

# Exhibit 1

Engineering Statement in support of  
FCC FORM 340  
APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL  
NONCOMMERCIAL EDUCATIONAL BROADCAST STATION  
(For a New Station)

## Introduction:

This is an application by Idaho Community Action Network (the Applicant) for a new NCE FM Radio Station serving the community of Burley, Idaho.

The proposed facility's 60 dBu service contour encompasses a total land area of 632.5 km<sup>2</sup> and contains 33,101 persons based on the US Census year 2000 block level data. See Exhibit 1B.

The proposed facility does not provide coverage to sufficient first and second service NCE population to qualify for a 307(b) preference.

The site is more than 320 km from an international border.

This proposal will be implemented on an existing tower, ASR #1248936 in Heyburn, ID. The overall height of the structure will not be changed by this proposal.

This proposal is in compliance with 73.525 in that the population within the predicted TV6 interference zone is less than 3000. The applicant elects to operate vertical-only power at 40 times the allowed horizontal & vertical power level in accordance with 73.525(e)(4)(i). See Exhibit 19A & B.

The proposed facility is in compliance with 47 C.F.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure. See Exhibit 22.

This application was prepared using USGS 3-arc-second terrain data.

The closest FCC Monitoring Station is Livermore, CA, which is 868 km from the proposed site. The proposal is sufficiently distant from all facilities mentioned in 73.1030(a) & (b). Therefore this application complies with the notification requirements of 73.1030.

Joseph M. DiPietro, P.E.  
RFEngineers, Inc.  
October 2007

## Section VII Engineering Data:

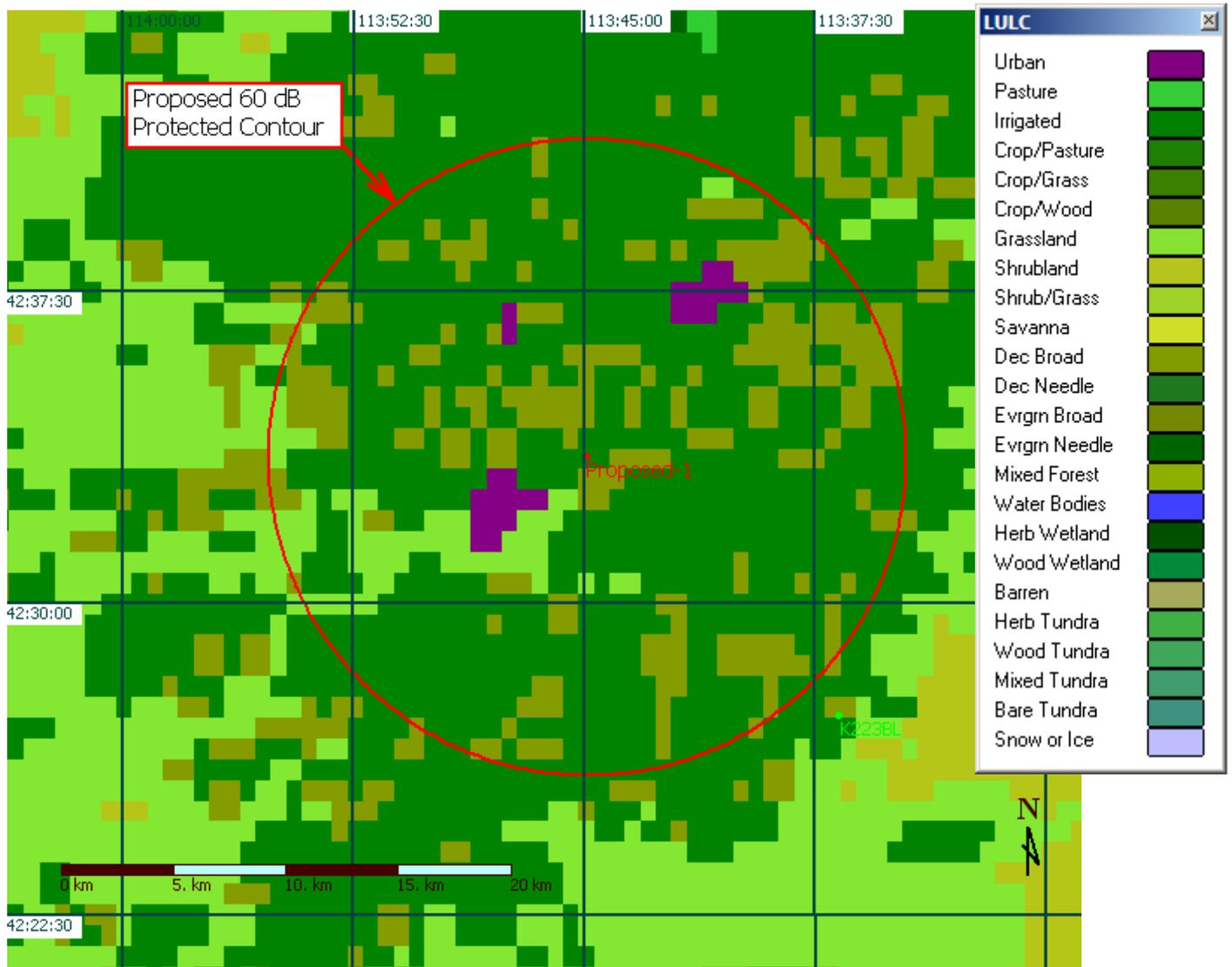
### Tech Box Data:

1. Channel 220
2. Class A
3. Antenna Location Coordinates
  - 42° 33' 32" N
  - 113° 44' 50" W
4. Proposed Assignment Coordinates, Not Applicable
5. Antenna Structure Registration, 1248936
6. Overall Tower Height, 30 meters AGL
7. Radiation Center Height, 1288 meters (H)      1288 meters (V) AMSL
8. Radiation Center Height, 23 meters (H)      23 meters (V) AGL
9. Radiation Center Height, 12 meter (H)      12 meter (V) HAAT
10. ERP, 0.0 kW (H)      4.0 kW (V)
11. Maximum ERP if beamtilt used, Not Applicable
12. Directional Antenna, No
13. Main Studio Location, Yes, see Exhibit 13.
14. Community Coverage, Yes, See Exhibit 13.
15. Interference, Yes.
  - a) Section 73.509, Checked. See Exhibits 16, Stations and Authorizations requiring investigation.
  - b) Section 73.207, Checked. Clear of all domestic stations and authorizations.
  - c) Section 73.213, Not Checked. Not Applicable.
  - d) Section 73.215, Not Checked. Not Applicable
  - e) Section 73.525, Checked. See Exhibit 16 and 19.
16. Reserved Channel above 220, Not Applicable
17. International Border, Yes
18. NEPA, Yes. Operation of this facility will not have a significant environmental impact. To the best knowledge of the Applicant:
  - a) The existing structure is not located in an officially designated wilderness area or wildlife preserve.
  - b) The existing structure does not threaten the existence or habitat of endangered species.
  - c) The existing structure will not involve high intensity white lighting in a residential neighborhood.
  - d) The existing structure will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing.
  - e) The existing structure does not affect Indian religious sites.
  - f) The site is not located in a flood plain.
  - g) Nothing is proposed that would require significant changes in surface features such as wetland fill, deforestation or water diversion.
  - h) This proposal complies with the FCC established guidelines regarding exposure to RF electromagnetic fields, See Exhibit 22.
19. Community of License Change, Not Applicable.

## Exhibit 1B 60dBu Contour Area and Population.

The proposed facility's 60 dBu service contour encompasses a total land area of 632.5 km<sup>2</sup> and contains 33,101 persons based on the US Census year 2000 block level data. No adjustments were made for large areas of water since there were none within the Contour. See the Land-Use-Land-Characterization map below.

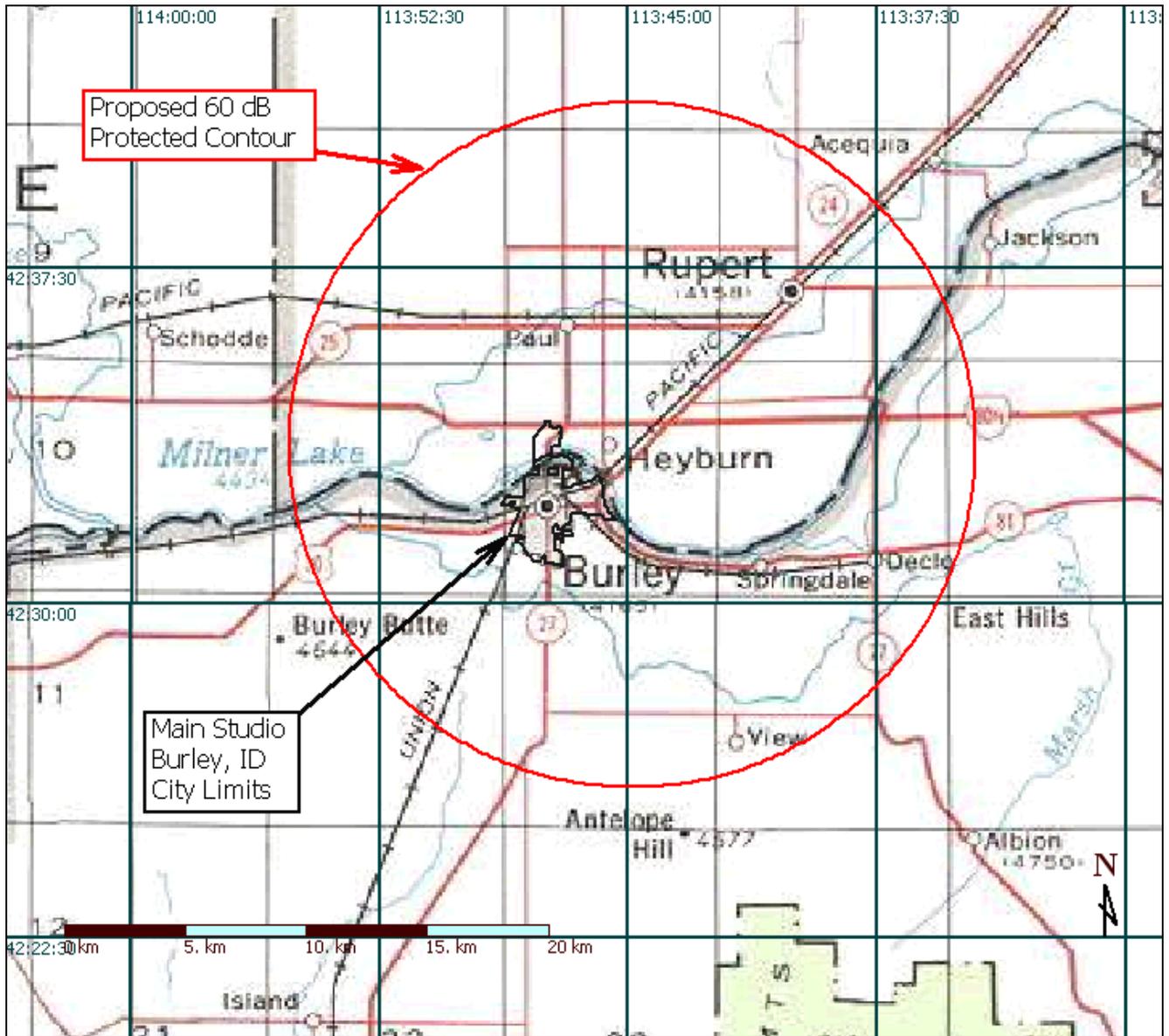
The contour was created using the methods and procedures described in 47 C.F.R. Section 73.313(c). The area was calculated using a spline integration in one-degree increments. The population was calculated by testing each US Census defined population point in the region with a point-in-polygon method. The population was summed for each point within the 60dBu polygon using data from the 2000 US Census.



*Land-Use-Land-Characterization Map.*

# Exhibit 13

## Main Studio & Community of License



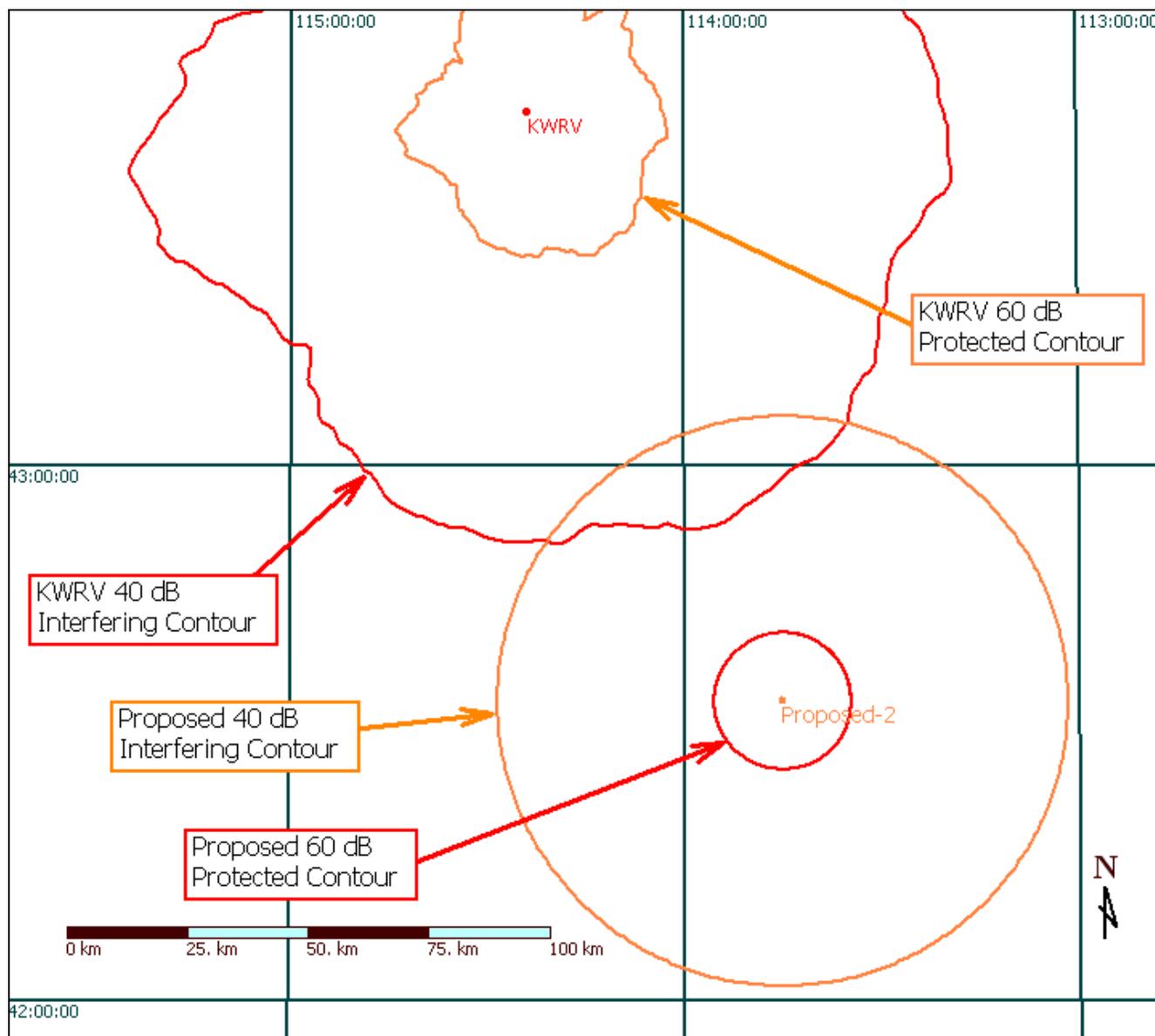
*Main Studio & Community of License: Burley, ID*

**Exhibit 16**  
**Stations and Authorizations Requiring Investigation**

<b>ID</b>	<b>City</b>	<b>St</b>	<b>Chan</b>	<b>CL</b>	<b>Stat</b>	<b>Prefix</b>	<b>ARN</b>	<b>Dist</b>	<b>Min 207</b>	<b>Clear 207</b>
KBSW	TWIN FALLS	ID	219	C3	LIC	BLED	19980820KB	57.51	N/A	N/A
KWRV	SUN VALLEY	ID	220	A	CP	BPED	20070105ADV	135.77	N/A	N/A
KPVI	POCATELLO	ID	6					124.62	154	-29.38

# Exhibit 16A

## Co-Channel Interference

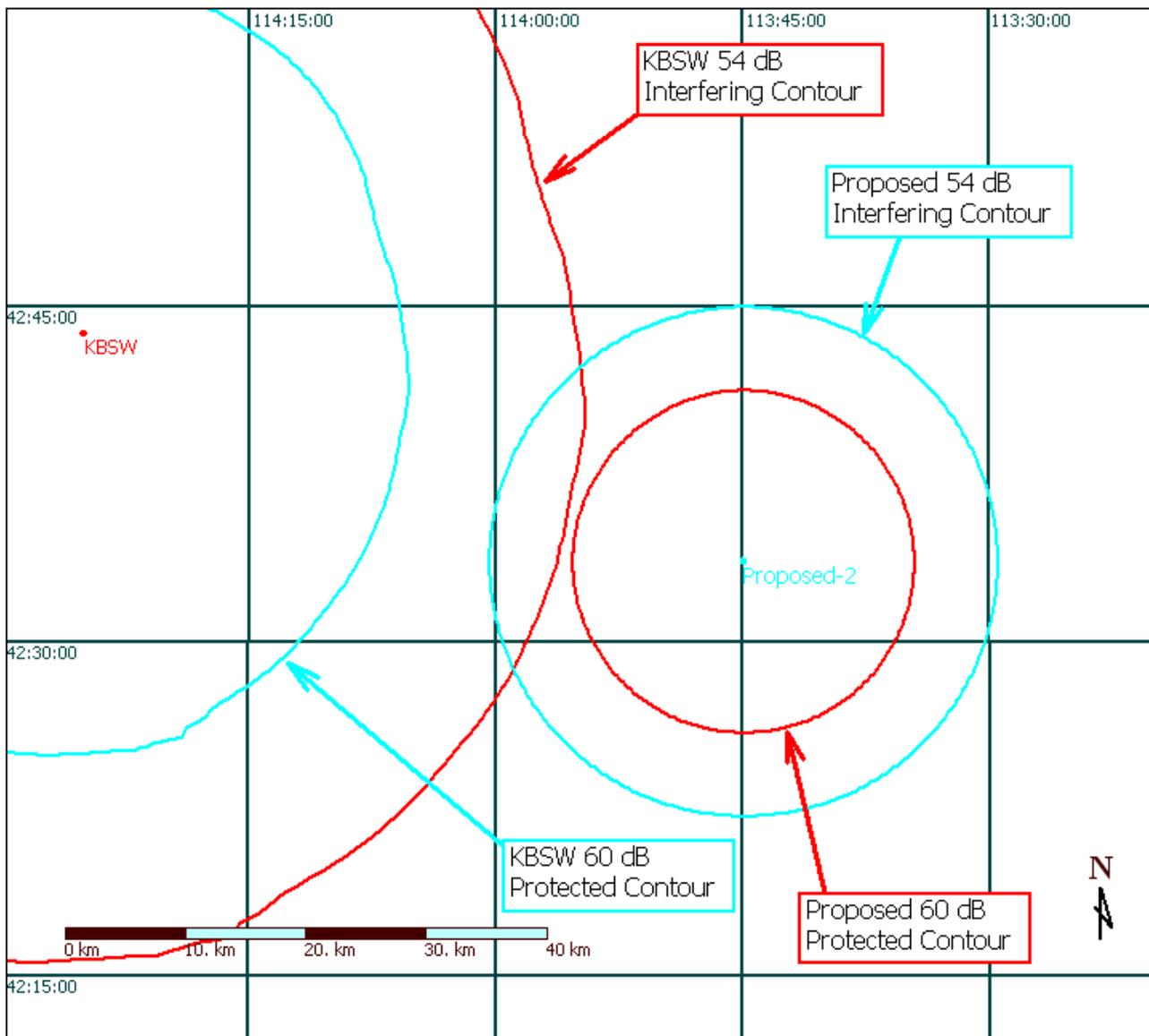


### *Protected and Interfering Contours*

Contours are color-coded so that prohibited overlap is indicated by LIKE color contours overlapping.

# Exhibit 16B

## 1<sup>st</sup> Adjacent Interference

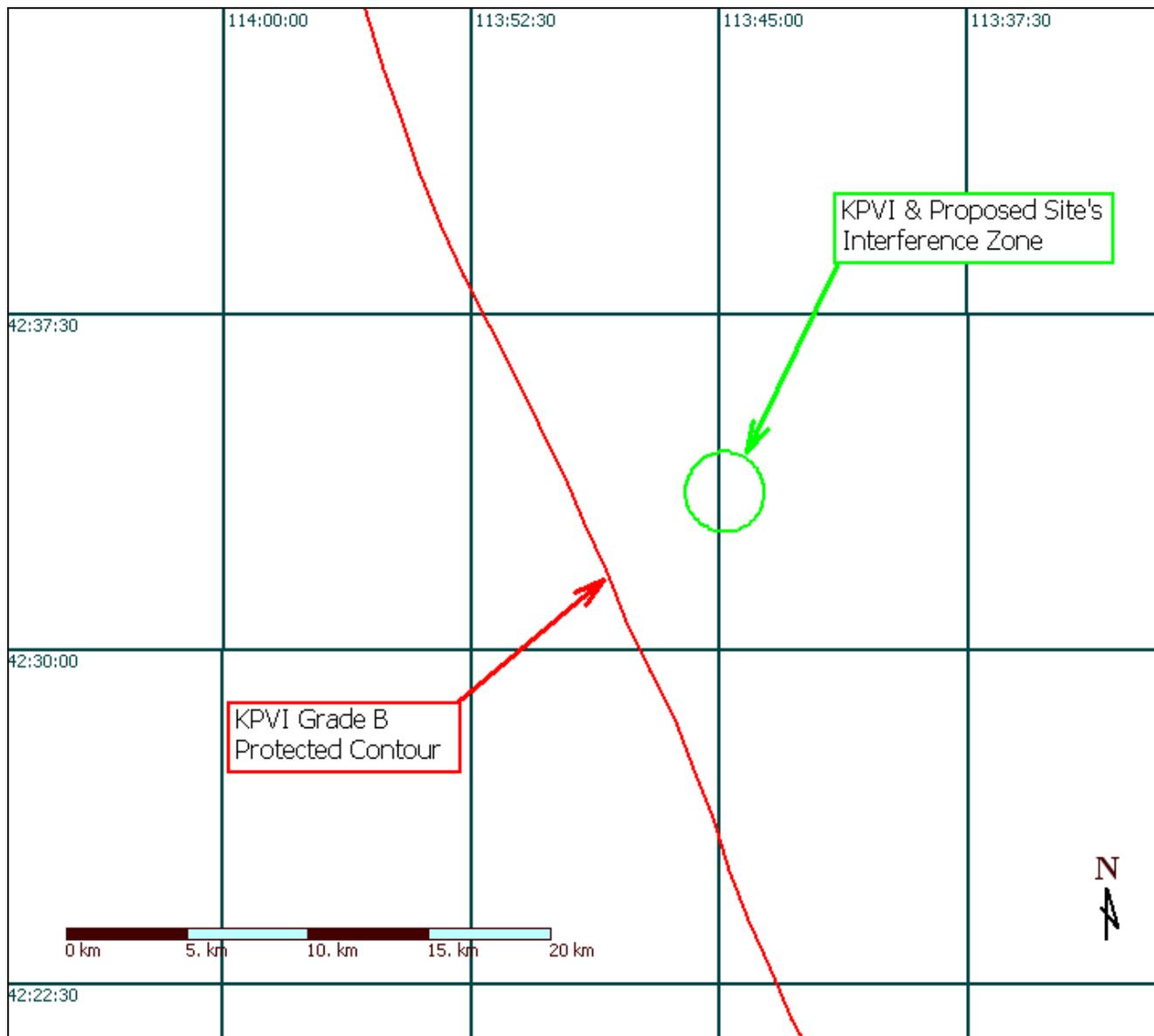


### *Protected and Interfering Contours*

Contours are color-coded so that prohibited overlap is indicated by LIKE color contours overlapping.

# Exhibit 19A

## TV-6 Analysis



## Exhibit 19B

### TV-6 Analysis

TV-6 interference study performed 09/28/2007

**FM Station:**

- : Channel 220
- : Antenna Height 1288 meters AMSL
- : Max ERP 0.1 kW
- : Latitude 42.5588072899178
- : Longitude -113.748181787919

**TV Station: KPVI**

- : Antenna Height 2078 meters AMSL
- : Max ERP 100 kW
- : Latitude 42.9207638888889
- : Longitude -112.346388888889

**Population and Area in Predicted Interference Zone:**

**Census Block Data:**

Polygon 1

Pop Count = 1881

Interference Zone Area = 8.5km<sup>2</sup>

**Options:**

Apply 6dB Adjustment for Receive Antenna: No

Range of TV Station Contours: 47.00dBu to 50.00dBu

TV Protected Contour (dBu)	Desired To Undesired (dBu)	FM Interfering Contour (dBu)
-----	-----	-----
47.00	39.00	86.00
47.30	38.52	85.82
47.60	38.04	85.64
47.90	37.56	85.46
48.20	37.16	85.36
48.50	36.80	85.30
48.80	36.44	85.24
49.10	36.08	85.18
49.40	35.72	85.12
49.70	35.36	85.06
50.00	35.00	85.00

## **Exhibit 22**

### **RF Exposure**

The Applicant will cooperate with all site users, managers and owners with regard to the cessation of operation or the reduction of operating power, whenever it is necessary to comply with the FCC Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation.

The modeled contribution to the RF environment, 2-meters above the ground, by the proposed facility is less than 7.3 uW/cm<sup>2</sup>, or 3.65%, of the maximum permitted value for general public exposure (0.7% of the occupational exposure level). This result was obtained using the FCC's FM Model computer program.

The following parameters were used to calculate the exposure level:

Horizontal ERP 0.0 kW

Vertical ERP 4.0 kW

Antenna Radiation Center Height AGL 23 meters

Test Height, 2 meters AGL

Antenna Type Shively 6810, 4-bay, inter-bay spacing ½ wavelength.

There are no occupied tall structures within 50 meters of the tower. The ground does not rise significantly around the tower.

Since the modeled contribution to the RF environment by proposed facility is less than 5% of the permitted level for public exposure this application is excluded from routine evaluation. See 1.1307(b)(3)(i).

Based on this information the proposed facility is in compliance with 47 C.F.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure.

RF Exposure Analysis Performed by:

Joseph M. DiPietro, P.E.

RFEngineers, Inc.

28 September 2007