

**MINOR CHANGE APPLICATION**  
**6 JOHNSON ROAD LICENSES, INC.**  
**NEW FM TRANSLATOR STATION**  
**CH 243D - 96.5 MHZ - 0.1 KW**  
**BEACON, NEW YORK**  
**April 2018**

**EXHIBIT B**

**Interference Study for Channel 243D**  
**Using Proposed Site as Reference**

The proposed Channel 243, operating with an effective radiated power of 0.1 kilowatt, will not cause interference to any existing, applied for, or proposed facility. As noted on Exhibit B1, the proposed Channel 243 is within the predicted 60 dBu contour of the second adjacent station WPKF, Channel 241A, Poughkeepsie, New York. Due to the relationship between the proposed Channel 243 and WPKF, 40 db ratio of the protected and interfering contours applies.

**Proposed Channel 243 vs WPKL**

The WPKF contour at the Channel 243 antenna site is in excess of 60.5 dBu (50/50). The corresponding interfering contour for Channel 243 is 100.5 dBu (50/10). As shown in the tabulation of desired to undesired contours (Exhibit B2), the Channel 243 interfering contour (100.5 dBu, FCC 50/10) will not reach ground level. It is proposed to use a Nicom BKG-77, four bay, half wavelength spaced antenna, Since the Channel 243 antenna will be mounted 115.5 meters (378.9 feet) above ground and there are no structures of comparable height in the vicinity of the proposed Channel 243 antenna, this contour never reaches any potentially occupied space. As such, WPKF will not receive interference from the proposed translator.

Based on the foregoing, it is believed that the proposed Channel 243 is in compliance with §74.1204(d) of the Commission's rules. If a waiver of the rule is needed to address WPKF, one is respectfully requested.

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**EXHIBIT B1**

Clearance Study for New Translator  
Using Proposed Site as Reference

REFERENCE		CH# 243D - 96.5 MHZ, Pwr= 0.1 kW, HAAT= 0.0 M, COR= 147 M								DISPLAY DATES	
41 29 31.7 N.		Average Protected F(50-50)= 5.6 km								DATA 04-15-18	
73 58 39.5 W.		Omni-directional								SEARCH 04-15-18	
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
243D Beacon	1777453	APP	C NY	0.0 0.0	0.00 BNPFT20180130AHQ	41 29 31.7 73 58 39.5	0.100	31.4 147	9.4 6 Johnson Road Licenses, I	-40.8*	-40.8*
241A Poughkeepsie	WPKF	LIC	CX NY	12.4 192.4	27.95 BLH20130702ACG	41 44 16.0 73 54 20.0	3.500 81	2.6 186	28.8 Cc Licenses, Llc	14.4	-1.5*
243B Hartford	WTIC-FM	LIC	CX CT	71.8 252.5	102.31 BMLH20131029ABW	41 46 27.0 72 48 20.0	20.000 247	121.6 334	60.4 Cbs Radio Stations Inc.	-27.2*	7.8
243D Ellenville	W243BZ	LIC	C NY	304.2 123.9	38.03 BLFT20091208AAN	41 41 01.0 74 21 24.0	0.007 458	44.8 716	11.8 Wamc	-12.4*	7.6
242B New York	WXNY-FM	LIC	CN NY	180.5 0.5	82.69 BLH19940204KG	40 44 54.0 73 59 10.0	6.000 415	76.6 429	64.7 Univision Radio Stations G	-2.8	0.3
245A Arlington	WRRB	LIC	C NY	356.5 176.5	25.28 BMLH20001002AHL	41 43 09.0 73 59 47.0	0.310 307	1.2 418	23.6 Townsquare Media Poughkeep	13.6	1.0
243D Hyde Park	1780649	APP	DC NY	20.4 200.5	47.95 BNPFT20180314ADC	41 53 47.0 73 46 34.0	0.150	24.2 177	7.1 Joseph Paul Ferraro	13.1	4.0
240D Peekskill	W240CR	LIC	C NY	158.0 338.0	18.44 BLFT20150501AIR	41 20 18.0 73 53 41.0	0.010 80	0.2 231	4.3 Wamc	9.9	10.3
297A Highland	WRWD-FM	LIC	C NY	354.8 174.8	23.12 BMLH20060802ALN	41 41 58.0 74 00 11.0	0.330 295	12.8 411	58.8 Amfm Radio Licenses, L.l.c	10.0R	13.1M
246B New York	WQHT	LIC	CX NY	180.5 0.5	82.69 BMLH20050215AAH	40 44 54.0 73 59 10.0	6.700 408	4.6 422	65.4 Emmis License Corporation	69.2	15.9
243B Montrose	WPFL-FM	LIC	CN PA	285.0 103.8	161.73 BLH4542	41 51 16.0 75 51 50.0	57.000 140	138.8 594	63.9 Montrose Broadcasting Corp	17.3	69.0
244D Warwick	W244EA	CP	C NY	245.6 65.3	37.29 BNPFT20171220ABO	41 21 10.1 74 23 04.6	0.250	10.1 149	7.1 Digital Radio Broadcasting	19.3	19.4
244A Port Chester	WKLV-FM	LIC	NCX NY	165.7 345.8	66.52 BMLED20110616AAN	40 54 44.0 73 46 55.0	3.100 143	36.0 169	23.9 Educational Media Foundati	21.7	29.7

Terrain database is FCC NGDC 30 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.

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.

Reference station has protected zone issue: AM tower

**Ch 243, Beacon, Nt - BNPFT20180130AHQ**

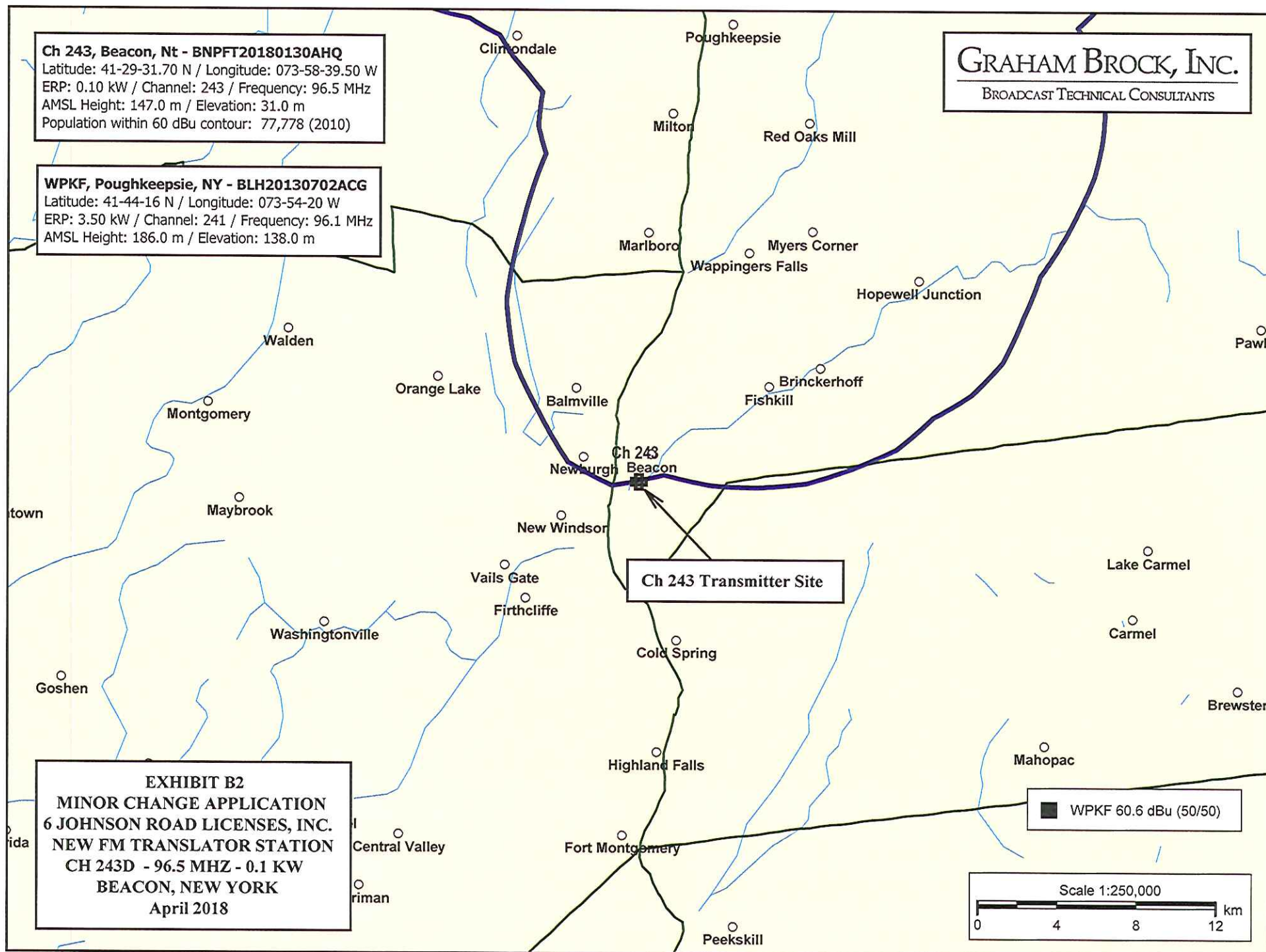
Latitude: 41-29-31.70 N / Longitude: 073-58-39.50 W  
ERP: 0.10 kW / Channel: 243 / Frequency: 96.5 MHz  
AMSL Height: 147.0 m / Elevation: 31.0 m  
Population within 60 dBu contour: 77,778 (2010)

**WPKF, Poughkeepsie, NY - BLH20130702ACG**

Latitude: 41-44-16 N / Longitude: 073-54-20 W  
ERP: 3.50 kW / Channel: 241 / Frequency: 96.1 MHz  
AMSL Height: 186.0 m / Elevation: 138.0 m

**GRAHAM BROCK, INC.**

BROADCAST TECHNICAL CONSULTANTS



**EXHIBIT B2**

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**EXHIBIT B3**

1777453 Beacon , NY, Showing Protection to WPKF  
 74.1204(d) Study - Using FCC 30 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.1  
 Translator or LPFM Antenna Height AG = 115.5 Meters  
 1777453 Antenna Model = 4 BAY HW

Protected Station's Contour = 60.57022 dBu  
 Translator's or LPFM's full Interference contour 100.57022

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.1 kW  
 Distance between stations = 28.0 km  
 Protected Station= WPKF, 3.5 kW, 186 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	0.1000	656.8845	656.8845	115.500
05.00	0.951	1.0	0.0904	624.6971	622.3200	061.054
10.00	0.814	1.0	0.0663	534.7040	526.5806	022.650
15.00	0.615	1.0	0.0378	403.9840	390.2185	010.941
20.00	0.391	1.0	0.0153	256.8418	241.3524	027.655
25.00	0.178	1.0	0.0032	116.9254	105.9704	066.085
30.00	0.004	1.0	0.0000	002.6275	002.2755	114.186
35.00	0.117	1.0	0.0014	076.8555	062.9563	071.418
40.00	0.182	1.0	0.0033	119.5530	091.5829	038.653
45.00	0.2	1.0	0.0040	131.3769	092.8975	022.603
50.00	0.184	1.0	0.0034	120.8667	077.6916	022.911
55.00	0.15	1.0	0.0023	098.5327	056.5160	034.787
60.00	0.11	1.0	0.0012	072.2573	036.1286	052.923
65.00	0.072	1.0	0.0005	047.2957	019.9880	072.636
70.00	0.042	1.0	0.0002	027.5891	009.4360	089.575
75.00	0.021	1.0	0.0000	013.7946	003.5703	102.175
80.00	0.008	1.0	0.0000	005.2551	000.9125	110.325
85.00	0.002	1.0	0.0000	001.3138	000.1145	114.191
90.00	0.001	1.0	0.0000	000.6569	000.0000	114.843

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**EXHIBIT B4**

N. Lat. = 41° 29' 31.7" - Protected and Interfering Contour Data  
W. Lng. = 73° 58' 39.5" - New FM Translator, Beacon, New York

HAAT and Distance to Contour - FCC 30 second terrain database

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	40-F1	54-F1	100-F1	100.6-F1
000	63.7	82.3	0.1000	-10.00	1.000	9.38	31.19	13.10	0.70	0.65
010	34.0	112.0	0.1000	-10.00	1.000	10.88	37.06	15.60	0.70	0.65
020	54.5	91.5	0.1000	-10.00	1.000	9.88	33.20	13.80	0.70	0.65
030	62.5	83.5	0.1000	-10.00	1.000	9.45	31.45	13.19	0.70	0.65
040	88.1	57.9	0.1000	-10.00	1.000	7.84	26.13	11.21	0.70	0.65
050	86.2	59.8	0.1000	-10.00	1.000	7.97	26.53	11.37	0.70	0.65
060	89.3	56.7	0.1000	-10.00	1.000	7.76	25.89	11.10	0.70	0.65
070	135.2	10.8	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
080	220.1	-74.1	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
090	268.6	-122.6	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
100	277.5	-131.5	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
110	273.4	-127.4	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
120	242.5	-96.5	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
130	216.2	-70.2	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
140	193.0	-47.0	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
150	204.1	-58.1	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
160	154.0	-8.0	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
170	94.8	51.2	0.1000	-10.00	1.000	7.34	24.60	10.55	0.70	0.65
180	127.8	18.2	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
190	224.5	-78.5	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
200	227.2	-81.2	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
210	183.0	-37.0	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
220	77.0	69.0	0.1000	-10.00	1.000	8.57	28.37	12.08	0.70	0.65
230	129.8	16.2	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
240	87.9	58.1	0.1000	-10.00	1.000	7.86	26.19	11.23	0.70	0.65
250	104.9	41.1	0.1000	-10.00	1.000	6.54	21.91	9.39	0.70	0.65
260	118.5	27.5	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
270	121.2	24.8	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
280	114.7	31.3	0.1000	-10.00	1.000	5.74	18.97	8.15	0.70	0.65
290	117.0	29.0	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
300	120.4	25.6	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
310	129.7	16.3	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
320	127.4	18.6	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
330	138.9	7.1	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
340	146.4	-0.4	0.1000	-10.00	1.000	5.64	18.58	7.99	0.70	0.65
350	97.2	48.8	0.1000	-10.00	1.000	7.15	23.98	10.28	0.70	0.65

AMSL= 146.0 M