



## Engineering Statement

### Section III-B-FM, Exhibit 22

Legacy Communications, LLC, (hereinafter referred to as "Legacy"), has retained this firm to file an application for construction permit for their auction acquisition MM-FM420-C1, in response to requirements detailed in FCC Public Notice DA 06-252.

### Background

Legacy was identified as the winning bidder in FCC Auction No. 62, for Permit No. MM-FM420-C1 at McCook, Nebraska. The Commission issued a deadline of March 10, 2006 by which Legacy must file application 301-FM, detailed in FCC Public Notice DA 06-252.

### Purpose

Legacy prefers to locate MM-FM420-C1 at their existing tower facilities to reduce the costs associated with the construction of this facility. The Legacy tower site located at N 40-11-27 by W 100-48-29, (FAA Registration No. 1004103) is an excellent location which serves the entire community of license with a 3.16 mV/m or greater contour, and is the current location for other Legacy stations KIOD-FM, and KSWN-FM.

This site, however, is short spaced to Station KRNY-FM by 3.72 kilometers, and Station KKQY-FM by 3.57 kilometers. As demonstrated in Exhibit 29A, a fully spaced allocation site with respect to KRNY-FM and KKQY-FM is located at N 40-12-00 by W 100-51-25. This site is suitable for use as a broadcast tower facility. From this theoretical site, MM-FM420-C1 could operate at full C1 facilities, with no short spacing to KRNY-FM, or KKQY-FM.

Legacy therefore requests a contour protected status with respect to Stations KRNY-FM and KKQY-FM under C.F.R. 47 Section §73.215 of the Commission's rules and regulations. As demonstrated in Exhibits 29B, 29C, 29D, and 29E, MM-FM420-C1 can operate with an effective radiated power (ERP) of 100 kilowatts at



a height above average terrain (HAAT) of 180 meters, with no prohibitive overlap of protected and interfering contours with respect to Station KRNY-FM or KKQY-FM. Stations KRNY-FM and KKQY-FM were protected at maximum facility for a C1 allocation. (299 meters, and 100 kilowatts)

Exhibit No. 23 demonstrates ample coverage to the license community of McCook. The city-grade contour extends 44.03 km on a bearing of 84.1 degrees. The most distant city limit boundary on this radial for McCook is 17.36 km. Thus the selected tower site is in full compliance with C.F.R. 47 Section §73.315.

Legacy will locate the main studio for MM-FM420-C1 at 108 W. 8<sup>th</sup> Street in McCook. This site also houses the main studios for Legacy licenses KIOD-FM and KSWN-FM, which operate from the same tower facilities. Exhibit No. 24 demonstrates full compliance with C.F.R. 47 Section §73.1125.

#### **RF Exposure**

The new antenna system will be in compliance with respect to exposure to harmful radio frequency exposure. Access to the tower will be restricted with a fence with locked gate. The transmitter power will be reduced or turned off to protect workers who must climb the tower. Signs will be posted warning of the radiation danger. Please see Exhibit No. 30 for detailed compliance information.

The MM-FM420-C1 facility, as proposed, will be in full compliance with the Commission's Rules. The facility will be constructed as authorized by the Commission under the standards of good engineering practice.

Respectfully Submitted,

William H. Nolan  
Managing Member  
Broadcast Technical Associates, LLC



### ***Engineer's Certification***

I, William H. Nolan, with offices at 1632 S. Maize Road, Wichita, KS, have been retained for the purpose of preparing the technical data forming this report.

My work is a matter of record before the Federal Communications Commission. I have filed numerous applications that have been subsequently granted by the Commission. I have spent 24 years in the broadcast industry, and have designed and constructed numerous radio stations in that time, including AM and FM facilities.

I declare under penalty of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

Signed: *William H. Nolan* Date: 03/03/2006

William H. Nolan  
Managing Member  
Broadcast Technical Associates, LLC