

TECHNICAL EXHIBITS

NEW(FL) FID 788225, Appleton WI

73.807 protection

The instant proposal will provide protection to all licensed and permitted stations in the FCC database, as shown below, with the exception of second-adjacent WRST-FM and WOVM.

| Station | Channel | Dist Req | Actual Dist |
|-----------|---------|----------|-------------|
| WRST-FM | 212A | 29 | 27 |
| WEQW (CP) | 213C2 | 80 | 94 |
| WPFF | 213C1 | 100 | 111 |
| WYVM | 215C3 | 67 | 69 |
| WOVM | 216C2 | 53 | 18 |

A waiver of 47 CFR 73.807(e)(1) is respectfully requested with respect to WRST-FM and WOVM because no interference is expected to be caused to either station in any populated area or on any major highway. As shown in **Figure 1**, the WRST 60 dBu protected contour does not overlap the proposed transmitter site of the instant LPM application. WOVM's 71.5 dBu contour does overlap the proposed LPM facility. Using the 40 dBu U/D ratio, the proposed LPM's 111.5 dBu contour must therefore be studied.

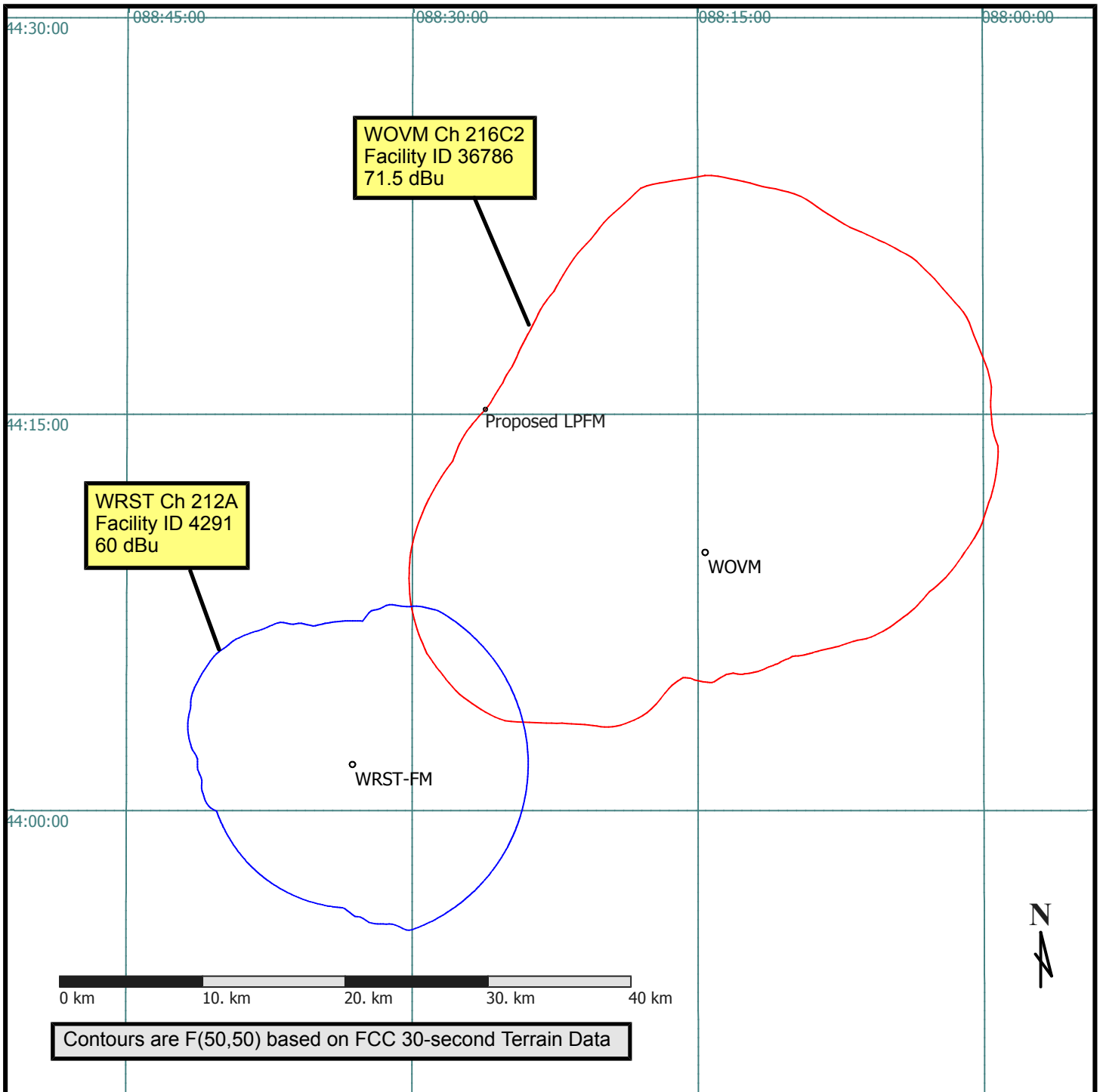
Based on the proposed use of a four-bay Nicom BKG-77 antenna at 0.85-wavelength spacing and an antenna HAAT of 36 meters above ground (based on the GLOBE terrain database) and an ERP of 69 watts, as shown in **Figure 2** the 111.5 dBu interfering contour to WOVM will at no point reach below 11.4 meters above ground. As shown in the satellite image in **Figure 3**, the area surrounding the proposed transmitter location is made up of one-story industrial buildings, none of which are more than 8 meters tall.

Therefore, the proposed translator will not cause interference within the WRST-FM protected contour, nor within the WOVM 71.5 dBu contour.

Channel 6 protection

There are no channel 6 full-power, class A or LPTV stations within 132 km of the proposed channel 207 facility, thus complying with the protections of 47 CFR 73.825.

Figure 1



| | | | | | | | |
|-----------------|---------|-------------------------|------------------|-----------------|------------------|--------------------------|-------------------------------|
| ERP(kW): | 0.069 | Depression Angle | Rel Field | ERP (kW) | ERP (dBk) | Slant Dist to Int | Clearance Above Ground |
| HAGL(m): | 30.000 | (Degrees) | | | | (Meters) | (Meters) |
| dBu: | 111.500 | | | | | | |
| | | 0 | 1.000 | 0.069 | -11.61 | 155.0 | 30.0 |
| | | 1 | 0.994 | 0.068 | -11.66 | 154.1 | 27.3 |
| | | 2 | 0.977 | 0.066 | -11.81 | 151.5 | 24.7 |
| | | 3 | 0.949 | 0.062 | -12.07 | 147.1 | 22.3 |
| | | 4 | 0.911 | 0.057 | -12.42 | 141.2 | 20.1 |
| | | 5 | 0.863 | 0.051 | -12.89 | 133.8 | 18.3 |
| | | 6 | 0.806 | 0.045 | -13.48 | 125.0 | 16.9 |
| | | 7 | 0.742 | 0.038 | -14.20 | 115.0 | 16.0 |
| | | 8 | 0.671 | 0.031 | -15.08 | 104.0 | 15.5 |
| | | 9 | 0.596 | 0.025 | -16.11 | 92.4 | 15.5 |
| | | 10 | 0.517 | 0.018 | -17.34 | 80.2 | 16.1 |
| | | 11 | 0.434 | 0.013 | -18.86 | 67.3 | 17.2 |
| | | 12 | 0.352 | 0.009 | -20.68 | 54.6 | 18.7 |
| | | 13 | 0.271 | 0.005 | -22.95 | 42.0 | 20.5 |
| | | 14 | 0.193 | 0.003 | -25.90 | 29.9 | 22.8 |
| | | 15 | 0.118 | 0.001 | -30.17 | 18.3 | 25.3 |
| | | 16 | 0.049 | 0.000 | -37.81 | 7.6 | 27.9 |
| | | 17 | 0.014 | 0.000 | -48.69 | 2.2 | 29.4 |
| | | 18 | 0.071 | 0.000 | -34.59 | 11.0 | 26.6 |
| | | 19 | 0.119 | 0.001 | -30.10 | 18.4 | 24.0 |
| | | 20 | 0.161 | 0.002 | -27.47 | 25.0 | 21.5 |
| | | 21 | 0.193 | 0.003 | -25.90 | 29.9 | 19.3 |
| | | 22 | 0.217 | 0.003 | -24.88 | 33.6 | 17.4 |
| | | 23 | 0.233 | 0.004 | -24.26 | 36.1 | 15.9 |
| | | 24 | 0.242 | 0.004 | -23.94 | 37.5 | 14.7 |
| | | 25 | 0.243 | 0.004 | -23.90 | 37.7 | 14.1 |
| | | 26 | 0.237 | 0.004 | -24.12 | 36.7 | 13.9 |
| | | 27 | 0.225 | 0.003 | -24.57 | 34.9 | 14.2 |
| | | 28 | 0.208 | 0.003 | -25.25 | 32.2 | 14.9 |
| | | 29 | 0.186 | 0.002 | -26.22 | 28.8 | 16.0 |
| | | 30 | 0.161 | 0.002 | -27.47 | 25.0 | 17.5 |
| | | 31 | 0.132 | 0.001 | -29.20 | 20.5 | 19.5 |
| | | 32 | 0.102 | 0.001 | -31.44 | 15.8 | 21.6 |
| | | 33 | 0.070 | 0.000 | -34.71 | 10.9 | 24.1 |

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| | | 34 | 0.038 | 0.000 | -40.02 | 5.9 | 26.7 |
| | | 35 | 0.007 | 0.000 | -54.71 | 1.1 | 29.4 |
| | | 36 | 0.023 | 0.000 | -44.38 | 3.6 | 27.9 |
| | | 37 | 0.051 | 0.000 | -37.46 | 7.9 | 25.2 |
| | | 38 | 0.077 | 0.000 | -33.88 | 11.9 | 22.7 |
| | | 39 | 0.100 | 0.001 | -31.61 | 15.5 | 20.2 |
| | | 40 | 0.120 | 0.001 | -30.03 | 18.6 | 18.0 |
| | | 41 | 0.137 | 0.001 | -28.88 | 21.2 | 16.1 |
| | | 42 | 0.150 | 0.002 | -28.09 | 23.3 | 14.4 |
| | | 43 | 0.160 | 0.002 | -27.53 | 24.8 | 13.1 |
| | | 44 | 0.167 | 0.002 | -27.16 | 25.9 | 12.0 |
| | | 45 | 0.170 | 0.002 | -27.00 | 26.4 | 11.4 |
| | | 50 | 0.144 | 0.001 | -28.44 | 22.3 | 12.9 |
| | | 55 | 0.075 | 0.000 | -34.11 | 11.6 | 20.5 |
| | | 60 | 0.001 | 0.000 | -71.61 | 0.2 | 29.9 |
| | | 65 | 0.059 | 0.000 | -36.19 | 9.1 | 21.7 |
| | | 70 | 0.089 | 0.001 | -32.62 | 13.8 | 17.0 |
| | | 75 | 0.096 | 0.001 | -31.97 | 14.9 | 15.6 |
| | | 80 | 0.086 | 0.001 | -32.92 | 13.3 | 16.9 |
| | | 85 | 0.076 | 0.000 | -34.00 | 11.8 | 18.3 |
| | | | 0.074 | | | | |

| Horizontal Dist from Tower Base |
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| 104.6 |
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| 82.4 |
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| 70.7 |
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| 64.3 |
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| 52.0 |
| 49.9 |
| 48.0 |
| 46.2 |

[illegible]

