

Exhibit EE-1: Engineering Statement in support of
FCC FORM 2100, Schedule 349
**APPLICATION FOR AUTHORITY TO CONSTRUCT OR MAKE CHANGES IN AN FM TRANSLATOR OR FM BOOSTER
STATION**
(For an Existing FM Translator)

This engineering exhibit supports a minor site change for FM translator W294CR (Facility ID 203078). This application changes location, changes height, antenna type and antenna pattern.

The proposed W294CR 100dB μ contour is within the protected contour of 3rd adjacent station, WXGL, St. Petersburg, FL (FID# 74199). WXGL's 87dB μ contour completely encompasses the W294CR proposed 127dB μ interfering contour. A D/U analysis shows that no interference reaches or approaches the ground nor any occupied structure or elevated roadway. Therefore this proposal should be acceptable under 74.1204(d) and a "Living Way" waiver is hereby requested. Free space loss calculations confirm that no interference reaches the ground.

The proposed facility is in compliance with 47 C.F.R. Section 1.1306 with regards to radio-frequency electromagnetic exposure in that the contribution to the rf environment is less than 5% of the maximum public exposure.

This application was prepared using FCC 30-arc-second terrain data.

This translator will continue to operate as a fill-in facility for WQBN (FID # 74155), an AM radio station licensed to Temple Terrace, Florida. The maximum ERP is limited by interference, the WQBN 2mV contour and the 250W class limit.

Attached as Figures 1, 2 and 3 are maps showing the protected contours and interfering contours of all relevant FM facilities. The proposed facility employs a directional antenna, protecting 1st adjacent facilities W295CF and WRUB (figure 2).

Figure 4 shows the proposed 1mV service contour of this application compared with the licensed 1mV service contour. Since there is overlap of the two contours, the instant application is a minor change.

Figure 5 shows the proposed 1mV service contour of this application compared with the 2mV service contour of WQBN. The 60dB μ contour of the proposal is contained entirely within the WQBN 2mV/m contour.

The proposal is sufficiently distant from all facilities mentioned in 73.1030(a), (b) & (c) so that notification under 73.1030 is not required.

Respectfully submitted

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12 December, 2021
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Exhibits:

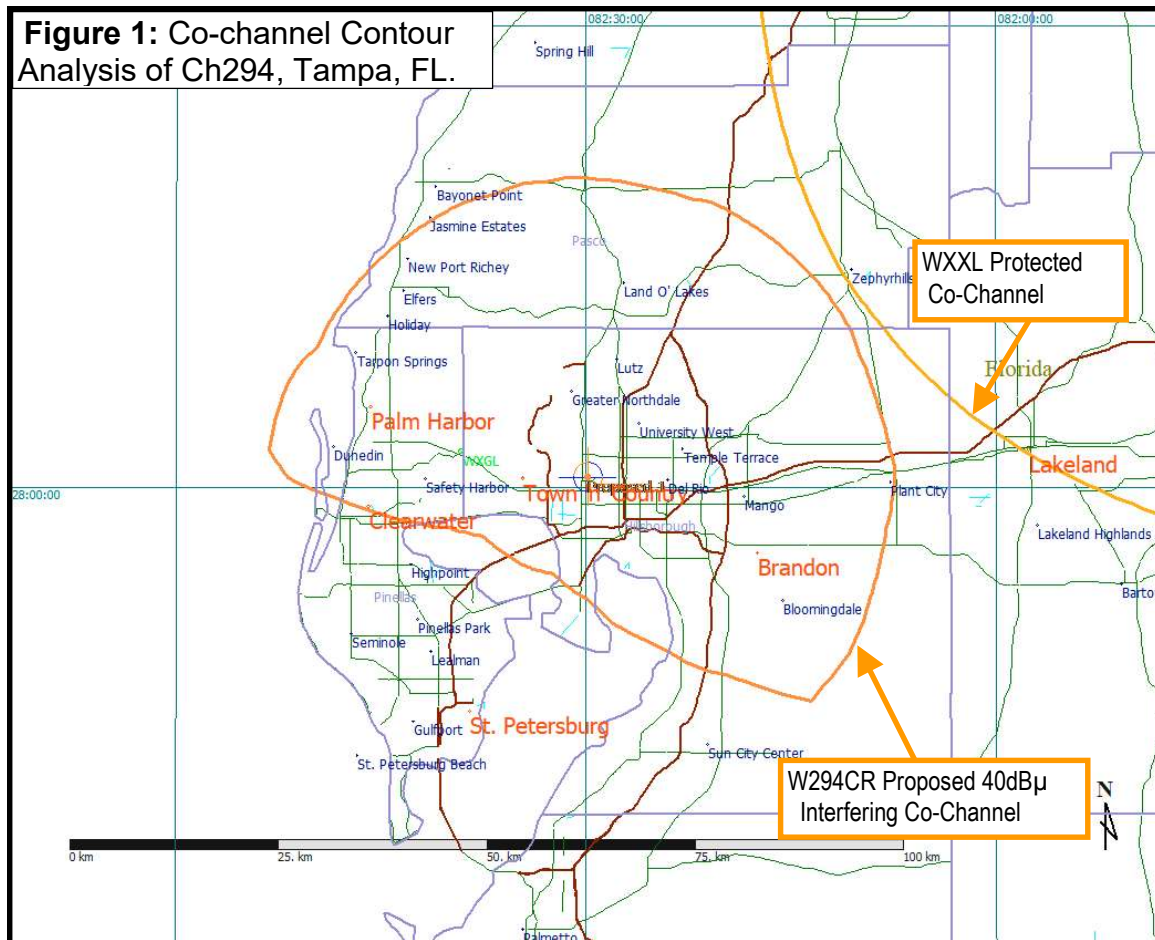


Figure 1 shows that the proposed co-channel 40dB μ interfering contour does not affect WXXL. No other nearby co-channel facilities exist.

Figure 2: 1st Adjacent Channel Contour Analysis of Ch294, Tampa, FL.

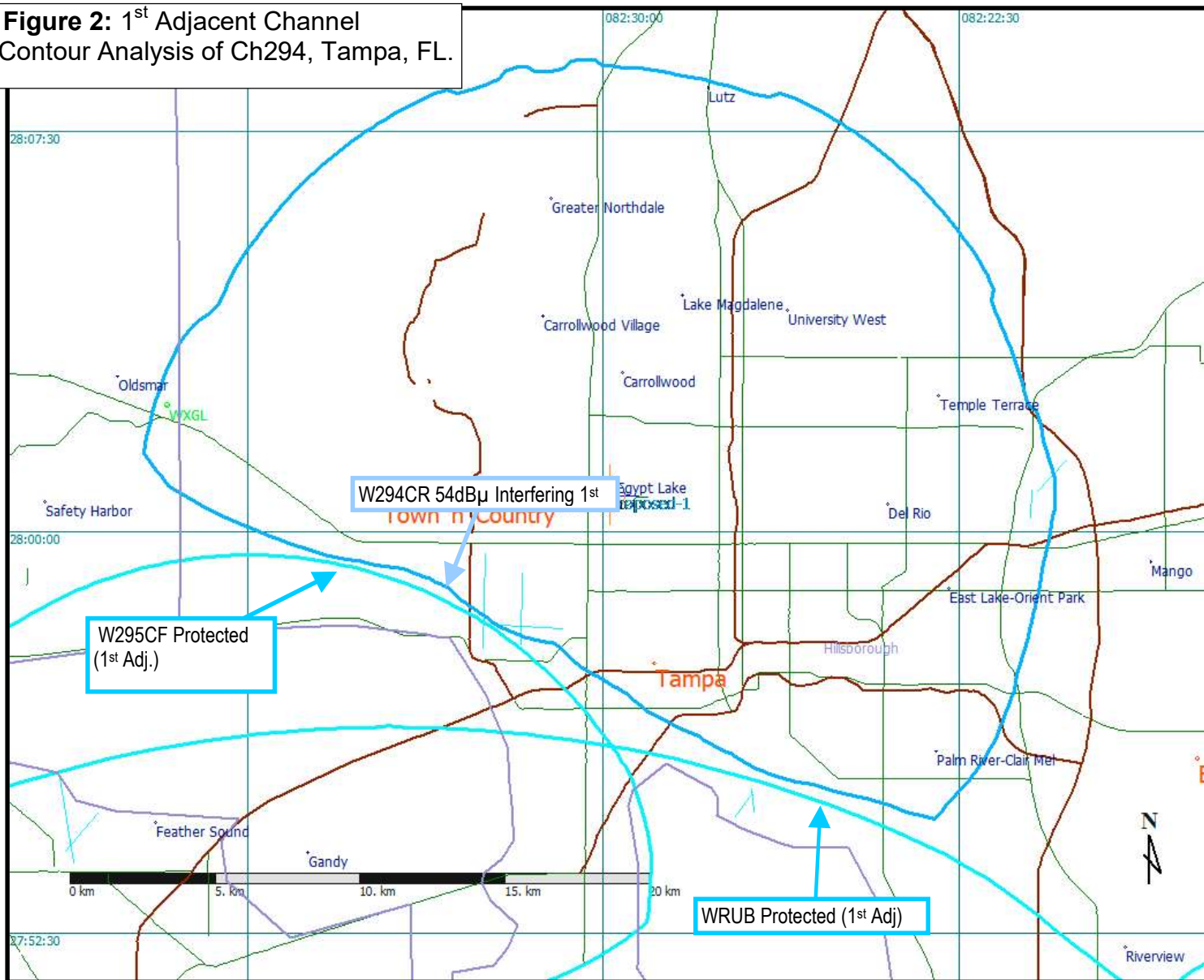
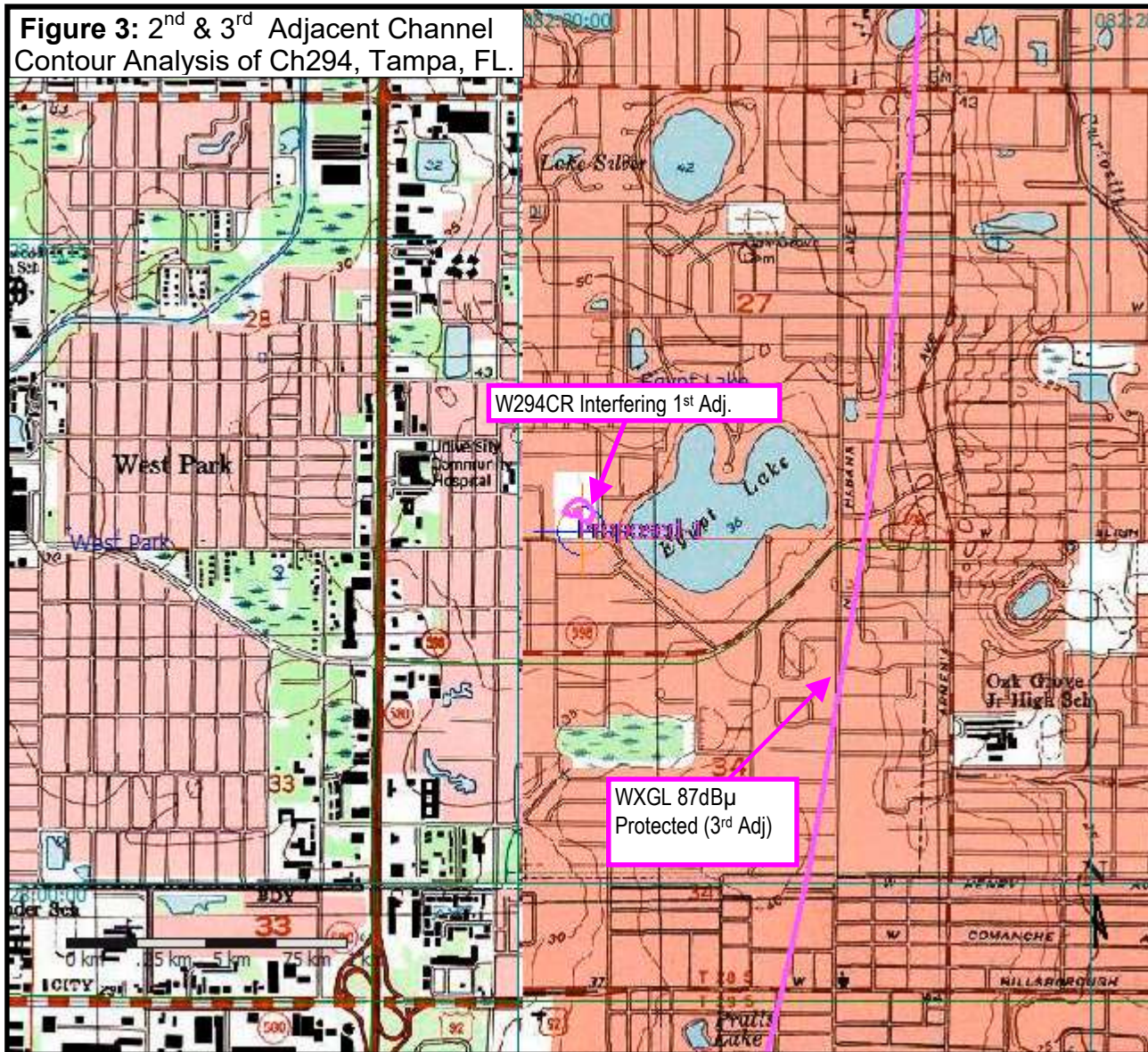


Figure 2 demonstrates no prohibited overlap to 1st adjacent stations W295CF (FID # 139253) or to WRUB (FID # 48672).

Figure 3: 2nd & 3rd Adjacent Channel Contour Analysis of Ch294, Tampa, FL.



The protected contour of WXGL is 87dBμ . The interfering contour is 127dBμ . 250W ERP calculates to a field of 169.67dBμ at the antenna. Using freespace loss calculations, the field at the tower base is 121.37dBμ (-48.3dB loss). Therefore the interfering contour does not approach the ground. Additionally, Figure 3 above shows that the interfering contour does not extend off of the transmitter site property, thus no further analysis is necessary. No interference will occur to 3rd adjacent WXGL as a result of this proposal.

Figure 4: Licensed vs Proposed 60dB μ Contours

The map displays the service contours for W294CR in the Greater Northdale area. The orange line represents the 'Proposed W294CR 1mV Service Contour', and the green line represents the 'Licensed W294CR 1mV Service Contour'. A red arrow points from the proposed contour to the licensed contour, indicating a shift in the service area. The map includes various landmarks such as Carrollwood, University West, Town 'n' Country, and East Lake-Orient Park. A scale bar at the bottom indicates distances from 0 to 20 km, and a north arrow is located in the bottom right corner.

Figure 5: W294CR 1mV/m service contour vs WQBN 2mV/m service

The map displays the service areas for two radio stations in the Tampa Bay region. The W294CR 1mV/m service contour is represented by a red line, and the WQBN 2mV/m service contour is represented by a blue line. The map includes labels for various locations such as Spring Hill, Bayonet Point, Jasmine Estates, New Port Richey, Land O' Lakes, Zephyrhills, Palm Harbor, Dunedin, Lutz, Greater Northdale, University West, Temple Terrace, Mango, Plant City, Lakeland, Lakeland Highlands, Bartow, Brandon, Bloomingdale, Gibsonton, Sun City Center, St. Petersburg, St. Petersburg Beach, Seminole, Lealman, Pineda, Highpoint, and W294CR. A scale bar at the bottom indicates distances from 0 to 100 km. A north arrow is located in the bottom right corner.

Section VII Engineering Data:

Tech Box Data:

Channel: **294**

Primary Station: **FID: 74155**
WQBN
Temple Terrace, FL
1300 kHz

Delivery Method: **Direct**

Antenna Location Coordinates: (NAD83):
28° 00' 43.1" N
82° 29' 52.3" W

Antenna Structure Registration: **1030544**

Antenna Location Site Elevation Above Mean Sea Level: **13.1 meters**

Overall Tower Height Above Ground Level: **71 meters**

Height of Radiation Center Above Ground Level: **61 meters AGL**

ERP: **0.25 kW (H)**
0.25 kW (V)

Transmitting Antenna: **Composite, Directional 1-bay (PSI – FML-1-DA or equiv)**

Fill-in Translator: **Yes** (see EE-1, Figure 5)

Section 74.1204, 1205 **YES**. See EE-1, Figures 1 through 3

NEPA: **No**. This proposal is excluded from environmental processing: The rf exposure was modeled using “FM Model” from the FCC website using an opposed V single element antenna at a height of 59m. The modeled maximum rf near the base of the tower is under $2\mu\text{W}/\text{cm}^2$, so no further processing is required. No changes to structure, lighting, land or water are proposed. Applicant will cease radiating if workers are near the antenna.

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