



**Kessler and Gehman Associates**  
Consultants • Broadcast • Wireless

**APPLICATION FOR  
SPECIAL TEMPORARY  
AUTHORITY OF A POST-  
TRANSITION TELEVISION  
BROADCAST STATION**

**CALL SIGN: WCNY-TV**  
**FACILITY ID: 53734**  
**LOCATION: SYRACUSE, NY**

**Prepared For:**

Public Broadcasting Council of  
Central New York  
PO Box 2400  
Syracuse, NY 13220

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## **1.0 PROPOSED SPECIAL TEMPORARY AUTHORITY**

Kessler and Gehman Associates, Inc. has been authorized by Public Broadcasting Council of Central New York, licensee of WCNY-TV to prepare an engineering Special Temporary Authority (“STA”) to operate with reduced facilities relative to the WCNY-TV Construction Permit (“CP”) having FCC File No.: 0000028027. The WCNY-TV CP shares a newly installed broadband main broadcast antenna with WSTM-TV having FCC File No.: 0000090187. WSTM-TV headed up the construction and installation of the shared antenna. In preparation for the WCNY-TV license to cover, it was discovered that the WSTM-TV antenna is a different model number and is installed 18 meters higher than the antenna specified in the WCNY-TV CP. WCNY-TV will be filing a CP modification to change its omni-directional antenna from a Dielectric TFU-26GTH O4A to a TFU-28GTH/VP-R O6 DC and increase its center of radiation height above ground from 257m to 275m in order to match the facilities which WSTM-TV installed.

The instant STA proposes to utilize the newly installed WSTM-TV main antenna with a reduced ERP such that the proposed noise limited contour shall not encroach beyond the WCNY-TV CP contour. The grant of this STA is in the public interest since it will allow WCNY-TV to broadcast on its post transition channel with a facility similar to its permitted facility until the proper permitting has been completed.

## **2.0 PREDICTED COVERAGE CONTOUR**

Appendix A demonstrates the predicted noise limited coverage contours of the proposed STA facility and its associated main CP facility having FCC File No.: 0000028027. The contours were generated in accordance with the method described in 47 CFR Section 73.684 utilizing the appropriate F(50,90) propagate curves.

Appendix A clearly illustrates that the proposed STA contour is 100% subsumed by the construction permitted contour. The instant STA facility shall substantially achieve its goal of providing comparable coverage to its viewers while the Commission processes the CP modification application.

### **3.0 RADIO FREQUENCY RADIATION COMPLIANCE**

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain<sup>1</sup> extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360-degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

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<sup>1</sup> Terrain extraction is based upon a 3 arc second point spacing terrain database.

The resulting RFR study in Appendix B demonstrates that the peak exposure is 0.015% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not taken into account. The instant application is compliant with the FCC limits for human exposure to RF radiation and is excluded from further environmental processing since no changes are proposed to the tower structure in order to accommodate the proposed antenna.

A chain link fence encloses the support structure and the applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary, completely cutting it off to protect maintenance workers on the tower.

#### **4.0 CERTIFICATION**

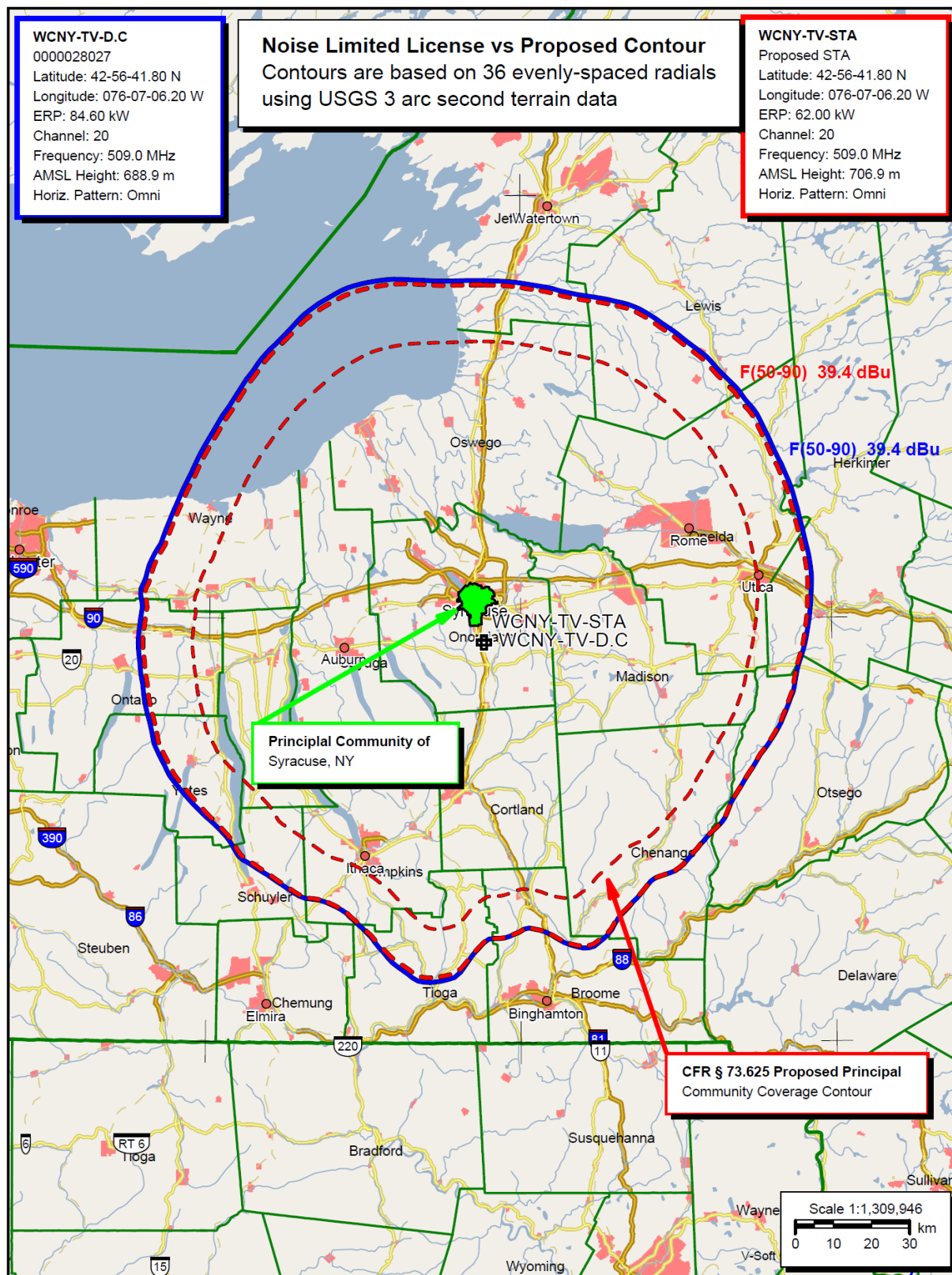
I, Ryan Wilhour, am an engineering associate of Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and have been working in the field of radio and television broadcast consulting since 1996. The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour



Consulting Engineer  
January 13, 2020

## APPENDIX A – Section 73.625(a) Community of License Coverage Map



## APPENDIX B – Far Field Exposure to RF Emissions

