Llc		
292A	wLGD	LIC NCX	180.1	81.80	32 42 22.0	6.000	34.3	22.8	33.3	37.7
Maplesville		AL	0.1	BLH20121220ACE	86 52 51.0	51	175	valleydale Broadcasting, L		
291D	w291CG	LIC DC_	65.6	48.85	33 37 28.0	0.010	0.1	6.1	35.7	42.3
Odenville		AL	245.8	BLFT20090508AAT	86 24 00.0	226	436	Glen Iris Baptist School		
291D	w291BT	LIC _C_	318.0	59.55	33 50 29.0	0.055	0.5	7.4	42.4	51.5
Jasper		AL	137.8	BLFT20050428ABS	87 18 40.0	53	186	Glen Iris Baptist School		
293C	wSKZ	LIC _CN	36.5	238.68	35 09 42.0	100.000	178.1	76.1	44.5	110.1
Chattanooga		TN	217.3	BLH7303	85 19 06.0	329	721	Radio License Holding Cbc,		
290D	w290CQ	CP _C_	90.5	74.60	33 26 08.0	0.027	0.4	5.8	62.2	68.4
Talladega		AL	270.9	BNPFT20130830ALY	86 04 39.0	38	246	Glen Iris Baptist School		
290A	wKLS	LIC NCX	54.2	90.72	33 55 07.0	0.630	1.6	21.1	76.2	69.0
Southside		AL	234.6	BLH20130729AOE	86 04 59.0	196	380	williams Communications, I		
292L1	1581182	APP	73.6	95.62	33 40 54.5	0.022			75.7	71.5
Anniston		AL	254.2	BNPL20131114AUL	85 53 23.6	63	284	Center of Hope, Inc.		
291C3	wTAK-FM	LIC NCN	10.8	115.08	34 27 45.0	5.400	3.7	39.7	94.2	74.7
Hartselle		AL	191.0	BLH19931026KB	86 38 36.0	221	460	Capstar Tx Llc		

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= , Co to 3rd adjacent.
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.
< = Contour overlap

Figure 3. Signal Contours

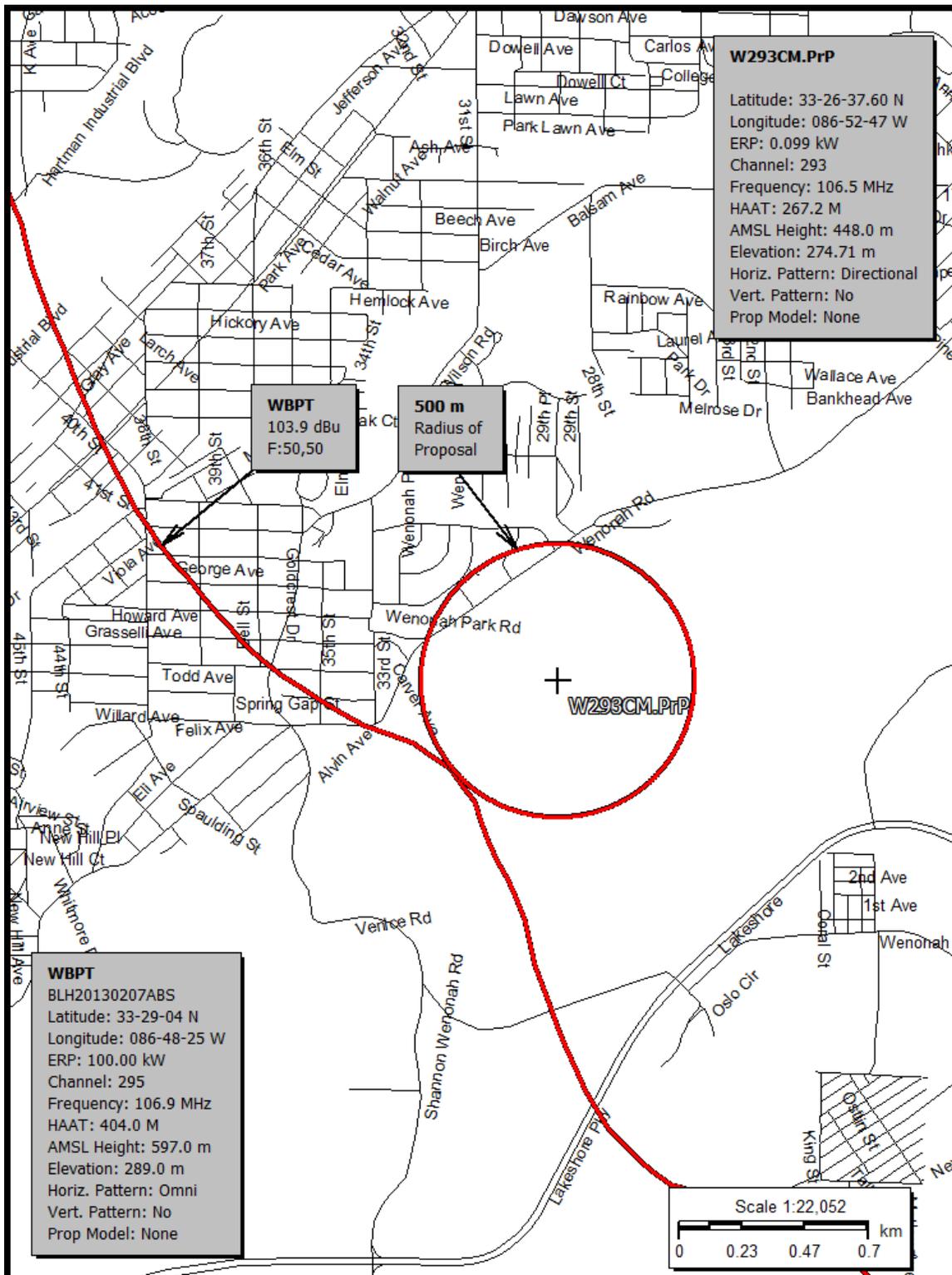


Figure 4. Interference Signal Distance Calculations

ERP	0.099	kw		
Calculated IX contour	143.9	dbu		
			Distance to interfering contour	Height of IX
Relative Field	Downward ERP		meters (hypot)	meters
1	0.0990		4.4547	155.545

Figure 5. View of Instant Proposal Location

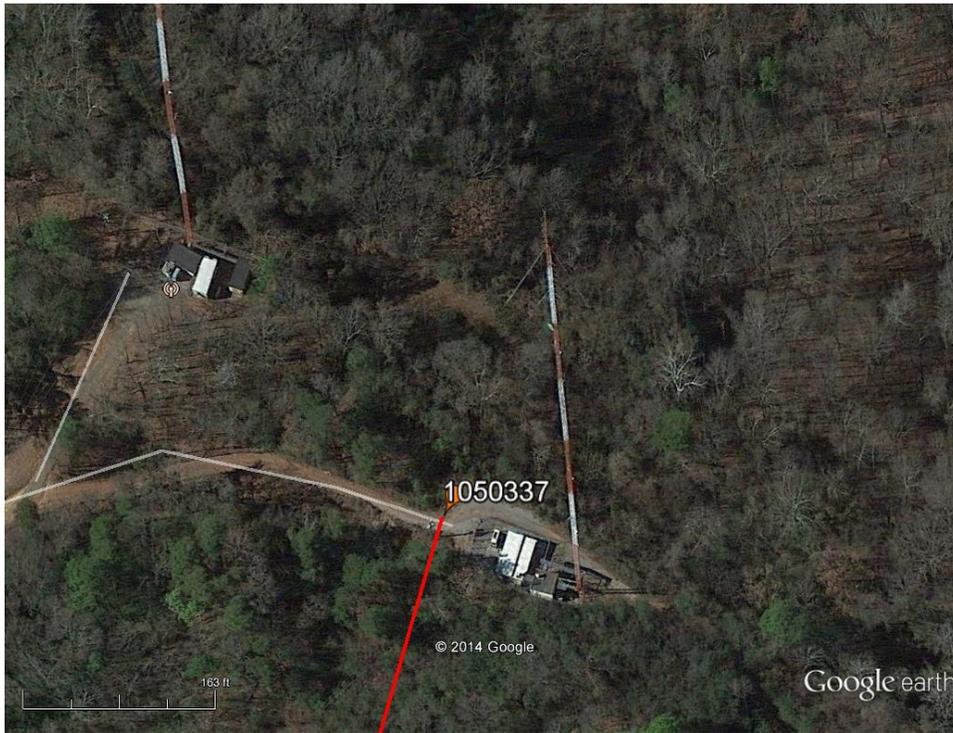


Figure 6. Minor Change and Fill-In Contours

