

GREAT PLAINS CHRISTIAN RADIO, INC
New NCE Application
FACID #763819
Garden City, KS

This application for new noncommercial facility was originally filed as LMS 0000165738 but dismissed on a technicality for 73.509 violation. This application proposes a minor change to eliminate all conflicts making it grantable.

Contour Protection

As noted on the attached map of contours, the minor change proposed herein meets all co-channel, first, second and third adjacent protection in the current allocation landscape and with all other pending NCE applications.

The applicant proposes to reduce Effective Radiated Power and utilize Vertical-Only antenna for compliance with Television Channel 6 requirements. The height above ground and average terrain remain the same as originally proposed, only a change in ERP to 240 watts, vertical only polarization is proposed.

TV Channel 6 Compliance

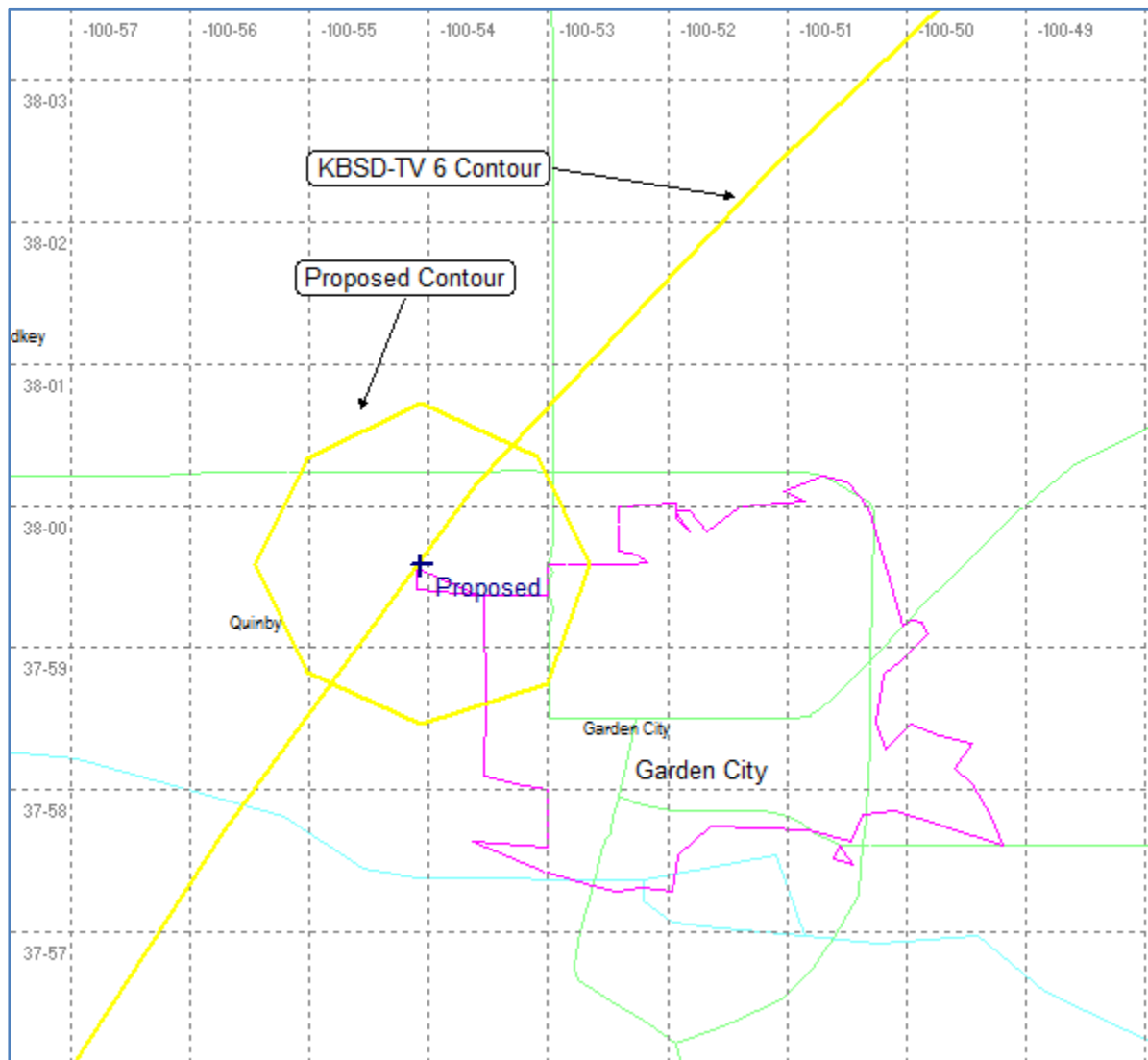
Section 73.525 of the commission's rules and regulations has been studied and it is believed that the proposed facility will provide full protection to channel 6 television as outlined in the rule section. There is one channel 6 TV facility considered, KBSD-TV, Ensign KS as it is the only full service TV 6 facility located within 225 km of the proposed Ch 205 operation [73.525(a) (1)].

The proposed Ch 205 transmitter site is located inside the Grade B, 47 dBu (50,50) KBSD-TV contour based on the notified radiation center and ERP with terrain data derived from the FCC's 30 second database. The signal of KBSD at the proposed location is 56.0 dBu (50,50). The required dB offset is +7.9 as determined from FCC Section 73.599, figure 1, attached. Based on these computations, the proposed Ch 205 TV 6 interfering contour is $56.0 \text{ dBu} + 7.9 \text{ dB} = 73.9 \text{ dBu}$ (50,10).

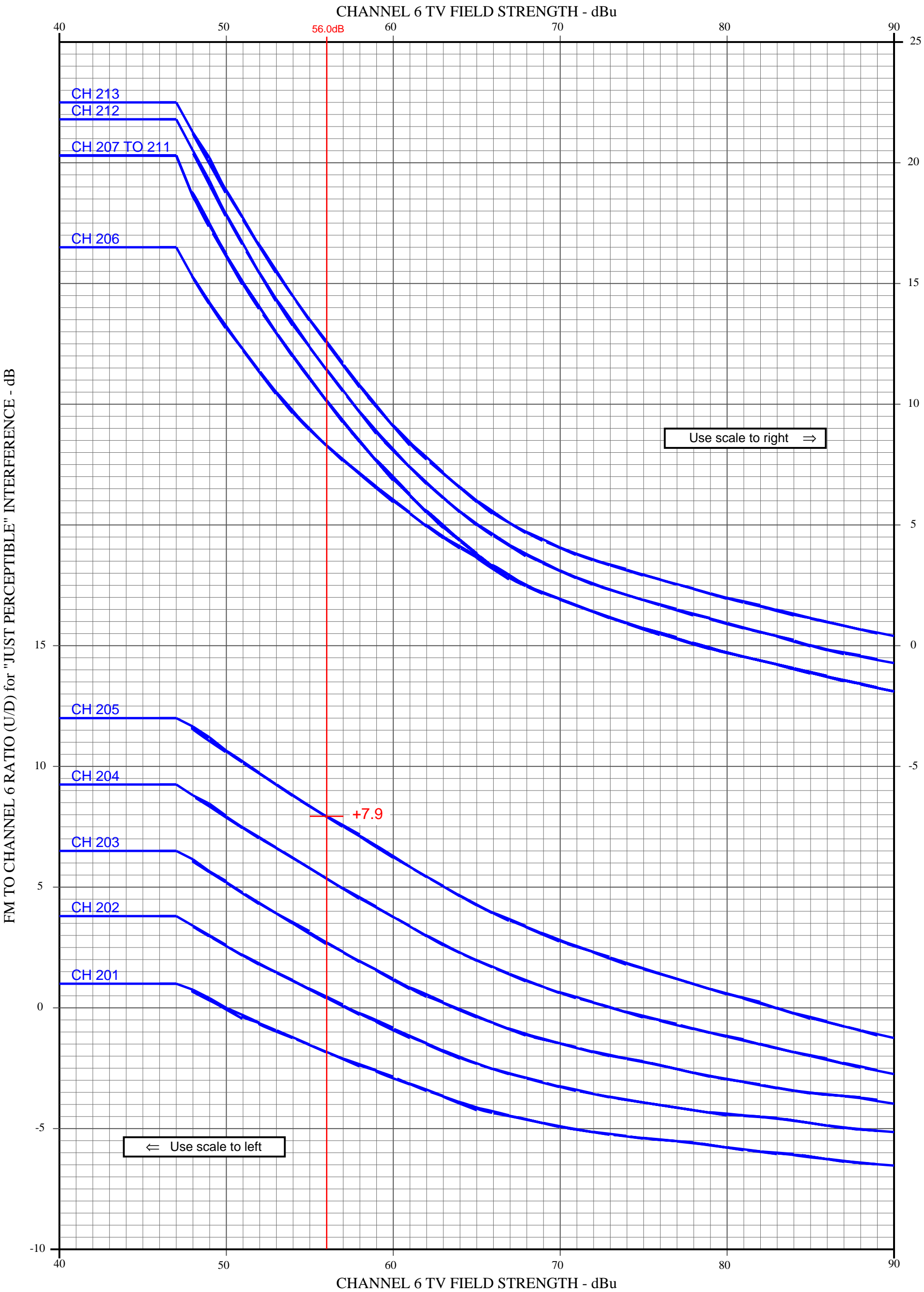
The applicant has elected to propose vertical only polarization in accordance with section 73.525(e)(4)(i). Accordingly, as the predicted area of interference lies outside the limits of a city of 50,000 persons, the proposed ERP has been divided by 40 or decreased by 16 dB, with a resulting ERP for TV 6 interference calculation purposes of 0.006 kw (6 watts).

The map of contours below utilizes FCC 30 Second Terrain data and 8 evenly spaced radials, is an accurate depiction of the proposed Ch 205 73.9 dBu (50,10) interfering contour and the KBSD TV6, 56.0 dBu (50,50) Grade B coverage contour. The Census 2010 population in the area of this interfering contour is 2,837 persons and comprises an area of 11.6 sq km.

Based on the above analysis, and the fact that less than 3,000 persons reside in the predicted area of interference, it is believed that compliance with section 73.525 of the rules with respect to TV6 has been satisfied.

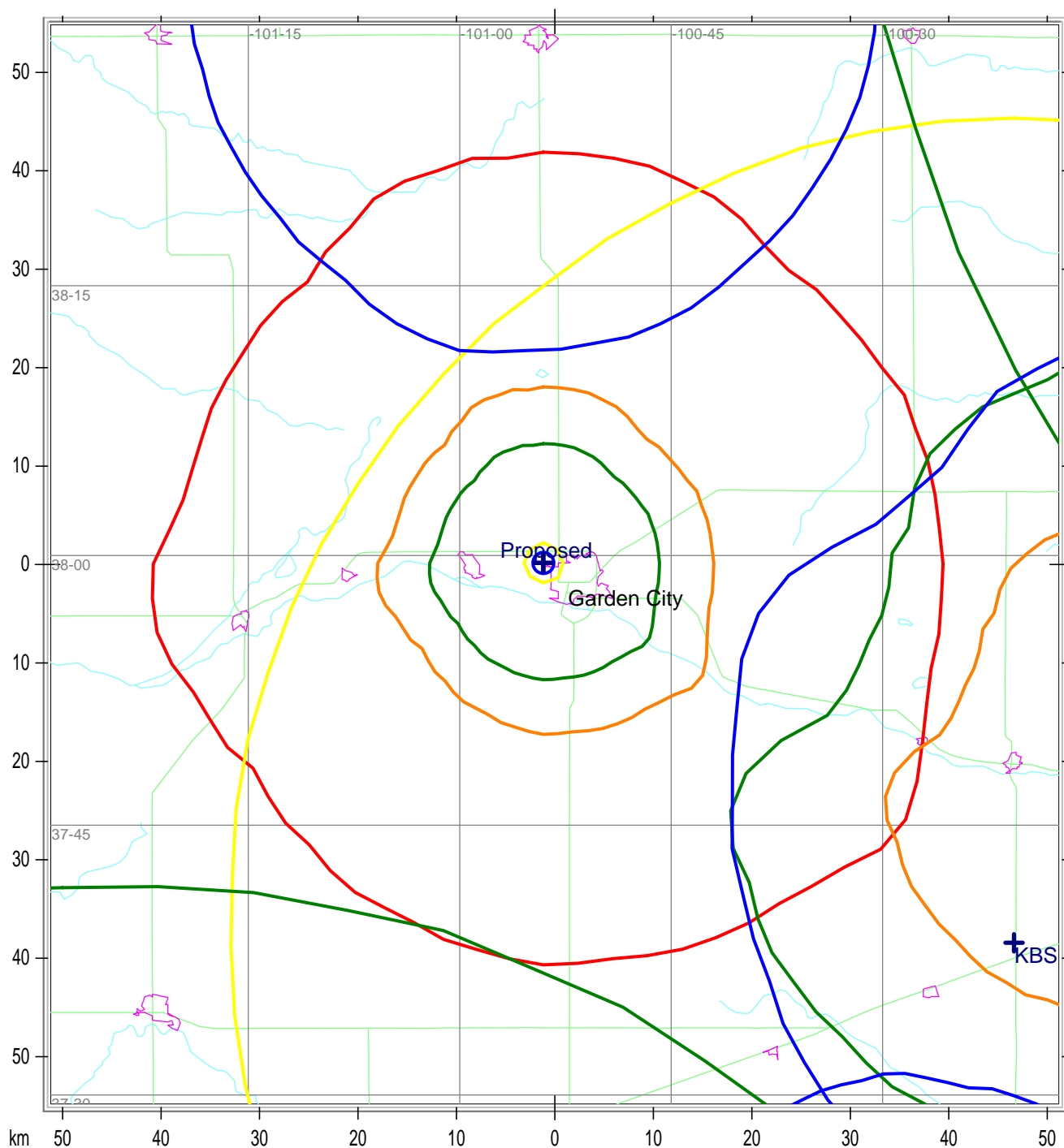


47 CFR Section 73.599, Figure 1
FM Channels 201 - 213
FM /TV 6 Protection Ratios Based on Median Receivers



NOTE: Assume that the TV field strength is a constant 90 dBu at all locations within the 90 dBu TV contour.

Map of Interfering Contours



Proposed Facility:

Blue - 100dBu(50,10)

Green - 60dBu(50,50)

Orange - 54dBu(50,10)

Red - 40dBu (50,10)

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Other Facilities

Co-Channel

Red - 60dBu (50,50) Green - 40dBu (50,10)

First Adjacent

Orange - 60dBu (50,50) Green - 54dBu (50,10)

Second/Third Adjacent

Blue - 60dBu (50,50) Green - 100dBu (50,10)

Lat/Lon Grid

Data Source & Methodology

All contour and population calculations are performed using ComStudy 30 Sec FCC Terrain and US Census 2010 Block data underlay.