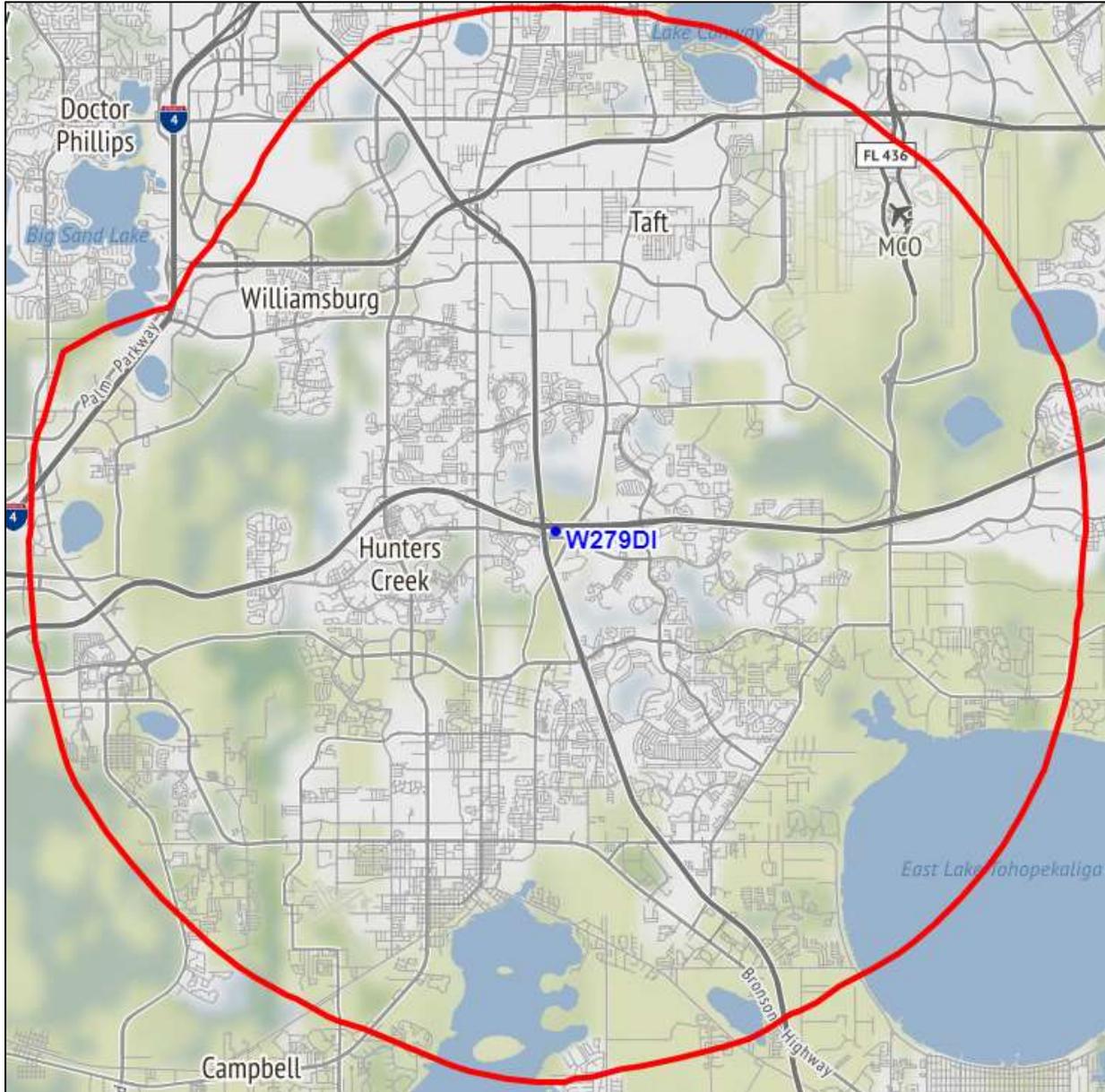




REC Networks
11541 Riverton Wharf Rd.
Mardela Springs, MD 21837
844.REC.LPFM/202.621.2355
recnet.com

Minor move for W279DI
KISSIMMEE, FL
FLORIDA BROADCASTERS PARTNERSHIP
BLFT-20171226AAH

PROPOSED 60dBu F(50,50) SERVICE CONTOUR



KISSIMMEE, FL – Channel 279D ~ 103.7 MHz ~ ERP 0.116 kW
Elev: 27 meters ~ RCAGL: 126 meters ~ RCAMSL: 153 meters ~ HAAT: 127 meters
Overall tower height: 140 meters – ASR: 1041410
NAD83 Latitude: 28° 22' 02.2" NL – Longitude: 81° 23' 12.1" WL
NAD27 Latitude: 28° 22' 01.1" NL – Longitude: 81° 23' 12.8" WL

Site: W279DI(A)
 Coordinates: 28-22-01.1 N, 81-23-12.8 W
 Freq: 103.70000 MHz
 ERP: 116.00 W

Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	116.00	127	20	11.96	28.474501	-81.386889
5	116.00	127	10	11.96	28.474091	-81.376228
10	116.00	127	30	11.96	28.472865	-81.365648
15	116.00	128	30	12.00	28.471207	-81.355116
20	116.00	128	30	12.00	28.468373	-81.344903
25	112.55	128	30	11.91	28.464090	-81.335370
30	109.14	129	10	11.87	28.459442	-81.326154
35	109.14	130	10	11.92	28.454756	-81.316962
40	109.14	130	20	11.92	28.449059	-81.308528
45	112.55	131	20	12.05	28.443583	-81.299729
50	116.00	131	20	12.14	28.437132	-81.291757
55	116.00	131	20	12.14	28.429570	-81.285169
60	116.00	132	20	12.19	28.421746	-81.278932
65	116.00	134	20	12.28	28.413615	-81.273047
70	116.00	134	20	12.28	28.404707	-81.268864
75	116.00	134	20	12.28	28.395512	-81.265580
80	116.00	134	20	12.28	28.386101	-81.263219
85	116.00	134	10	12.28	28.376544	-81.261801
90	116.00	134	10	12.28	28.366915	-81.261334
95	116.00	134	10	12.28	28.357286	-81.261823
100	116.00	134	10	12.28	28.347732	-81.263264
105	116.00	135	10	12.33	28.338215	-81.265181
110	116.00	135	10	12.33	28.328991	-81.268497
115	116.00	135	10	12.33	28.320056	-81.272713
120	116.00	136	10	12.38	28.311266	-81.277381
125	116.00	136	10	12.38	28.303080	-81.283316
130	116.00	135	10	12.33	28.295652	-81.290405
135	116.00	135	10	12.33	28.288524	-81.297834
140	116.00	135	10	12.33	28.281993	-81.305940
145	116.00	135	10	12.33	28.276108	-81.314660
150	116.00	136	10	12.38	28.270548	-81.323688
155	116.00	136	10	12.38	28.266068	-81.333472
160	116.00	137	10	12.42	28.261958	-81.343497
165	116.00	137	10	12.42	28.259029	-81.354053
170	116.00	136	10	12.38	28.257338	-81.364942
175	116.00	137	10	12.42	28.255650	-81.375832
180	116.00	138	0	12.47	28.254794	-81.386889
185	116.00	138	10	12.47	28.255220	-81.397988
190	116.00	138	20	12.47	28.256496	-81.409004
195	116.00	137	20	12.42	28.259029	-81.419725
200	116.00	134	10	12.28	28.263150	-81.429789
205	116.00	133	20	12.24	28.267218	-81.439698
210	116.00	133	20	12.24	28.271647	-81.449370
215	116.00	133	30	12.24	28.276801	-81.458568
220	116.00	133	20	12.24	28.282641	-81.467221
225	116.00	133	20	12.24	28.289123	-81.475265
230	116.00	133	20	12.24	28.296196	-81.482638
235	116.00	133	20	12.24	28.303809	-81.489283
240	116.00	133	30	12.24	28.311902	-81.495150
245	116.00	133	20	12.24	28.320414	-81.500195
250	116.00	133	20	12.24	28.329281	-81.504379
255	116.00	132	20	12.19	28.338544	-81.507205
260	116.00	131	20	12.14	28.347955	-81.509085
265	116.00	130	20	12.09	28.357436	-81.510030
270	116.00	129	20	12.05	28.366917	-81.510021
275	116.00	128	20	12.00	28.376323	-81.509075
280	116.00	127	20	11.96	28.385591	-81.507256
285	116.00	126	20	11.91	28.394650	-81.504523
290	116.00	126	20	11.91	28.403566	-81.501338
295	84.80	127	20	11.09	28.409081	-81.489650
300	58.48	128	20	10.18	28.412720	-81.477036
305	59.63	129	20	10.27	28.419918	-81.472908
310	60.97	127	20	10.24	28.426180	-81.467156
315	67.35	126	20	10.46	28.433458	-81.462519
320	74.24	125	20	10.66	28.440431	-81.457005
325	83.81	127	20	11.06	28.448415	-81.451760
330	93.96	129	20	11.46	28.456218	-81.445504
335	104.69	129	20	11.76	28.462811	-81.437729
340	116.00	128	20	12.00	28.468373	-81.428875
345	116.00	128	30	12.00	28.471207	-81.418662
350	116.00	128	30	12.00	28.473246	-81.408207
355	116.00	128	20	12.00	28.474476	-81.397589

ABOUT THIS APPLICATION

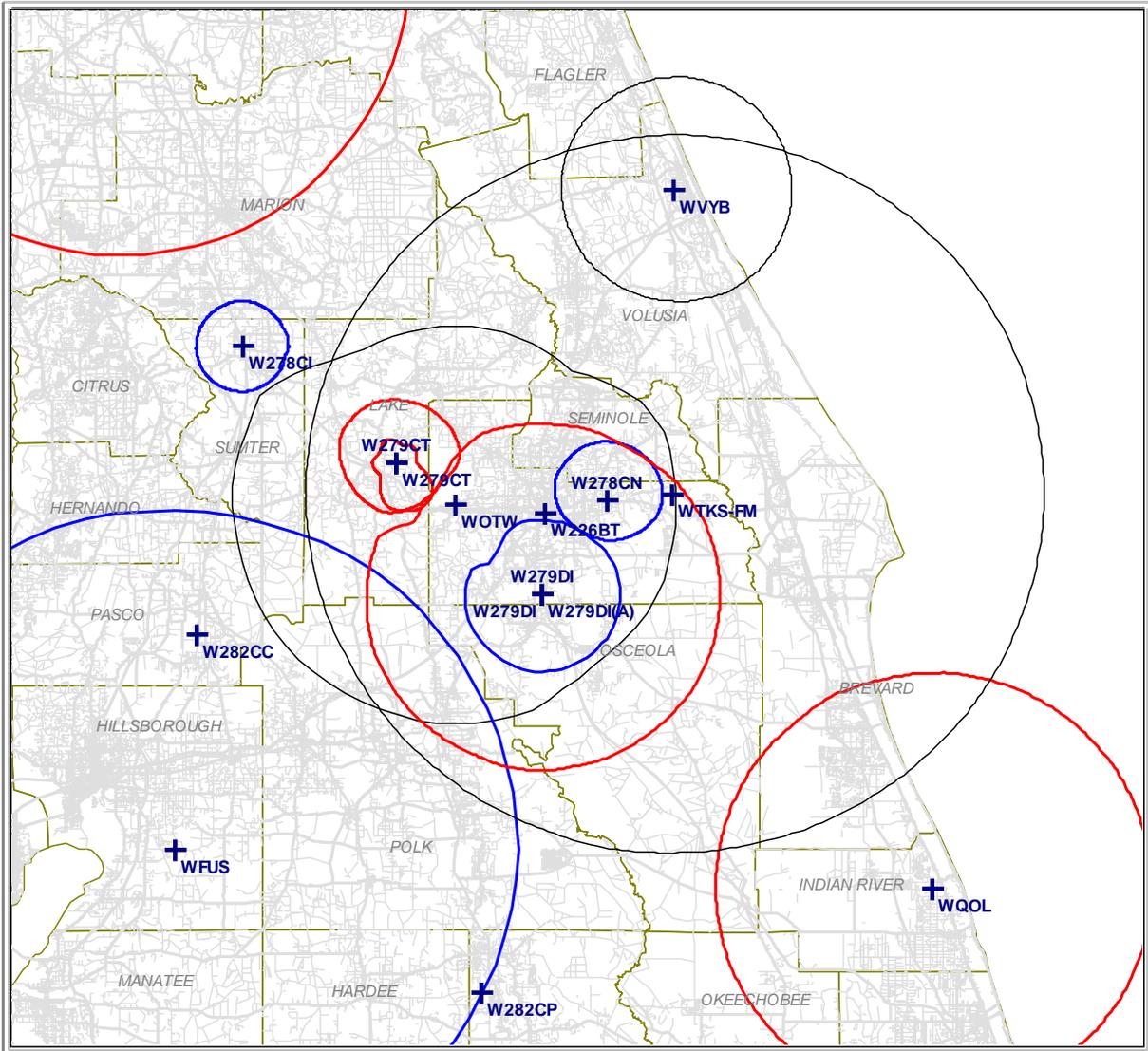
W279DI(A)
Kissimmee, Florida
Channel 279D (103.7 MHz)

This application increases the radiation center height on the same tower structure. The licensed W279DI 40 dBu interfering currently overlaps the protected contour of the subsequently authorized construction permit facility for W279CT (File No. BPFT-20171201AOQ). Most, but not all of this overlap is over Lake Apopka.

With the increase in radiation center height, W279DI proposes to reduce ERP to 0.116 kW in a manner that will contain the W279DI 40 dBu interfering contour completely inside of the 40 dBu interfering contour for the W279DI licensed facility where it overlaps with this W279CT construction permit grant.

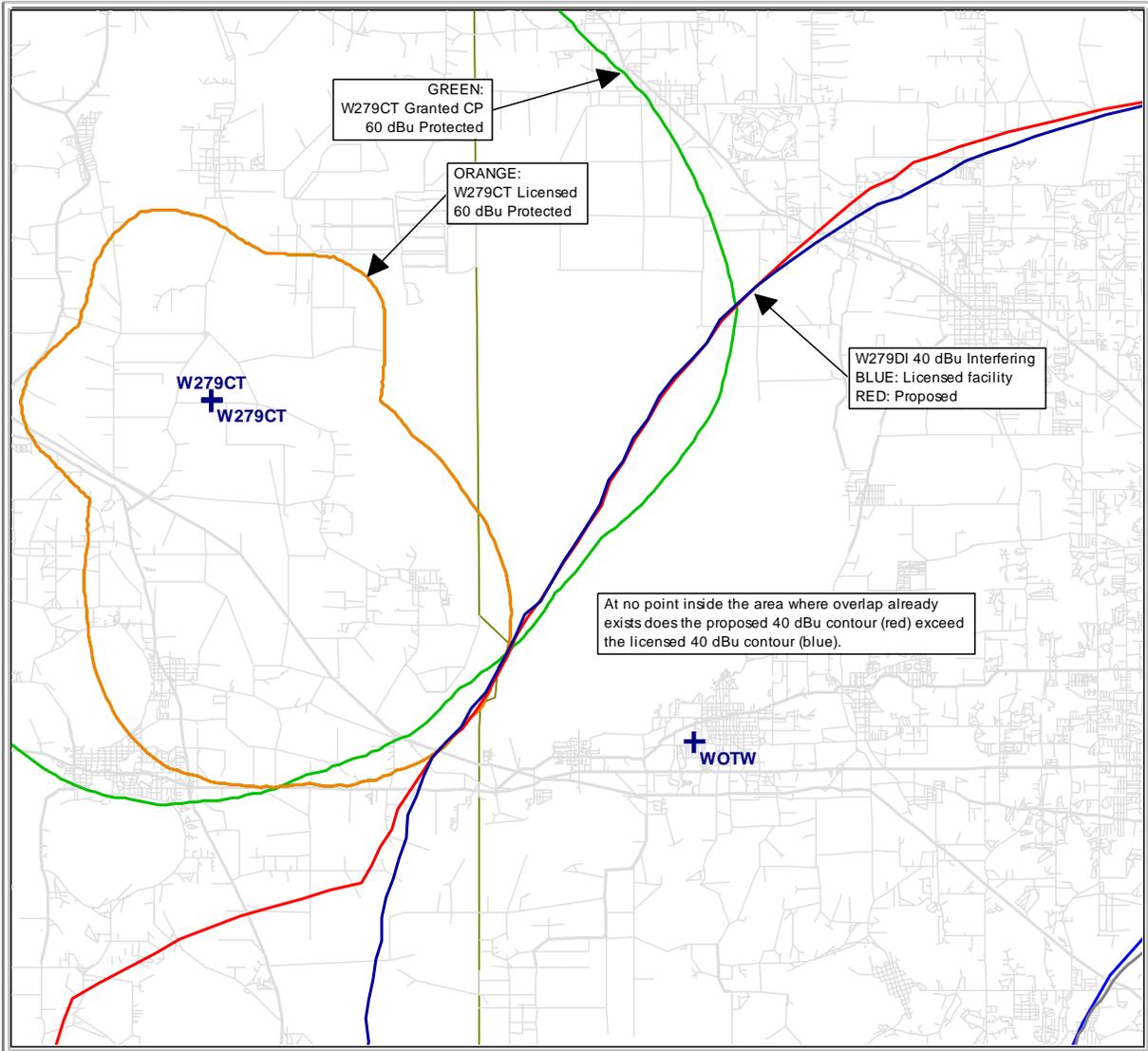
Therefore, no new overlap is created as a result of this proposal.

W279DI proposed protection to other facilities

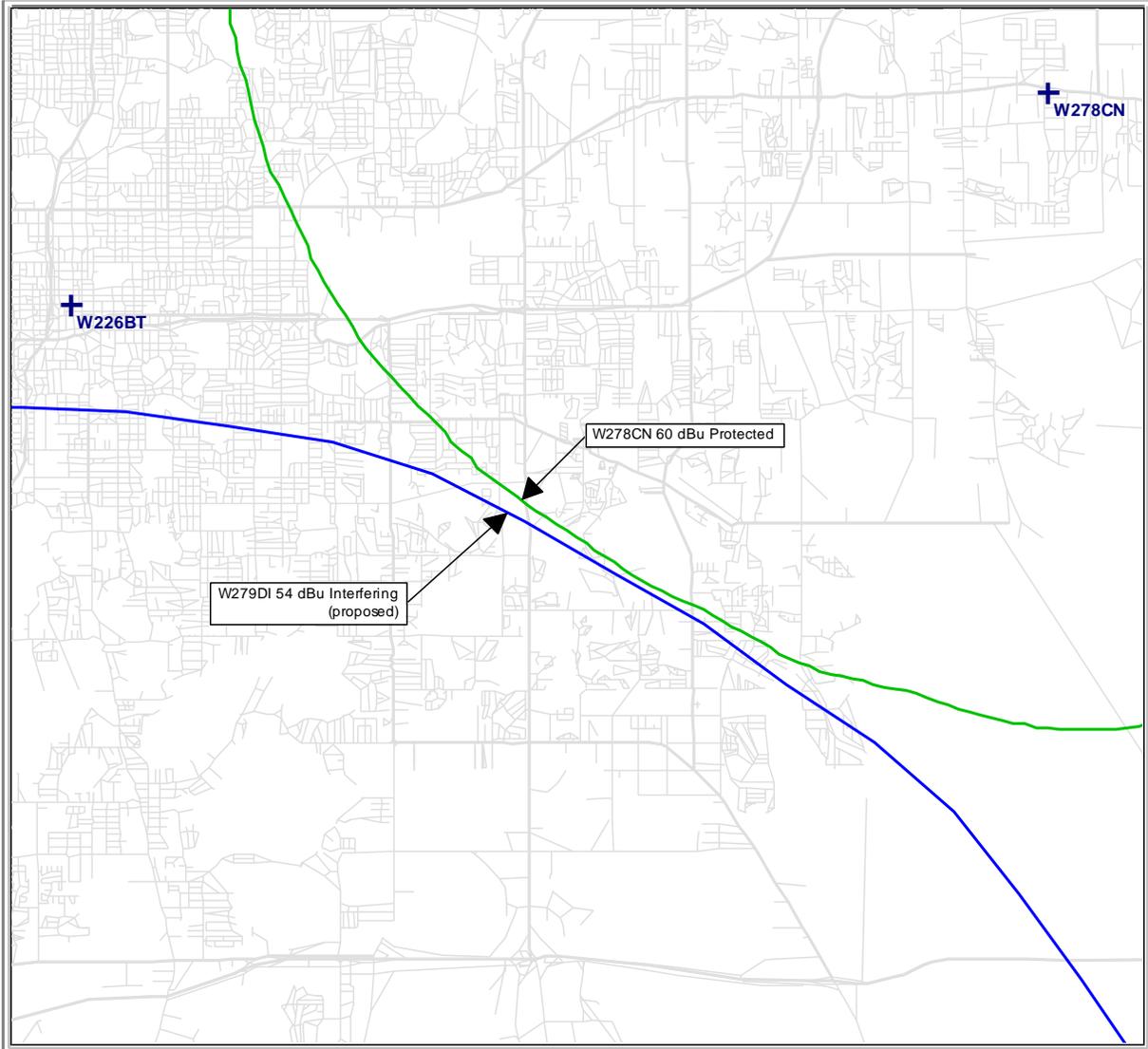


RED: Co-channel, BLUE: First Adjacent, BLACK: 2nd/3rd Adjacent

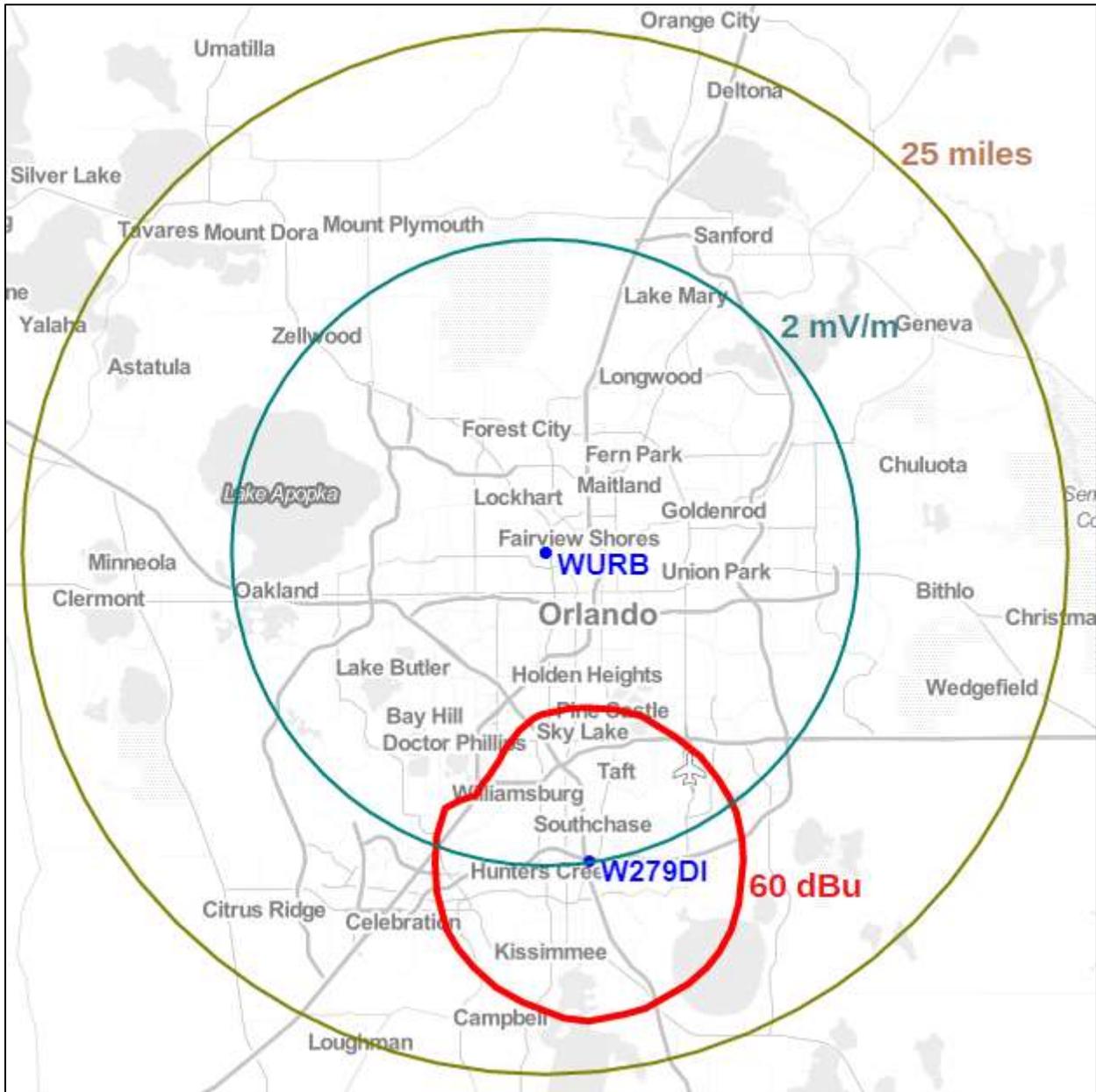
W279DI proposed protection to W279CT



W279DI proposed protection to W278CN



CROSS-SERVICE FILL-IN COVERAGE



WAIVER OF §74.1204(a) REQUEST
SHORT-SPACED SECOND AND THIRD ADJACENT CHANNELS

W279DI(A)
Kissimmee, Florida
Channel 279D (103.7 MHz)

The proposed facility (“W279DI(A)”) is located within the 60 dBu protected service contours of second-adjacent channel facilities WOTW, Windermere, Florida and WTKS-FM, Cocoa Beach, Florida.

WOTW operates 22 kW into a directional antenna at 227 meters height above average terrain (HAAT) on Channel 276C2. WOTW places a 71.1 dBu service contour at W279DI(A).

WTKS-FM operates 94 kW into a non-directional antenna at 482 meters HAAT on Channel 281C. WTKS-FM places an 80.2 dBu service contour at W279DI(A).

When evaluating multiple overlapping stations, we further review the weaker of the two stations as the interfering contour of the stronger station would be fully contained in the weaker station. In this case, we will further evaluate WOTW.

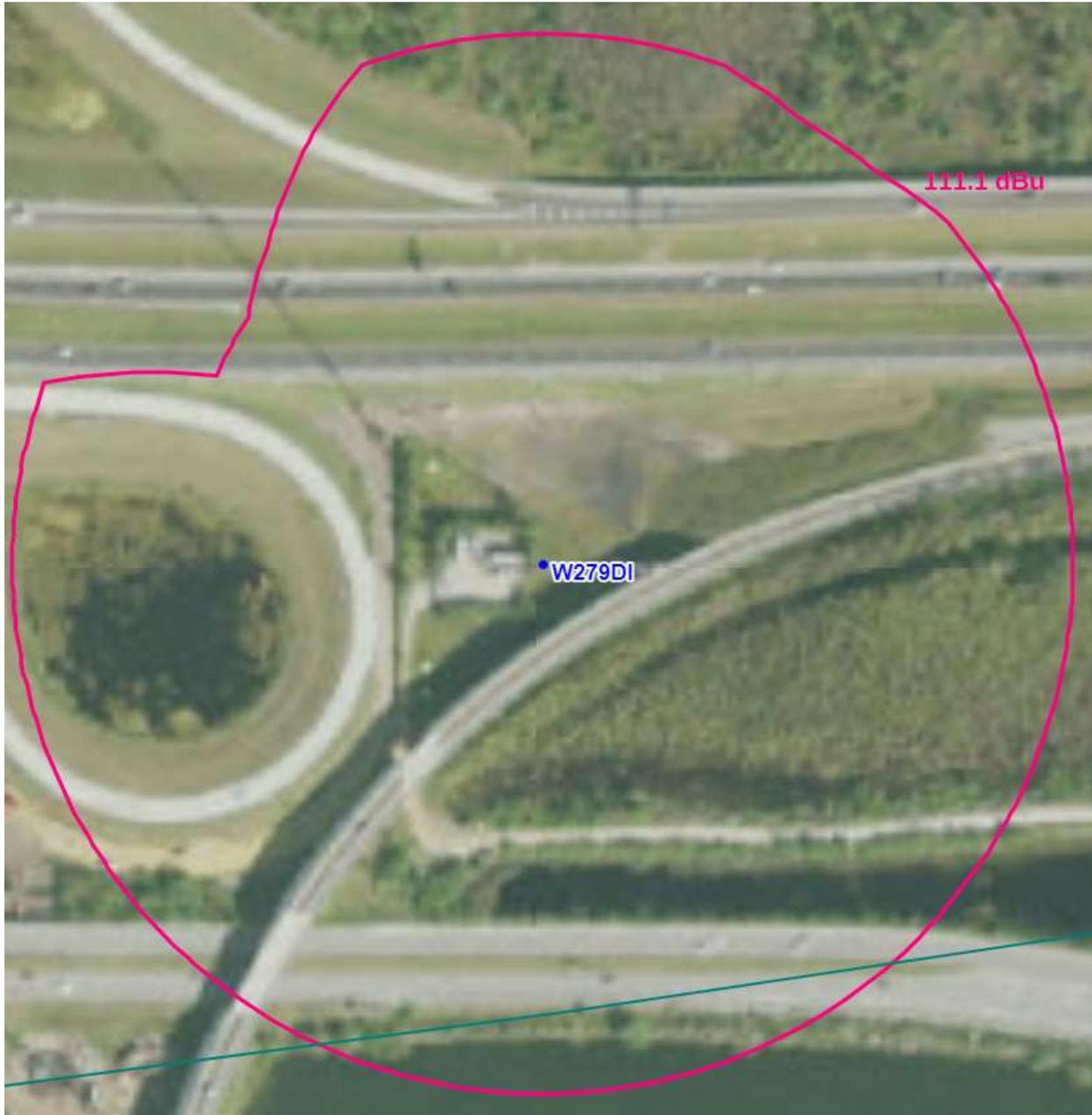
Using the U/D method¹, the proposed translator station is predicted to produce an undesired interference overlap in respect to WOTW to the proposed translator station’s 111.1 dBu interference contour (“overlap zone”). At 116 watts ERP, the overlap zone extends to 210 meters from the radiation center. As the proposed radiation center is 97 meters above ground level, the interference will reach the ground. In addition, the tower is adjacent to a 2-lane signed state highway that would be subject to protection for potential listeners. Along the highway within the overlap zone, we were able to identify locations that are at elevations up to 11 meters higher than the base of the tower due to terrain and highway infrastructure. To address the interference, W279DI(A) is proposing to operate a 1-bay SWR FMEC circularly polarized antenna. Based on manufacturer’s specifications, at 13 meters above ground level, the interfering contour along the -45 degree depression angle will not exceed 110.88 dBu. This artificial floor takes the highway structures into consideration.

Based on these findings, the proposed modified FM translator will not create any interference to listeners or potential listeners of WOTW or WTKS-FM. The applicant is requesting a waiver of §74.1204(a) in respect to second and third-adjacent channel short-spaced stations WOTW, Windermere, Florida and WTKS-FM, Cocoa Beach, Florida.

Prepared by
Michelle Bradley, CBT
REC Networks
March 25, 2021

¹ - See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

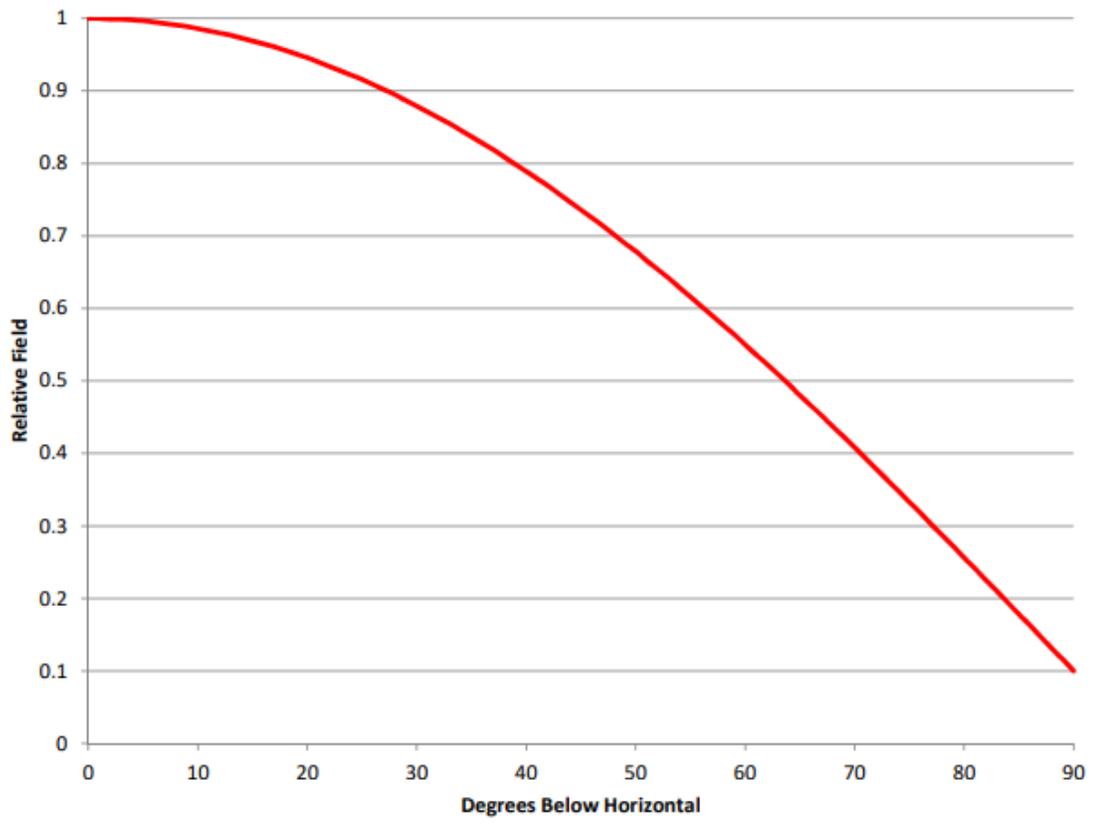
111.1 dBu INTERFERING CONTOUR

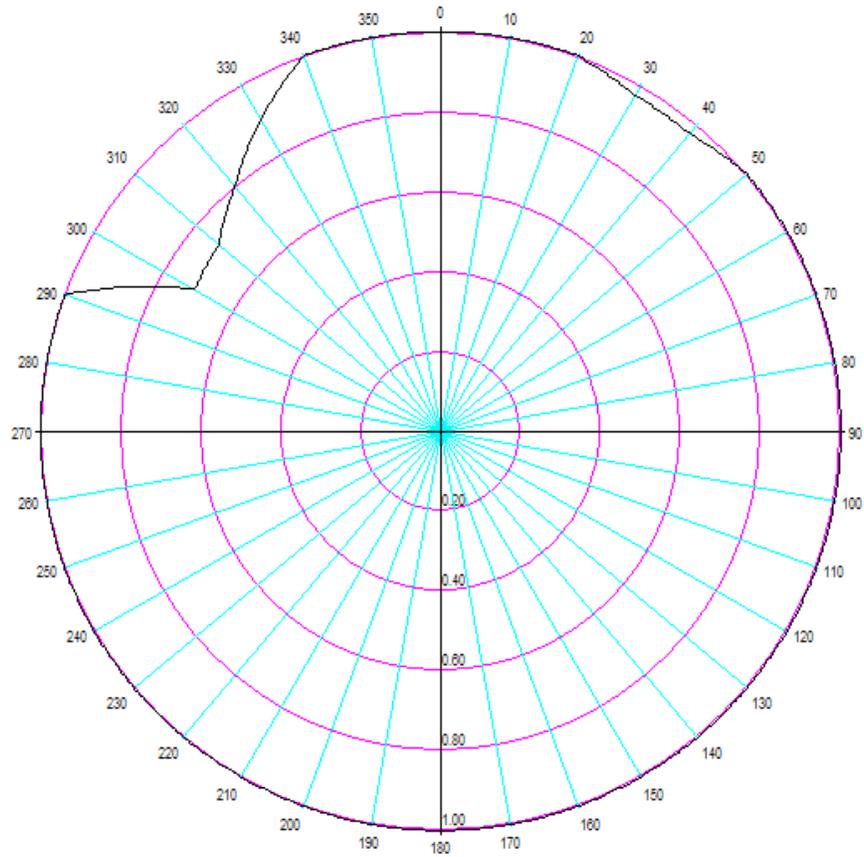


Proposed Power:	0.116 kW
Antenna Height AGL:	126 m
Interference Contour:	111.1 dBu
Artificial RX Antenna Height:	13 m
Antenna Type:	SWR FMEC - 1 bay 0 wave spacing

Angle Below Horizon	Antenna Relative Field	ERP in kW	ERP in dBk	Distance from Ant to Interference Contour	Distance from Ant to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant to Ground Level	Field Strength in dBu @ Ground Level
5	0.995	0.115	-9.40	209.44	1296.53	95.27	1445.69	94.32
10	0.980	0.111	-9.53	206.28	650.74	101.12	725.61	100.18
15	0.965	0.108	-9.66	203.12	436.60	104.45	486.83	103.51
20	0.950	0.105	-9.80	199.96	330.39	106.74	368.40	105.79
25	0.920	0.098	-10.08	193.65	267.38	108.30	298.14	107.35
30	0.870	0.088	-10.57	183.13	226.00	109.27	252.00	108.33
35	0.840	0.082	-10.87	176.81	197.01	110.16	219.67	109.21
40	0.790	0.072	-11.40	166.29	175.80	110.62	196.02	109.67
45	0.740	0.064	-11.97	155.76	159.81	110.88	178.19	109.93
50	0.680	0.054	-12.71	143.13	147.51	110.84	164.48	109.89
55	0.610	0.043	-13.65	128.40	137.95	110.48	153.82	109.53
60	0.550	0.035	-14.55	115.77	130.48	110.06	145.49	109.12
65	0.470	0.026	-15.91	98.93	124.68	109.09	139.03	108.14
70	0.400	0.019	-17.31	84.20	120.25	108.00	134.09	107.06
75	0.325	0.012	-19.12	68.41	116.99	106.44	130.44	105.49
80	0.250	0.007	-21.40	52.62	114.74	104.33	127.94	103.38
85	0.175	0.004	-24.49	36.84	113.43	101.33	126.48	100.38
90	0.100	0.001	-29.36	21.05	113.00	96.50	126.00	95.56

Vertical Elevation Antenna Pattern





Azim	Rel.FS	ERP [W]	dBk
0.0	1.000	116.000	-9.355
5.0	1.000	116.000	-9.355
10.0	1.000	116.000	-9.355
15.0	1.000	116.000	-9.355
20.0	1.000	116.000	-9.355
25.0	0.985	112.546	-9.487
30.0	0.970	109.144	-9.620
35.0	0.970	109.144	-9.620
40.0	0.970	109.144	-9.620
45.0	0.985	112.546	-9.487
50.0	1.000	116.000	-9.355
55.0	1.000	116.000	-9.355
60.0	1.000	116.000	-9.355
65.0	1.000	116.000	-9.355
70.0	1.000	116.000	-9.355
75.0	1.000	116.000	-9.355
80.0	1.000	116.000	-9.355
85.0	1.000	116.000	-9.355
90.0	1.000	116.000	-9.355
95.0	1.000	116.000	-9.355
100.0	1.000	116.000	-9.355
105.0	1.000	116.000	-9.355
110.0	1.000	116.000	-9.355
115.0	1.000	116.000	-9.355
120.0	1.000	116.000	-9.355
125.0	1.000	116.000	-9.355
130.0	1.000	116.000	-9.355
135.0	1.000	116.000	-9.355
140.0	1.000	116.000	-9.355
145.0	1.000	116.000	-9.355
150.0	1.000	116.000	-9.355
155.0	1.000	116.000	-9.355
160.0	1.000	116.000	-9.355
165.0	1.000	116.000	-9.355
170.0	1.000	116.000	-9.355
175.0	1.000	116.000	-9.355
180.0	1.000	116.000	-9.355
185.0	1.000	116.000	-9.355
190.0	1.000	116.000	-9.355
195.0	1.000	116.000	-9.355
200.0	1.000	116.000	-9.355
205.0	1.000	116.000	-9.355
210.0	1.000	116.000	-9.355
215.0	1.000	116.000	-9.355
220.0	1.000	116.000	-9.355
225.0	1.000	116.000	-9.355
230.0	1.000	116.000	-9.355
235.0	1.000	116.000	-9.355
240.0	1.000	116.000	-9.355
245.0	1.000	116.000	-9.355
250.0	1.000	116.000	-9.355
255.0	1.000	116.000	-9.355
260.0	1.000	116.000	-9.355
265.0	1.000	116.000	-9.355
270.0	1.000	116.000	-9.355
275.0	1.000	116.000	-9.355
280.0	1.000	116.000	-9.355
285.0	1.000	116.000	-9.355
290.0	1.000	116.000	-9.355
295.0	0.855	84.799	-10.716
300.0	0.710	58.476	-12.330
305.0	0.717	59.634	-12.245
310.0	0.725	60.973	-12.149
315.0	0.762	67.355	-11.716
320.0	0.800	74.240	-11.294
325.0	0.850	83.810	-10.767
330.0	0.900	93.960	-10.271
335.0	0.950	104.690	-9.801
340.0	1.000	116.000	-9.355
345.0	1.000	116.000	-9.355
350.0	1.000	116.000	-9.355
355.0	1.000	116.000	-9.355