

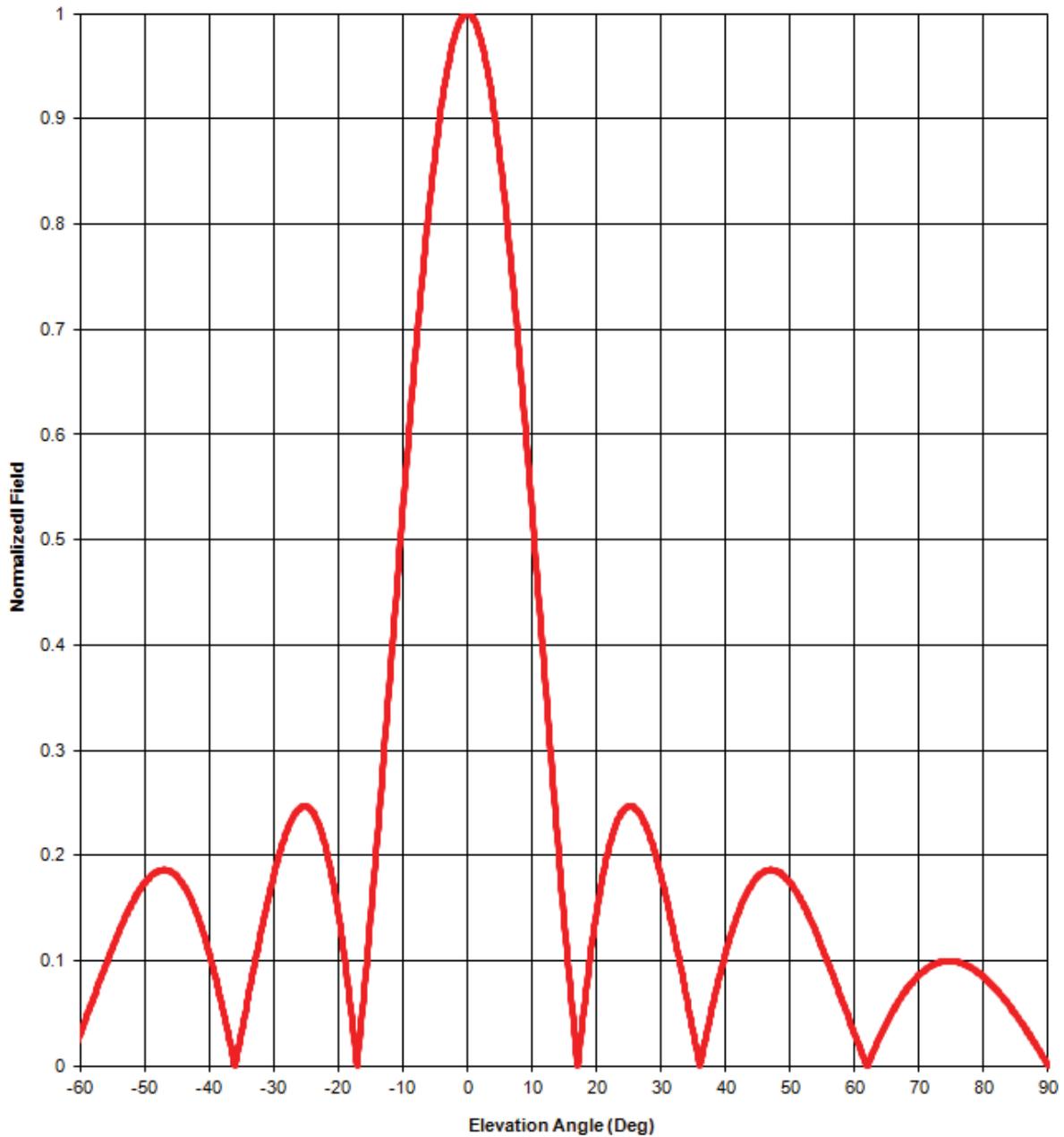
Exhibit 11 Page 1
The Church in Atlanta
Second-Adjacent Waiver Request
Atlanta, GA

The proposed LPFM station will broadcast on channel 279, which is within the 84 kilometers second-adjacent minimum distance separation of station WVEE on channel 277 and the 84 kilometers second-adjacent minimum distance separation of station WALR-FM (Lic. and App) on channel 281. The WVEE interfering contour at the LPFM tower site is 89.7 dB μ F(50,50). The WALR-FM interfering contour at the LPFM tower site is 62.8 dB μ F(50,50). Using the ratio of 100:1 (LPFM to WVEE and WALR-FM) on the second-adjacent channel, the population within the proposed LPFM 129.7 dB μ contour and 102.8 dB μ contour is zero. Applying the antenna manufacturer's vertical radiation pattern the area of interference can be more accurately calculated geometrically, rather than just by using the free space equation alone. This particular antenna is a four bay full-wave spaced Shively 6812b antenna. It was determined from the manufacturer's vertical plan that at 45 degrees below horizontal the interference area would extend 25.5 meters toward the ground. We have proposed the antenna radiation center will be 35 meters above ground, thus the interference area will never reach the ground. There are no occupied structures or elevated roadways within the interference area. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

Exhibit 11 Figure 1 Minimum Ground Clearance

Depression Angle Below Horizontal	Antenna Relative Field	ERP (Watts)	Distance to interfering Contour from Antenna (m)	Horizontal Distance of Interfering contour from tower (m)	Vertical Clearance of Interfering contour above TGL (m)
5	0.886	11.0	169	168.4	20.3
10	0.529	3.9	100	98.5	17.6
15	0.140	0.3	28	27.0	27.8
20	0.146	0.3	28	26.3	25.4
25	0.247	0.9	48	43.5	14.7
30	0.181	0.5	36	31.2	17.0
35	0.032	0.0	0	0.0	35.0
40	0.108	0.2	12	9.2	27.3
45	0.180	0.5	36	25.5	9.5
50	0.174	0.4	32	20.6	10.5
55	0.112	0.2	23	13.2	16.2
60	0.030	0.0	0	0.0	35.0
65	0.042	0.0	0	0.0	35.0
70	0.087	0.1	16	5.5	20.0
75	0.100	0.1	16	4.1	19.5
80	0.084	0.1	16	2.8	19.2
85	0.049	0.0	0	0.0	35.0
90	0.000	0.0	0	0.0	35.0
Minimum Clearance above TGL:					9.5

Elevation pattern



Antenna model: 6812b, 4-bay full-wave-spaced

Test frequency: 98.1 MHz

Gain (maximum):

Power	dB
2.09	3.19 dB

Document No. 6812b 4-bay fw (130701)

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Degrees	Rel. Field
1	0.994
2	0.978
3	0.951
4	0.913
5	0.866
6	0.811
7	0.748
8	0.680
9	0.606
10	0.529
11	0.450
12	0.370
13	0.291
14	0.214
15	0.140
16	0.070
17	0.006
18	0.051

Degrees	Rel. Field
19	0.102
20	0.146
21	0.181
22	0.209
23	0.229
24	0.242
25	0.247
26	0.245
27	0.237
28	0.223
29	0.204
30	0.181
31	0.155
32	0.126
33	0.096
34	0.064
35	0.032
36	0.001

Degrees	Rel. Field
37	0.029
38	0.057
39	0.084
40	0.108
41	0.128
42	0.146
43	0.161
44	0.172
45	0.180
46	0.185
47	0.186
48	0.185
49	0.181
50	0.174
51	0.165
52	0.154
53	0.142
54	0.127

Degrees	Rel. Field
55	0.112
56	0.096
57	0.080
58	0.063
59	0.047
60	0.030
61	0.014
62	0.001
63	0.016
64	0.029
65	0.042
66	0.053
67	0.064
68	0.073
69	0.080
70	0.087
71	0.092
72	0.096

Degrees	Rel. Field
73	0.098
74	0.100
75	0.100
76	0.099
77	0.097
78	0.093
79	0.089
80	0.084
81	0.079
82	0.072
83	0.065
84	0.057
85	0.049
86	0.040
87	0.030
88	0.021
89	0.011
90	0.000

Elevation Pattern Tabulation

Antenna model: 6812b, 4-bay full-wave-spaced

Relative Field at 0° Depression = 1.000

Exhibit 11 Figure 2 Page 2 Manufacturer Elevation Pattern

Exhibit 11 Figure 3
Aerial Photo of the Vicinity Surrounding the Proposed Tower Site

