

Exhibit EE-1: Engineering Statement in support of  
FCC FORM 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 change of channel for FM translator W255CC (Facility ID 158420) Sarasota, FL. W255CC requests a change from channel 255 to channel 252 and an increase in power from 200W to 215W. W255CC will remain at its present location, thus making the proposal a minor change. W255CC rebroadcasts WSRQ, 1220kHz (FID 27663).

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 WSRQ, an AM radio station licensed to Sarasota, FL. The maximum ERP is limited by interference & the WSRQ 2mV contour.

Attached as Figure 1 is a color coded map showing the protected contours and interfering contours of all relevant FM facilities.

Figure 2 shows the proposed 1mV service contour of this application compared with the 2mV service contour of WSRQ.

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

Kyle Magrill, President  
29 January 2016

2805 NW 6<sup>th</sup> Street  
Gainesville, FL 32609  
352-335-6555

**Background:**

W255CC is a licensed facility inside the Sarasota radio market. This application changes only the channel and power of the facility.

Figure 1: Contour analysis of Ch252, Sarasota, FL. Colors are referenced to W255CC proposed. Other facilities' colors should not overlap the same colors from W255CC. Overlapping colors from one affected station to another is okay.

Key:  
 Brown = Interfering 40dBu vs Protected (Co-chan)  
 Blue or cyan = Interfering 54dBu vs Protected (1<sup>st</sup> Adj)  
 Violet = Interfering 100dBu vs Protected (2<sup>nd</sup>/3<sup>rd</sup> adj)

W255CC proposed power = 0.215kW (215 Watts).  
 W255CC Proposed Height AMSL = 61m

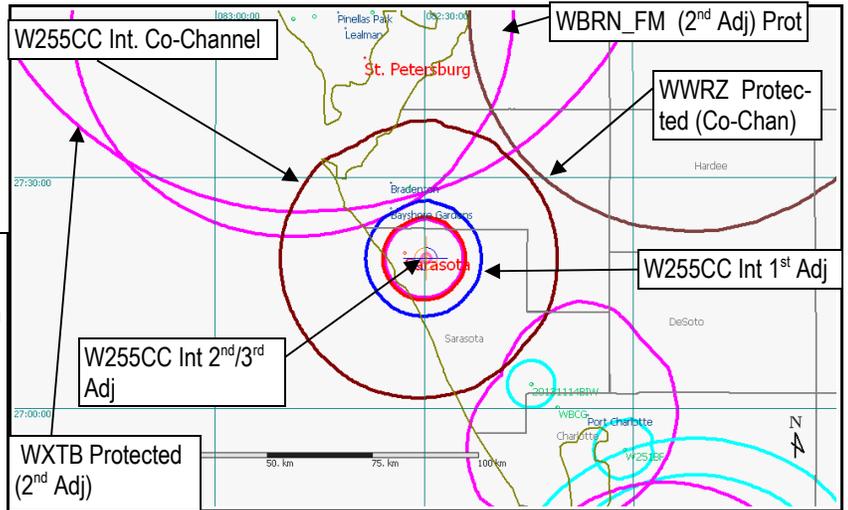
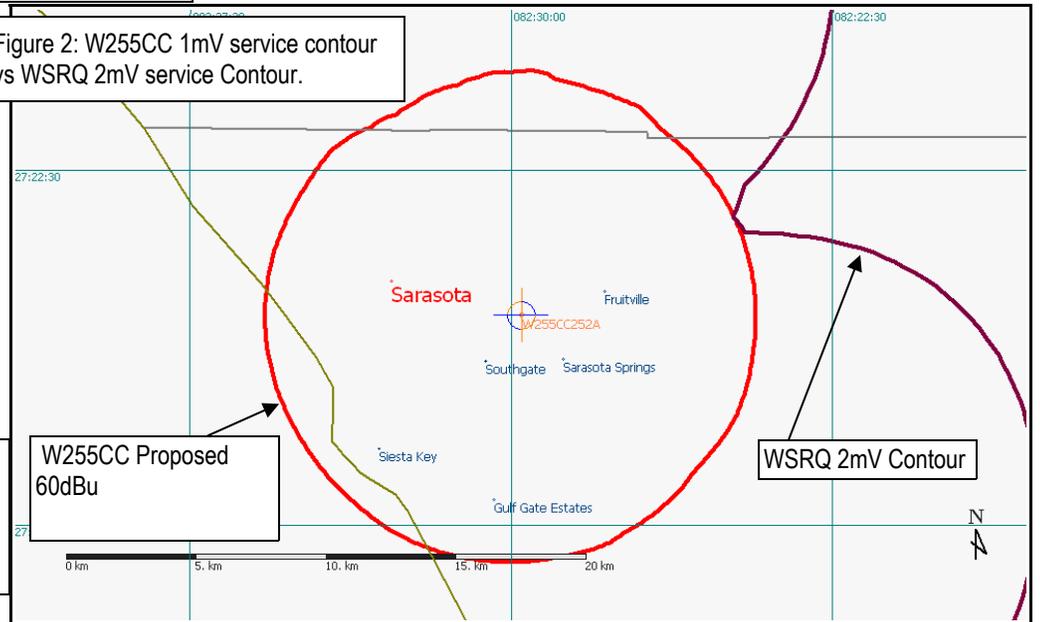


Figure 2: W255CC 1mV service contour vs WSRQ 2mV service Contour.



Note that the W255CC 1mV service contour extends less than 30km from the WSRQ antenna site, thus it is within the 40km limit.

## Section VII Engineering Data:

Tech Box Data:

1. Channel: **252**

Primary Station: **FID:27663**  
**WSRQ**  
**Sarasota, FL**  
**1220 kHz**

Delivery Method: **Direct**

Antenna Location Coordinates: (NAD27):  
**27° 19' 26" N**  
**082° 29' 46" W**

Antenna Structure Registration: **1231476**

Antenna Location Site Elevation Above Mean Sea Level: **4 meters**

Overall Tower Height Above Ground Level: **61meters**

Height of Radiation Center Above Ground Level: **57 meters AGL**

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

Transmitting Antenna: **SWR 1/1**

Fill-in Translator: **Yes** (see EE-1, Figure 2)

Interference: **Yes**  
Section 74.1204, **Checked**. See EE-1, Figure 1  
Section 74.1205, **Not Checked**.

Unattended operation: **Yes**

Multiple Translators: **Yes**

NEPA: **Yes**. This proposal is excluded from environmental processing: The rf exposure was modeled using "FM Model" for windows (from the FCC website) using a ring-stub single element antenna at a height of 73m which represents a worst-case scenario. The modeled maximum rf near the base of the tower is under 1uW/cm<sup>2</sup>, 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.

Kyle Magrill, Pres.  
CircuitWerkes, Inc.  
(352) 335-6555  
[kyle@circuitwerkes.com](mailto:kyle@circuitwerkes.com)