

AZURE MEDIA, LLC  
FM Translator W299AU  
Avon Park, FL  
CH298FT, 107.5 MHz 0.240 kW-DA, 114.7m AAT

ENGINEERING STATEMENT

This engineering statement was prepared on behalf of Azure Media, LLC, which owns FM translator W299AU (FCC ID #138526), Zolfo Springs, FL. W299AU is presently licensed to operate on 107.5 MHz (Ch298) with 19 watts at 362 meters AAT. Azure Media, LLC, by this filing, seeks to move W299AU to Avon Park, FL and operate on Ch298 with 240 watts directional at 114.7 meters AAT with antenna 98.8 meters AGL..

A Mattoon Waiver is requested in that a) The translator has never been moved from a previous location and b) The 60 dBu and 40 dBu contours of both licensed and proposed operation overlap and are mutually exclusive with one another, as shown in Figure 4.

It is also pointed out that this translator will be a fill-in facility for WFHT(AM), Avon Park, FL and Figure 5 demonstrates that the proposed 60 dBu contour will be within the 2 mV/m contour of WFHT(AM).

ENVIRONMENTAL CONSIDERATIONS

This was addressed in FCC Docket # 93-62, released August 1, 1996. Table 1(A) on Page 67 of the document depicts the ANSI/IEEE C95.1-1992 (IEEE C95.1-1991) protection requirements. The maximum permissible exposure for the uncontrolled environment in the 30 to 300 MHz spectrum is a power density of 0.2 milliwatt per centimeter squared (mw/cm<sup>2</sup>).

Since the applicant shall employ a Scala CA2-CP two-bay directional circularly polarized antenna, the vertical elevation pattern of that antenna has been used in determining the effective radiated power below the horizon toward all areas 2 meters above ground level. For the controlled environment in the commercial FM spectrum 2 meters above ground level, the power density will be 0.0004 mw/cm<sup>2</sup>, or 0.002 % of the allowed 0.2 mw/cm<sup>2</sup>. Hence this proposal is well below the 0.2 mw/cm<sup>2</sup> limit for the uncontrolled environment.

Should any maintenance worker require access to the structure, the applicant will either reduce power or cease operation until workers are outside the tower fence. Appropriate RF warning signs exist on all sides of the fence and it may be assumed that there will be no significant effect on the human environment with regard to exposure of the general public.

## ATTACHED EXHIBITS

The following tabulation describes exhibits supporting this instant application:

Figure 1 is an allocation map showing the proposed translator will not cause prohibitive overlap with any toher facility save for its licensed site at Zolfo Springs.

Figure 2 is a Ch298FT study showing clearance to pertinent facilities.

Figure 3 is a composite polar graph and tabulation for the Scala CA2-CP antennas, oriented at 25°T and at 295°T.

Figure 4 is a detailed allocation map showing this translator move justifies a Mattoon Waiver.

Figure 5 is an allocation map demonstrating the proposed 60dBu of W299AU will be within the 2 mV/m daytime contour of WFHT(AM).

March 6, 2015

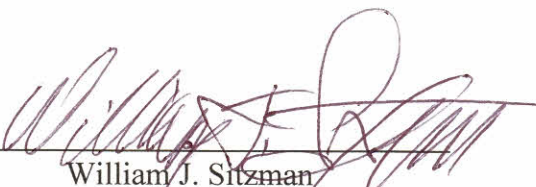
  
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William J. Sitzman  
Consulting Radio Engineer

FIGURE 1

Proposed W299AU CH298FT Allocation Map

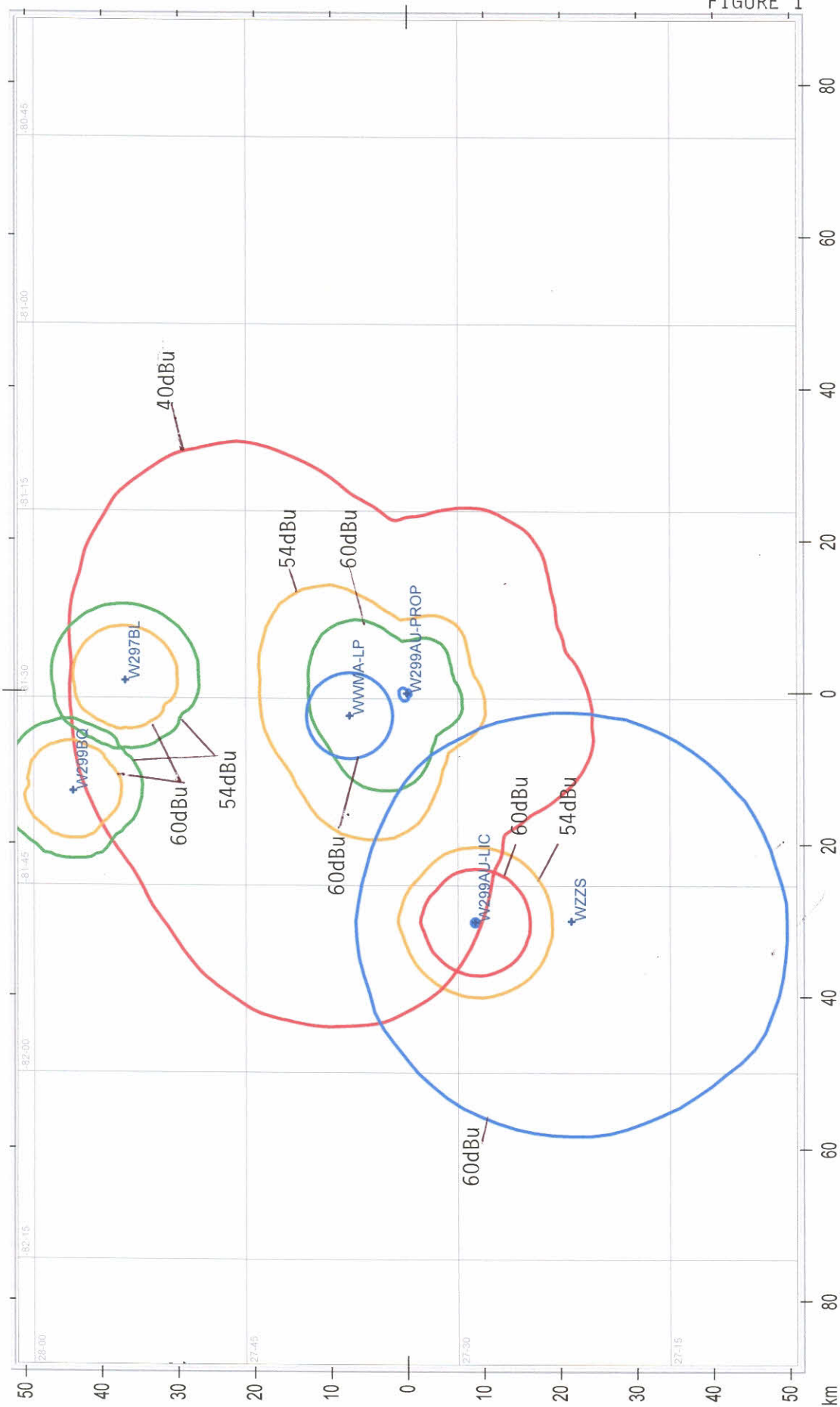
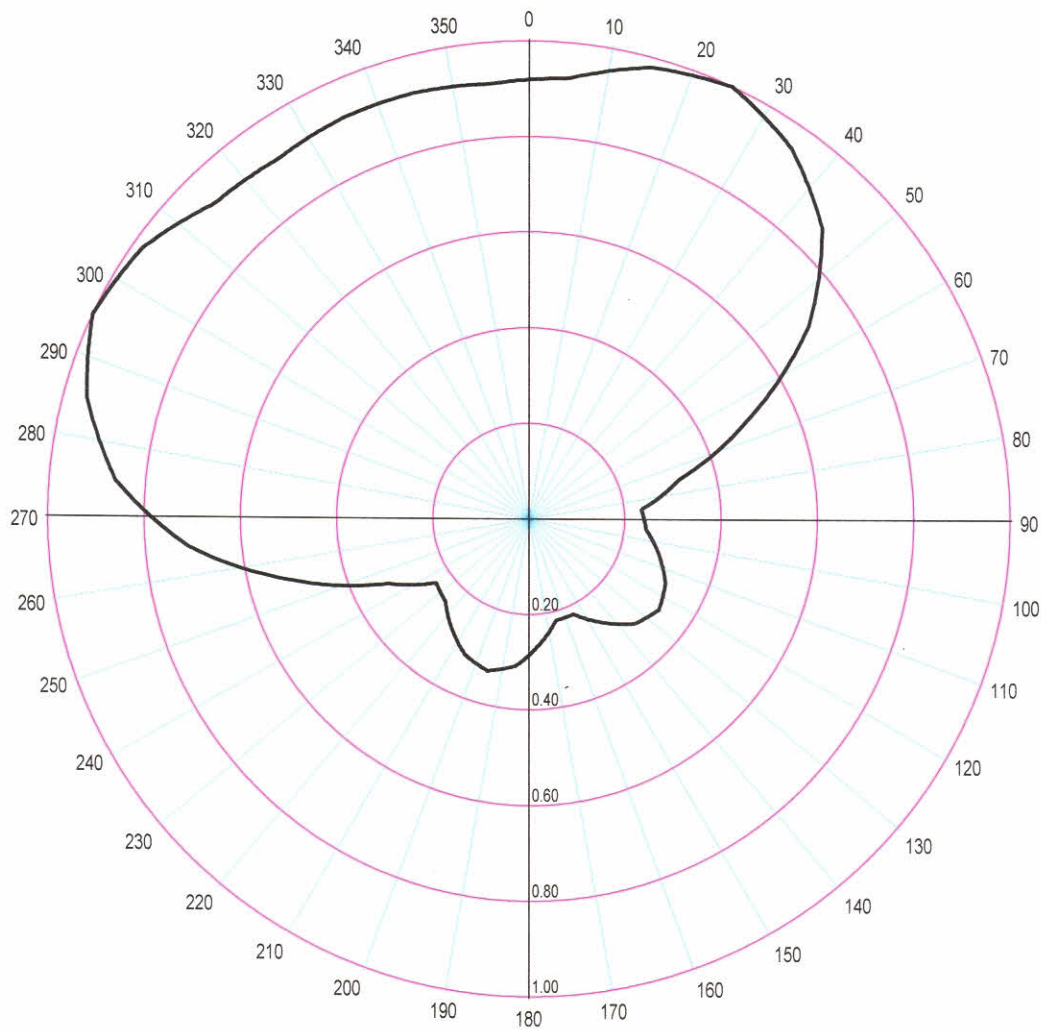


FIGURE 2

ComStudy 2.2 search of channel 298 (107.5 MHz Class D) at 27-33-37.0 N, 81-29-36.0 W. w299AU CH298FT Report 03-06-15

| CALL     | CITY            | ST | CHN | CL    | DIST   | SEP   | BRNG  | CLEARANCE |
|----------|-----------------|----|-----|-------|--------|-------|-------|-----------|
| W244BJ   | FROSTPROOF      | FL | 244 | D     | 32.43  | 0.00  | 345.6 | 32.4      |
| 910502MF | ZOLFO SPRINGS   | FL | 295 | A     | 37.14  | 0.00  | 234.6 | 32.34 dB  |
| WZZS     | ZOLFO SPRINGS   | FL | 295 | A     | 36.98  | 0.00  | 234.4 | 4.56 dB   |
| W296CS   | LAKELAND        | FL | 296 | D     | 69.78  | 0.00  | 320.8 | 34.63 dB  |
| WCKT     | LEHIGH ACRES    | FL | 296 | C2    | 140.84 | 0.00  | 192.0 | 32.87 dB  |
| WAOA-FM  | MELBOURNE       | FL | 296 | C1    | 100.65 | 0.00  | 50.3  | 17.60 dB  |
| W297BL   | LAKE WALES      | FL | 297 | D     | 36.79  | 0.00  | 2.5   | 7.49 dB   |
| W297BB   | DE BARY         | FL | 297 | D     | 151.59 | 0.00  | 6.4   | 30.92 dB  |
| W297BB   | ORLANDO         | FL | 297 | D     | 112.40 | 0.00  | 1.5   | 29.89 dB  |
| WXGL     | ST. PETERSBURG  | FL | 297 | C1    | 116.23 | 0.00  | 286.7 | 24.06 dB  |
| WXGL     | ST. PETERSBURG  | FL | 297 | C1    | 126.04 | 0.00  | 295.3 | 17.80 dB  |
| WXGL     | ST. PETERSBURG  | FL | 297 | C     | 126.04 | 0.00  | 295.3 | 20.12 dB  |
| W298AM   | AURORA          | FL | 298 | D     | 96.92  | 0.00  | 55.9  | 16.94 dB  |
| W299AU   | ZOLFO SPRINGS   | FL | 298 | D     | 31.53  | 0.00  | 253.5 | -18.66 dB |
| W298BO   | AUBURNDALE      | FL | 298 | D     | 65.61  | 0.00  | 330.6 | 6.35 dB   |
| DW298AL  | WABASSO         | FL | 298 | D     | 104.04 | 0.00  | 79.0  | 22.27 dB  |
| W298AM   | AURORA          | FL | 298 | D     | 96.92  | 0.00  | 55.9  | 11.20 dB  |
| W298AV   | ENGLEWOOD       | FL | 298 | D     | 104.98 | 0.00  | 231.6 | 18.03 dB  |
| WAMR-FM  | MIAMI           | FL | 298 | C1    | 217.85 | 0.00  | 144.0 | 38.37 dB  |
| WAMR-FM  | MIAMI           | FL | 298 | C1    | 217.85 | 0.00  | 144.0 | 37.17 dB  |
| W299AU   | ZOLFO SPRINGS   | FL | 299 | D     | 31.53  | 0.00  | 253.5 | 10.74 dB  |
| W299AU   | ZOLFO SPRINGS   | FL | 299 | D     | 31.53  | 0.00  | 253.5 | 7.73 dB   |
| NEW      | SEFFNER         | FL | 299 | LP100 | 82.70  | 13.00 | 300.5 | 24.68 dB  |
| W299BQ   | LAKE WALES      | FL | 299 | D     | 45.48  | 0.00  | 343.5 | 11.95 dB  |
| WMGF     | MOUNT DORA      | FL | 299 | C     | 108.61 | 0.00  | 2.4   | 24.39 dB  |
| WMGF     | MOUNT DORA      | FL | 299 | C     | 151.60 | 0.00  | 6.4   | 17.20 dB  |
| WMGF     | MOUNT DORA      | FL | 299 | C     | 151.60 | 0.00  | 6.4   | 22.02 dB  |
| W300CL   | LAKELAND        | FL | 300 | D     | 72.93  | 0.00  | 326.0 | 36.12 dB  |
| WWMA-LP  | AVON PARK       | FL | 300 | LP100 | 8.04   | 6.00  | 338.5 | 3.76 dB   |
| WSRZ-FM  | CORAL COVE      | FL | 300 | C2    | 106.23 | 0.00  | 244.8 | 29.20 dB  |
| WSRZ-FM  | CORAL COVE      | FL | 300 | C2    | 106.23 | 0.00  | 244.8 | 29.20 dB  |
| WEAT     | WEST PALM BEACH | FL | 300 | C1    | 163.81 | 0.00  | 120.8 | 39.46 dB  |
| WSRZ-FM  | CORAL COVE      | FL | 300 | C2    | 106.23 | 0.00  | 244.8 | 22.30 dB  |
| WEAT     | WEST PALM BEACH | FL | 300 | C1    | 155.25 | 0.00  | 124.5 | 30.45 dB  |





| Azim | Rel.FS | ERP [W] | dBk     | Azim  | Rel.FS | ERP [W] | dBk     | Azim  | Rel.FS | ERP [W] | dBk     | Azim  | Rel.FS | ERP [W] | dBk    |
|------|--------|---------|---------|-------|--------|---------|---------|-------|--------|---------|---------|-------|--------|---------|--------|
| 0.0  | 0.919  | 202.695 | -6.932  | 90.0  | 0.240  | 13.824  | -18.594 | 180.0 | 0.286  | 19.631  | -17.071 | 270.0 | 0.786  | 148.271 | -8.289 |
| 5.0  | 0.925  | 205.350 | -6.875  | 95.0  | 0.245  | 14.406  | -18.415 | 185.0 | 0.309  | 22.915  | -16.399 | 275.0 | 0.862  | 178.331 | -7.488 |
| 10.0 | 0.952  | 217.513 | -6.625  | 100.0 | 0.262  | 16.475  | -17.832 | 190.0 | 0.319  | 24.423  | -16.122 | 280.0 | 0.906  | 197.001 | -7.055 |
| 15.0 | 0.979  | 230.026 | -6.382  | 105.0 | 0.280  | 18.816  | -17.255 | 195.0 | 0.330  | 26.136  | -15.828 | 285.0 | 0.950  | 216.600 | -6.643 |
| 20.0 | 0.989  | 234.749 | -6.294  | 110.0 | 0.297  | 21.170  | -16.743 | 200.0 | 0.322  | 24.884  | -16.041 | 290.0 | 0.975  | 228.150 | -6.418 |
| 25.0 | 1.000  | 240.000 | -6.198  | 115.0 | 0.314  | 23.663  | -16.259 | 205.0 | 0.314  | 23.663  | -16.259 | 295.0 | 1.000  | 240.000 | -6.198 |
| 30.0 | 0.975  | 228.150 | -6.418  | 120.0 | 0.322  | 24.884  | -16.041 | 210.0 | 0.297  | 21.170  | -16.743 | 300.0 | 0.989  | 234.749 | -6.294 |
| 35.0 | 0.950  | 216.600 | -6.643  | 125.0 | 0.330  | 26.136  | -15.828 | 215.0 | 0.280  | 18.816  | -17.255 | 305.0 | 0.979  | 230.026 | -6.382 |
| 40.0 | 0.906  | 197.001 | -7.055  | 130.0 | 0.319  | 24.423  | -16.122 | 220.0 | 0.262  | 16.475  | -17.832 | 310.0 | 0.952  | 217.513 | -6.625 |
| 45.0 | 0.862  | 178.331 | -7.488  | 135.0 | 0.309  | 22.915  | -16.399 | 225.0 | 0.245  | 14.406  | -18.415 | 315.0 | 0.925  | 205.350 | -6.875 |
| 50.0 | 0.786  | 148.271 | -8.289  | 140.0 | 0.286  | 19.631  | -17.071 | 230.0 | 0.240  | 13.824  | -18.594 | 320.0 | 0.919  | 202.695 | -6.932 |
| 55.0 | 0.710  | 120.984 | -9.173  | 145.0 | 0.263  | 16.601  | -17.799 | 235.0 | 0.235  | 13.254  | -18.777 | 325.0 | 0.913  | 200.057 | -6.988 |
| 60.0 | 0.608  | 88.719  | -10.520 | 150.0 | 0.241  | 13.939  | -18.558 | 240.0 | 0.279  | 18.682  | -17.286 | 330.0 | 0.917  | 201.813 | -6.951 |
| 65.0 | 0.507  | 61.692  | -12.098 | 155.0 | 0.219  | 11.511  | -19.389 | 245.0 | 0.324  | 25.194  | -15.987 | 335.0 | 0.921  | 203.578 | -6.913 |
| 70.0 | 0.415  | 41.334  | -13.837 | 160.0 | 0.219  | 11.511  | -19.389 | 250.0 | 0.415  | 41.334  | -13.837 | 340.0 | 0.921  | 203.578 | -6.913 |
| 75.0 | 0.324  | 25.194  | -15.987 | 165.0 | 0.219  | 11.511  | -19.389 | 255.0 | 0.507  | 61.692  | -12.098 | 345.0 | 0.921  | 203.578 | -6.913 |
| 80.0 | 0.279  | 18.682  | -17.286 | 170.0 | 0.241  | 13.939  | -18.558 | 260.0 | 0.608  | 88.719  | -10.520 | 350.0 | 0.917  | 201.813 | -6.951 |
| 85.0 | 0.235  | 13.254  | -18.777 | 175.0 | 0.263  | 16.601  | -17.799 | 265.0 | 0.710  | 120.984 | -9.173  | 355.0 | 0.913  | 200.057 | -6.988 |

Proposed W299AU CH298FT 40 dBu overlaps licensed W299AU 60 dBu

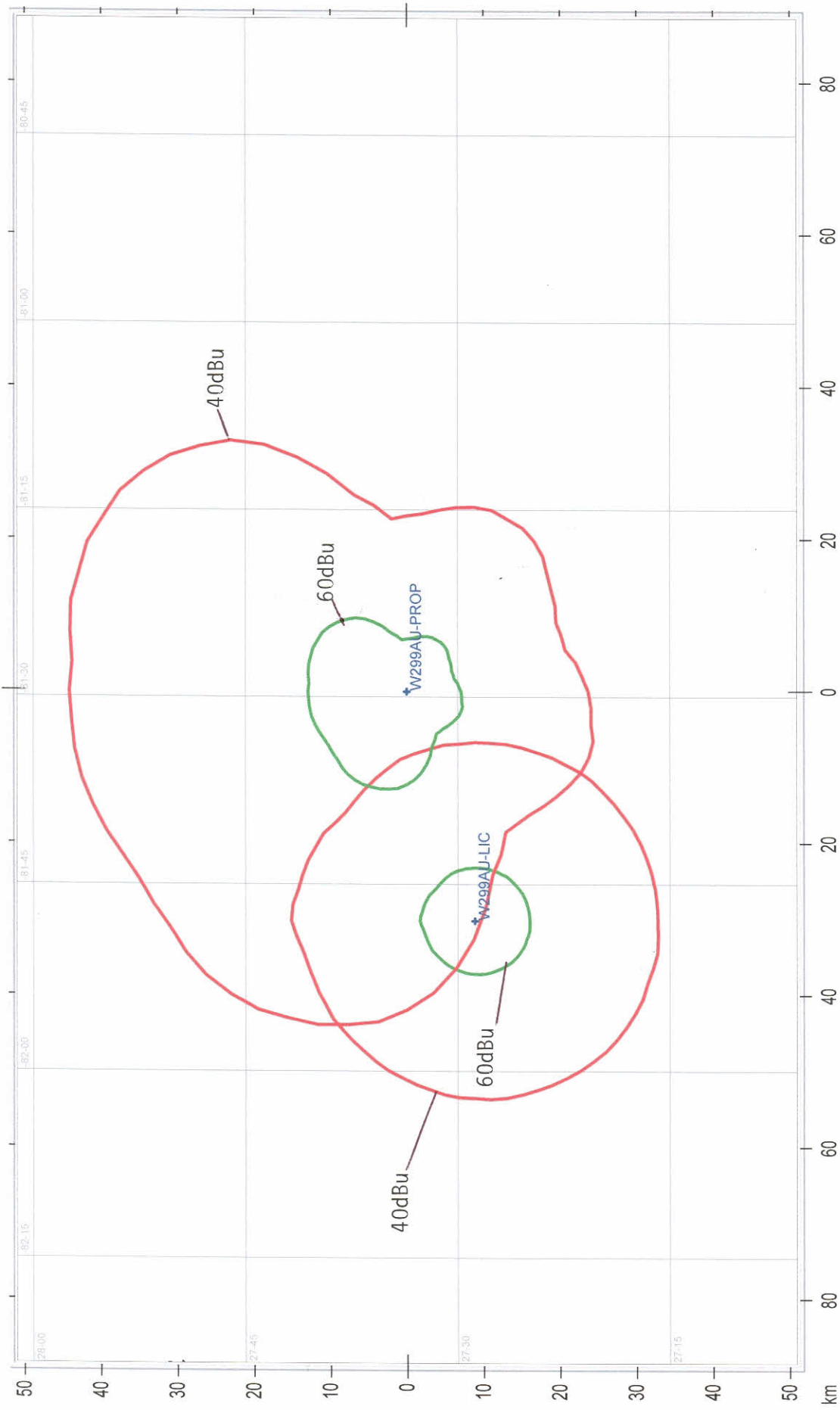


FIGURE 4

Proposed W299AU CH298FT 60 dBu & WFHT(AM) 2 mV/m Contours

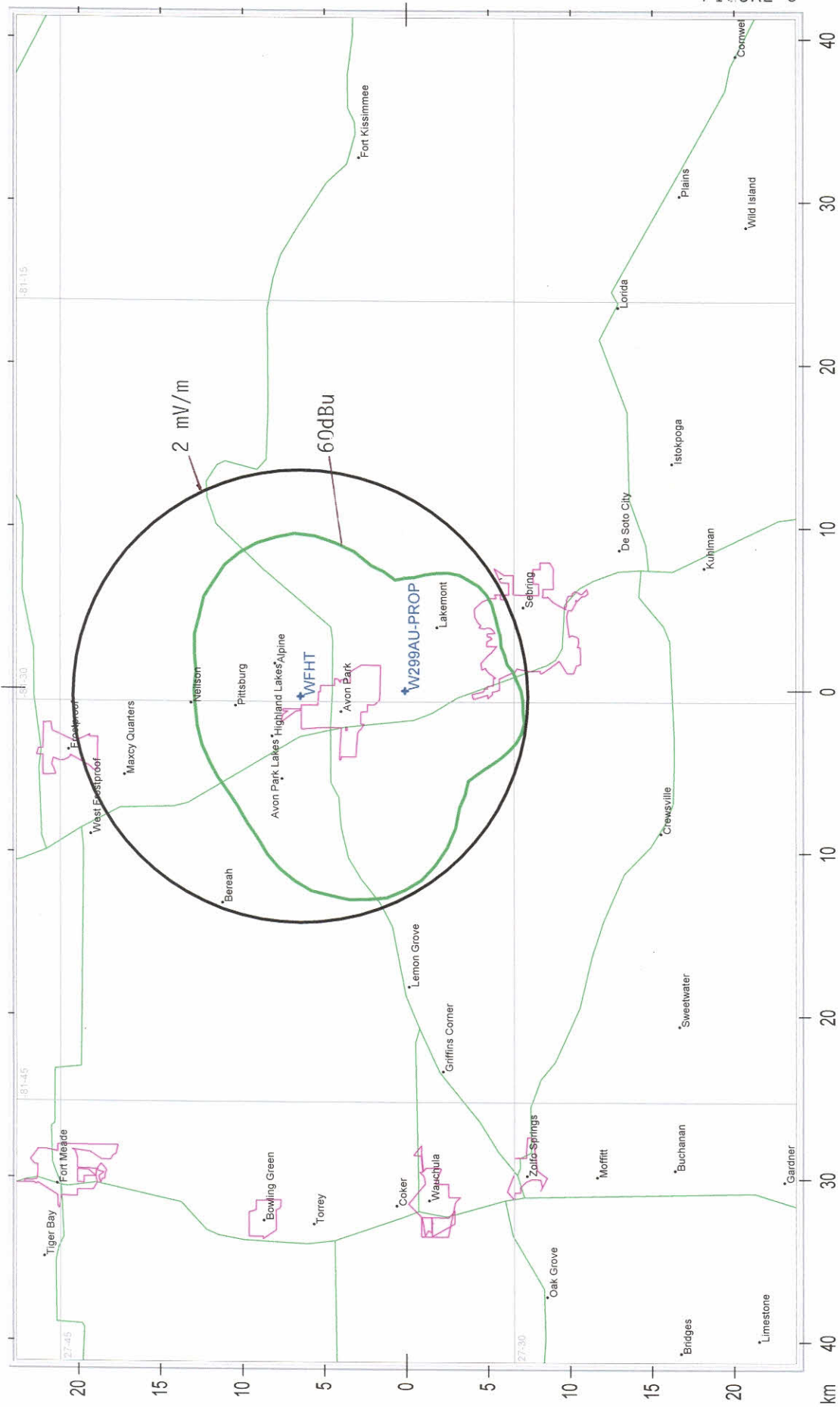


FIGURE 5