

Long Form Application BNPFT-20180130AET Facility ID No. 202570

This exhibit is for Long Form 349 Application of Facility ID No. 202570, BNPFT-20180130AET. It specifies no material changes from the short form.

Antenna Location

The proposed antenna is to be mounted on the existing support tower which is identified by registration number 1043980 at 168 meters above ground, having a horizontal plane azimuth gain pattern as given in **Figure 0** below. Below as **Figure 1** is an overlap and spacing study from which it can be determined that this proposal is within the licensed and permitted protected contour of **second** adjacent channel station WTIC-FM.

73.1204 Compliance

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 D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents near the proposed translator antenna location.

Concerning WTIC-FM; In **Figure 2** a map showing the predicted 65.7 dBu signal contour of the protected WTIC-FM facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 105.7 dBu ($65.7 + 40$) in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 3** which considers the vertical elevation pattern of the proposed antenna, it has been determined that a 105.7 dBu signal developed by 215 watts, as proposed, emitted by the proposed antenna mounted 168 meters above ground, will not reach elevated habitable areas or ground level. With examination of the image in **Figure 4** it can be determined that no habitable space extends into 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.

Fill-in and Minor Change Status

This proposal is to serve as a fill-in translator for station WELI, Facility ID 11933, New Haven, CT. The map of **Figure 5** demonstrates that the proposed 60 dBu contour is contained within that of the 2 mV/m of that facility.

As there is no change in location the required service contour overlap of short and long form facilities has been met.

RF Fields Statement

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is a SWR "FMEC/2 HWS-DA" mounted at 168 meters above ground. The FCC Website FM Model program has been set to calculate values for an "Opposed "V"" type of antenna element array, operated with an effective radiated power of 215 watts in the vertical plane. At 2 meters above the surface, at 310 meters from the base of the tower, this proposal will contribute worst case, 0.05 microwatts per square centimeter, or 0.005 percent of the allowable ANSI limit for controlled exposure, and 0.03 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Overlap and Spacing Study

BNPFT-20180130AET Fac ID 202570 for WELI Cc Licenses, Ltc										
REFERENCE	CH#	245D	-	96.9 MHz, Pwr= 0.22 kw DA, HAAT= 0.0 M, COR= 364 M	DISPLAY DATES					
41 25 21.9 N. 72 57 06.5 W.				Average Protected F(50-50)= 6.87 km Standard Directional	DATA 04-03-18 SEARCH 04-03-18					
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* *OUT* (Overlap in km)
245D	1776999	APP DC_ CT		0.0 0.0	0.00 BNPFT20180130AET	41 25 21.9 72 57 06.5	0.220	0.00 364	0.00 Cc Licenses, Ltc	64.5R -64.5M
243B	WTIC-FM	LIC _CX CT		17.2 40.91 197.3	BMLH20131029ABW	41 46 27.0 72 48 20.0	20.000 247	5.8 334	65.9 Cbs Radio Stations Inc.	25.8 -25.3*
245A	WEHN	LIC NCX NY		125.9 80.81 306.4	BLH20060210ABT	40 59 37.0 72 10 19.0	4.300 117	84.4 122	28.2 Lrs Radio, Ltc	-17.9* 4.7
248B	WALK-FM	LIC DCN NY		186.1 64.62 6.1	BLH19910524KA	40 50 41.0 73 02 01.0	39.000 169	5.5 192	62.4 Connoisseur Media Licenses	41.8 1.0
245A	WRRB	LIC _C_ NY		291.1 92.92 110.4	BMLH20001002AHL	41 43 09.0 73 59 47.0	0.310 307	74.4 418	25.2 Townsquare Media Poughkeeps	1.0 12.3
245D	W245BA	LIC _C_ NY		186.6 64.96 6.5	BLFT20071010ACI	40 50 32.0 73 02 25.0	0.010 144	22.8 166	6.8 W245ba, Inc.	25.0 2.8
245L1	WPRF-LP	CP CT		29.3 31.46 209.4	BPL20180108AAL	41 40 09.7 72 45 58.7	0.100 30	89	La Nueva Radio Restauracio	6.4 2.9
245L1	WPRF-LP	LIC CT		26.5 31.56 206.6	BLL20150603AAG	41 40 35.8 72 46 55.2	0.049 43	107	La Nueva Radio Restauracio	10.1 3.9
246B	WQHT	LIC _CX NY		229.5 114.60 48.8	BMLH20050215AAH	40 44 54.0 73 59 10.0	6.700 408	79.8 422	67.0 Emmis License Corporation	14.5 5.1
247A	WZBG	LIC _CX CT		337.4 45.75 157.3	BMLH20150701ACV	41 48 09.0 73 09 49.8	3.000 100	2.7 411	29.9 Local Girls And Boys Broad	26.9 14.8
244A	WKLX-FM	LIC NCX NY		231.0 89.71 50.5	BMLE20110616AAN	40 54 44.0 73 46 55.0	3.100 143	45.6 169	30.2 Educational Media Foundati	23.9 29.5
247D	1775962	APP DC_ CT		102.5 48.15 282.9	BNPFT20180125ACT	41 19 38.6 72 23 19.7	0.250	0.6 113	5.7 Crossroads Communications	26.8 41.6
246D	W246CC	LIC _C_ CT		44.9 59.86 225.3	BLFT20110125ABH	41 48 10.0 72 26 30.0	0.100 187	23.7 328	15.7 Red Wolf Broadcasting Corp	29.6 34.3
246L1	WNBW-LP	LIC CT		81.4 70.40 262.0	BLL20131216CJX	41 30 52.0 72 06 56.0	0.100	68	Connecticut River Educatio	40.6 32.3
248D	W248CZ	CP DC_ CT		303.9 58.33 123.5	BNPFT20171206ACK	41 42 50.0 73 32 07.0	0.250	0.2 436	8.2 Tri-state Public Communica	39.9 49.1
245D	W245BK	LIC DC_ MA		12.2 108.18 192.4	BLFT20141003AAT	42 22 25.0 72 40 26.0	0.250	54.7 249	17.2 Saga Communications Of Ne	41.1 49.6
243D	W243BF	LIC _C_ NY		166.4 64.93 346.5	BLFT20070402AAE	40 51 18.0 72 46 11.0	0.010 165	0.2 178	7.3 Holding Out Hope Church	41.7 56.6
245B	WBQT	LIC _CN MA		55.8 185.70 237.0	BLH19960903KE	42 20 50.0 71 04 59.0	22.500 224	126.6 247	63.0 Beasley Media Group Licens	41.8 50.7
248D	W248CR	LIC _C_ CT		25.3 52.98 205.5	BLFT20171026AAF	41 51 12.0 72 40 43.0	0.250	1.1 78	8.6 Gois Broadcasting Of Conne	45.4 44.3
242B	WXNY-FM	LIC _CN NY		229.5 114.60 48.8	BLH19940204KG	40 44 54.0 73 59 10.0	6.000 415	4.6 429	66.3 Univision Radio Stations G	89.8 46.4
244L1	WSUB-LP	LIC RI		90.6 100.10 271.4	BMLL20130305ACE	41 24 25.0 71 45 05.0	0.100 30	69	70.0 The Buzz Alternative Radio	61.5
246D	W246DN	CP CT		58.4 102.67 239.1	BNPFT20171201AIN	41 54 09.0 71 53 44.0	0.250	10.1 136	7.1 Osbyre Broadcasting Compan	72.2 65.6
243D	1777453	APP _C_ NY		275.5 85.82 94.8	BNPFT20180130AHQ	41 29 31.7 73 58 39.5	0.100	0.7 147	5.6 6 Johnson Road Licenses, I	66.5 79.1
243D	1780649	APP DC_ NY		307.8 86.37 127.3	BNPFT20180314ADC	41 53 47.0 73 46 34.0	0.150	0.4 177	4.2 Joseph Paul Ferraro	67.1 81.1
247D	W247CW	LIC _C_ NY		294.5 87.61 113.9	BLFT20170912ACK	41 44 45.7 73 54 45.5	0.250	1.1 150	7.1 Charles Williamson	69.2 79.5

Figure 2. Contour Map

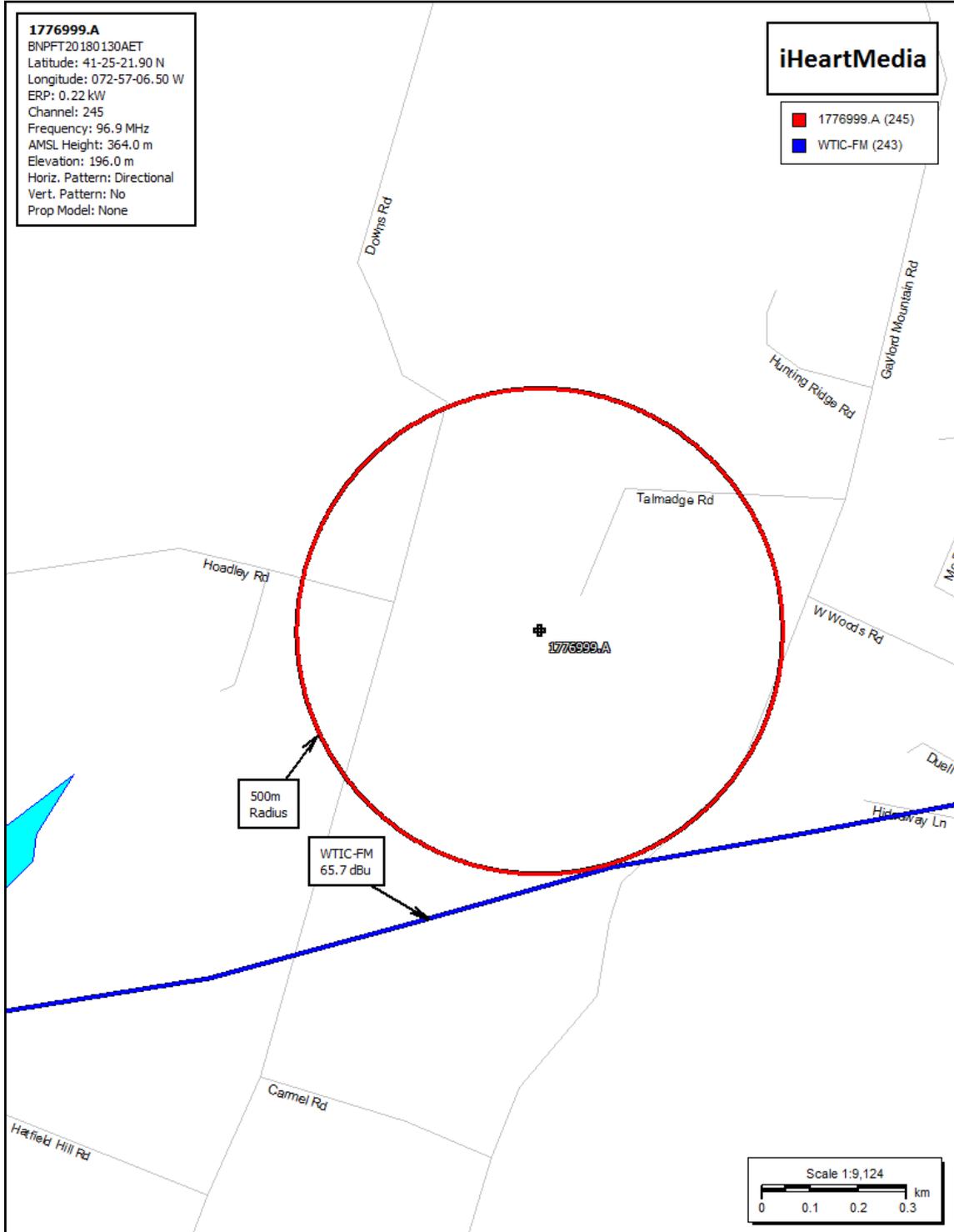


Figure 3. Signal Level at or Near Ground Level

<p>Proposed Antenna: SWR FMEC/2 2 bay 1/2 wave spaced</p> <p>Proposed Power: 0.215 kW</p> <p>Antenna Height AGL: 168 meters</p> <p>Interference Contour: 105.7 dBu f(50:10)</p> <p>Artificial Rcv Antenna Height: 2 meters</p> <p>Distance (Free Space) Equation: $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)}) * 1000$</p> <p>Field Strength (dBu) Equation: $= 106.92 - (20 * (\text{LOG}_{10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$</p>								
Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Strength	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	rom Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.215	-6.68	533.60 m	infinite	---	infinite	---
-5°	0.987	0.209	-6.79	526.67 m	1904.64 m	94.53 dBu	1927.58 m	94.43 dBu
-10°	0.950	0.194	-7.12	506.92 m	955.96 m	100.19 dBu	967.47 m	100.09 dBu
-15°	0.890	0.170	-7.69	474.91 m	641.37 m	103.09 dBu	649.10 m	102.99 dBu
-20°	0.812	0.142	-8.48	433.29 m	485.35 m	104.71 dBu	491.20 m	104.61 dBu
-25°	0.721	0.112	-9.52	384.73 m	392.79 m	105.52 dBu	397.52 m	105.42 dBu
-30°	0.622	0.083	-10.80	331.90 m	332.00 m	105.70 dBu	336.00 m	105.59 dBu
-35°	0.520	0.058	-12.36	277.47 m	289.41 m	105.33 dBu	292.90 m	105.23 dBu
-40°	0.420	0.038	-14.21	224.11 m	258.25 m	104.47 dBu	261.36 m	104.36 dBu
-45°	0.327	0.023	-16.38	174.49 m	234.76 m	103.12 dBu	237.59 m	103.02 dBu
-50°	0.244	0.013	-18.93	130.20 m	216.70 m	101.28 dBu	219.31 m	101.17 dBu
-55°	0.173	0.006	-21.91	92.31 m	202.65 m	98.87 dBu	205.09 m	98.77 dBu
-60°	0.115	0.003	-25.46	61.36 m	191.68 m	95.81 dBu	193.99 m	95.70 dBu
-65°	0.070	0.001	-29.77	37.35 m	183.16 m	91.89 dBu	185.37 m	91.79 dBu
-70°	0.039	0.000	-34.85	20.81 m	176.65 m	87.12 dBu	178.78 m	87.02 dBu
-75°	0.018	0.000	-41.57	9.60 m	171.86 m	80.65 dBu	173.93 m	80.54 dBu
-80°	0.006	0.000	-51.11	3.20 m	168.56 m	71.27 dBu	170.59 m	71.17 dBu
-85°	0.001	0.000	-66.68	0.53 m	166.63 m	55.81 dBu	168.64 m	55.71 dBu
-90°	0.000	0.000	-86.68	0.05 m	166.00 m	35.84 dBu	168.00 m	35.74 dBu

Figure 4. Image of Proposed Support Tower

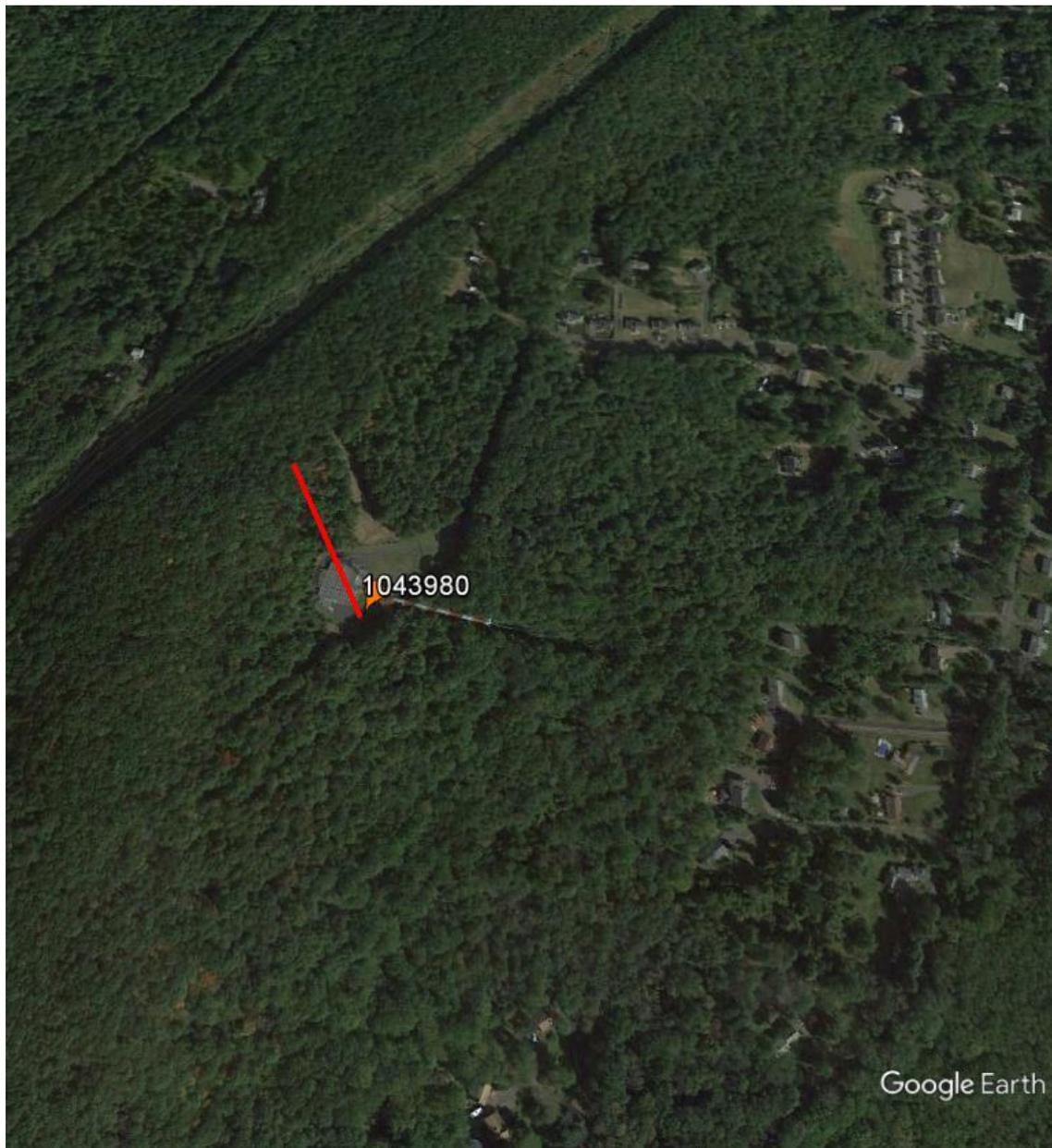


Figure 5. Fill-in and Minor Change Contour Map

