

**MINOR CHANGE APPLICATION**  
**ST. THOMAS SEMINARY**  
**W296AO FM TRANSLATOR STATION**  
**CH 296D - 107.1 MHZ - 0.003 KW**  
**NEW HAVEN, CONNECTICUT**  
**June 2014**

**EXHIBIT A**

As indicated on Exhibit A1, the proposed operation of W296AO with an effective radiated power of 0.003 kilowatt (3 watts) at 100.6 meters (330.0 feet) above ground level will not cause interference to any existing, applied for, or proposed facility.

The proposed/licensed W296AO is inside the predicted 54 dBu contour of first adjacent station WCCC-FM, Channel 295B, Hartford, Connecticut. Due to the relationship between W296AO and WCCC-FM, a 40 db ratio of the protected and interfering contours applies.

We have therefore calculated the level of signal of WCCC-FM at the proposed W296AO site. A map showing the WCCC-FM contours at the W296AO site is attached as Exhibit A2. The WCCC-FM contour at the W296AO site is 56.6 dBu (50/50) and the corresponding interfering contour for W296AO is 106.6 dBu (50/10). At its greatest distance, the interfering contour (106.6 dBu) of W296AO extends 0.06 kilometer (196.9 feet) in the direction of the main lobe of the directional antenna. As the proposed W296AO antenna will be installed at 330 feet above ground level, the interfering contour does not reach the ground and the proposed W296AO translator will not impact reception of service from WCCC-FM. Thus, the interference is considered to be over an unpopulated area.

Based on the foregoing, it is believed that the proposed W296AO 292D is in compliance with §74.1204(d) of the Commission's rules. If a waiver of the rule is needed to address WCCC-FM, one is respectfully requested, based on the absence of any population affected in the interference area.

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**EXHIBIT A1**

Interference Study for W296AO New Haven, Connecticut  
Using Licensed Site as Reference

REFERENCE		CH# 296D - 107.1 MHz, Pwr= 0.003 kW DA, HAAT= 66.0 M, COR= 105 M								DISPLAY DATES	
41 18 12.0 N.		Average Protected F(50-50)= 3.5 km								DATA 06-03-14	
72 55 45.0 W.		Standard Directional								SEARCH 06-06-14	
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*
296D New Haven	W296AO	LIC	DHN CT	0.0 0.0	0.00 BLFT19860911TA	41 18 12.0 72 55 45.0	0.003 66	6.5 105	2.1 St. Thomas Seminary	-8.6*	-8.6*
295B Hartford	WCCC-FM	LIC	C CT	11.2 191.3	55.92 BLH20010911AAC	41 47 48.0 72 47 52.0	23.000 221	72.3 310	61.5 Marlin Broadcasting Of Har	-18.7*<	-10.0*<
296A Hampton Bays	WLIR-FM	LIC	ZCX NY	156.8 337.0	50.52 BLH20070719AEB	40 53 07.0 72 41 33.6	4.100 121	62.6 134	20.0 Livingstone Broadcasting,	-16.2*<	17.3
296A Briarcliff Manor	WXPX	LIC	ZCN NY	251.6 71.1	77.53 BLH19980521KA	41 04 49.0 73 48 26.0	1.900 180	74.8 264	24.7 6 Johnson Road Licenses, I	-0.4<	42.6
293D Derby	W293AU	LIC	C CT	313.3 133.2	14.28 BLFT20070827ABJ	41 23 29.1 73 03 13.6	0.010 116	0.2 231	7.8 Sacred Heart University, I	11.7	6.4
293D Derby	W293AU	CP	DC CT	262.9 82.7	21.58 BPFT20130703ABN	41 16 44.0 73 11 08.0	0.085 177	0.6 264	13.8 Sacred Heart University, I	18.2	7.7
297D Danbury	W297AN	CP	DC CT	280.5 100.2	43.88 BPFT20140107APM	41 22 27.0 73 26 47.0	0.099	16.7 302	11.5 The Berkshire Broadcasting	24.6	28.8
297D Danbury	W297AN	LIC	C CT	280.5 100.2	43.88 BMLFT20130419AAB	41 22 27.0 73 26 47.0	0.021 137	11.0 302	7.8 The Berkshire Broadcasting	30.3	32.5
297D Stony Brook	W297BM	CP	C NY	199.3 19.2	46.91 BNPFT20130828AEJ	40 54 17.6 73 06 48.6	0.006 151	9.4 172	6.6 State University Of New Yo	33.3	34.4
293B1 Pawcatuck	WBMW	LIC	ZCX CT	79.0 259.7	78.69 BLH20130724AAQ	41 26 03.0 72 00 08.0	12.500 141	3.9 191	44.3 Red Wolf Broadcasting Corp	71.8	34.2
293D Ridge	W293BT	LIC	C NY	165.0 345.1	51.59 BLFT20130823ACK	40 51 18.0 72 46 12.0	0.070 198	0.6 211	13.1 Sacred Heart University, I	46.8	38.4
296D Hauppauge	W296CQ	CP	C NY	204.1 23.9	60.14 BNPFT20130819ABG	40 48 33.0 73 13 16.0	0.010 80	17.4 104	5.4 Juan Alberto Ayala	38.6	41.7
299D New Britain	WFCS	LIC	CN CT	17.6 197.7	45.49 BMLFD19980202KC	41 41 36.0 72 45 49.0	0.036 33	0.4 91	4.3 Central Connecticut State	43.0	41.1
294B New York	WLTW	LIC	CN NY	235.5 54.8	108.01 BLH19940203KA	40 44 54.0 73 59 10.0	6.000 415	4.6 429	66.4 Amfm Radio Licenses, L.l.c	99.9	41.4

Terrain database is NED 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= 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 protected contour.

< = Contour Overlap

Reference station has protected zone issue:

**W296AO - Proposed**  
Latitude: 41-18-12 N / Longitude: 072-55-45 W  
ERP: 0.003 kW / Ch 296 / Freq: 107.1 MHz  
AMSL Height: 105.0 m  
Horiz. Pattern: Directional

**WCCC-FM - Hartford, CT**  
BLH20010911AAC  
Latitude: 41-47-48 N / Longitude: 072-47-52 W  
ERP: 23.00 kW / Ch 295 / Freq 106.9 MHz  
AMSL Height: 310.0 m  
Horiz. Pattern: Omni

W296AO Site

WCCC-FM 56.6 dBu contour

**EXHIBIT A2**

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Scale 1:150,000  
0 2 4 6 km

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**EXHIBIT A3**

Predicted contour:

N. Lat. = 41 18 12.0 - Tabulated Protected and Interfering Contour Data  
W. Lng. = 72 55 45.0 - W296AO FM Translator - New Haven, Connecticut

HAAT and Distance to Contour - FCC 30 sec terrain database

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	40-F1	54-F1	100-F1	106.6-F1
000	65.4	39.6	0.0013	-28.89	0.656	2.23	6.83	3.06	0.08	0.04
010	43.5	61.5	0.0007	-31.53	0.484	2.38	7.36	3.31	0.06	0.03
020	44.9	60.1	0.0004	-33.63	0.380	2.10	6.46	2.91	0.05	0.02
030	23.0	82.0	0.0003	-34.60	0.340	2.20	7.12	3.14	0.04	0.02
040	27.0	78.0	0.0003	-34.60	0.340	2.16	6.94	3.06	0.04	0.02
050	37.3	67.7	0.0004	-33.63	0.380	2.18	6.83	3.04	0.05	0.02
060	54.9	50.1	0.0007	-31.53	0.484	2.19	6.64	2.99	0.06	0.03
070	45.8	59.2	0.0013	-28.89	0.656	2.71	8.51	3.80	0.08	0.04
080	37.2	67.8	0.0019	-27.15	0.802	3.14	10.08	4.47	0.10	0.05
090	33.3	71.7	0.0024	-26.21	0.893	3.40	10.89	4.86	0.11	0.05
100	25.3	79.7	0.0028	-25.58	0.960	3.72	11.83	5.32	0.12	0.05
110	13.3	91.7	0.0030	-25.23	1.000	4.08	12.89	5.84	0.12	0.06
120	9.6	95.4	0.0029	-25.42	0.978	4.12	13.00	5.90	0.12	0.06
130	5.7	99.3	0.0028	-25.54	0.965	4.17	13.17	5.98	0.12	0.05
140	3.3	101.7	0.0029	-25.37	0.984	4.27	13.46	6.12	0.12	0.06
150	0.8	104.2	0.0028	-25.48	0.972	4.29	13.54	6.16	0.12	0.06
160	0.0	105.0	0.0025	-26.02	0.913	4.17	13.18	5.99	0.11	0.05
170	0.0	105.0	0.0026	-25.85	0.931	4.21	13.30	6.05	0.11	0.05
180	0.0	105.0	0.0028	-25.60	0.958	4.28	13.49	6.14	0.12	0.05
190	0.0	105.0	0.0026	-25.85	0.931	4.21	13.30	6.05	0.11	0.05
200	1.3	103.7	0.0025	-26.03	0.912	4.14	13.08	5.95	0.11	0.05
210	6.2	98.8	0.0027	-25.67	0.950	4.12	13.03	5.92	0.12	0.05
220	16.4	88.6	0.0027	-25.67	0.950	3.90	12.37	5.59	0.12	0.05
230	20.5	84.5	0.0025	-26.03	0.912	3.73	11.87	5.35	0.11	0.05
240	33.4	71.6	0.0026	-25.85	0.931	3.47	11.11	4.96	0.11	0.05
250	41.0	64.0	0.0028	-25.60	0.958	3.36	10.72	4.77	0.12	0.05
260	49.4	55.6	0.0026	-25.85	0.931	3.10	9.91	4.39	0.11	0.05
270	63.4	41.6	0.0025	-26.02	0.913	2.67	8.35	3.72	0.11	0.05
280	63.1	41.9	0.0028	-25.48	0.972	2.75	8.67	3.84	0.12	0.06
290	75.5	29.5	0.0029	-25.37	0.984	2.36	7.36	3.27	0.12	0.06
300	84.1	20.9	0.0028	-25.54	0.965	2.34	7.29	3.24	0.12	0.05
310	85.1	19.9	0.0029	-25.42	0.978	2.36	7.34	3.26	0.12	0.06
320	93.5	11.5	0.0030	-25.23	1.000	2.38	7.42	3.30	0.12	0.06
330	107.6	-2.6	0.0028	-25.58	0.960	2.34	7.27	3.23	0.12	0.05
340	109.0	-4.0	0.0024	-26.21	0.893	2.26	7.01	3.11	0.11	0.05
350	95.2	9.8	0.0019	-27.15	0.802	2.15	6.65	2.95	0.10	0.05

AMSL= 105.0 M