

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 a New FM Translator)

This is a minor change to an existing application by Circuitwerkes, Inc. (the Applicant) for an FM Translator serving the community of Sarasota, FL. The facility ID 158420 and the call sign is W255CC.

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. The tower is located within a secured compound. The public does not have access to the tower compound. The applicant will reduce power or cease operation when workers are present near the transmitting antenna.

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

This facility will be a fill-in translator and its power is limited by the interfering contours and the distance to the service contour of the primary station as shown in Exhibit 10 below. If the facility were to be used as a non-fill-in translator, the maximum ERP would be limited by the height-above-average-terrain bearing 265-degrees. The HAAT in this direction is 61 meters. The maximum ERP for this height is 0.055kW. This application requests .055kW as this satisfies all requirements stated above.

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

The proposal is collocated with the licensed site for WSRQ, an AM station. The original WSRQ towers have been removed from the land and replaced with a single, self-supporting, grounded tower that supports multiple tenants and dozens of antennas. WSRQ has no transmitter or viable antenna at this location and is operating at variance using an STA from a different location.. WSRQ is required to use the indirect method to determine operating power and is operating at 0.15kW. WSRQ has a construction permit the same location as their STA and is not expected to ever resume broadcasting at the licensed location. Because the licensed array has been dismantled, any attempt to re-license the present tower would require a new form 301 to be filed. Because it is not possible to measure the pattern or determine power by the direct method we request that the typical requirements for measuring the antenna impedance and directional pattern be waived as moot in this instance.

Kyle Magrill, President/applicant  
PG-7T-6155  
09 July 2011

CircuitWerkes, Inc.  
2805 NW 6th Street  
Gainesville, FL 32609  
352-335-6555

**Section VII Engineering Data:**

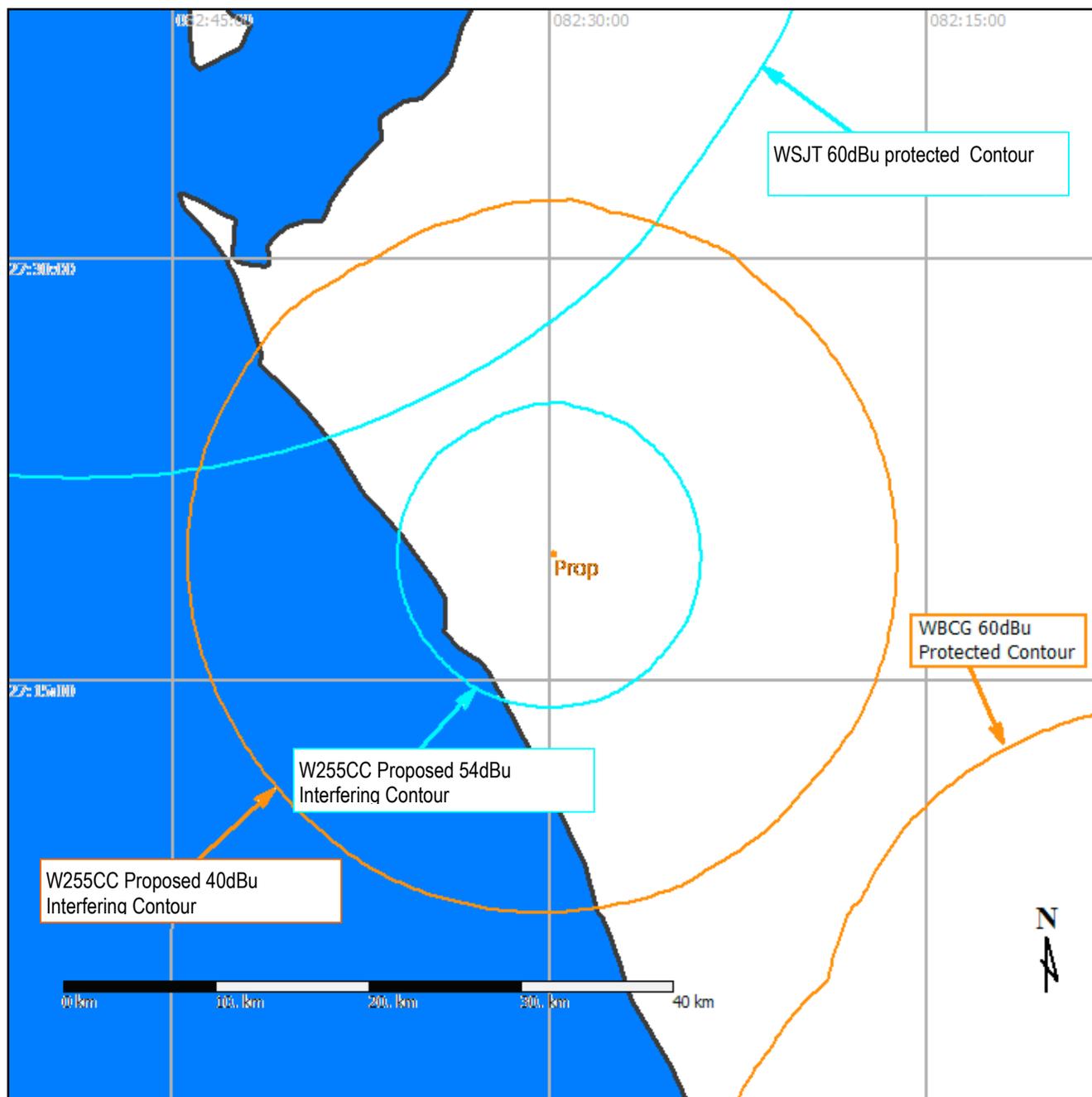
Tech Box Data:

1. Channel: **255**
  
2. Primary Station: **FID: 27663**  
**WSRQ (AM)**  
**Sarasota, FL**
  
3. Delivery Method: **direct**
  
4. Antenna Location Coordinates: (NAD27):  
**27° 19' 27" N**  
**82° 29' 45" W**
  
5. Antenna Structure Registration: **N/A**
  
6. Antenna Location Site Elevation Above Mean Sea Level: **4 meters**
  
7. Overall Tower Height Above Ground Level: **57.3 meters**
  
8. Height of Radiation Center Above Ground Level: **56.5 meters (H) AGL**  
**56.5 meters (V) AGL**
  
9. ERP:  
**0.055 kW (H)**  
**0.055 kW (V)**
  
10. Transmitting Antenna: **Nondirectional**
  
11. Fill-in Translator: **Yes**
  
12. Interference: **Yes**  
a) Section 74.1204, **Checked**. See Exhibit 12, Stations and Authorizations requiring investigation.  
b) Section 74.1205, **Not Checked**.
  
13. Unattended operation: **Yes**
  
14. Multiple Translators: **Yes**
  
15. NEPA: **Yes**. This proposal is excluded from environmental processing: The modeled rf at the base of the tower is less than 1% of the maximum public exposure level.

## Exhibit 12

ID	City	St	Chan	CL	Stat	Prefix	ARN	Dist
WLLD	HOLMES BEACH	FL	254	C2	LIC	BLH	19990720KG	65.43
WBCG	MURDOCK	FL	255	A	LIC	BLH	20070803ABP	47.36

Stations and Authorizations Requiring Investigation

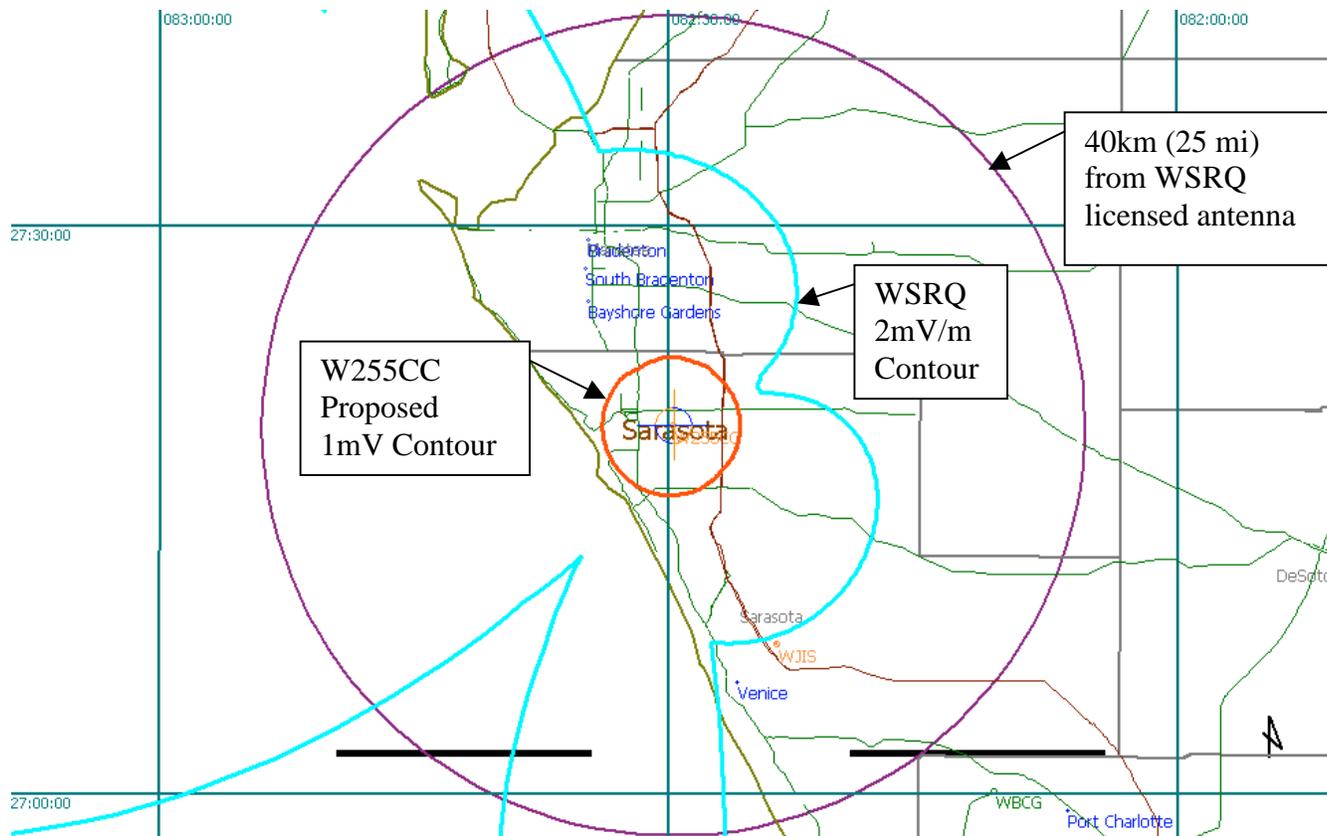


Protected and Interfering Contours

Contours are color-coded so that prohibited overlap is indicated by LIKE color contours overlapping.

# Exhibit 10

Fill-In Translator for WSRQ (AM)  
W255CC 1mV/m contour is contained within WSRQ licensed 2mV/m contour.



The proposed W255CC 60dBu contour also fits entirely within the proposed 2mV service contour of WSRQ's construction permit.