

**KBLW(FM)**  
**Billings, MT**  
Proposed Minor Modification  
Of Licensed Facility

**Application Overview:**

KBLW(FM) (FCC Facility ID# 89078) proposes to modify its currently Licensed Facilities using the following parameters:

**Tech Box:**

Channel:	211
Class:	A
Antenna Coordinates:	N45-45-37, W108-27-09 (NAD 27)
ASRN:	1007673
Tower Height AMSL:	153 m
COR AMSL:	1187 m
COR AGL:	62 m
COR HAAT:	137 m
ERP:	1.6 kW
Directional Antenna:	No

**Antenna Site City-Grade Coverage:**

Exhibit 1 demonstrates that the proposed facility's antenna site provides city grade coverage of KBLW(FM)'s proposed community of license – Billings, MT. As can be seen in the Exhibit, 100% of Billings's community boundaries are encompassed by the F(50,50) 60 dBu

contour of the proposed facility. Also, no major terrain obstructions are located between the antenna site and the community.

**Interference Study and Section 73.509 Waiver Request:**

Exhibit 2 is a contour overlap study from the proposed KBLW(FM) antenna site. It notes that the proposed KBLW(FM) facility's contours would overlap the following facility:

-KBIL(FM) Park City, MT 209C3 (see BLED-20060530AIO)

Exhibit 3 includes a map depicting how the proposed facility will RECEIVE interference from KBIL(FM) as the F(50,10) 100 dBu Interfering Contour for that station will overlap F(50,50) 60 dBu Contour instantly proposed for KBLW(FM).

KBLW Billings is on the air and operating under License File No.: BLED-20060320AGX.

KBLW requests a waiver of 73.509 be granted for this minor modification for KBLW to receive interference from KBIL(FM).

The Applicant is seeking a grant of this minor modification of its license and a waiver as this proposal is engineered so as to **NOT CAUSE** interference to any existing station, known application or allocation. The proposed service area would RECEIVE interference from KBIL(FM) on its 2<sup>nd</sup> adjacent channel.

This proposal will not cause interference to KBIL(FM) as the 100 dBu F(50,10) interfering contour of KBLW will not overlap KBIL's 60 dBu F(50,50) protected contour. However, as

noted above, KBLW's proposed protected 60 dBu F(50,50) would receive prohibited overlap from KBIL . The area of overlap received from KBIL will be approximately 3.78 square kilometers of rural areas that includes a population of 8 persons.

Presently the current 60 dBu F(50,50) contour of KBLW contains 1,006 sq. km and the grant of this minor change application will allow KBLW to increase its overall coverage area to 1,848 sq. km – an increase of 83% in area served. Presently KBLW provides service to an estimated 114,141 persons and this proposal will provide service to an estimated 124,796 persons. This reflects an estimated increase of 10,647 more persons (discounting the 8 persons located in the received interference area), an increase of more than 9.3% in population in mainly rural areas.

This waiver request is similar to the request made by the licensee of WCPE(FM) in *Educational Information Corporation*, 6 FCC Red 2207 (1991). WCPE(FM) requested a waiver in its application to permit de minimus overlap “received” and in the same proceeding WCCE(FM) requested a waiver in its applications to permit de minimus overlap “caused”. Please note that the Applicant is not requesting overlap “caused”, **ONLY** overlap “received”. More recently the Commission granted this type of a waiver to *Educational Media Foundation* in its minor change application of KYLV, Oklahoma City, OK BPED-20040210AAQ, to *CSN International* in its minor change applications of KJCH Coos Bay, OR BPED-20050603AAC and more recently WYJC St. Marks, FL BPED- 20070108ACC.

Because the Commission has recognized the importance of affording noncommercial educational stations the flexibility to expand and meet the growing demand for service, the Applicant believes that its instant request for KBLW, Billings, Montana, fully satisfies the criteria

established by the Commission for a waiver of Section 73.509 of the rules as it pertains to overlap received. Clearly, this benefit heavily outweighs the potential for interference in an area that would be a total of only around **.20%** of KBLW's proposed service area.. Accordingly the Applicant respectfully submits that its requested waiver of Section 73.509(a) of the Commissions rules is justified in this instance.

**Downward Radiation Study (FM Model):**

The proposed FM Facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (OET Bulletin 65, Second Edition 97-01, August, 1997). The Commission's FM Model Power Density Prediction program was employed to determine the Field. Using the Shively 6800 Series antenna with 4 sections and Full wavelength spacing, and the AGL height and ERP proposed in this application, the highest predicted power density 2 meters above ground is less than 1.1% of the Uncontrolled Standard with a Power Density of 2.18 microwatts per square centimeter 27.2 meters from the base of the tower.

Even though the site will fully comply with the Uncontrolled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

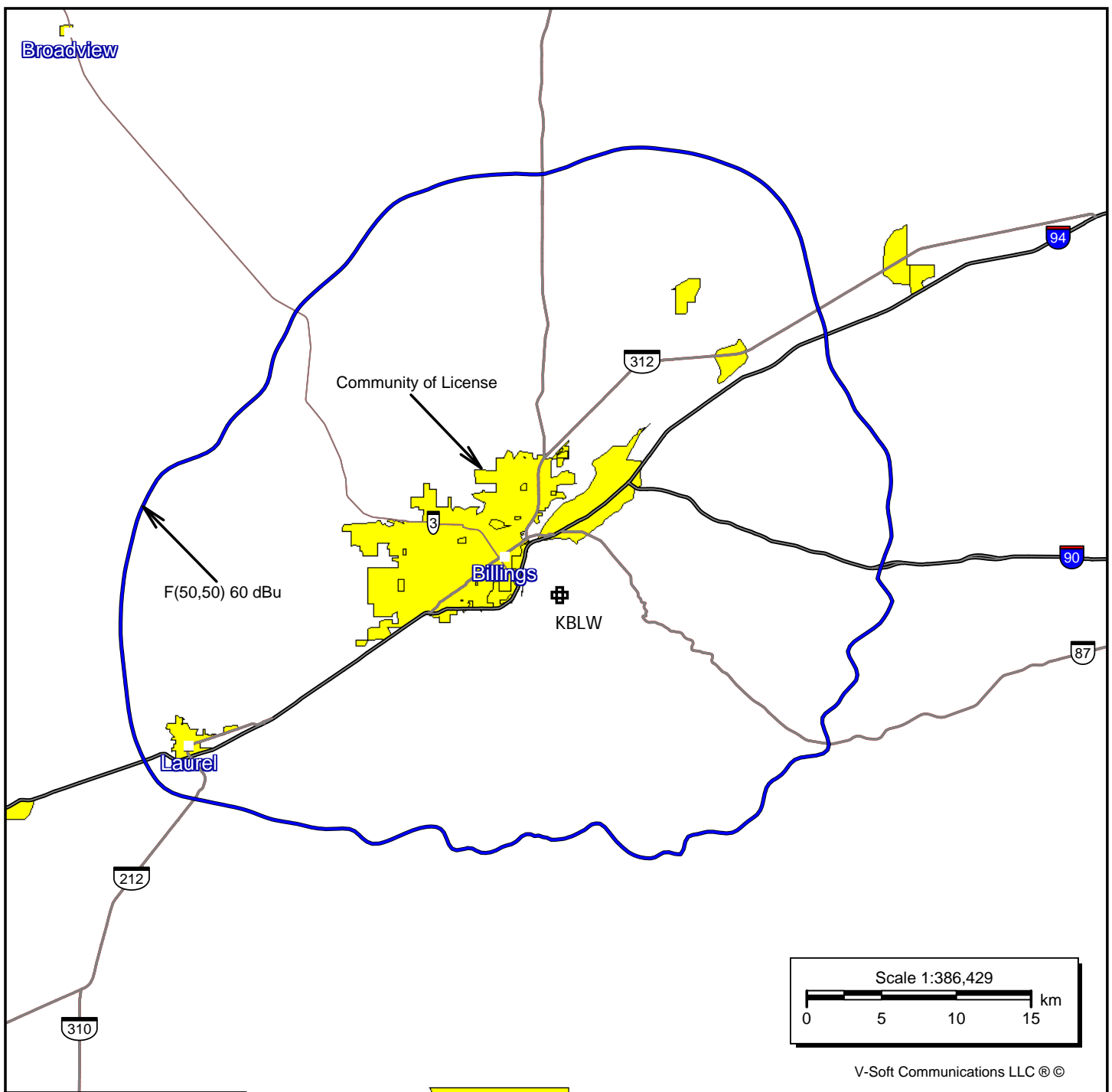
**Existing Tower:**

The proposed facility is exempt from environmental processing because the facility is not located at a location specified in Section 1.1307(a)(1)-(8) of the Commission's Rules and since the tower in question already exists.

# **Exhibit 1**

## **Proposed Antenna Site Contour Map:**

**F(50,50) City-Grade Contour**

**KBLW**

Proposed  
Channel: 211A  
Frequency: 90.1 MHz  
Latitude: 45-45-37 N  
Longitude: 108-27-09 W  
COR AGL Height: 62.0 m  
COR AMSL Height: 1187.0 m  
Base Elevation: 1125.0 m  
COR HAAT: 137.0 m  
ERP: 1.60 kW  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

## **Exhibit 2**

### **Section 73.509 Contour Overlap Tabulations**

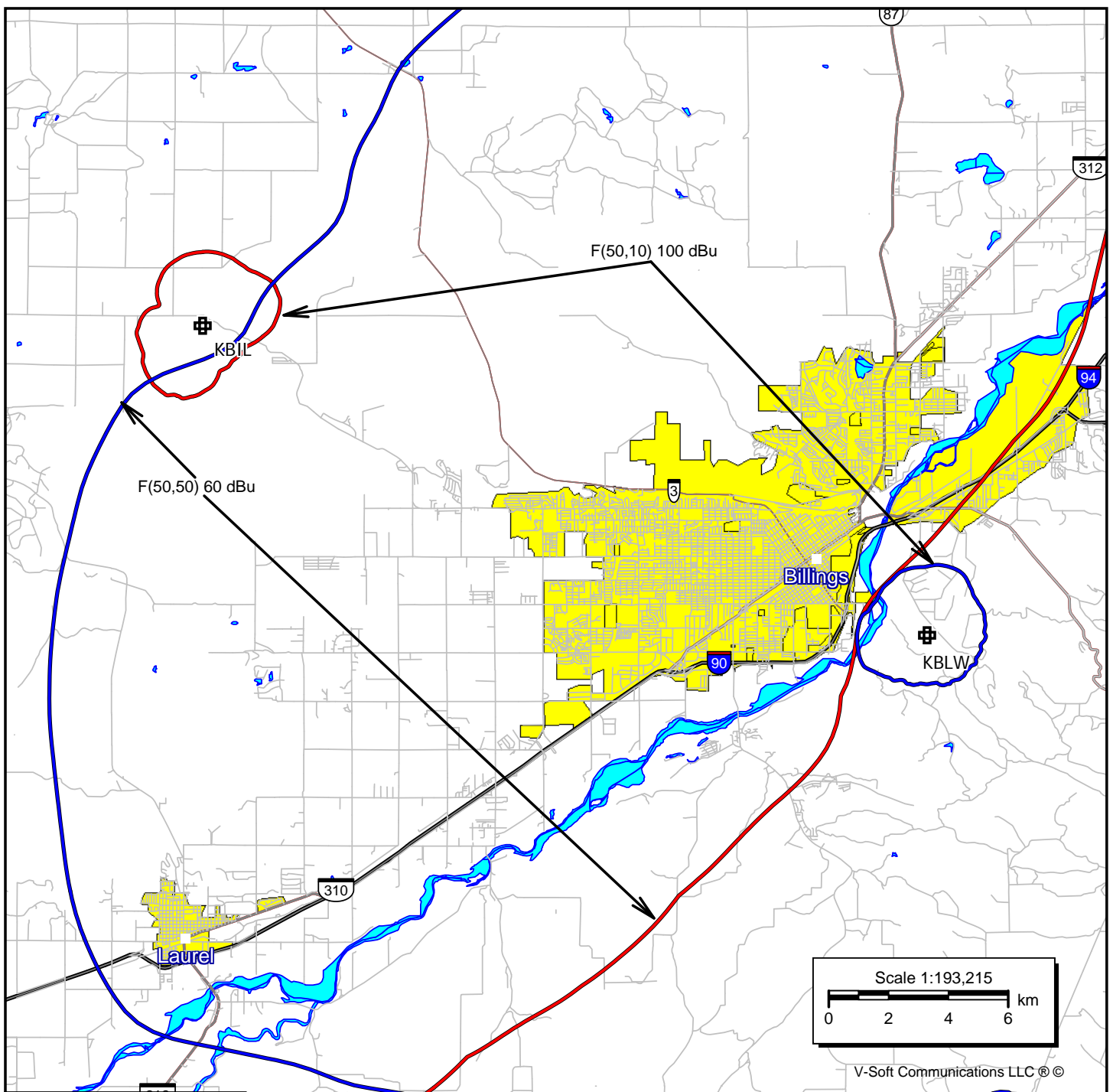


KBLW(FM) 211A Billings, MT Section 73.509 Contour Overlap Study CH# 211A - 90.1 MHz, Pwr= 1.6 kW, HAAT= 137.0 M, COR= 1187 M Average Protected F(50-50)= 24.13 km Omni-directional											
REFERENCE										DISPLAY DATES	
45 45 37.0 N.										DATA 09-06-12	
108 27 09.0 W.										SEARCH 09-23-12	
CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
211A Billings	KBLW	LIC_CX MT	0.0 0.0	0.00 BLED20060320AGX	45 45 37.0 108 27 09.0	0.450 137	64.9 1187	21.3 Hi-Line Radio	-93.4*	-103.0*	Fellowship,
209C3 Park City	KBIL	LIC_DVX MT	293.3 113.1	26.32 BLED20060530AIO	45 51 12.0 108 45 50.0	2.700 160	1.7 1314	24.0 Educational Media Foundati	-0.6<	0.2	
211C3 Powell	KUWP	LIC_C_ WY	193.6 13.4	134.09 BLED19991109ABZ	44 35 14.0 108 51 08.0	0.430 495	102.2 2019	37.7 University Of Wyoming	14.2	35.7	
210C2 Colstrip	KYPC	LIC_CX MT	85.3 266.4	120.66 BLED20091104AEO	45 50 17.0 106 54 16.0	3.500 357	69.9 1473	46.3 Montana State University -	29.3	42.5	
213A Col umbus	KMTJ	CP_HX MT	256.3 75.7	64.65 BPED20120723AAL	45 37 13.0 109 15 29.0	0.100 1	0.7 1232	6.2 Hi-Line Radio Fellowship I	34.2	56.1	

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
 Contour distances are on direct line to and from reference station. Reference zone= , Co to 3rd adjacent.  
 All separation margins (if shown) include rounding  
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
 "\*"affixed to 'IN' or 'OUT' values = site inside protected contour.  
 « = Station meets FCC minimum distance spacing for its class.  
 < = Contour Overlap

# **Exhibit 3**

## **Section 73.509 Contour Overlap Maps**



#### KBLW

BLED20060320AGX  
 Channel: 211A  
 Frequency: 90.1 MHz  
 Latitude: 45-45-37 N  
 Longitude: 108-27-09 W  
 COR AGL Height: 62.0 m  
 COR AMSL Height: 1187.0 m  
 Base Elevation: 1125.0 m  
 COR HAAT: 137.0 m  
 ERP: 1.60 kW  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

#### KBIL

BLED20060530AIO  
 Channel: 209C3  
 Frequency: 89.7 MHz  
 Latitude: 45-51-12 N  
 Longitude: 108-45-50 W  
 COR AGL Height: 40.0 m  
 COR AMSL Height: 1314.0 m  
 Base Elevation: 1274.0 m  
 COR HAAT: 160.0 m  
 ERP: 2.70 kW  
 Horiz. Pattern: Directional  
 Vert. Pattern: No  
 Prop Model: None