

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 a New FM Translator)

This engineering exhibit supports an application for a new FM translator associated with class B AM station WCSZ (FID # 25235).

The proposed 132dB μ contour is within the 92 dB μ contour of 2nd adjacent station, WESC Greenville, SC (FID # 4679) A D/U analysis shows that no interference reaches or approaches the ground nor any occupied structure or elevated roadway. The interfering contour is contained entirely on the transmitter site property. Therefore this proposal should be acceptable under 74.1204(d) and a “Living Way” waiver is hereby requested.

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 operate as a fill-in facility for WCSZ, an AM radio station licensed to San Souci, SC. The maximum ERP is limited by the class power level for fill in translators of 250W (0.25kW).

The same tower is specified in this application as in the short form, therefore there is service contour overlap between the short form application and this long form application.

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/m contour for WCSZ.

Figure 3 supports a request for a “living Way” waiver to 2nd adjacent station WESC.

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

/S/
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25 April, 2018

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Figures:

Figure 1: Contour analysis of Ch221, Hendersonville, NC.

Colors are referenced to the proposed facility.

Other facilities' colors should not overlap the same colors from this proposal. Overlapping colors from one affected station to another is okay.

Key:

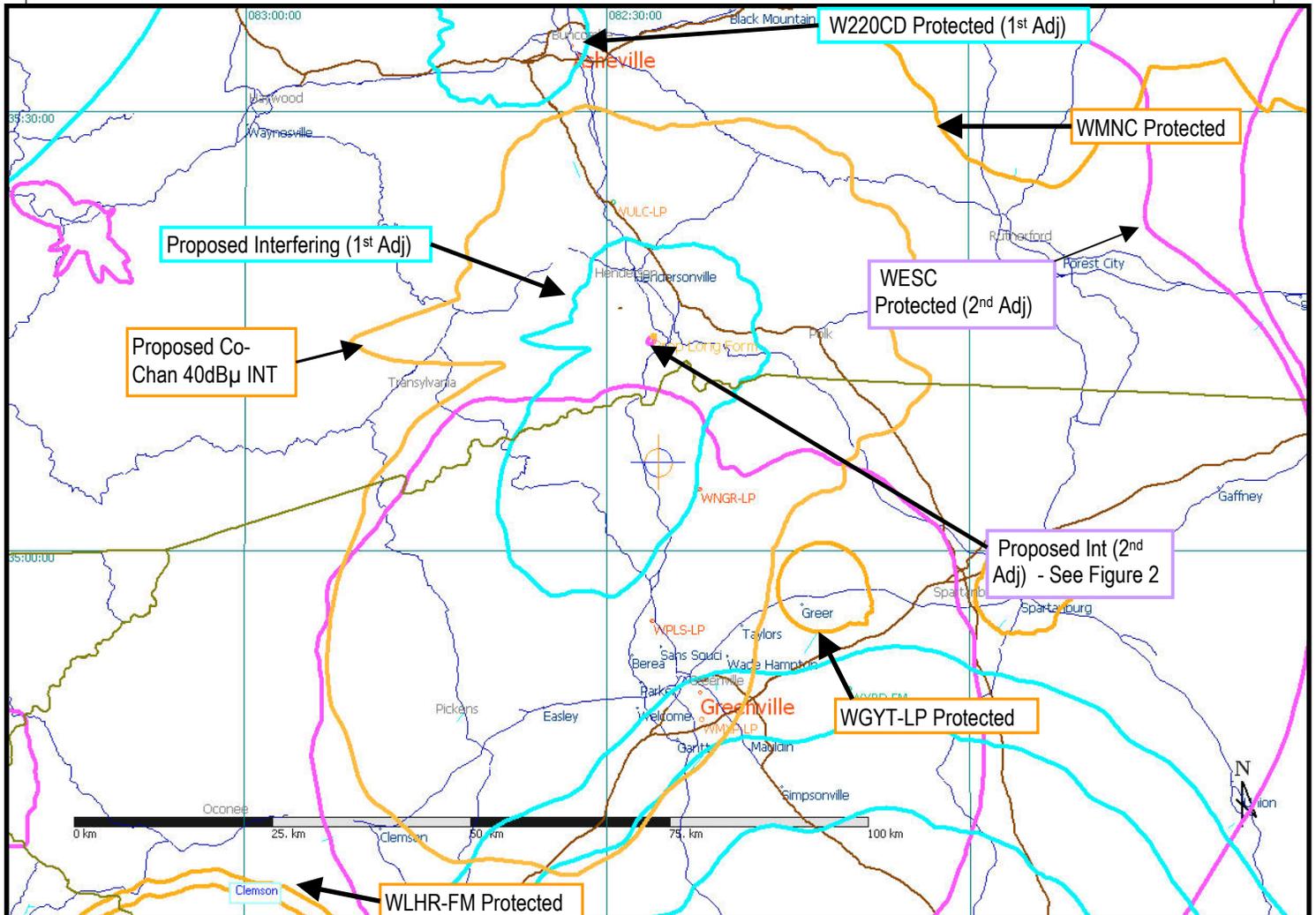
Amber = Interfering 40dB μ vs Protected (Co-chan)

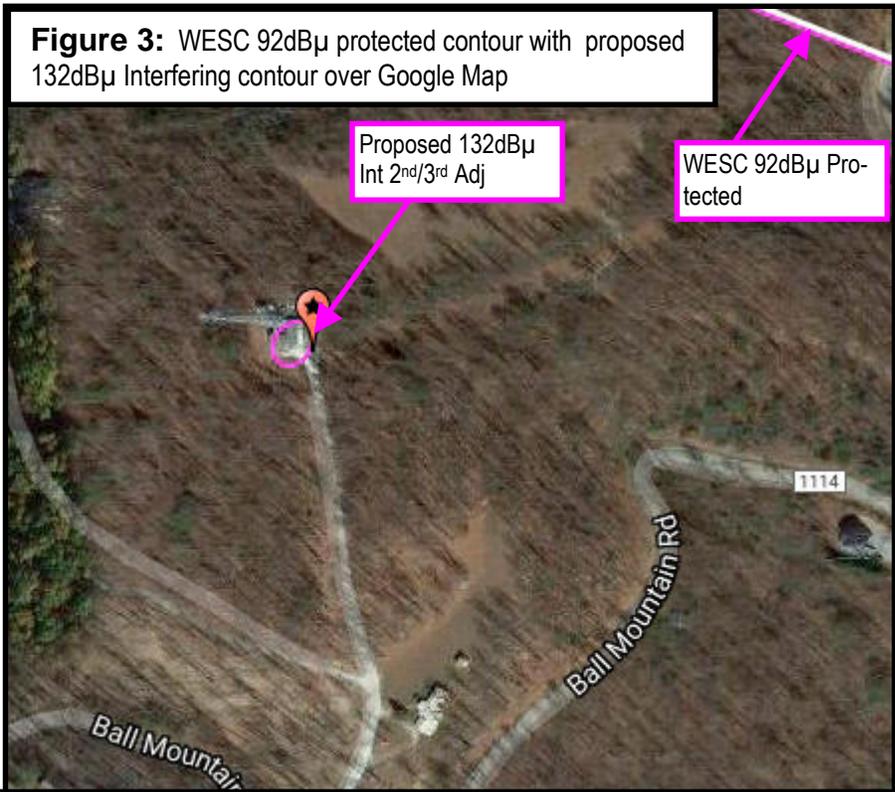
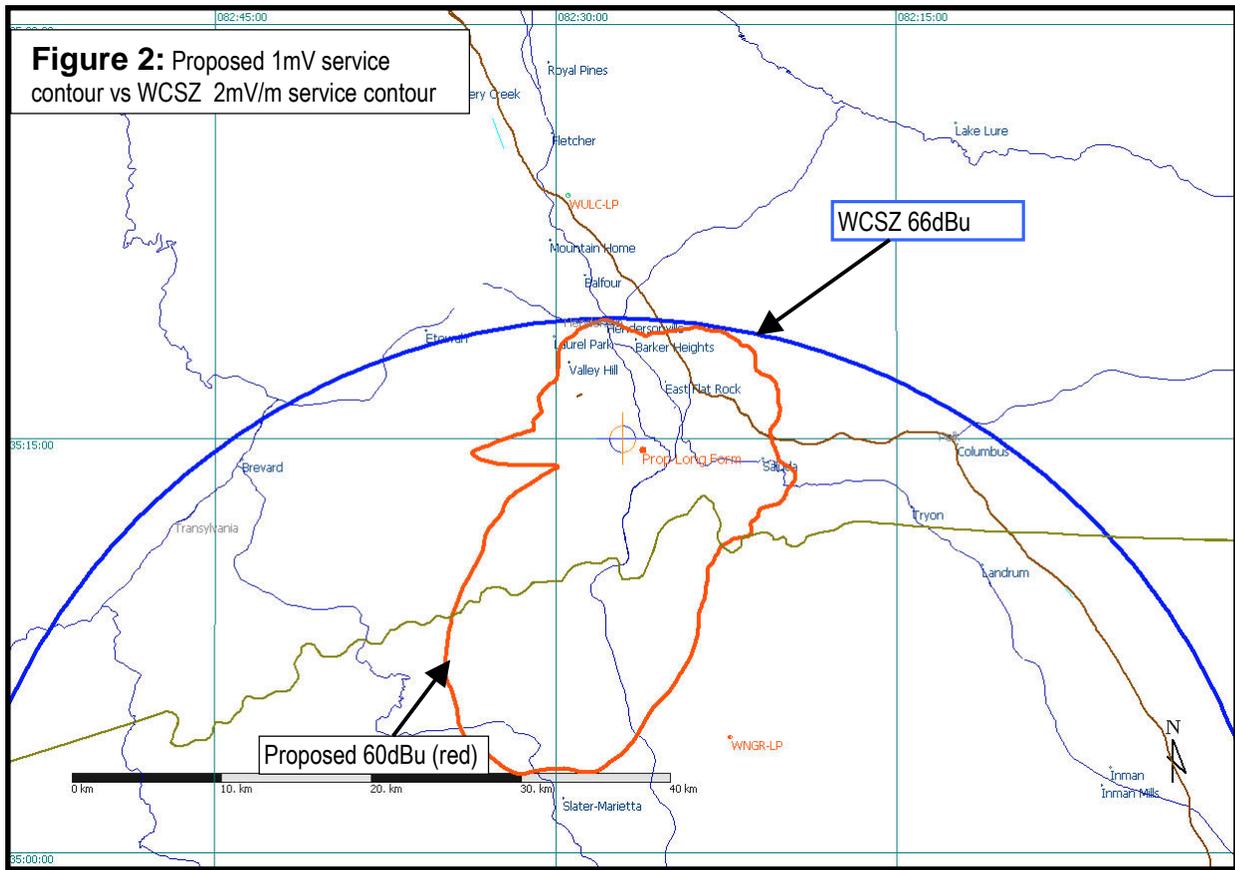
Blue or cyan = Interfering 54dB μ vs Protected (1st Adj)

Violet = Interfering 100dB μ vs Protected (2nd/3rd adj)

Proposed power = 0.25kW (250 Watts).

Proposed antenna type: 1 bay Scala CA5-FMCP directional





The proposed 132dBu Interfering contour does not extend beyond the transmitter site grounds. In fact the 132dBu contour extends less than 20 meters from the antenna and does not reach the ground. Therefore no interference to WESC will occur as a result of this proposal.

Engineering Data:

Tech Box Data:

Channel: **221**

Primary Station: **FID: 25235**

WCSZ

San Souci, SC

1070kHz

Delivery Method: **Other**

Antenna Location Coordinates: (NAD27):

35° 14' 33" N

82° 26' 09" W

Antenna Structure Registration: **1023649**

Antenna Location Site Elevation Above Mean Sea Level: **898 meters**

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

Height of Radiation Center Above Ground Level: **38 meters (V+H) AGL**

ERP:

0.25 kW (H)

0.25 kW (V)

Transmitting Antenna: SCA CA5-FMCP

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

Interference: **Yes**

Section 74.1204, **Checked**. See EE-1

Section 74.1205, **Not Checked**.

Unattended operation: **Yes**

Multiple Translators: **Yes**

NEPA: **Yes**. This proposal is excluded from environmental processing: The modeled rf at the base of the tower, using the worst case ring stub antenna is under $8\mu\text{W}/\text{cm}^2$ which is less than 5% of the maximum public exposure level. The actual RF from the proposed antenna will be less than $1\mu\text{W}/\text{cm}^2$. The antenna will be mounted on an existing structure. No changes to structure, lighting, land or water are proposed. Applicant will cease radiating if workers are near the antenna.

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