

**MINOR CHANGE APPLICATION**  
**COMMUNITY MEDIA ASSISTANCE PROJECT**  
**W264CV FM TRANSLATOR**  
**CH 274D - 102.7 MHZ - 0.17 KW**  
**LENOIR CITY, TENNESSEE**  
**July 2016**

**EXHIBIT C**

**Interference Study for W264CV on Channel 274**  
**Using Proposed Site as Reference**

The proposed W264CV on Channel 274, operating with an effective radiated power of 0.17 kilowatt, will not cause interference to any existing, applied for or proposed facility. As noted on Exhibit C1, the proposed W264CV is within the predicted 60 dBu contour of third adjacent station WWST, Channel 271C1, Sevierville, Tennessee. Due to the relationship between the proposed W264CV and WWST, a 40 db ratio of the protected and interfering contours applies.

The WWST contour at the proposed W264CV antenna site is 71.4 dBu (50/50). The corresponding interfering contour for W264CV is 111.4 dBu (50/10). This is shown on Exhibit C2. Due to the relatively low power of the proposed W264CV, the 111.4 dBu interfering contour of the proposed W264CV is limited and extends no farther than 0.25 kilometer (250.0 meters) from the antenna. This interference contour, which is tabulated in Exhibit C3, does not reach ground level or any building structure. As such, WWST will not receive interference from the W264CV.

Exhibit C4 is a tabulation of the proposed new translator's interference and service contours. Based on the foregoing, it is believed that the proposed W264CV on Channel 274 is in compliance with §74.1204(d) of the Commission's rules. If a waiver of the rule is needed to address WWST, one is respectfully requested.

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**EXHIBIT C1**

**Clearance Study for W264CV on Channel 274**  
**Using Proposed Site as Reference**

REFERENCE		CH# 274D - 102.7 MHZ, Pwr= 0.17 kW, HAAT= 175.5 M, COR= 450 M								DISPLAY DATES	
35 42 38.0 N.		Average Protected F(50-50)= 15.7 km								DATA 07-22-16	
84 10 46.0 W.		Omni-directional								SEARCH 07-27-16	
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*
271C1 Sevierville	WWST	LIC TN	CN	76.2 256.5	47.40 BLH19860519KF	35 48 41.0 83 40 08.0	15.000 603	7.1 981	74.3 Scripps Broadcasting Holdi	26.0	-27.8*
274A Murphy	WCNG	LIC NC	NCN	167.1 347.2	73.42 BLH19901119KB	35 04 00.0 83 59 58.0	3.000 72	59.6 641	13.2 Cherokee Broadcasting Co.,	-0.4	2.4
274D Pigeon Forge	W274AS	LIC TN	C	81.4 261.8	54.22 BLFT20070709ABH	35 46 55.0 83 35 06.0	0.010 64	21.4 510	3.6 Appalachian Educational Co	19.7	1.3
276C2 Etcwah	WJLJ	LIC TN	CN	238.1 57.8	53.23 BLH19890814KF	35 27 24.0 84 40 43.0	50.000 150	5.6 418	49.8 Friendship Broadcasting Ll	31.2	2.5
275D Knoxville	W275AD	LIC TN	VN	33.0 213.2	38.71 BLFT19980729TD	36 00 08.0 83 56 41.0	0.010 144	12.4 518	8.9 Cumberland Communities Com	10.1	5.7
273C3 Crossville	WOWF	LIC TN	CX	296.1 115.6	79.31 BLH20080717AKR	36 01 18.0 84 58 18.0	9.000 165	56.0 701	37.5 Peg Broadcasting , Llc	6.8	16.9
273L1 Powell	WMPU-LP	CP TN		23.3 203.4	37.41 BNPL20131112BYX	36 01 10.0 84 00 53.0	0.004 145			13.2	7.4
220C Knoxville	WUOT	LIC TN	CY	32.3 212.5	37.52 BLED20050519AGZ	35 59 44.0 83 57 23.0	65.000 534	111.8 839	37.3 University Of Tennessee	28.5R	9.0M
220C Knoxville	WUOT	CP TN	CY	33.3 213.5	39.24 BPED20140521AHX	36 00 19.0 83 56 23.0	81.000 482	111.8 793	37.3 University Of Tennessee	28.5R	10.7M
274A Jellico	WEKK	LIC TN	CN	358.6 178.6	109.04 BLH19930127KD	36 41 28.0 84 12 31.0	0.630 307	73.0 689	21.3 Whitley Broadcasting Co.,	22.8	29.7
275D Hazelwood, Etc.	W237AR	CP NC	DC	105.6 286.2	100.80 BMJPFT20130830ALT	35 27 43.0 83 06 26.0	0.125 727	47.3 1852	29.0 Western North Carolina Pub	39.8	46.9

Terrain database is Globe 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)

**GRAHAM BROCK, INC.**

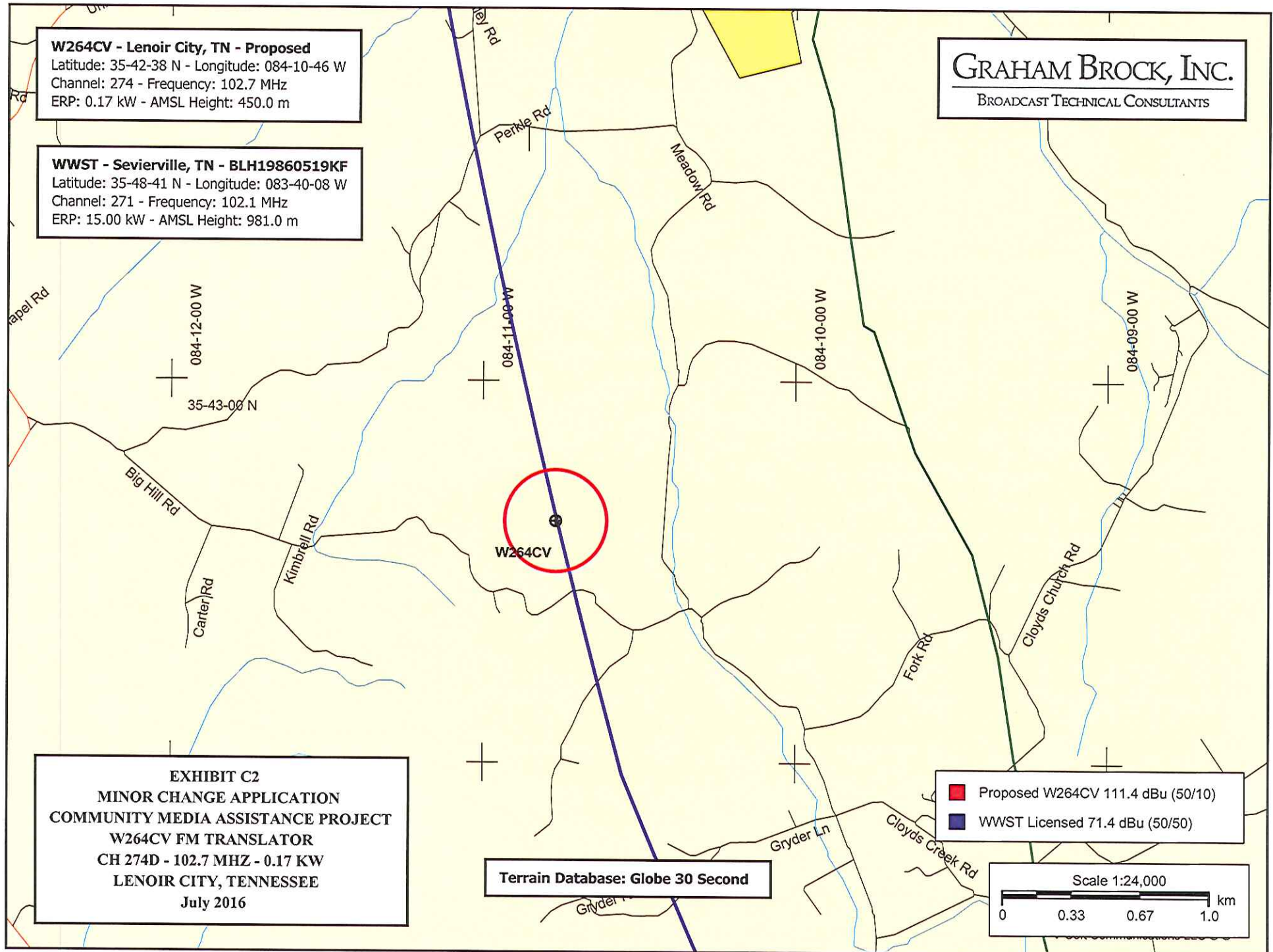
BROADCAST TECHNICAL CONSULTANTS

**W264CV - Lenoir City, TN - Proposed**

Latitude: 35-42-38 N - Longitude: 084-10-46 W  
Channel: 274 - Frequency: 102.7 MHz  
ERP: 0.17 kW - AMSL Height: 450.0 m

**WWST - Sevierville, TN - BLH19860519KF**

Latitude: 35-48-41 N - Longitude: 083-40-08 W  
Channel: 271 - Frequency: 102.1 MHz  
ERP: 15.00 kW - AMSL Height: 981.0 m



**EXHIBIT C2**

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**EXHIBIT C3**

**W264CV vs WWST**  
**Using Proposed Site as Reference**

W264CV Lenoir City, TN  
74.1204(d) Showing  
Translator or LPFM Maximum Licensed ERP = 0.17  
Translator or LPFM Antenna Height AG = 50 Meters  
W264CV Antenna Model = Nicom - BKG 77 - 4 - HW

Protected Station's Contour = 71.4 dBu  
Translator's or LPFM's full Interference contour 111.4

Review Azimuth = 0 Degrees True  
Relative Field on the horizon at Review Azimuth = 0.320  
Translator/LPFM ERP on the horizon at Review Azimuth = 0.017 kW  
Distance between stations = 47.4 km  
Protected Station= WWST, 15 kW, 981 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	0.32	0.0544	139.2703	139.2703	050.000
05.00	0.964	0.32	0.0506	134.2566	133.7457	038.299
10.00	0.859	0.32	0.0402	119.6332	117.8157	029.226
15.00	0.692	0.32	0.0261	096.3750	093.0911	025.056
20.00	0.499	0.32	0.0135	069.4959	065.3048	026.231
25.00	0.305	0.32	0.0051	042.4774	038.4976	032.048
30.00	0.137	0.32	0.0010	019.0800	016.5238	040.460
35.00	0.005	0.32	0.0000	000.6964	000.5704	049.601
40.00	0.082	0.32	0.0004	011.4202	008.7484	042.659
45.00	0.128	0.32	0.0009	017.8266	012.6053	037.395
50.00	0.141	0.32	0.0011	019.6371	012.6225	034.957
55.00	0.133	0.32	0.0010	018.5229	010.6243	034.827
60.00	0.112	0.32	0.0007	015.5983	007.7991	036.491
65.00	0.089	0.32	0.0004	012.3951	005.2384	038.766
70.00	0.065	0.32	0.0002	009.0526	003.0962	041.493
75.00	0.047	0.32	0.0001	006.5457	001.6942	043.677
80.00	0.032	0.32	0.0001	004.4566	000.7739	045.611
85.00	0.025	0.32	0.0000	003.4818	000.3035	046.531
90.00	0.023	0.32	0.0000	003.2032	000.0000	046.797

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**EXHIBIT C4**

N. Lat. = 35° 42' 38" - Protected and Interfering Contour Data  
W. Lng. = 84° 10' 46" - W264CV FM Translator, Lenoir City, Tennessee

HAAT and Distance to Contour - Globe 30 second terrain database

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	40-F1	54-F1	100-F1	111.5-F1
000	276.5	173.5	0.1700	-7.70	1.000	15.56	50.51	23.44	0.91	0.24
010	273.2	176.8	0.1700	-7.70	1.000	15.73	50.92	23.67	0.91	0.24
020	271.1	178.9	0.1700	-7.70	1.000	15.82	51.18	23.81	0.91	0.24
030	270.2	179.8	0.1700	-7.70	1.000	15.86	51.29	23.87	0.91	0.24
040	278.9	171.1	0.1700	-7.70	1.000	15.45	50.22	23.28	0.91	0.24
050	290.0	160.0	0.1700	-7.70	1.000	14.87	48.79	22.43	0.91	0.24
060	294.2	155.8	0.1700	-7.70	1.000	14.65	48.25	22.10	0.91	0.24
070	303.9	146.1	0.1700	-7.70	1.000	14.13	46.98	21.31	0.91	0.24
080	306.0	144.0	0.1700	-7.70	1.000	14.01	46.70	21.12	0.91	0.24
090	310.5	139.5	0.1700	-7.70	1.000	13.77	46.12	20.75	0.91	0.24
100	306.9	143.1	0.1700	-7.70	1.000	13.96	46.59	21.05	0.91	0.24
110	306.8	143.2	0.1700	-7.70	1.000	13.97	46.60	21.06	0.91	0.24
120	301.2	148.8	0.1700	-7.70	1.000	14.27	47.33	21.53	0.91	0.24
130	298.0	152.0	0.1700	-7.70	1.000	14.44	47.75	21.79	0.91	0.24
140	299.1	150.9	0.1700	-7.70	1.000	14.38	47.60	21.70	0.91	0.24
150	293.2	156.8	0.1700	-7.70	1.000	14.71	48.38	22.18	0.91	0.24
160	291.9	158.1	0.1700	-7.70	1.000	14.77	48.54	22.28	0.91	0.24
170	284.1	165.9	0.1700	-7.70	1.000	15.18	49.55	22.89	0.91	0.24
180	277.0	173.0	0.1700	-7.70	1.000	15.54	50.45	23.40	0.91	0.24
190	273.0	177.0	0.1700	-7.70	1.000	15.73	50.94	23.68	0.91	0.24
200	279.6	170.4	0.1700	-7.70	1.000	15.41	50.13	23.22	0.91	0.24
210	269.3	180.7	0.1700	-7.70	1.000	15.90	51.40	23.93	0.91	0.24
220	270.0	180.0	0.1700	-7.70	1.000	15.87	51.31	23.88	0.91	0.24
230	274.9	175.1	0.1700	-7.70	1.000	15.64	50.71	23.55	0.91	0.24
240	283.6	166.4	0.1700	-7.70	1.000	15.21	49.62	22.93	0.91	0.24
250	291.6	158.4	0.1700	-7.70	1.000	14.79	48.58	22.30	0.91	0.24
260	302.2	147.8	0.1700	-7.70	1.000	14.22	47.20	21.44	0.91	0.24
270	288.1	161.9	0.1700	-7.70	1.000	14.98	49.05	22.59	0.91	0.24
280	269.4	180.6	0.1700	-7.70	1.000	15.90	51.38	23.92	0.91	0.24
290	266.2	183.8	0.1700	-7.70	1.000	16.03	51.75	24.11	0.91	0.24
300	266.5	183.5	0.1700	-7.70	1.000	16.02	51.72	24.10	0.91	0.24
310	280.8	169.2	0.1700	-7.70	1.000	15.35	49.98	23.14	0.91	0.24
320	281.3	168.7	0.1700	-7.70	1.000	15.33	49.92	23.10	0.91	0.24
330	280.2	169.8	0.1700	-7.70	1.000	15.38	50.05	23.18	0.91	0.24
340	272.8	177.2	0.1700	-7.70	1.000	15.74	50.97	23.70	0.91	0.24
350	286.3	163.7	0.1700	-7.70	1.000	15.07	49.28	22.73	0.91	0.24

AMSL= 450.0 M