

Non-Interference Compliance W288CI, Nashville, TN FAC# 141076

Description of Exhibit Contents

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

[A]n 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.

Page 3 of this exhibit contains the adjacent channel study created with ComStudy 2.2 which shows all co-channel, 1st adjacent, 2nd adjacent and 3rd adjacent to the proposal.

Page 4 of this exhibit is a Contour map demonstrating contour non-interference toward co-channel W288EF.

Page 5 of this exhibit is a Google Earth aerial photo of the vicinity surrounding the proposed translator's tower site with the plotted zone of predicted interference.

Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

File Number	Call Sign	Contour at Tower
BLH-19831212AN	WNRQ	86.4
BLFT-20160810AAB	W286CY	74.8
Minimum F(50,50) Contour of Adjacent Station		
Within Proposed Translator's Interfering Contour		74.8

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **74.8 dBμ**, this makes the proposed translator's worst-case interfering contour **114.8 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **39.5m** from the transmit antenna.

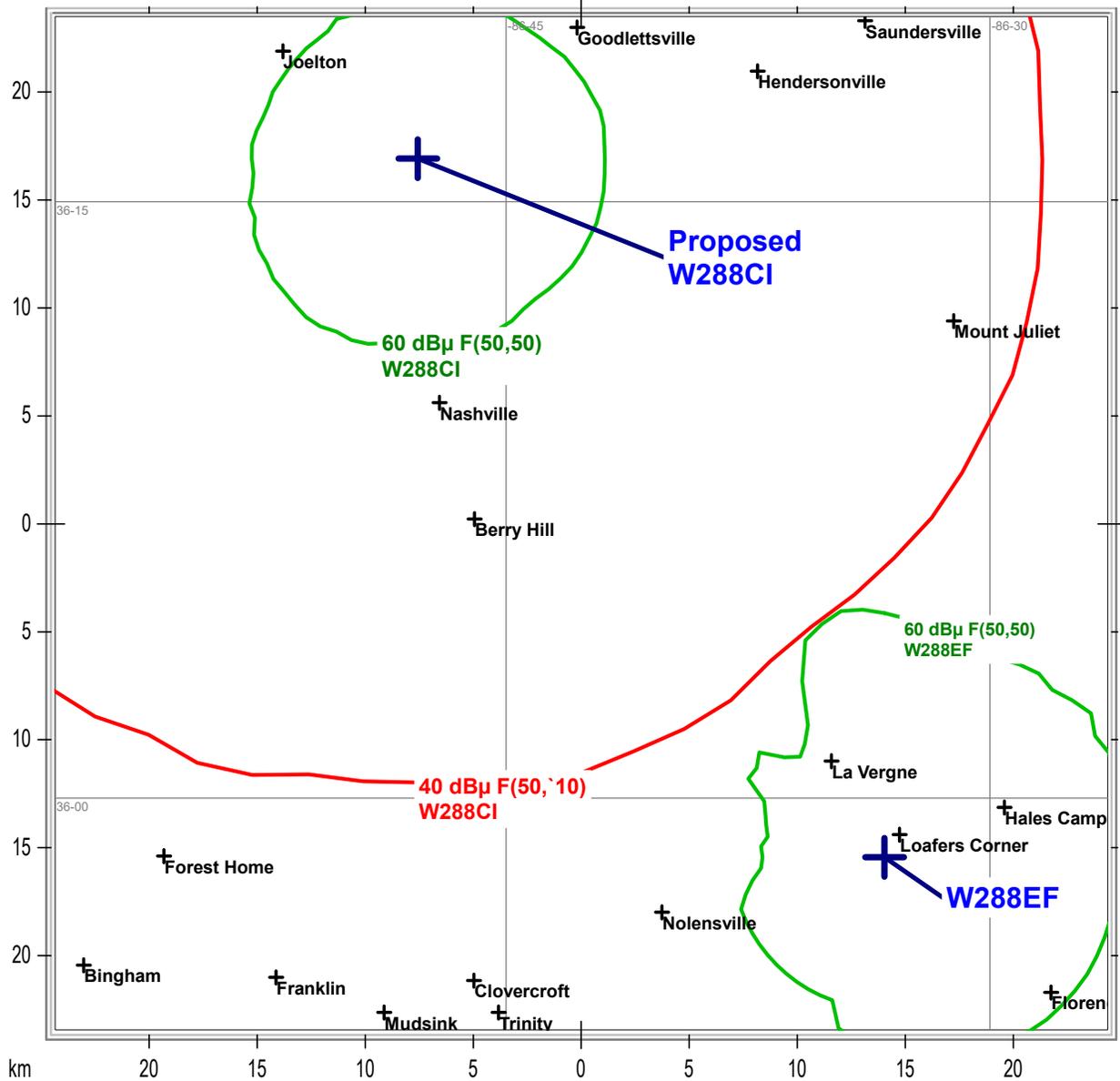
Note: The only structures within the zone of predicted interference are unoccupied communications buildings so in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries (FCC 02-244)*, a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer: BEXT
Antenna Model: TFC2K
CORAGL: 150 m
Maximum ERP: 0.0095 kW
Interfering Contour: 114.8 dBμ
Max Int. Contour Distance: 39.5 m

Adjacent Channel Study
W288CI, Nashville, TN FAC# 141076
8/24/2023

Callsign	State	City	Channel	ERP (W)	Class	Status	Distance (km)	Clr
WNRQ	TN	NASHVILLE	290	15500	C	LIC	0.49	-78.82 dB
W288CI	TN	NASHVILLE	288	55	D	LIC	10.23	-54.32 dB
WNRQ	TN	NASHVILLE	290	100000	C	LIC	26.23	-26.66 dB
W286CY	TN	NASHVILLE	286	250	D	LIC	5.16	-16.17 dB
W288EF	TN	SMYRNA	288	250	D	LIC	39.08	-0.00 dB
W288DQ	TN	CLARKSVILLE	288	250	D	LIC	56.41	3.16 dB
W287DK	TN	BRENTWOOD	287	250	D	LIC	24.45	5.75 dB
WLFN	TN	WAVERLY	286	50000	C2	LIC	78.01	12.17 dB
W235BW	TN	NASHVILLE	235	250	D	LIC	15.44	15.4
W287DO	TN	LEBANON	287	10	D	LIC	39.77	15.63 dB
W288DC	TN	COLUMBIA	288	38	D	LIC	75.65	16.49 dB
W285FB	TN	BRENTWOOD	285	250	D	LIC	24.45	17.44 dB
WBOZ	TN	WOODBURY	285	6000	A	LIC	75.58	18.49 dB
WPTQ	KY	GLASGOW	287	15000	C3	LIC	100.48	21.34 dB
W288DO	TN	SPARTA	288	250	D	LIC	123.75	21.46 dB
W285GG	TN	HARTSVILLE	285	250	D	CP MOD	51.83	22.32 dB
WYTM-FM	TN	FAYETTEVILLE	288	6000	A	LIC	128.03	26.16 dB
W285GB	KY	RUSSELLVILLE	285	235	D	LIC	65	27.01 dB
WKYA	KY	GREENVILLE	288	4500	A	LIC	115.32	27.25 dB
WRQR-FM	TN	PARIS	288	3700	A	LIC	138.94	30.65 dB
WOWC	TN	MORRISON	287	6000	A	LIC	108.28	31.32 dB
WJLT	IN	EVANSVILLE	287	50000	B	LIC	213.62	34.62 dB
W287AA	TN	LAWRENCEBURG	287	250	D	LIC	122.16	34.22 dB
WMTN-LP	TN	SEWANEE	289	0	D	APP	142.34	36.56 dB
W288EL	TN	ATHENS	288	250	D	CP MOD	220.27	37.24 dB
WPTQ	KY	GLASGOW	287	150	C3	LIC	100.48	37.79 dB
WVNA-FM	AL	MUSCLE SHOALS	288	4400	A	LIC	195.46	39.84 dB
WVNA-FM	AL	MUSCLE SHOALS	288	1900	A	CP MOD	195.31	39.97 dB

W288EF Contour Non-Interference Map



ASR# 1233975, 150m, 9.5W, channel 288, TFC2K, KAWZ

State Borders Lat/Lon Grid

**Aerial Photo Zone Of Predicted Interference
W288CI, Nashville, TN FAC# 141076
August 24, 2023**

