

# *APPLICATION FOR CONSTRUCTION PERMIT*

---

FM TRANSLATOR STATION K242CW  
OXNARD, CALIFORNIA  
FACILITY ID: 156020  
96.3 MHz / 0.100 kW ERP / DA

HIGH DESERT BROADCASTING LLC

JANUARY, 2018

© 2016 JEREMY RUCK & ASSOCIATES, INC.

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415  
221 S. 1st Avenue  
Canton, IL 61520

Tel: 309.647.1200  
Fax: 855.332.9537  
jeremyruck.com

**1.17.2018**

**1**

## **APPLICATION FOR CONSTRUCTION PERMIT**

The following engineering statement and attached exhibits have been prepared for **High Desert Broadcasting LLC** ("High Desert"), licensee of FM translator station K242CW at Oxnard, California, and are in support of their application for construction permit.<sup>1</sup> This application seeks to change the transmitter site location on the current site, increase the center of radiation, reduce the maximum effective radiated power, and rotate the licensed antenna pattern.

K242CW is licensed to operate with a maximum effective radiated power of 130 Watts utilizing a directional antenna at a center of radiation of 33 meters above mean sea level. This application proposes that the facility operate with a maximum effective radiated power of 100 Watts utilizing a directional antenna at a center of radiation of 70.2 meters above mean sea level. No change in the channel of operation is proposed. A small relocation of the facility is proposed from the licensed structure to the adjacent tower assigned ASRN 1019626. Exhibit E-1 compares the proposed and licensed K242CW 60 dBu contours, and demonstrates that there is a significant area of overlap between the two facilities.

The primary facility for K242CW is KKZZ at Port Hueneme, California.<sup>2</sup> No change in the primary facility associated with the translator is proposed under this application. Exhibit E-2 illustrates the proposed 60 dBu service contour along with the KKZZ 2 mV/m daytime contour and a twenty-five mile radius centered on the KKZZ transmitter site. As this map demonstrates, the proposed 60 dBu service contour is wholly contained within both of the KKZZ constructs.

---

<sup>1</sup> The Facility ID for K242CW at Oxnard, California is 156020.

<sup>2</sup> The Facility ID for KKZZ at Port Hueneme, California is 25091. KKZZ is licensed to Gold Coast Broadcasting LLC, which is commonly owned and controlled with High Desert.

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415  
221 S. 1st Avenue  
Canton, IL 61520

Tel: 309.647.1200  
Fax: 855.332.9537  
jeremyruck.com

The proposed facility complies with the provisions of Section 74.1204 of the Commission's Rules. Exhibit E-3 is a tabular interference study for the proposed facility. This study demonstrates that the proposed K242CW facility would comply with the contour overlap provisions of that section of the Commission's Rules to all relevant facilities with the exception of KCAQ licensed and authorized facilities, and the primary facility of KLJR-FM.<sup>3</sup> The situation to these three facilities will be considered under the provisions of Section 74.1204(d) of the Commission's Rules. The tabular study is graphically illustrated in the contour map that comprises Exhibit E-4.

Although normally prohibited contour overlap between the proposed facility and the previously mentioned facilities, no populated areas would be affected by the potential interference region. Exhibit E-5 illustrates the proposed transmitter site along with the KCAQ licensed 77.25 dBu F(50,50), KCAQ CP 71.9 dBu F(50,50) and KLJR-FM 70.32 dBu F(50,50) service contours. As this map demonstrates, all three of these contours intersect the proposed transmitter site for K242CW. Since all three facilities operate on channels second adjacent to the proposed translator, interference to any of the three facilities from the translator would potentially occur in regions where the translator field strength is at least 40 dB above the field strength of the facility in question. Specifically interference may occur in regions where the field strength of the translator is at least 117.25 dBu in the case of the licensed KCAQ facility, 111.9 dBu with regards to the KCAQ construction permit, and 110.32 dBu when considering KLJR-FM. Since the limit to KLJR-FM is the most restrictive, it will be utilized as the basis for the analyses of all three facilities.

---

<sup>3</sup> The Facility ID for KCAQ at Camarillo, California is 70563. The Facility ID for KLJR-FM is 35925.

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415  
221 S. 1st Avenue  
Canton, IL 61520

Tel: 309.647.1200  
Fax: 855.332.9537  
jeremyruck.com

Interference would therefore be predicted to potentially occur within the 110.32 dBu contour of the proposed translator. The following satellite image illustrates the 110.32 dBu contour. This image demonstrates that this interfering contour would not intersect any structures or populated regions. As a result, it is respectfully submitted that zero population would be within the predicted interference region, and as a result, the proposed facility complies with the provisions of Section 74.1204(d) of the Commission's Rules.



The proposed facility would not result in a significant environmental impact, and is exempt from environmental processing. The addition of the antenna to the registered structure would not increase the already existing environmental impact present from the tower. The construction of the

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415  
221 S. 1st Avenue  
Canton, IL 61520

Tel: 309.647.1200  
Fax: 855.332.9537  
jeremyruck.com

facility would not require ground disturbance, and the operation of the translator would not constitute an RF exposure hazard to persons in the vicinity of the structure.

The antenna used by the facility is a directional Kathrein-Scala CA5-CP/RM circularly polarized antenna. Since this particular antenna is not one of the types specified in the Commission's *FM Model* utility, a single bay Type 1 antenna will be considered. Using this set of parameters, *FM Model* calculates a power density of  $1.43 \mu\text{W}/\text{cm}^2$  at a distance of 14 meters from the tower. This value complies with the upper limit permissible under the uncontrolled environment condition, and is sufficiently low to categorically exclude the facility.

The proposed antenna would be located on a tower that is a constituent element in the KVTA directional array. This tower is appropriately fenced to prevent casual exposure and access to the structure. High Desert will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature  
License Expires November 30, 2019

Jeremy D. Ruck, PE  
January 17, 2018

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415  
221 S. 1st Avenue  
Canton, IL 61520

Tel: 309.647.1200  
Fax: 855.332.9537  
jeremyruck.com

1.17.2018

5

**K242CW.X**  
PROPOSED  
Latitude: 34-14-13 N  
Longitude: 119-12-08.60 W  
ERP: 0.10 kW  
Channel: 242  
Frequency: 96.3 MHz  
AMSL Height: 70.2 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**K242CW**  
BLFT20170515ACG  
Latitude: 34-14-17 N  
Longitude: 119-12-05 W  
ERP: 0.13 kW  
Channel: 242  
Frequency: 96.3 MHz  
AMSL Height: 33.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

*Jeremy Ruck & Associates, Inc.*

- Proposed K242CW 60 dBu Contour
- Licensed K242CW 60 dBu Contour
- Area of Contour Overlap

K242CW Licensed  
Transmitter Site

Ventura

K242CW.X

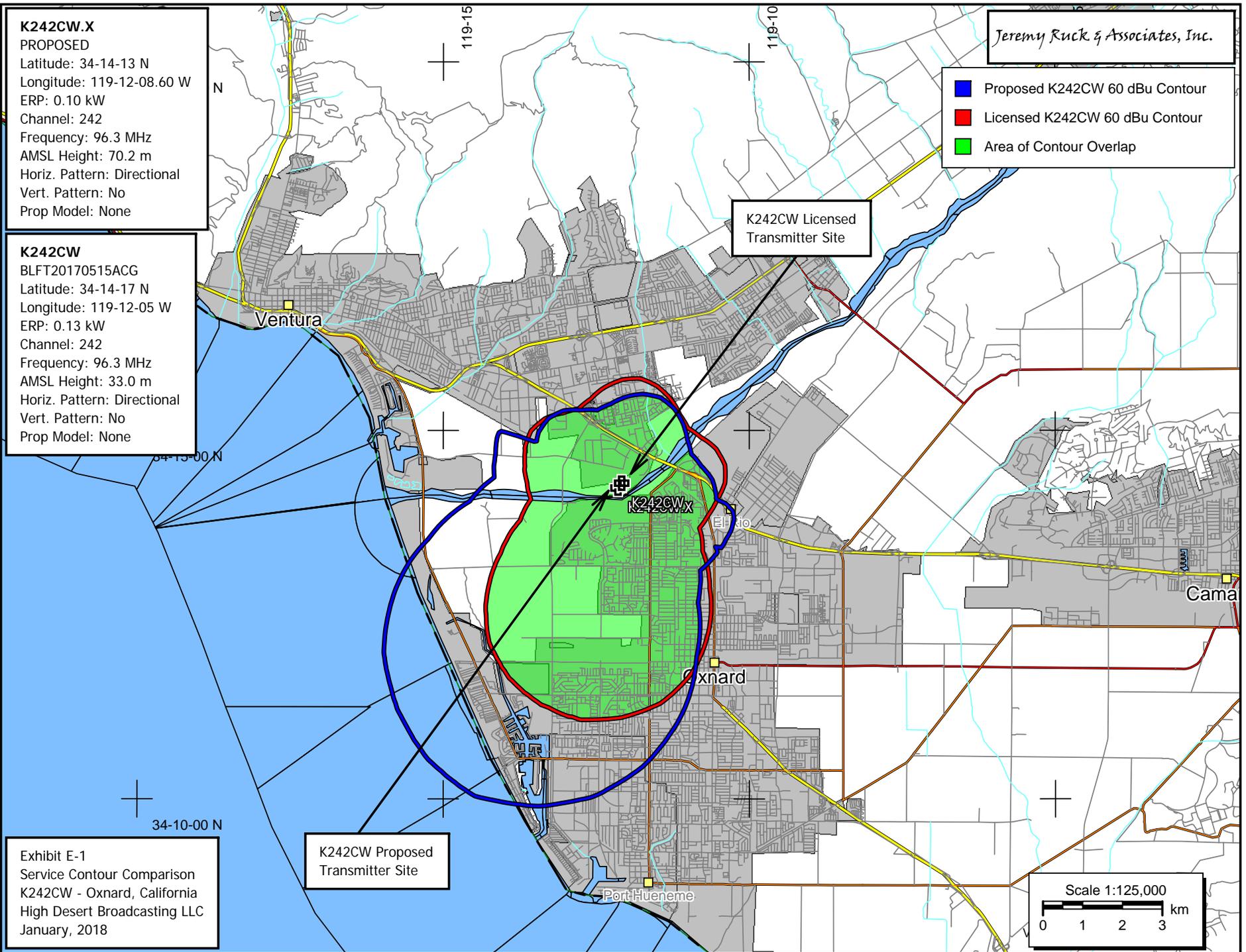
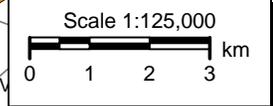
Cama

Oxnard

Port Hueneme

K242CW Proposed  
Transmitter Site

Exhibit E-1  
Service Contour Comparison  
K242CW - Oxnard, California  
High Desert Broadcasting LLC  
January, 2018



**K242CW.X**  
PROPOSED  
Latitude: 34-14-13 N  
Longitude: 119-12-08.60 W  
ERP: 0.10 kW  
Channel: 242  
Frequency: 96.3 MHz  
AMSL Height: 70.2 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

*Jeremy Ruck & Associates, Inc.*

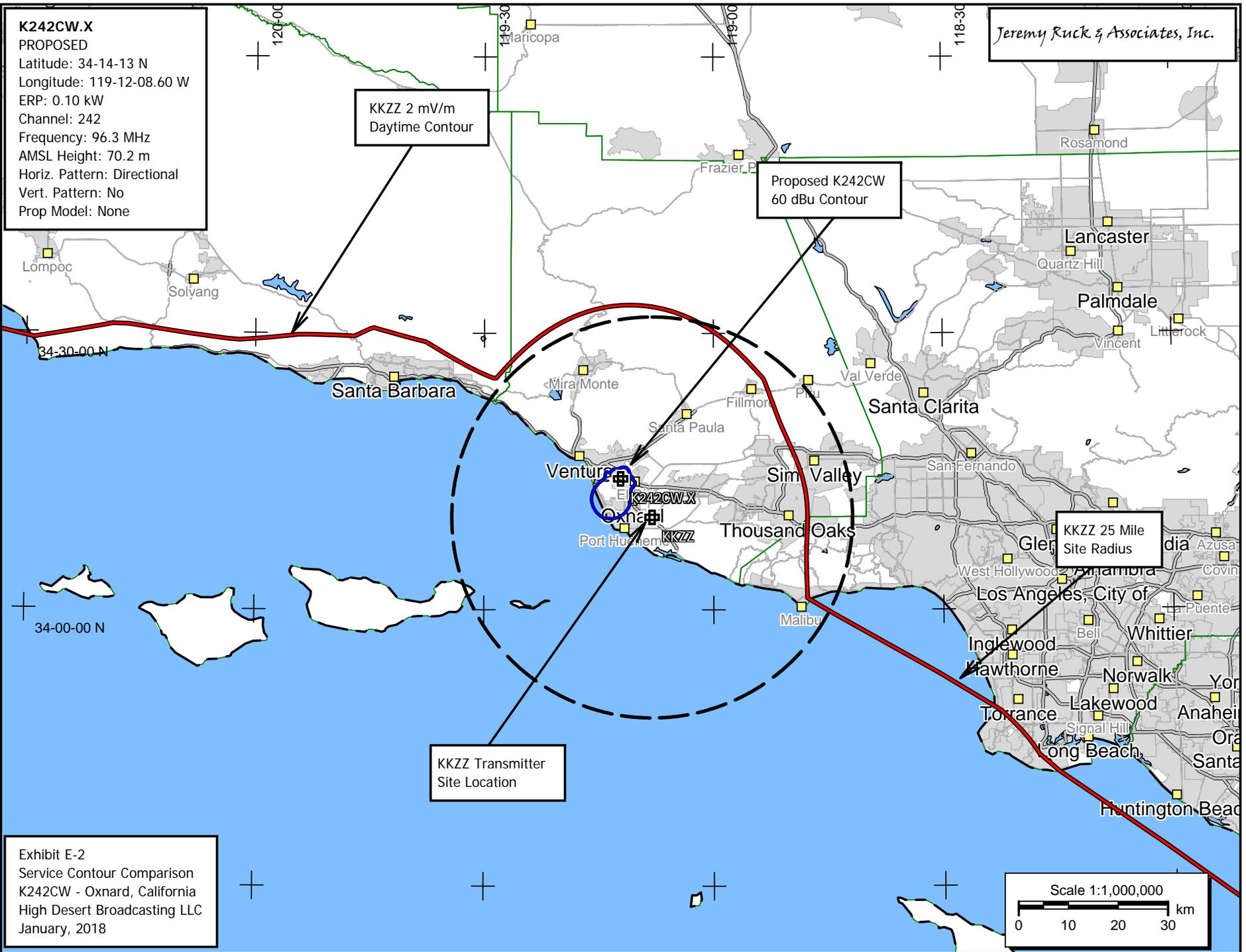
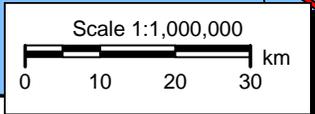
KKZZ 2 mV/m  
Daytime Contour

Proposed K242CW  
60 dBu Contour

KKZZ 25 Mile  
Site Radius

KKZZ Transmitter  
Site Location

Exhibit E-2  
Service Contour Comparison  
K242CW - Oxnard, California  
High Desert Broadcasting LLC  
January, 2018



Jeremy Ruck & Associates, Inc.  
Consulting Engineers - Canton, Illinois

Exhibit E-3 - Tabular Interference Study  
K242CW - Oxnard, California  
CH# 242D - 96.3 MHz, Pwr= 0.1 kW DA, HAAT= -0.3 M, COR= 70 M  
Average Protected F(50-50)= 5.64 km  
Standard Directional

REFERENCE  
34 14 13.0 N.  
119 12 09.0 W.

DISPLAY DATES  
DATA 01-17-18  
SEARCH 01-17-18

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
242B Los Angeles	KXOL-FM	LIC ZCX CA		92.7 273.2	86.91 BLH20060926AHF	34 11 48.0 118 15 30.0	6.600 398	138.8 848	72.8 Kxol Licensing, Inc.	-53.7*	0.2
240B1 Camarillo	KCAQ	LIC NCN CA		315.2 135.1	17.51 BLH19980209KF	34 20 55.0 119 20 13.0	1.200 444	2.3 689	52.9 Gold Coast Broadcasting LI	12.1	-35.5*
240A Camarillo	KCAQ	CP _CX CA		36.8 216.9	25.73 BPH20151120ASM	34 25 20.0 119 02 04.0	1.000 245	2.2 892	49.4 Gold Coast Broadcasting LI	21.1	-23.8*
242D Oxnard	K242CW	LIC DC_ CA		39.7 219.7	0.16 BLFT20170515ACG	34 14 17.0 119 12 05.0	0.130 33	16.9 33	5.2 High Desert Broadcasting L	-19.1*	-12.4*
244A Santa Paula	KLJR-FM	LIC _CX CA		56.7 236.8	18.03 BMLH20040420AAV	34 19 33.0 119 02 18.0	0.280 457	1.2 703	32.7 Lazer Licenses, LIc	14.6	-14.8*
244D Ventura	KLJR-FM1	LIC DHN CA		306.5 126.5	9.96 BLFTB19911226TA	34 17 25.0 119 17 23.0	0.003 24	0.0 142	0.1 Lazer Licenses, LIc	6.8	9.0
296A Ventura	KSSC	LIC _C_ CA		316.2 136.1	17.22 BLH20010102AAI	34 20 55.0 119 19 57.0	0.370 395	23.5 679	15.8 Entravision Holdings, LIc	9.5R	7.7M
240D Santa Paula	KCAQ-FM5	CP DV_ CA		36.8 216.9	25.73 BNPFTB20171006ABT	34 25 20.0 119 02 04.0	0.009 887	0.0 887	0.6 Gold Coast Broadcasting LI	23.3	21.5
242D Santa Clarita	KXOL-FM1	LIC DC_ CA		79.3 259.6	56.40 BLFTB20140804ABJ	34 19 48.0 118 35 56.0	0.014 1118	19.9 1118	3.4 Kxol Licensing, Inc.	33.8	45.9
243L1 Santa Barbara	KZAA-LP	LIC _ CA		295.0 114.7	48.83 BLL20170117ABP	34 25 17.2 119 41 06.8	0.100 45	45	35.2 La Casa De La Raza		37.3
243B Bakersfield	KPSL-FM	LIC _CX CA		11.6 191.7	141.74 BMLH20050720AEX	35 29 08.0 118 53 19.0	50.000 152	97.8 514	81.1 Lotus Bakersfield Corp.	41.5	55.7

Terrain database is FCC 30 meter, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= East Zone 2A, 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 restricted contour.  
Reference station has protected zone issue: Mexico- AM tower

**K242CW.X**  
 PROPOSED  
 Latitude: 34-14-13 N  
 Longitude: 119-12-08.60 W  
 ERP: 0.10 kW  
 Channel: 242  
 Frequency: 96.3 MHz  
 AMSL Height: 70.2 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: No  
 Prop Model: None

*Jeremy Ruck & Associates, Inc.*

- 60 dBu F(50,50) Contour
- 57 dBu F(50,50) Contour
- 54 dBu F(50,50) Contour
- 34 dBu F(50,10) Contour
- 48 dBu F(50,10) Contour
- 54 dBu F(50,10) Contour
- 97 dBu F(50,10) Contour
- 100 dBu F(50,10) Contour

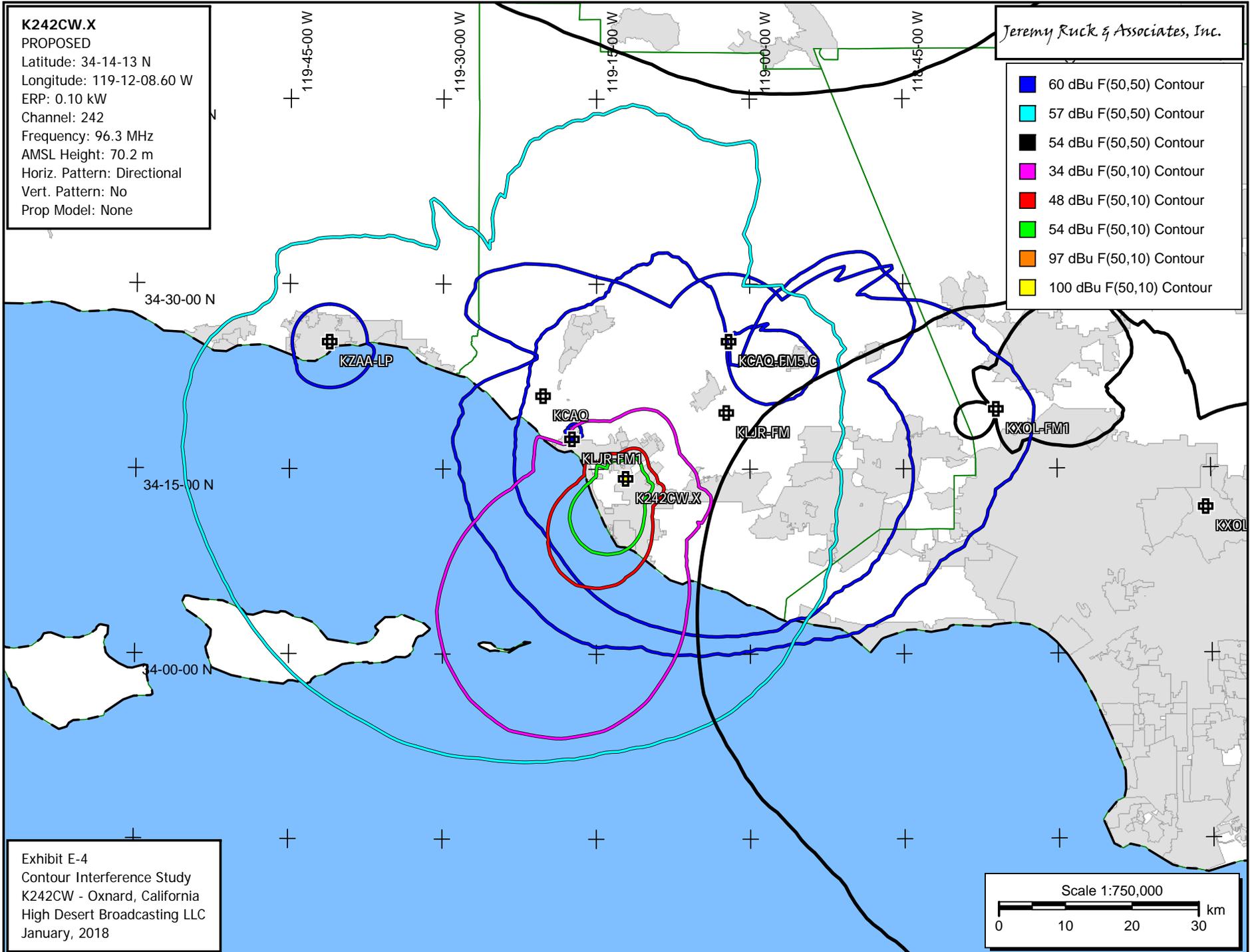


Exhibit E-4  
 Contour Interference Study  
 K242CW - Oxnard, California  
 High Desert Broadcasting LLC  
 January, 2018

