

Non-Interference Compliance Study

Educational Media Foundation

K271CI (Facility ID: 20995)

This exhibit demonstrates compliance with all contour overlap and interference protection requirements and demonstrates full compliance with 47 C.F.R. §74.1204.

Applicant certifies that should any actual interference occur it will promptly cease operation in accordance with 47 C.F.R. §74.1203.

This study uses the NED 3 second terrain dataset.

Below is a listing of area stations whose contours are less than 25 km clear of the proposed translator.

Callsign	State	City	Channel	ERP (kW)	Class	Status	Distance (km)	Clr (km)
KVGH-FM	CA	North Shore	286	6	A	LIC	22.03	-24.84
KHCV	CA	Mecca	282	6	A	LIC	22.03	-24.35
KVGH-FM	CA	Bermuda Dunes	286	1.5	A	CP	21.05	-15.49
KQIE	CA	Redlands	284	1.35	A	LIC	73.96	0.07
KCLZ	CA	Twentynine Palms	283	6	A	CP	39.88	19.22

The only stations that are of concern are KVGH-FM (License and CP) and KHCV. KVGH-FM is a second adjacent Class A that requires that a minimum of 40 dB separation exist between its service contour and K271CI's interference contour. KHCV is a second adjacent Class A that requires that a minimum of 40 dB separation exist between its service contour and K271CI's interference contour. The following pages demonstrate that this proposal is in compliance with these requirements.

Compliance with 47 C.F.R. §74.1204(d)

All Authorized second adjacent stations with which the proposed translator's contour overlaps their service contour are listed below. The table lists the minimum signal level of the primary station's service contour that reaches the proposed tower site for K271CI.

Facility ID	Call Sign	Contour at Tower F(50,50)
2316	KVGH-FM (Licensed)	74.3 dBu
2316	KVGH-FM (CP)	70 dBu
191492	KHCV	74.1

Minimum protected contour signal level at K271CI's proposed tower site: **70 dBu**

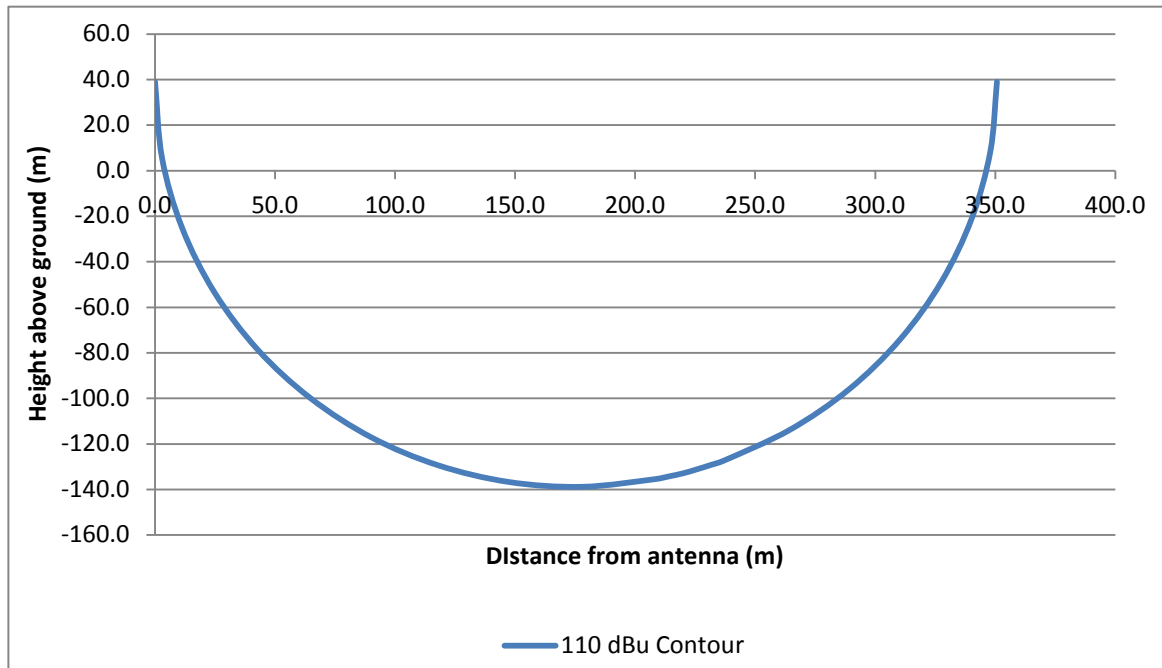
This study will use the minimum contour of 70 dBu to represent a worst-case potential interference level. At 40 dB above 70 dBu, the translator interference contour is 110 dBu. Calculation of distance at this power and signal level requires the use of the free-space calculation due to the distance being less than 1.5 km.

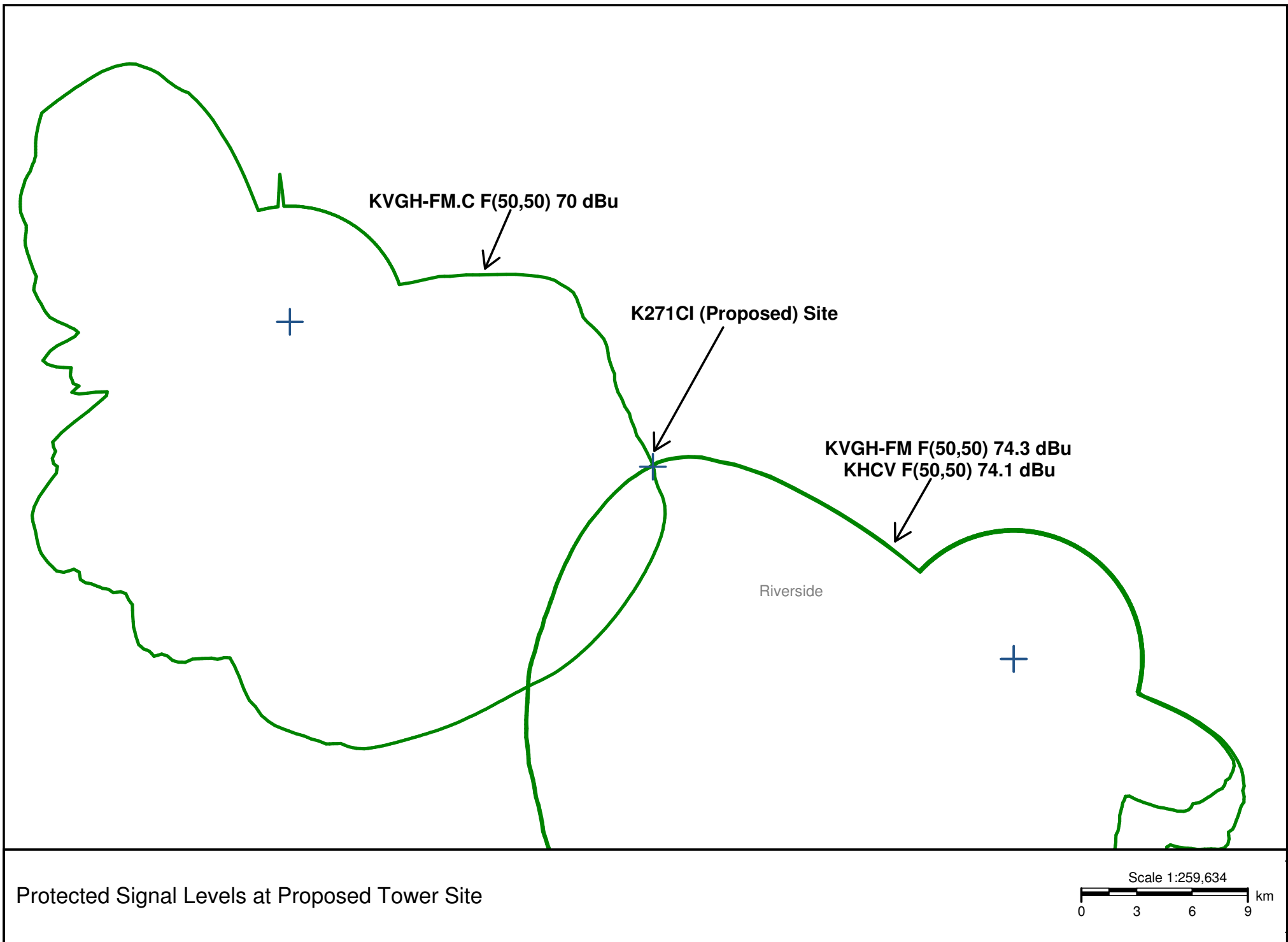
The following table uses the free space formula to calculate the worst-case height above ground level. At 110 dBu and 250 watts, the interference contour extends 348 m from the tower site. A satellite image is attached to show that no houses or businesses are within the 348 m interference area radius.

§74.1204(d) Contour Protection Study K271CI vs. KVGH-FM (CP)

Antenna: Shively 6832 - Single Bay ERP (watts): 250
 Protected Contour at tower - F(50,50): 70 dBu RC-AGL (m): 39
 Interference Ratio: 40 dB Relative field at Azimuth: 1.000
 Interference Contour - F(50,10): 110 dBu ERP (watts) at Azimuth: 250

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	250.0	-6.02	350.7	350.7	39.0
5	0.996	248.0	-6.06	349.3	348.0	8.6
10	0.985	242.6	-6.15	345.5	340.2	-21.0
15	0.967	233.8	-6.31	339.2	327.6	-48.8
20	0.942	221.8	-6.54	330.4	310.5	-74.0
25	0.910	207.0	-6.84	319.2	289.3	-95.9
30	0.871	189.7	-7.22	305.5	264.6	-113.7
35	0.826	170.6	-7.68	289.7	237.3	-127.2
36	0.816	166.5	-7.79	286.2	231.5	-129.2
37	0.806	162.4	-7.89	282.7	225.8	-131.1
38	0.796	158.4	-8.00	279.2	220.0	-132.9
39	0.785	154.1	-8.12	275.3	214.0	-134.3
40	0.774	149.8	-8.25	271.5	208.0	-135.5
45	0.717	128.5	-8.91	251.5	177.8	-138.8
50	0.654	106.9	-9.71	229.4	147.4	-136.7
55	0.586	85.8	-10.66	205.5	117.9	-129.4
60	0.514	66.0	-11.80	180.3	90.1	-117.1
65	0.437	47.7	-13.21	153.3	64.8	-99.9
70	0.357	31.9	-14.97	125.2	42.8	-78.7
75	0.273	18.6	-17.30	95.7	24.8	-53.5
80	0.186	8.6	-20.63	65.2	11.3	-25.2
85	0.096	2.3	-26.38	33.7	2.9	5.5
90	0.000	0.0	-146.02	0.0	0.0	39.0
WORST CASE HEIGHT AGL (m)						-138.8





Protected Signal Levels at Proposed Tower Site

Scale 1:259,634
0 3 6 9 km

K271CI Interference Area

348 meter interference radius

