



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
A MINOR MODIFICATION OF A
POST REPACK CONSTRUCTION PERMIT
FILE # 0000028847
WZTV - NASHVILLE, TENNESSEE
DTV - CH. 20 - 1000 kW - 427 m HAAT**

Prepared for: WZTV LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

GENERAL

This office has been authorized by WZTV LICENSEE, LLC, licensee of WZTV, channel 15, facility ID number 418, licensed to Nashville, Tennessee, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its post-reassignment construction permit, File # 0000028847, that authorizes WZTV to use channel 20 for its post-reassignment broadcasting. The instant application proposes only to elevate the center of radiation of the authorized antenna, a Dielectric model TFU-18DSC/VP-R P230, from its authorized height of 250 meters Above Ground Level (AGL) to a center of radiation which is 266 meters Above Ground Level. No other changes are herein proposed.

DIRECTIONAL ANTENNA

The applicant proposes to utilize its authorized antenna, Dielectric model TFU-18DSC/VP-R P230 elliptically polarized directional antenna. The antenna's center of radiation will be located 16 meters higher, at 366 meters AGL than the authorized height AGL of 350 meters, and at a height above average terrain of 427 meters. The antenna manufacturer's antenna data, including the horizontal azimuth patterns of both the horizontal and vertical signal components and the vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane are shown and tabulated in the antenna exhibit.

NO CHANGE IN ANY OTHER PARAMETERS

All remaining parameters remain unchanged. These include, but are not limited to, Predicted Coverage Contours, Allocation Considerations, Blanketing and Intermodulation Interference and Radio Frequency Impact.

OCCUPATIONAL SAFETY

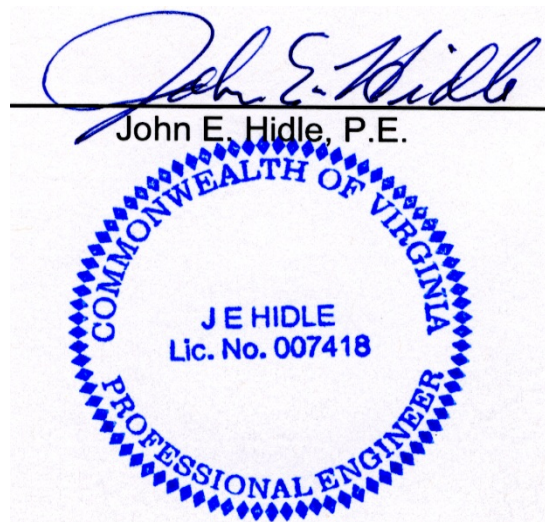
The licensee of WZTV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WZTV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

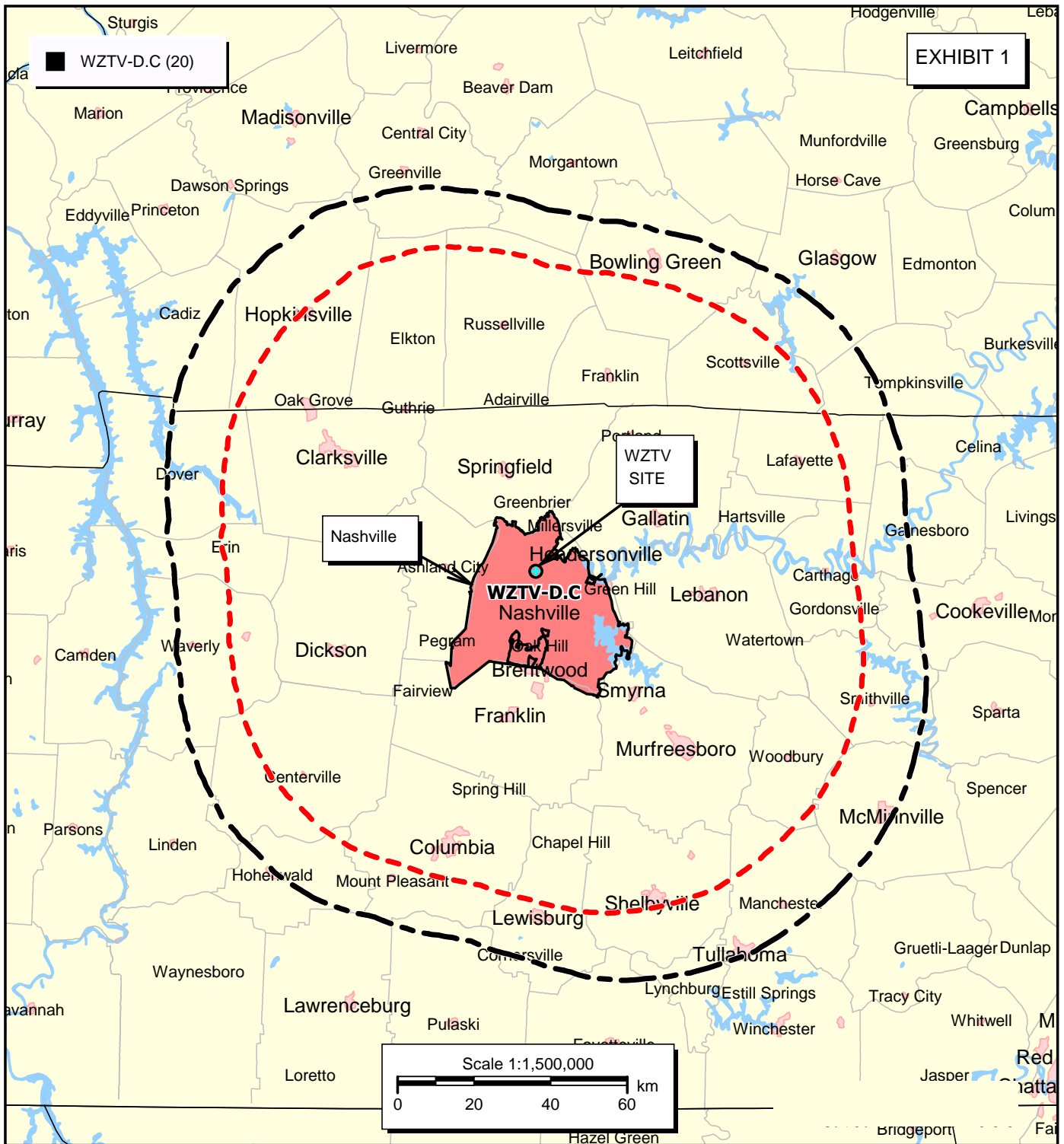
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SUMMARY

It is submitted that the instant application for a minor modification of its post-reassignment channel 20 construction permit, file # 0000028847, to elevate its antenna center of radiation from 350 meters to 366 meters AGL, as described herein, does comply with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: February 5, 2020





PREDICTED COVERAGE CONTOURS

WZTV-D.A - Nashville, TN
 DTV Channel 20 - 1000 kW ERP - 427 M HAAT
 FEB, 2020

Predicted Noise Limited 39.36 dBu
 F(50,90) Coverage Contour



Predicted Principal Community 48 dBu
 F(50,90) Coverage Contour



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of WZTV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WZTV antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the proposed WZTV channel 20 modified facility will operate with a maximum ERP of 1000 kW from an elliptically polarized directional transmitting antenna with a centerline height of 366 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.125 at all depression angles greater than 5 degrees. The WZTV facility is predicted to produce a worst-case power density at two meters above ground level, at 169.7 meters from the tower base, of $3.354 \mu\text{W}/\text{cm}^2$, which is 0.99% of the FCC guideline value of $339.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.198% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. (See Appendix A)

Further, the applicant will continue to cooperate and coordinate with other any other site users and reduce power or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

WZTV
Channel 20 - Nashville, TN
ERP = ##### WATTS

APPENDIX A

Maximum ERP 1000 kW

Polarization ----- 2 Circular
Antenna Height Above Ground - 366 meters 1200.8 feet
FCC Uncontrolled RFR Limit ---- 339.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 3.354 $\mu\text{W}/\text{cm}^2$
0.99% of limit

Angle Below Horizontal (degrees)	<Point X> Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)	Vertical Pattern (REL. FIELD)	WZTV ERP (kW)	WZTV Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			0.930	864.9000			
5	4160.5	4176.4	0.146	21.3160	0.082	0.02%	No
10	2064.3	2096.2	0.105	11.0250	0.168	0.05%	No
15	1358.5	1406.4	0.006	0.0360	0.001	0.00%	No
20	1000.1	1064.3	0.057	3.2490	0.192	0.06%	No
25	780.6	861.3	0.006	0.0360	0.003	0.00%	No
30	630.5	728.0	0.123	15.1290	1.907	0.56%	No
35	519.8	634.6	0.051	2.6010	0.431	0.13%	No
40	433.8	566.3	0.037	1.3690	0.285	0.08%	No
45	364.0	514.8	0.106	11.2360	2.832	0.83%	No
50	305.4	475.2	0.027	0.7290	0.216	0.06%	No
55	254.9	444.4	0.087	7.5690	2.561	0.75%	No
60	210.2	420.3	0.060	3.6000	1.361	0.40%	No
65	169.7	401.6	0.090	8.1000	3.354	0.99%	No
70	132.5	387.4	0.055	3.0250	1.347	0.40%	No
75	97.5	376.8	0.030	0.9000	0.423	0.12%	No
80	64.2	369.6	0.049	2.4010	1.174	0.35%	No
85	31.8	365.4	0.023	0.5290	0.265	0.08%	No
90	0.0	364.0	0.000	0.0000	0.000	0.00%	No

