

## **Second Adjacent Exhibit & Waiver Request**

### **KROJ-LP – Facility ID# 196858**

**Aug 2023**

Minor move modification at 34 watts ERP requests second adjacent waiver. Exhibit is provided demonstrating no interference will be caused to any population.

D/U Ratio study calculations for KMFA (FM) is estimated signal strength of 101.4 dBuV/m at the site, and KAZI (FM) is calculated to an estimated signal strength of 70.511 dBu. Adding 40 dBu protection rounded to the nearest decibel, KAZI is protected to 111 dBu.

Using a three bay Shively 6812, depression angles reduces interference to 64 m radius at 2 m above ground. With the radiation center 19 meters above ground, any interference will remain sufficiently cleared of population and four-lane roadways. No population will be subject to interference according to the undesired-to-desired ratio method.

Elevation Angle (Degrees)	Relative Field (Meters)		ERP	Radial Distance (Meters)		Horizontal Distance (Meters)	Hght Above Base Elev. (Meters)
0	1.000	0.00	34.00	113.9	0.000	114	19
5	0.943	-0.51	30.23	107.4	9.361	107	10
10	0.787	-2.08	21.06	89.6	15.565	88	3
15	0.578	-4.76	11.36	65.8	17.038	64	2
20	0.367	-8.71	4.58	41.8	14.296	39	5
25	0.195	-14.20	1.29	22.2	9.386	20	10
30	0.082	-21.72	0.23	9.3	4.670	8	14
35	0.023	-32.77	0.02	2.6	1.502	2	17
40	0.003	-50.46	0.00	0.3	0.220	0	19
45	0.000	-80.00	0.00	0.0	0.008	0	19
50	0.001	-60.00	0.00	0.1	0.087	0	19
55	0.007	-43.10	0.00	0.8	0.653	0	18
60	0.018	-34.89	0.01	2.1	1.775	1	17
65	0.030	-30.46	0.03	3.4	3.097	1	16
70	0.038	-28.40	0.05	4.3	4.067	1	15
75	0.040	-27.96	0.05	4.6	4.400	1	15
80	0.033	-29.63	0.04	3.8	3.701	1	15
85	0.019	-34.42	0.01	2.2	2.156	0	17
90	0.000	-120.00	0.00	0.0	0.000	0	19