

Consolidated Engineering Report

Minor Modification to Facility

95.9 MHz
Facility 202262
Canandaigua, NY

1310 FLX Radio, Inc.
("Applicant")

August 25, 2023

Prepared by:

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Proposed Facility Information

Coordinates:	42-44-47.2 N 77-25-33.9 W (NAD83)
Antenna Structure Registration Number:	N/A
Channel:	240 (95.9 MHz)
Site Height Above Sea Level:	652 m
Height of Radiation Center Above Ground Level:	32 m
Center Radiation Above Sea Level AMSL:	684 m
Antenna Height Above Average Terrain (HAAT):	298 m
Effective Radiated Power:	0.250 kW (H/V)

Antenna ID:	Composite of 2 SCA CA-FM/CP at 120 degrees
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Translator is to be a fill-in translator, fed over the air, and to rebroadcast WOKR-AM (Class B), facility number 88676.

Applicant will be mounting on a tower that hosts WNBL and W284BF and will take necessary steps to eliminate intermodulation interference.

This application is dependent on building of W241CN construction permit BNPFT-20030310BFW, or grant and subsequent build of application 0000219470.

Applicant has communicated with the owner of W241CN and there a full intention to build this facility and significant progress has been made. Furthermore, W241CN is under a silent STA (file number 0000203396) that has been granted on 11/15/2022 for technical reasons.

Frequency Study

According to CFR 47 §74.1204(a), translators are required to protect all existing FM stations from interference due to overlap of the protected contours of the existing stations with the interfering contours of the new translators.

8/23/2023		Genesee Media Corporation						Page 1	
FM Study for: W283BF		Database LMS - Date: 8/17/2023						42-44-47	
Location: CANANDAIGUA, NY		Channel Class:						77-25-35	
[*] by HAAT indicates calculated as missing in database.									
Call	City, State	Chan	Cl.	Freq	kW	Latitude	Dist.	Required	
Status	Proponent	File Number			HAAT	Longitude	Azm.	Clear (km)	Site

>>>>>>> Study For Channel 240 95.9 MHz <<<<<<<									
WCMFFM	ROCHESTER, NY	243 B	96.5	48	43-08-05	45.0	67		
LIC	Fac. No. 1905	BLH -20060901AAD		142	77-35-07	343.3	-22.0		SHORT
W241CN	PENN YAN, NY	241 D	96.1	.19 +	42-37-15	19.8	32		
LIC	Fac. No. 138958	BLFT -20171214AAJ			77-15-15	134.6	-12.2		SHORT
W241CN	PENN YAN, NY	241 D	96.1	.25 +	42-33-19	32.6	32		
APP	Fac. No. 138958	-0000219470		41	77-07-29	130.5	0.6		CLOSE
W241CN	PENN YAN, NY	241 D	96.1	.25 +	42-33-19	32.6	32		
CP	Fac. No. 138958	-0000194508		51	77-07-29	130.5	0.6		CLOSE
W240DO	GENEVA, NY	240 D	95.9	.04 +	42-48-22	48.0	44		
LIC	Fac. No. 141061	-0000206546		129	76-50-46	81.9	4.0		CLOSE
W239BK	BATH, NY	239 D	95.7	.05 +	42-21-28	44.0	32		
LIC	Fac. No. 154350	-0000126294		-39	77-19-16	168.6	12.0		CLOSE
W241DG	ROCHESTER, NY	241 D	96.1	.099+	43-08-06	45.1	32		
LIC	Fac. No. 202122	-0000168885		118	77-35-07	343.3	13.1		CLOSE
W239BF	ROCHESTER, NY	239 D	95.7	.25 +	43-10-37	48.0	32		
LIC	Fac. No. 157394	BLFT -20140606AAH		138	77-28-38	355.1	16.0		CLEAR
WPIG	OLEAN, NY	239 B	95.7	43	42-02-08	115.3	92		
LIC	Fac. No. 2864	BLH -4110		226	78-26-46	227.1	23.3		CLEAR
WMSX	BUFFALO, NY	241 B	96.1	47	42-53-10	119.4	92		
LIC	Fac. No. 1915	BLH -19950814KB		154	78-52-24	278.0	27.4		CLEAR
W237FI	HORNELL, NY	237 D	95.3	.25 +	42-24-06	42.8	14		
LIC	Fac. No. 153120	-0000124681		89	77-39-36	206.7	28.8		CLEAR
WLDMLP	SANITARIA SPRINGS, NY	239 LP	95.7	.095	42-09-19	144.6	111		
LIC	Fac. No. 131507	BLL -20100412AAH		31	75-51-35	116.5	33.6		CLEAR
WKGS	IRONDEQUOIT, NY	294 A	106.7	4.6 +	43-08-05	45.0	10		
LIC	Fac. No. 3205	BLH -20120906AAY		114	77-35-06	343.3	35.0		CLEAR
WCBF	ELMIRA, NY	241 A	96.1	1.3	42-07-51	86.1	47		
LIC	Fac. No. 71509	BLH -20180403AAA		216	76-47-26	142.4	39.1		CLEAR

1. WCMF-FM is second adjacent, and the 40 dB ratio of desired-to-undesired signal shall be studied in more detail.
2. W241CN is adjacent, and its 60 dBu protected contour shall be studied with respect to the 54 dBu interfering contour of the proposed facility. As noted in the beginning section, both the granted construction permit and the application will be studied. The existing license is incompatible with this application.
3. W240DO co-channel adjacent, and its 60 dBu protected contour shall be studied with respect to the 40 dBu interfering contour of the proposed facility.
4. W239BK is adjacent, and its 60 dBu protected contour shall be studied with respect to the 54 dBu interfering contour of the proposed facility.
5. W241DG is adjacent, and its 60 dBu protected contour shall be studied with respect to the 54 dBu interfering contour of the proposed facility.

Protections

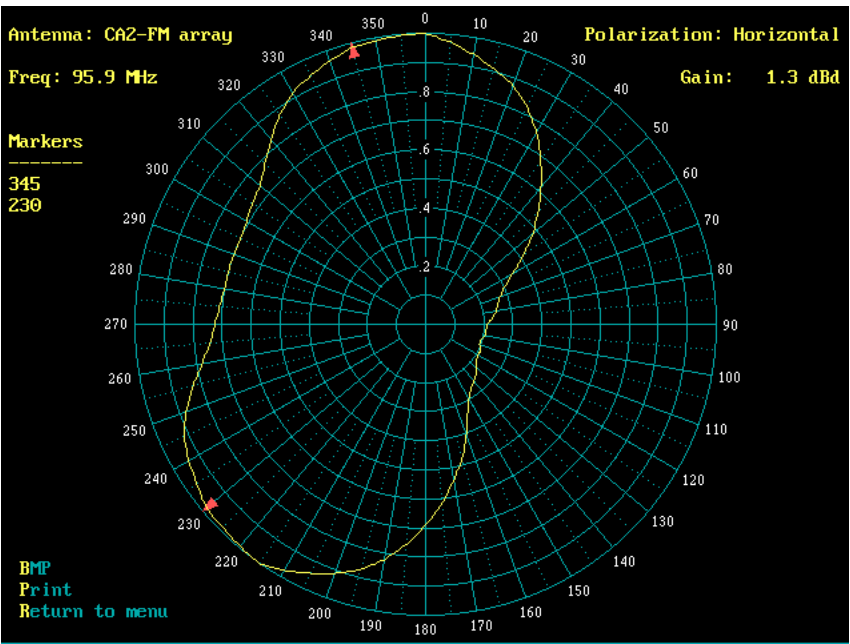
Genesee Media Corporation
Maximum Effective Radiated Power
For W238DG at 42-44-47 77-25-35
Rad Ctr: 698 meters AMSL
Based on 1 degree study near direct line between sites
with data stored at nearest 5 degree azimuth.

Azimuth (Deg)	Max ERP (kW)	Station	Contour	W238DG	Curve
70	0.014	W240DO	60	40	F(50, 50)
75	0.012	W240DO	60	40	F(50, 50)
80	0.012	W240DO	60	40	F(50, 50)
85	0.013	W240DO	60	40	F(50, 50)
90	0.015	W240DO	60	40	F(50, 50)
335	0.379	W241DG	60	54	F(50, 50)
340	0.348	W241DG	60	54	F(50, 50)
345	0.319	W241DG	60	54	F(50, 50)
350	0.325	W241DG	60	54	F(50, 50)
355	0.414	W241DG	60	54	F(50, 50)

Protection is necessary toward W240DO at points 70 – 355 degrees

Directional Antenna Pattern

A composite pattern was designed using a pair of Scala CA2-FM/CP antennas 120 degrees from each other.



The following is the expected ERP toward W240DO showing ample clearance

Azm.	Max ERP	Pat ERP	
70	.0134	.0003	<--
75	.0123	.0002	<--
80	.0129	.0002	<--
85	.0189	.0003	<--
105	.0192	.0005	<--
110	.0180	.0007	<--
115	.0207	.0011	<--
120	.0302	.0023	<--
125	.0407	.0050	<--
130	.0680	.0072	<--
135	.0698	.0102	<--

W238DG Pattern
Composite Pattern
Pattern RMS: .4828 Field

Azimuth	Field	dBk	ERP(kW)	Azimuth	Field	dBk	ERP(kW)
0	0.949	-6.47	0.23	180	0.242	-18.35	0.01
5	0.920	-6.74	0.21	185	0.234	-18.64	0.01
10	0.873	-7.20	0.19	190	0.217	-19.27	0.01
15	0.829	-7.65	0.17	195	0.202	-19.91	0.01
20	0.770	-8.29	0.15	200	0.169	-21.44*	0.01
25	0.715	-8.93	0.13	205	0.142	-22.97*	0.01
30	0.638	-9.92	0.10	210	0.096	-26.37*	0.00
35	0.570	-10.90	0.08	215	0.065	-29.76*	0.00
40	0.470	-12.57*	0.06	220	0.055	-31.26*	0.00
45	0.388	-14.24*	0.04	225	0.046	-32.77*	0.00
50	0.269	-17.41*	0.02	230	0.041	-33.71	0.00
55	0.187	-20.58*	0.01	235	0.037	-34.66	0.00
60	0.092	-26.77*	0.00	240	0.034	-35.29	0.00
65	0.045	-32.96*	0.00	245	0.032	-35.92	0.00
70	0.037	-34.72*	0.00	250	0.031	-36.20	0.00
75	0.030	-36.48*	0.00	255	0.030	-36.48	0.00
80	0.031	-36.20	0.00	260	0.037	-34.72*	0.00
85	0.032	-35.92	0.00	265	0.045	-32.96*	0.00
90	0.034	-35.29	0.00	270	0.092	-26.77*	0.00
95	0.037	-34.66	0.00	275	0.187	-20.58*	0.01
100	0.041	-33.71	0.00	280	0.269	-17.41*	0.02
105	0.046	-32.77	0.00	285	0.388	-14.24*	0.04
110	0.055	-31.26*	0.00	290	0.470	-12.57*	0.06
115	0.065	-29.76*	0.00	295	0.570	-10.90*	0.08
120	0.096	-26.37*	0.00	300	0.638	-9.92	0.10
125	0.142	-22.97*	0.01	305	0.715	-8.93	0.13
130	0.169	-21.44*	0.01	310	0.770	-8.29	0.15
135	0.202	-19.91*	0.01	315	0.829	-7.65	0.17
140	0.217	-19.27	0.01	320	0.873	-7.20	0.19
145	0.234	-18.64	0.01	325	0.920	-6.74	0.21
150	0.242	-18.35	0.01	330	0.949	-6.47	0.23
155	0.250	-18.06	0.02	335	0.979	-6.20	0.24
160	0.255	-17.89	0.02	340	0.989	-6.11	0.24
165	0.260	-17.72	0.02	345	1.000	-6.02	0.25
170	0.255	-17.89	0.02	350	0.989	-6.11	0.24
175	0.250	-18.06	0.02	355	0.979	-6.20	0.24

Contour Distances for Proposed Facility

Genesee Media Corporation
FM Contour Distances

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W238DG

Azi. Deg.	ERP kW	HAAT m	60 dBu km	54 dBu km	40 dBu km	34 dBu km
0	0.190	318	21.7	32.3	66.4	83.84
5	0.167	342	21.8	32.5	67.1	84.47
10	0.142	362	21.5	32.2	66.9	84.28
15	0.115	365	20.5	30.6	64.6	81.83
20	0.093	368	19.5	29.1	62.3	79.43
25	0.073	377	18.5	27.7	60.1	77.16
30	0.054	351	16.6	24.7	54.4	70.98
35	0.038	327	14.7	21.9	48.9	64.65
40	0.028	318	13.4	19.8	44.7	60.05
45	0.020	320	12.4	18.0	41.5	56.42
50	0.016	330	11.9	17.3	40.2	54.99
55	0.014	348	11.8	17.1	39.9	54.77
60	0.012	378	11.8	17.3	40.5	55.60
65	0.011	395	11.5	16.9	39.9	54.90
70	0.010	390	11.2	16.3	38.7	53.52
75	0.009	377	11.0	15.7	37.5	52.15
80	0.008	370	10.6	15.1	36.2	50.56
85	0.008	377	10.4	14.9	35.6	49.93
90	0.008	378	10.7	15.3	36.6	51.13
95	0.009	373	10.9	15.6	37.3	51.87
100	0.010	376	11.1	15.9	37.9	52.53
105	0.011	379	11.4	16.4	38.9	53.75
110	0.012	353	11.5	16.5	38.9	53.69
115	0.014	319	11.3	16.2	38.0	52.47
120	0.016	307	11.5	16.6	38.6	53.03
125	0.020	304	12.1	17.5	40.4	54.97
130	0.028	317	13.4	19.8	44.6	59.96
135	0.038	338	14.9	22.2	49.8	65.67
140	0.054	343	16.4	24.4	53.8	70.23
145	0.073	334	17.5	26.0	56.6	73.08
150	0.093	301	17.7	26.2	56.4	72.92
155	0.115	268	17.5	26.1	55.9	72.46
160	0.142	238	17.4	26.0	55.5	72.23
165	0.167	225	17.6	26.3	56.0	72.95
170	0.190	249	19.2	28.6	59.9	77.16
175	0.208	255	19.9	29.6	61.6	79.01

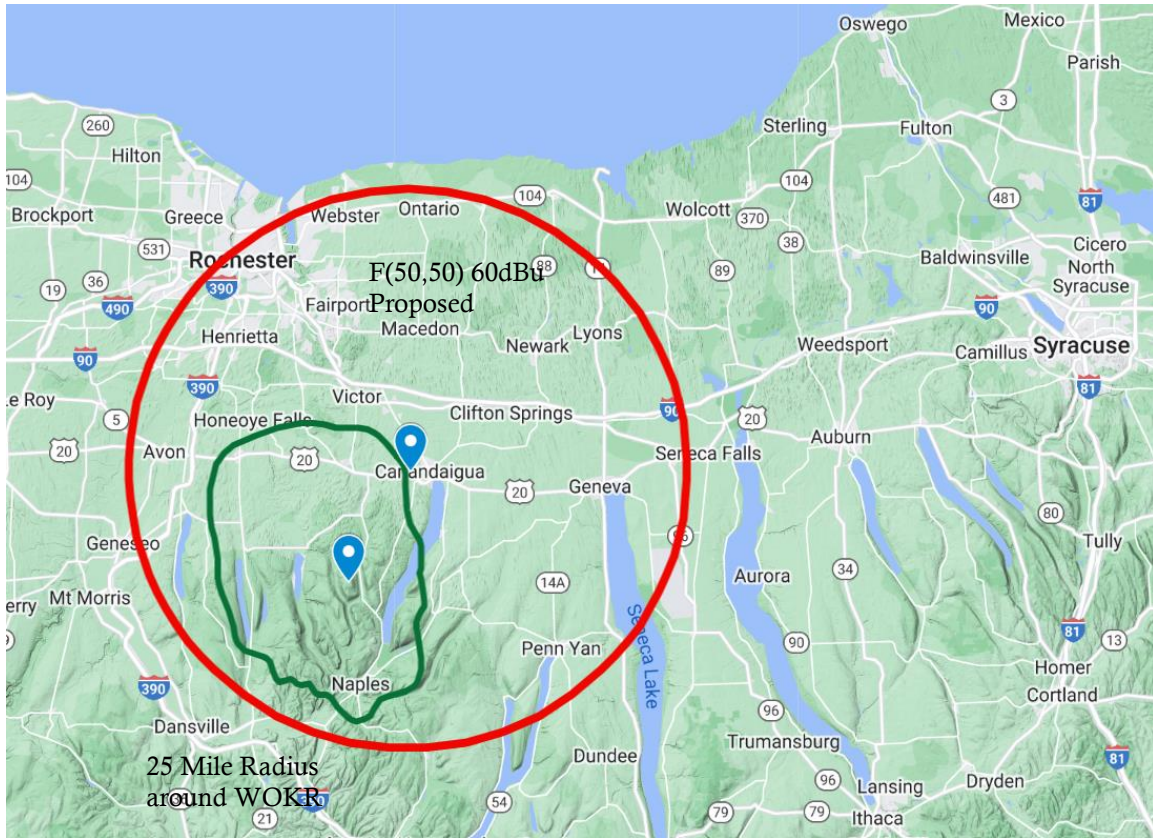
Genesee Media Corporation
FM Contour Distances

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W238DG

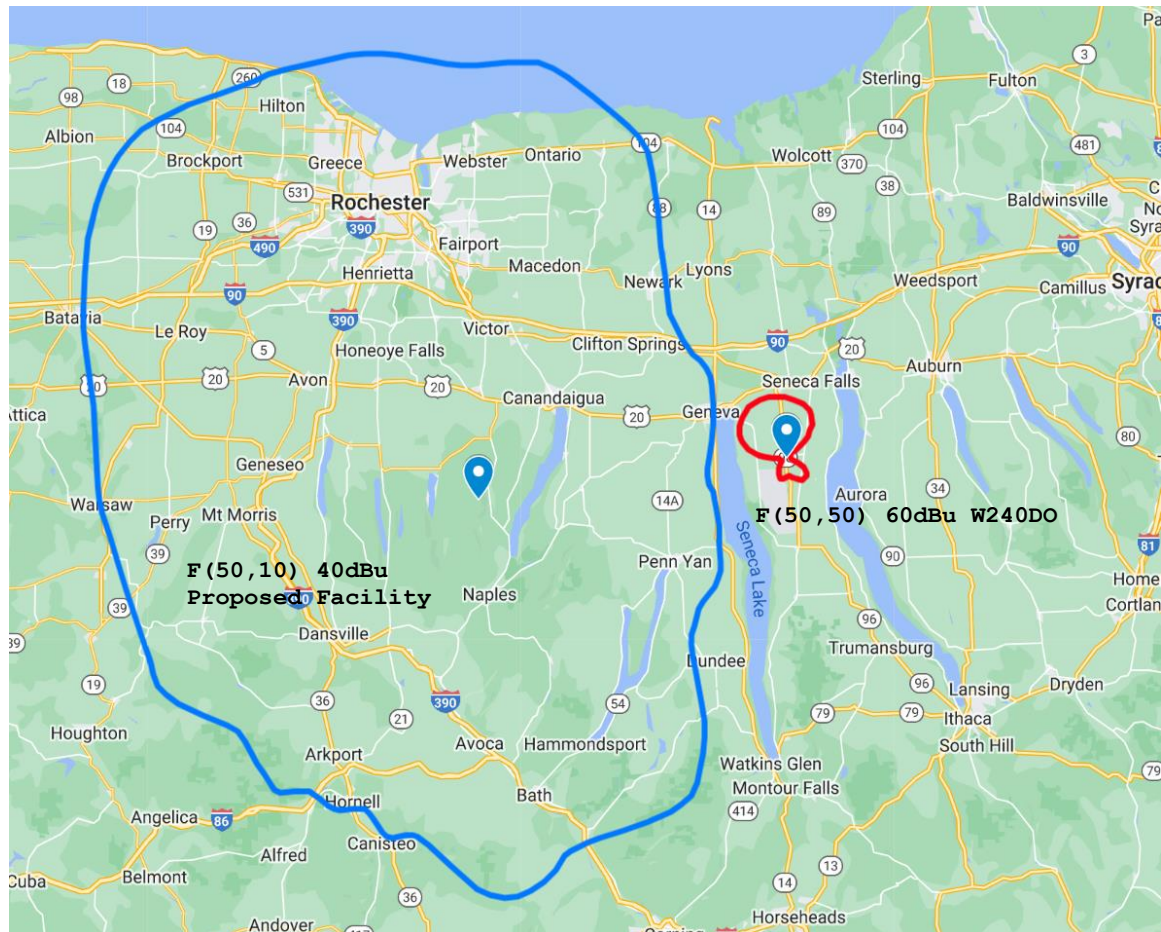
Azi. Deg.	ERP kW	HAAT m	60 dBu km	54 dBu km	40 dBu km	34 dBu km
180	0.224	230	19.3	28.7	59.9	77.40
185	0.236	187	17.6	26.2	55.7	72.96
190	0.248	158	16.3	24.3	52.7	69.65
195	0.250	165	16.7	24.9	53.7	70.77
200	0.245	144	15.4	23.1	50.7	67.36
205	0.239	160	16.2	24.3	52.5	69.46
210	0.229	158	16.0	23.9	51.8	68.61
215	0.218	185	17.1	25.6	54.5	71.68
220	0.205	176	16.4	24.6	52.8	69.76
225	0.187	172	15.8	23.7	51.3	67.94
230	0.167	196	16.4	24.6	52.9	69.62
235	0.146	232	17.3	25.9	55.2	71.96
240	0.127	266	17.9	26.7	56.9	73.59
245	0.112	272	17.5	26.1	56.0	72.49
250	0.103	278	17.4	25.8	55.6	72.01
255	0.097	286	17.4	25.8	55.6	72.10
260	0.096	293	17.5	26.0	56.1	72.54
265	0.095	304	17.8	26.4	56.9	73.43
270	0.096	315	18.2	27.0	58.1	74.69
275	0.097	319	18.4	27.3	58.6	75.29
280	0.103	321	18.7	27.8	59.4	76.17
285	0.112	328	19.3	28.7	61.0	77.92
290	0.127	339	20.3	30.2	63.5	80.64
295	0.146	354	21.4	32.0	66.5	83.86
300	0.167	367	22.5	33.9	69.3	86.93
305	0.187	384	23.6	35.8	72.2	90.13
310	0.205	400	24.6	37.7	74.8	93.02
315	0.218	407	25.2	38.7	76.2	94.61
320	0.229	396	25.2	38.6	75.9	94.23
325	0.239	374	24.8	37.6	74.5	92.62
330	0.245	354	24.3	36.6	72.9	90.84
335	0.250	343	24.0	36.2	72.1	90.05
340	0.248	334	23.7	35.6	71.2	89.06
345	0.236	332	23.3	35.0	70.4	88.17
350	0.224	323	22.7	34.0	68.9	86.59
355	0.208	312	22.0	32.7	66.9	84.50

25 Mile Encompassment of WOKR-AM and Proposed Facility



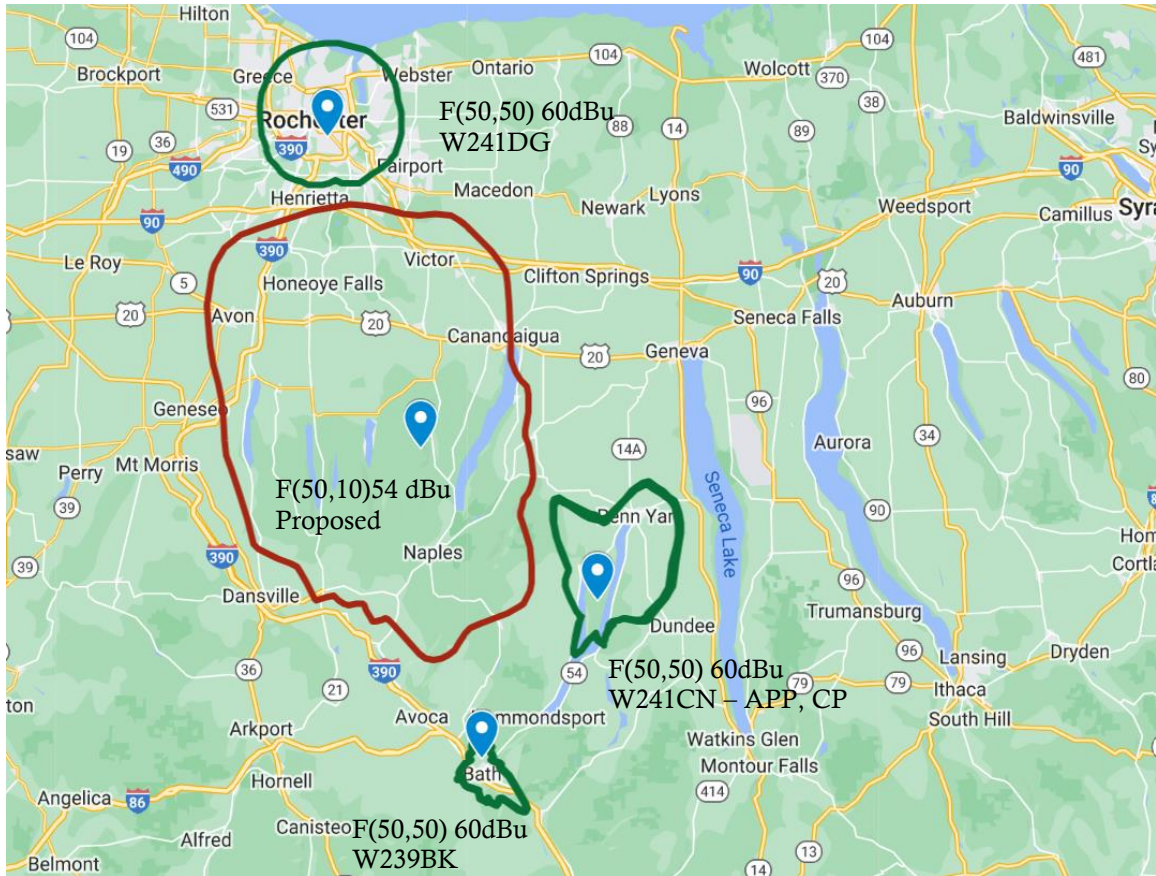
This map shows that the proposed translator's entire 60 dBu contour is contained within the greater of: (i) the 2 mV/m daytime contour of the AM primary station to be rebroadcast, or (ii) a 25-mile radius centered at the AM primary station's transmitter site.

Co-Channel Clearance



The above map shows zero overlap between the interfering F(50,10) 40 dBu contour of the proposed facility and the protected F(50,50) 60 dBu contour of W240DO.

First Adjacent Channel Clearance



The above map shows zero overlap between the interfering F(50,10) 54 dBu contour of the proposed facility and the protected F(50,50) 60 dBu contour of W241DG, W241CN (App), W241CN (CP), and W239BK.

Request for Waiver of 2nd Adjacent Overlap with WCMF-FM

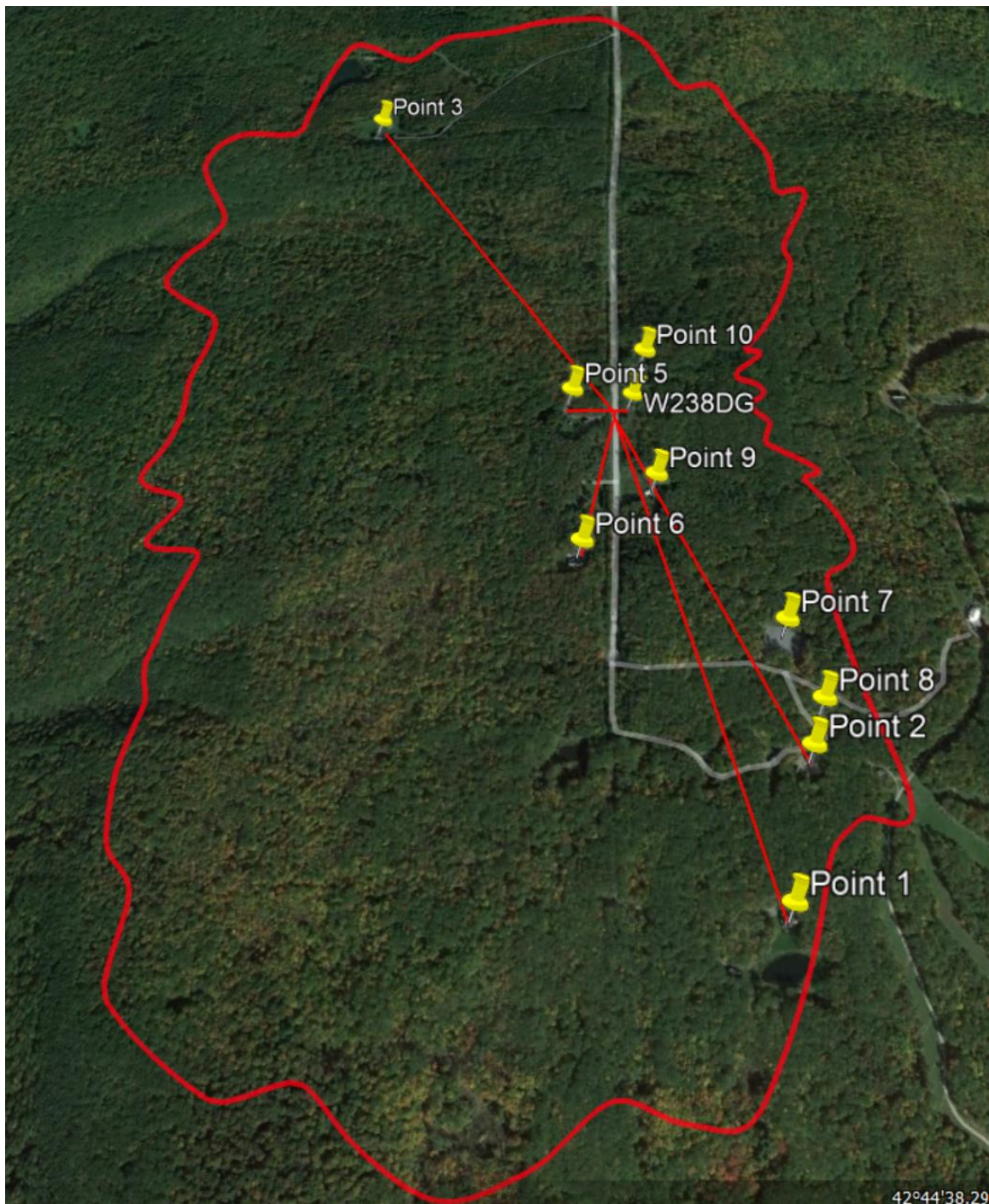
WCMF-FM is a Class B radio station licensed to Rochester, NY. The F(50,50) 54 dBu protected contour shall at no time receive an interfering contour that is 40 dB greater.

The primary interference analysis is based on accepted "ratio methodology" as defined in the Living Way Ministries decision. Further, methodology utilized in "Calvary Chapel of the Finger Lakes, Inc" BPFT-20120124ACS application was employed to determine interference ratio compliance.

The proposed relocation of the proposed facility is second adjacent to WCMF-FM; according to §74.1204(d), *"The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to ... lack of population"*

WCMF-FM is 45 km from the proposed facility heading 163 degrees yielding 97m HAAT yielding a field strength of 60 dBu using the F(50,50) propagation curves as specified in CFR 47 section 73.599.

An arial review of the 100 dBu contour of the proposed facility yielded 10 points of interest residences that could be affected. Within these points, there are five residences are on top of a mountain ridge at extreme elevation for the local area.



Point	Point - Lat	Point - Lon	Elevation (m)	Heading	Distance (m)	Declination
1	42°44'22.65"N	77°25'22.38"W	639	165	809	45
2	42°44'29.26"N	77°25'23.28"W	655	157	623	29
3	42°45'10.19"N	77°25'54.44"W	593	325	824	91
4	42°44'50.67"N	77°25'33.10"W	Point is a radio tower			
5	42°44'48.36"N	77°25'38.04"W	653	273	94.3	31
6	42°44'39.40"N	77°25'36.94"W	658	196	243	26
7	42°44'35.29"N	77°25'24.48"W	Point is an asphalt pad			
8	42°44'31.41"N	77°25'22.54"W	Point is a radio tower			
9	42°44'43.15"N	77°25'32.39"W	Point is a radio tower			
10	42°44'50.78"N	77°25'33.29"W	Point is a radio tower			

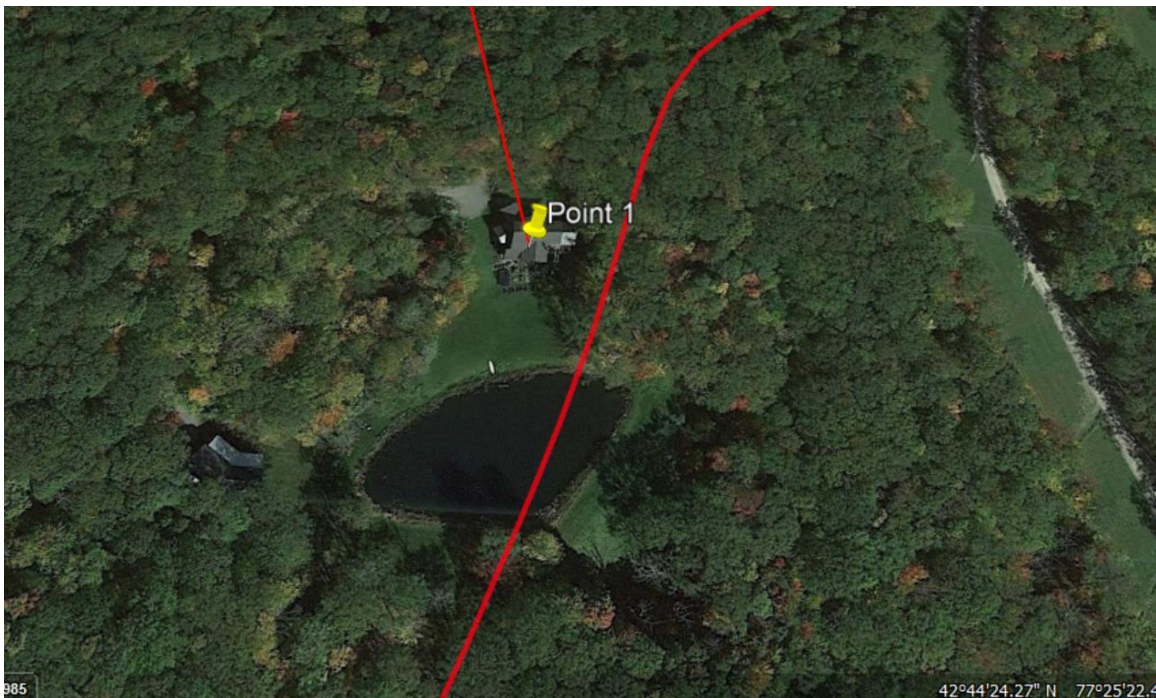
Point 1 Exhibit

Point 1 is 38m to the predicted contours using the curve from the F(50,10) propagation curves as specified in CFR 47 section 73.599. This distance is de minimis.


Given the de close-in location, greater precision is required to model the predicted field strength at the received location. This will take into account 1) Angle between the transmitter and received site, 2) ERP at the given angle of transmission from the antenna.

Further, when applying the ratio method using the terrain profile from the graphs (based on the NGDC 30 arc-second terrain database), it is determined that the field strength of the proposed facility will, at its maximum be 91 dBu, and will not receive objectionable interference.

W238DG to Point 1





W283CG to Bristol Point 1					
<u>W283BF-GND</u> (1)			(2) <u>Bristol - Point 1</u>		
Latitude	42.746779 °		Latitude	42.739551 °	
Longitude	-77.425976 °		Longitude	-77.423662 °	
Ground elevation	652.0 m		Ground elevation	641.8 m	
Antenna height	32.0 m		Antenna height	1.0 m	
Azimuth	166.77 TN 178.10 MG °		Azimuth	346.77 TN 358.10 MG °	
Tilt	-2.86 °		Tilt	2.85 °	
Radio system			Propagation		
TX power	43.01 dBm		Free space loss	70.38 dB	
TX line loss	0.00 dB		Obstruction loss	9.20 dB	
TX antenna gain	0.00 dBi		Forest loss	1.35 dB	
RX antenna gain	0.00 dBi		Urban loss	0.00 dB	
RX line loss	0.00 dB		Statistical loss	5.17 dB	
RX sensitivity	-87.00 dBm		Total path loss	86.10 dB	
Performance					
Distance			0.826 km		
					

$$\text{Field Strength E (dBu)} = 106.92 - 20 \log_{10} D(\text{km}) + P(\text{dBk})$$

Point 2 Exhibit

Point 2 is 100m to the predicted contours using the curve from the F(50,10) propagation curves as specified in CFR 47 section 73.599. This distance is de minimis.

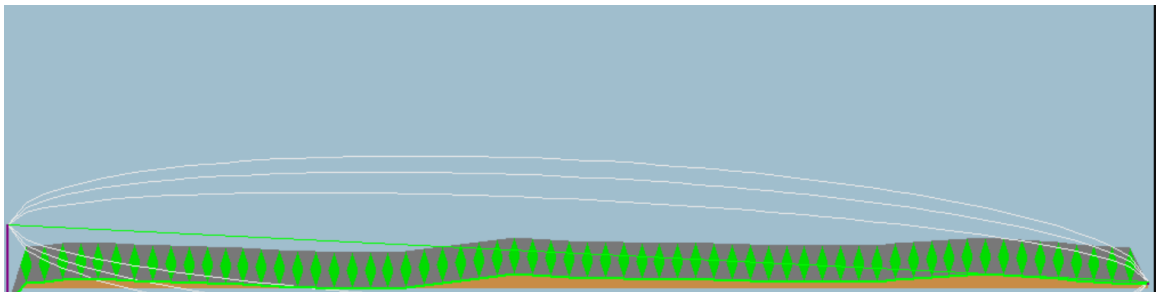
Given the de close-in location, greater precision is required to model the predicted field strength at the received location. This will take into account 1) Angle between the transmitter and received site, 2) ERP at the given angle of transmission from the antenna.

Further, when applying the ratio method using the terrain profile from the graphs (based on the NGDC 30 arc-second terrain database), it is determined that the field strength of the proposed facility will be 92 dBu at its maximum and will not cause objectionable interference.

W238DG to Point 2



<u>W283BF-GND</u> (1)		(2) <u>Bristol - Point 2</u>	
Latitude	42.746779 °	Latitude	42.741528 °
Longitude	-77.425976 °	Longitude	-77.423133 °
Ground elevation	652.0 m	Ground elevation	660.0 m
Antenna height	32.0 m	Antenna height	1.0 m
Azimuth	158.31 TN 169.64 MG °	Azimuth	338.32 TN 349.65 MG °
Tilt	-2.10 °	Tilt	2.09 °
Radio system		Propagation	
TX power	43.01 dBm	Free space loss	68.01 dB
TX line loss	0.00 dB	Obstruction loss	10.40 dB
TX antenna gain	0.00 dBi	Forest loss	1.73 dB
RX antenna gain	0.00 dBi	Urban loss	0.00 dB
RX line loss	0.00 dB	Statistical loss	4.62 dB
RX sensitivity	-87.00 dBm	Total path loss	84.75 dB
Performance			
Distance		0.628	km



Points 3, 5, and 6 Exhibit

Point 3



Point 5



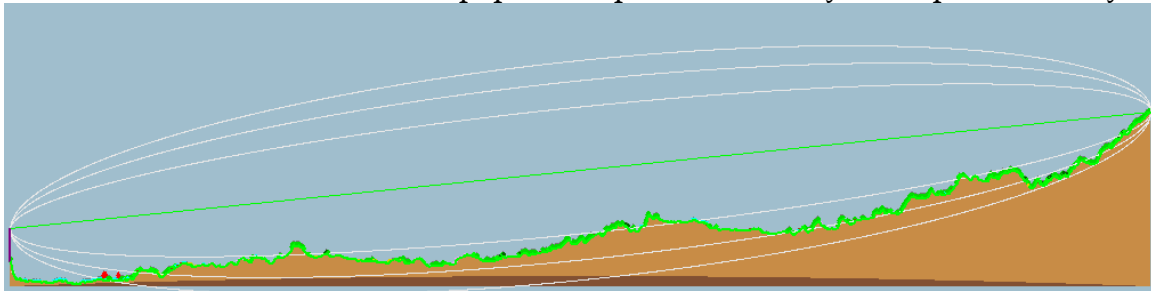
Point 6



Signal Strength Analysis

These profile graphs (based on the NGDC 30 arc-second terrain database) illustrate "free space" paths from the respective antennas of WCMF-FM to a 2-meter elevation above ground at the impacted residences within the 100 dBu interference contour near the proposed transmission facility. In all cases, these plots show ample clearance of the first Fresnel zone above intermediate terrain. Common obstructions such as buildings and trees as tall as 30 meters would not penetrate this Fresnel radius.

Path from WCMF-FM to critical population points in vicinity of Proposed Facility:



This equation is commonly used to determine field strength in free space:

$$\text{Field Strength } E \text{ (dBu)} = 106.92 - 20 \log_{10} D(\text{km}) + P(\text{dBk})$$

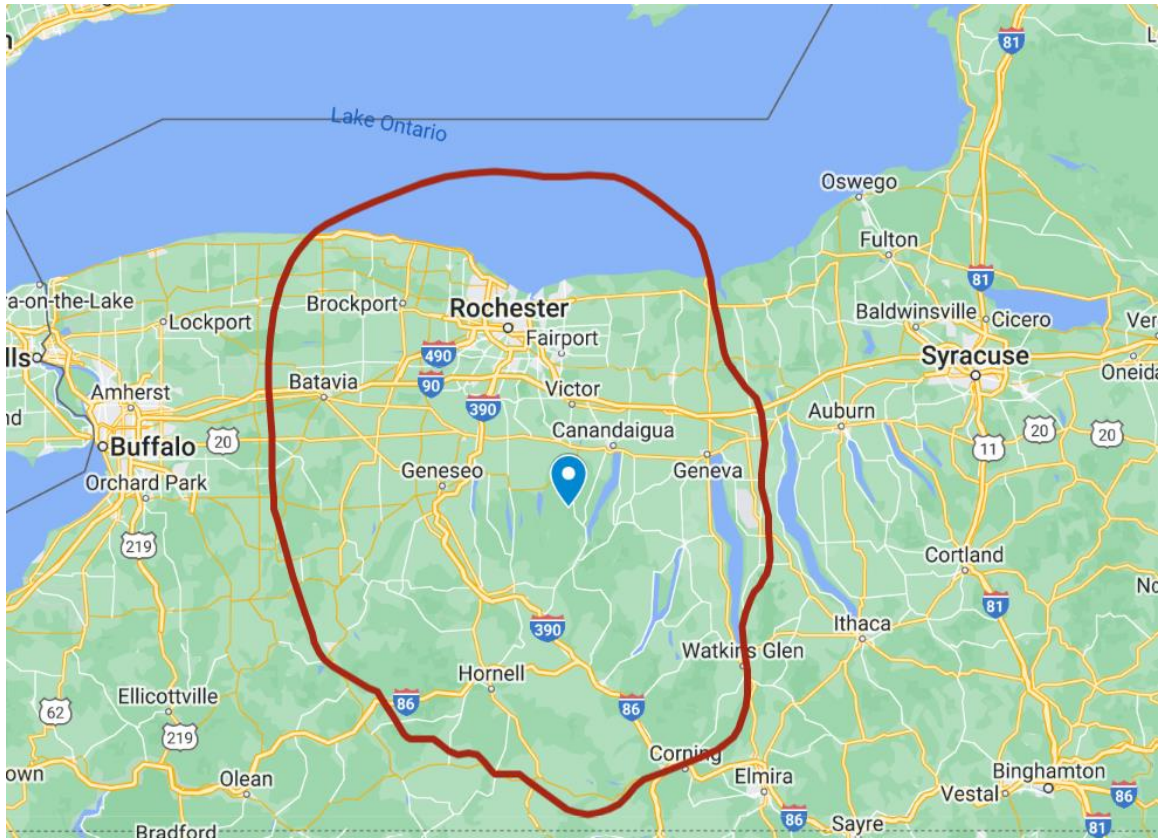
Distance	46.06	km
TX Power	48.00	kW
TX Power	16.81	dBk
dBu at Site	90.65	dBu

Field Strength within the proposed facility study zone of WCMF-FM is predicted to be 90.65 dBu

Pt.	Point - Lat	Point - Lon	AMSL	Head (deg)	Dist (m)	Decl.	dBk	Interfering FS (dBu)
3	42°45'10.19"N	77°25'54.44"W	593	325	824	91	-6.2	102.38
5	42°44'48.36"N	77°25'38.04"W	653	273	94.3	31	-20.58	106.83
6	42°44'39.40"N	77°25'36.94"W	658	196	243	26	-19.91	99.28

From this analysis, at no point is a population predicted to receive interference from the proposed signal that is greater than 40dB.

Canadian Consideration - 47 CFR § 74.1235(d)(3)



The proposed facility's 34dBu F(50,10) interfering contour is completely within US boundaries. Since the interfering contour is completely contained within US boundaries, conditions in 47 CFR § 74.1235(d)(3) are met.

Environmental Compliance.

The proposed antenna is a circularly polarized, one bay FM antenna mounted in a secure location 37m ground on a secure tower. Access to the tower is controlled by a locked fence with warning placards clearly stating the danger of RF exposure.

The antenna's radiation pattern was utilized to determine the effective gain along the ground at 5-degree intervals towards the center of radiation of the antenna. Power Density equations from OET Bulletin 65, Edition 97-01 were used as follows to determine power density:

$$S = \frac{PG}{4\pi R^2} \quad 3)$$

where: S = power density (in appropriate units, e.g. mW/cm²)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

or:

$$S = \frac{EIRP}{4\pi R^2} \quad (4)$$

where: EIRP = equivalent (or effective) isotropically radiated power

Based on section 1.310 of the FCC Rules for General Population Exposure for the proposed frequency, the MPE is $200 \mu\text{W}/\text{cm}^2$ and $1,000 \mu\text{W}/\text{cm}^2$ for Occupational/Controlled Exposure. Calculations were performed to determine the RF power density 2 meters above ground surrounding all areas of the tower supporting the transmitter antenna. Since the antenna is vertical and horizontally polarized, RF power was doubled in the calculations to reflect cross-polarization effects.

At a distance of 2m above the ground, the proposed facility will not cause an RF field that is equal or greater than $1,000 \mu\text{W}/\text{cm}^2$ limit for controlled exposure at any point. Additionally, the proposed facility will not cause an RF field equal or greater than the $200 \mu\text{W}/\text{cm}^2$ limit at any location accessible to the general public around the area supporting the radiating antenna. Hence, the proposed facility complies with the requirements of OET 65.

According to OET 65, *“Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% ‘contour’ where the appropriate limits are found to be exceeded.”*

Only professionals, authorized by the owner of the tower structure, are permitted access to the tower. A warning sign is clearly posted on the fencing of the structure stating the danger of RF exposure with a phone number to call to the facility operator.

Applicant certifies it, in coordination with other users of the site, will reduce power or cease operations, as necessary, to protect persons needing access to the site, tower, or antenna from RF exposure.

W238DG Radiation Showing**Proposed Antenna**

Proposed Power: 0.5 kW

Antenna COR 32 meters

OET-65 Power Equation $(PWR * GAIN) / (4 * \pi * DIST^2)$ Exposure Limit 200 $\mu W/cm^2$

Depressi on Angle	Relative Field	ERK (in kW)	ERP (in dBk)	Distance from COR to Roof	Distance from Tower Base to Ground Intersect ion	Power Density ($\mu W/cm^2$)	Result
0	1	0.500	-3.010				
-5	0.987	0.494	-3.067	367.16	365.76	0.03	CLEAR
-10	0.948	0.474	-3.242	184.28	181.48	0.11	CLEAR
-15	0.887	0.444	-3.531	123.64	119.43	0.23	CLEAR
-20	0.807	0.404	-3.942	93.56	87.92	0.37	CLEAR
-25	0.714	0.357	-4.473	75.72	68.62	0.50	CLEAR
-30	0.612	0.306	-5.143	64.00	55.43	0.59	CLEAR
-35	0.509	0.255	-5.943	55.79	45.70	0.65	CLEAR
-40	0.408	0.204	-6.904	49.78	38.14	0.66	CLEAR
-45	0.314	0.157	-8.041	45.25	32.00	0.61	CLEAR
-50	0.231	0.116	-9.374	41.77	26.85	0.53	CLEAR
-55	0.161	0.081	-10.942	39.06	22.41	0.42	CLEAR
-60	0.104	0.052	-12.840	36.95	18.48	0.30	CLEAR
-65	0.062	0.031	-15.086	35.31	14.92	0.20	CLEAR
-70	0.032	0.016	-17.959	34.05	11.65	0.11	CLEAR
-75	0.014	0.007	-21.549	33.13	8.57	0.05	CLEAR
-80	0.004	0.002	-26.990	32.49	5.64	0.02	CLEAR
-85	0.001	0.001	-33.010	32.12	2.80	0.00	CLEAR
-90	0.0001	0.000	-43.010	32.00	-	0.00	CLEAR

Certification

This Consolidated Engineering report, relative to an application for a minor modification of W238DG has been prepared by the undersigned. It is submitted that this statement, the amendments contained within, and all supporting exhibits, comply with the Rules and Regulations of the Federal Communications Commission and all representations contained herein are true to the best of my knowledge.

A handwritten signature in black ink, appearing to read 'Brian P. McGlynn', with a stylized, flowing script.

Brian P. McGlynn

Genesee Media Corporation

August 25, 2023