

**DELAUDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**W206BY, Sumter, SC, Channel 206D FM Translator Minor Change Application**

**ENGINEERING STATEMENT**

Applicant submits this site move minor change application for W206BY, Sumter, SC. All required protections are met by contour non-overlap pursuant to Section 74.1204, with the exception of protection to WMHK, Columbia, SC 209C. WMHK is protected, as discussed below.

**PROTECTION TO WMHK**

WMHK, Columbia, SC, 209C, is third adjacent-channel to the proposed channel 206D facility and is located only 38.0 kilometers (at 296 degrees True bearing) from the proposed 206D transmitter site. The 60 dBu F50,50 service contour extends well beyond the 206D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to WMHK.

Note that a rule waiver of Section 74.1204 for this second/third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to this station.

The F50,50 signal strength from WMHK at the proposed 206D transmitter site is greater than 77 dBu (the "desired" signal). The second/third adjacent-channel protection of Section 74.1204 is an undesired-to-desired ("U/D") dB signal strength ratio of 40:1. Therefore, predicted interference to WMHK from the proposed 206D facility is a signal of greater than or equal to 117 dBu.

The 117 dBu signal based on a free space field determination is predicted to extend out less than 36 meters from the proposed 206D transmit antenna. The interfering signal level will not reach any point at ground level or at 2 meters above ground level. Therefore, pursuant to Section 74.1204(d) of the FCC Rules, WMHK is adequately protected by the proposed facility.