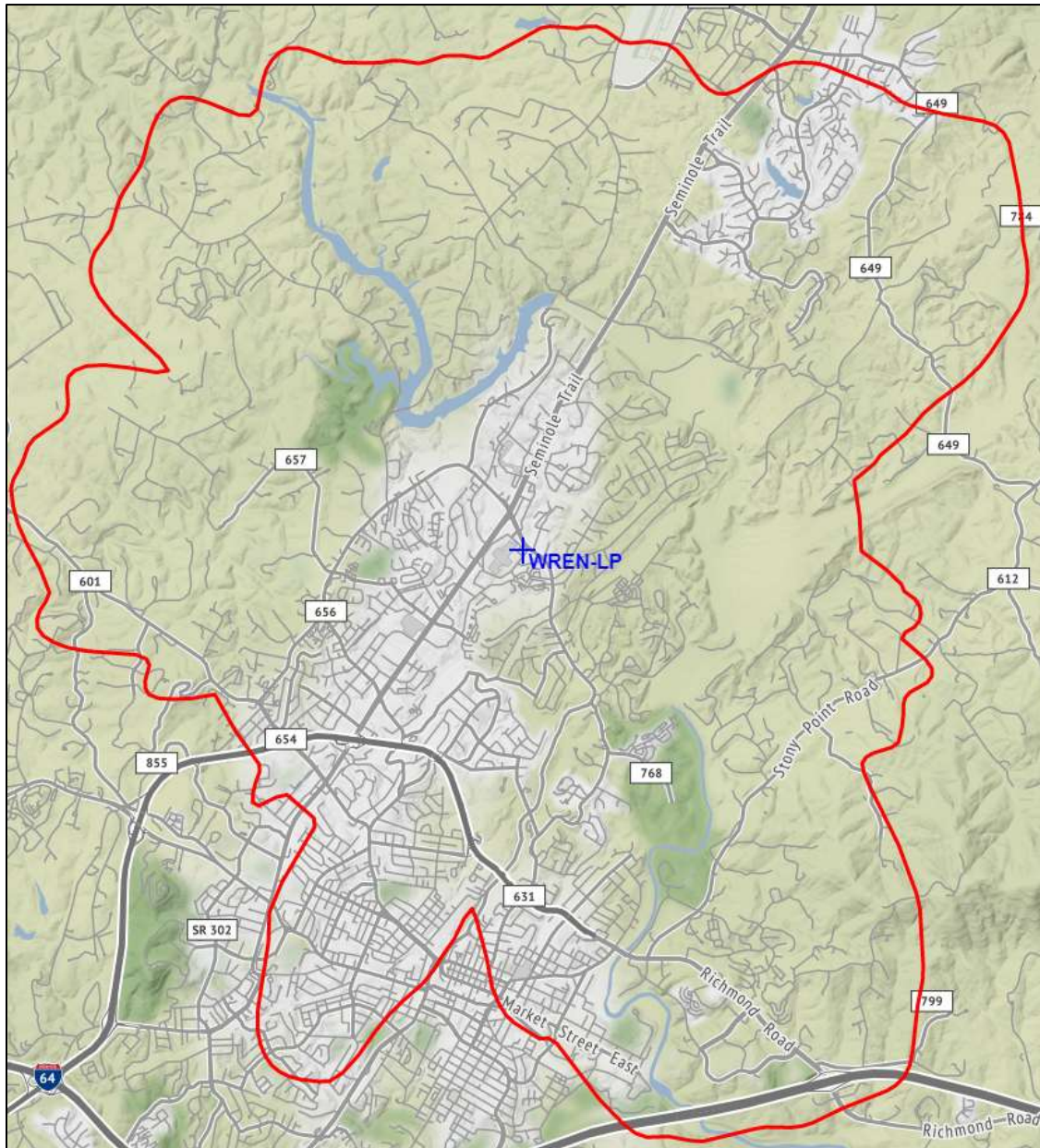




**REC Networks**  
11541 Riverton Wharf Rd.  
Mardela Springs, MD 21837  
844.REC.LPFM/202.621.2355  
recnet.com

Minor modification for WREN-LP  
**CHARLOTTESVILLE, VA**  
**GENESIS COMMUNICATIONS**  
**BLL-220160309AAA**

### **PROPOSED 60dBu F(50,50) SERVICE CONTOUR**



CHARLOTTESVILLE, VA – Channel 250L1 (97.9 MHz) ~ ERP 0.028 kW  
Elev: 156.7 meters ~ RCAGL: 71 meters ~ RCAMSL: 227.7 meters ~ HAAT: 56m (GLOBE)  
Overall tower height: 81.1 meters – ASR: 1017972  
NAD27 Latitude: 38° 04' 39.0" NL – Longitude: 78° 28' 21.0" WL  
NAD83 Latitude: 38° 04' 39.5" NL – Longitude: 78° 28' 20.0" WL

R E C NETWORKS  
CHANNEL REPORT

NAD27 LATITUDE: 38 - 04' 39.0" - LONGITUDE: 78 - 28' 20.9"  
CHANNEL: 250 - CLASS: L1

CHAN	FREQ	CALL	LOCATION	CLS	DIST	REQ	CLEAR	BEAR
247	97.3	WGH-FM : MHR LICENSE LLC	NEWPORT NEWS	VA B	220.2	0.0	220.2	123.7
248	97.5	WWWV : TIDEWATER COMMUNICATIONS, LLC	CHARLOTTESVILLE	VA B	10.3	67.0	-56.7	183.6
250	97.9	WIYY : HEARST STATIONS INC.	BALTIMORE	MD B	211.2	112.0	99.2	47.9
250	97.9	WREN-LP : GENESIS COMMUNICATIONS : Currently authorized facility	CHARLOTTESVILLE	VA L1	0.0	24.0	-24.0	252.3
250	97.9	W250CR : SHENANDOAH VALLEY GROUP, INC.	MOUNT JACKSON	VA D2	78.1	26.0	52.1	350.4
250	97.9	WTRG : FIRST MEDIA RADIO, LLC	GASTON	NC A	196.7	67.0	129.7	155.7
250	97.9	WKKW : WEST VIRGINIA RADIO CORPORATION	FAIRMONT	WV B	203.1	112.0	91.1	317.6
250	97.9	WZZU : WVJT, LLC	LYNCHBURG	VA C3	85.4	78.0	7.4	228.0
251	98.1	WTVR-FM : ENTERCOM LICENSE, LLC	RICHMOND	VA B	104.4	97.0	7.4	122.7
253	98.5	WACL : CAPSTAR TX, LLC, AS DEBTOR IN POSSESSION * Does not meet third adjacent channel spacing under LCRA Sect 7.	ELKTON	VA B1	43.7	0.0	43.7	323.5
253	98.5	W253BI : ENTERCOM LICENSE, LLC	GLEN ALLEN	VA D8	98.7	0.0	98.7	121.2
253	98.5	WYCR : FM RADIO LICENSES, LLC	YORK-HANOVER	PA B	237.7	0.0	237.7	33.2

**PURPOSE OF APPLICATION AND**  
**LPFM SECOND ADJACENT CHANNEL WAIVER STUDY**  
**WAIVER REQUEST §73.807(a)**

WREN-LP  
Charlottesville, VA  
Channel 250L1 (97.9)

The instant application proposes to increase the effective radiated power (ERP) of WREN-LP from 0.021 to 0.028 kilowatts (kW). This increase was possible due to a recalculation of the height above average terrain (HAAT) using the Commission-accepted GLOBE terrain database at 8-radials. Using GLOBE terrain data, the HAAT has been recalculated at 56 meters. Pursuant to the Commission's FMpower software, an LPFM station at 56 meters HAAT would be authorized 0.028 kW (28 watts) ERP. This application respectfully requests this modification of the ERP. No other physical characteristics of this facility is being modified.

On October 28, 2014, WREN-LP had already received a waiver of §73.807(a) of the Commission's Rules in respect to second-adjacent channel short-spaced station WWWV, Charlottesville, Virginia. The instant application does not change the distance in respect to WWWV.

WWWV places a 90.9 dBu service contour at the WREN-LP site.

Using the U/D method<sup>1</sup>, the proposed WREN-LP is predicted to produce an undesired interference overlap in respect to WWWV to the proposed LPFM station's 130.9 dBu interference contour ("overlap zone"). At 28 watts ERP, the overlap zone reaches to 11 meters from the radiation center of the antenna using a free-space calculation.

As the radiation center is 71 meters above ground level, the overlap zone will not reach any point lower than 60 meters (196.9 feet) above ground level. As a result, the interference will not reach the ground.

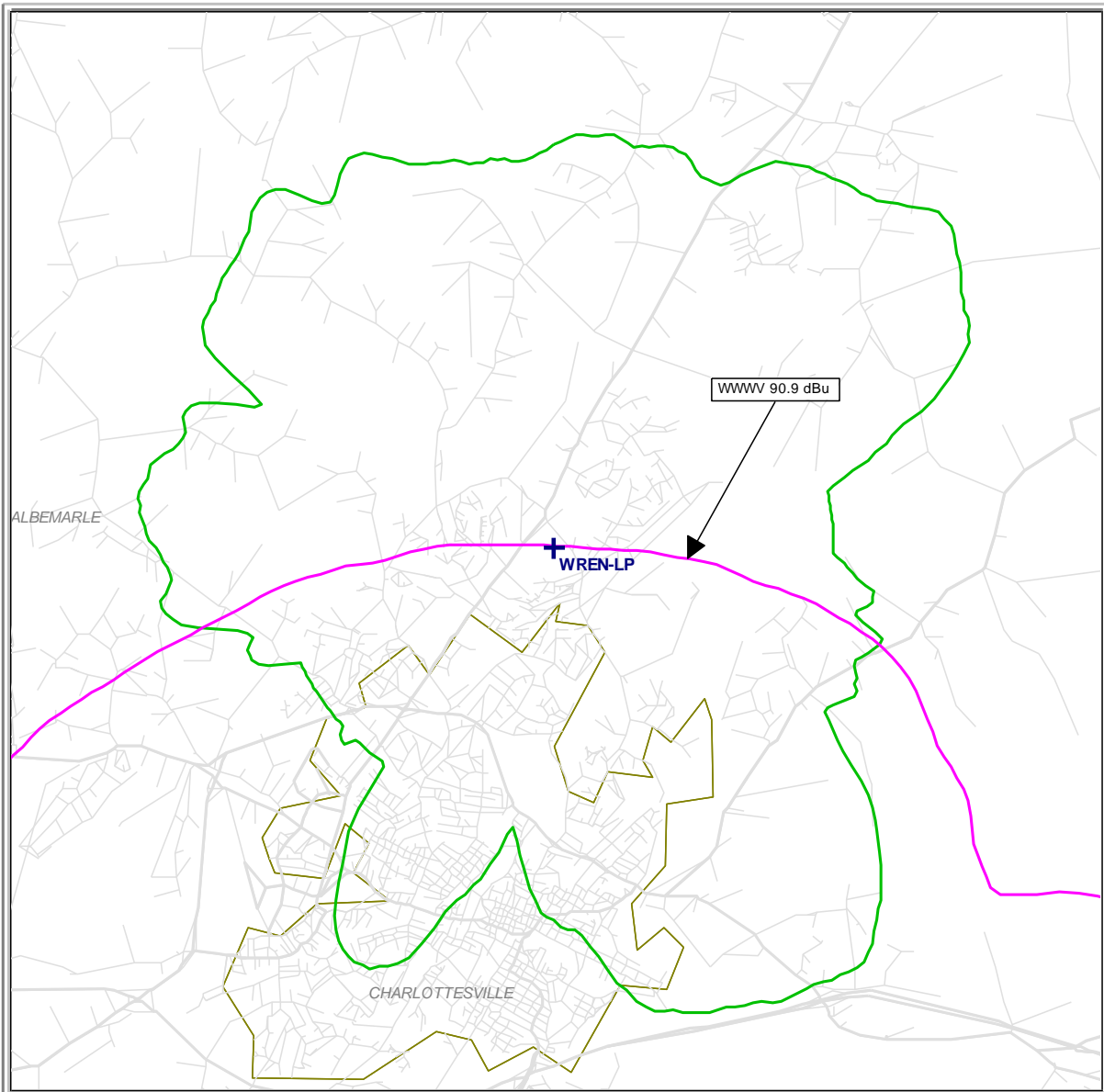
Based on the information presented, the operation of WREN-LP from this site and increased ERP as proposed will not create any new interference to listeners or potential listeners of WWWV. The applicant requests a waiver of §73.807(a) of the Commission's Rules in respect to WWWV, Charlottesville, Virginia.

Report completed by  
Michelle Bradley  
Founder, REC Networks  
February 18, 2019

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<sup>1</sup> - See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

## WREN-LP Second Adjacent Protection



## Antenna Height Above Average Terrain Calculations -- Results

### Input Data

Latitude **38° 4' 39" North**  
Longitude **78° 28' 21" (NAD 27)**

These coordinates convert to NAD 83 coordinates of  
38° 04' 39.49", North, 78° 28' 20.04" West (NAD 83).

Height of antenna radiation center above mean sea level: **227.7 meters AMSL**

Number of Evenly Spaced Radials = **8**     0° is referenced to True North

### Results

Calculated HAAT = **56 meters**

Antenna Height Above Average Terrain calculated  
using 1 km [GLOBE terrain data](#)

### Individual "Radial HAAT" Values, in meters

0°	61.8 m
45°	87.1 m
90°	22.6 m
135°	76.7 m
180°	54.8 m
225°	27.8 m
270°	56.9 m
315°	59.8 m

[Print Results?](#)

[New Calculation?](#)

## FMpower Results

'100 watt' LPFM facilities for equivalency determination:

Reference ERP = 0.100 kW ERP

Reference HAAT= 30 meters HAAT

F(50 50) 60 dBu protected contour at 5.6 km distance

**Equivalent ERP = 0.028 kilowatts (kW)**

(rounded per [47 CFR 73.212](#))

Unrounded ERP = 0.027 kW for 56 meters HAAT

Low Power FM (LPFM) stations are authorized throughout the United States.