

# **APPLICATION FOR A FM BROADCAST STATION LICENSE**

**FCC FORM 302**

**File Number – BPH-20030829AII**

**WUHT**

**(Facility Number 6401)**

**Birmingham, Alabama**

**CHANNEL 299 – 107.7 MHz**

**APPLICANT: Citadel Broadcasting Company**

**December, 2006**

**Prepared by:**



BROADCAST TECHNICAL CONSULTANTS

6930 Cahaba Valley Road, Suite 202  
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**Engineering Statement**  
**In Support of an Application for a**  
**FM Broadcast Station License**  
**WUHT, Birmingham, Alabama**

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**ENGINEERING STATEMENT**

**Of**

**Lee S. Reynolds**

**And**

**Virgle Leon Strickland**

**In Support of an**

**Application for a**

**FM Broadcast License**

**WUHT**

**Birmingham, Alabama**

**Channel 299 – 107.7 MHz**

**December, 2006**

**General**

As broadcast technical consultants doing business as Reynolds Technical Associates (“RTA”), we have been authorized by Citadel Broadcasting Company (herein referred to as “The Applicant”), to prepare the engineering portion of an application for a license (FCC Form 302) for WUHT , Birmingham, Alabama.

The Applicant was issued a construction permit (file number BPH-20030829AII) authorizing construction of the main facility of WUHT. The transmitter facility has been completed as authorized by the construction permit with the exception of the “Effective

radiated power in the Horizontal Plane” is 42 kilowatts instead of the authorized 43 kilowatts. The Maximum effective radiated power is the same as authorized (43 kilowatts). The Applicant is requesting the license to be granted with 42 kilowatts ERP in the horizontal plane, this is in compliance with Section 73.1690 (8) of the Commissions Rules and Regulations. All other parameters of the constructed facility is same as the construction permit authorizations.

**Antenna Beam Tilt**  
**(Exhibit E, Figure 1)**

Exhibit E, Figure 1 is a tabulation of elevation pattern for the installed antenna provided by the antenna manufacturer.

**Special Operating Condition Numbers 4**  
**(Human Exposure to Radiofrequency Radiation)**  
**(No Exhibit)**

An agreement is in place stating: To prevent excessive human exposure to radiofrequency radiation, the licensee will reduce power or cease operation, whichever is necessary to protect persons having access to the site/tower. This addresses special operating condition 4.

## **Conclusion**

This statement/application has been prepared for The Applicant by utilizing the information supplied by the Applicant. Careful examination of the information was performed to insure that all documentations were in full compliance with the Rule and Regulations of the Commission. We welcome the opportunity to discuss with the staff of the Federal Communications Commission the engineering data contained in this application. Should any questions arise concerning the information, please contact us.

The following pages are exhibits prepared and assembled in support of the proposed.

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### **Statement of the Consultants**

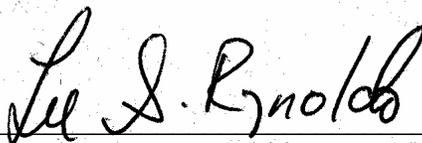
The instant engineering statement was prepared for “The Applicant” and supports an application for a FM Broadcast station license for WUHT, Birmingham, Alabama. It was developed by RTA and may not be used for purposes other than submission to the Commission by the applicant.

It may not be reproduced in its entirety, or in part, by anyone (other than from the Commission) without the written consent of RTA.

It is prepared for The Applicant under contractual agreement, and its certification by RTA is used accordingly. If The Applicant fails in its contractual obligation, RTA reserve the right to withdraw its certification.

The information in this application is compiled from information supplied by the Applicant. RTA is not responsible for errors resulting from incorrect data or unpublished rule and procedure changes.

For RTA:

A handwritten signature in black ink that reads "Lee S. Reynolds". The signature is written in a cursive style and is positioned above a horizontal line.

Lee S. Reynolds

December 19<sup>th</sup>, 2006

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Proposal Number  
 Date **5-May-06**  
 Call Letters **WUHT**  
 Location **Birmingham, AL**  
 Customer **American Tower**  
 Antenna Type **TAV-8FMB**

**TABULATION OF ELEVATION PATTERN**

Elevation Pattern Drawing #: **08V037080-90**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.314 | 2.4   | 0.929 | 10.6  | 0.215 | 30.5  | 0.061 | 51.0  | 0.059 | 71.5  | 0.056 |
| -9.5  | 0.309 | 2.6   | 0.911 | 10.8  | 0.218 | 31.0  | 0.046 | 51.5  | 0.051 | 72.0  | 0.059 |
| -9.0  | 0.294 | 2.8   | 0.891 | 11.0  | 0.219 | 31.5  | 0.030 | 52.0  | 0.045 | 72.5  | 0.063 |
| -8.5  | 0.270 | 3.0   | 0.870 | 11.5  | 0.218 | 32.0  | 0.018 | 52.5  | 0.042 | 73.0  | 0.067 |
| -8.0  | 0.238 | 3.2   | 0.847 | 12.0  | 0.209 | 32.5  | 0.022 | 53.0  | 0.042 | 73.5  | 0.072 |
| -7.5  | 0.201 | 3.4   | 0.822 | 12.5  | 0.193 | 33.0  | 0.038 | 53.5  | 0.048 | 74.0  | 0.076 |
| -7.0  | 0.167 | 3.6   | 0.796 | 13.0  | 0.171 | 33.5  | 0.055 | 54.0  | 0.056 | 74.5  | 0.081 |
| -6.5  | 0.150 | 3.8   | 0.769 | 13.5  | 0.143 | 34.0  | 0.071 | 54.5  | 0.066 | 75.0  | 0.086 |
| -6.0  | 0.168 | 4.0   | 0.741 | 14.0  | 0.111 | 34.5  | 0.086 | 55.0  | 0.077 | 75.5  | 0.090 |
| -5.5  | 0.220 | 4.2   | 0.711 | 14.5  | 0.076 | 35.0  | 0.099 | 55.5  | 0.088 | 76.0  | 0.093 |
| -5.0  | 0.292 | 4.4   | 0.681 | 15.0  | 0.040 | 35.5  | 0.109 | 56.0  | 0.098 | 76.5  | 0.096 |
| -4.5  | 0.375 | 4.6   | 0.650 | 15.5  | 0.010 | 36.0  | 0.117 | 56.5  | 0.108 | 77.0  | 0.099 |
| -4.0  | 0.462 | 4.8   | 0.618 | 16.0  | 0.035 | 36.5  | 0.122 | 57.0  | 0.117 | 77.5  | 0.102 |
| -3.5  | 0.550 | 5.0   | 0.586 | 16.5  | 0.067 | 37.0  | 0.124 | 57.5  | 0.126 | 78.0  | 0.104 |
| -3.0  | 0.636 | 5.2   | 0.554 | 17.0  | 0.097 | 37.5  | 0.123 | 58.0  | 0.133 | 78.5  | 0.105 |
| -2.8  | 0.669 | 5.4   | 0.521 | 17.5  | 0.122 | 38.0  | 0.119 | 58.5  | 0.139 | 79.0  | 0.106 |
| -2.6  | 0.701 | 5.6   | 0.489 | 18.0  | 0.143 | 38.5  | 0.113 | 59.0  | 0.143 | 79.5  | 0.107 |
| -2.4  | 0.732 | 5.8   | 0.457 | 18.5  | 0.159 | 39.0  | 0.104 | 59.5  | 0.147 | 80.0  | 0.107 |
| -2.2  | 0.762 | 6.0   | 0.425 | 19.0  | 0.168 | 39.5  | 0.093 | 60.0  | 0.149 | 80.5  | 0.109 |
| -2.0  | 0.791 | 6.2   | 0.394 | 19.5  | 0.172 | 40.0  | 0.080 | 60.5  | 0.150 | 81.0  | 0.110 |
| -1.8  | 0.818 | 6.4   | 0.364 | 20.0  | 0.171 | 40.5  | 0.066 | 61.0  | 0.150 | 81.5  | 0.111 |
| -1.6  | 0.844 | 6.6   | 0.336 | 20.5  | 0.164 | 41.0  | 0.050 | 61.5  | 0.149 | 82.0  | 0.112 |
| -1.4  | 0.868 | 6.8   | 0.308 | 21.0  | 0.152 | 41.5  | 0.034 | 62.0  | 0.147 | 82.5  | 0.113 |
| -1.2  | 0.890 | 7.0   | 0.282 | 21.5  | 0.136 | 42.0  | 0.018 | 62.5  | 0.144 | 83.0  | 0.113 |
| -1.0  | 0.910 | 7.2   | 0.258 | 22.0  | 0.117 | 42.5  | 0.006 | 63.0  | 0.140 | 83.5  | 0.113 |
| -0.8  | 0.929 | 7.4   | 0.237 | 22.5  | 0.096 | 43.0  | 0.016 | 63.5  | 0.135 | 84.0  | 0.113 |
| -0.6  | 0.946 | 7.6   | 0.218 | 23.0  | 0.074 | 43.5  | 0.031 | 64.0  | 0.129 | 84.5  | 0.112 |
| -0.4  | 0.960 | 7.8   | 0.203 | 23.5  | 0.052 | 44.0  | 0.045 | 64.5  | 0.122 | 85.0  | 0.112 |
| -0.2  | 0.972 | 8.0   | 0.190 | 24.0  | 0.034 | 44.5  | 0.058 | 65.0  | 0.115 | 85.5  | 0.109 |
| 0.0   | 0.983 | 8.2   | 0.181 | 24.5  | 0.030 | 45.0  | 0.069 | 65.5  | 0.108 | 86.0  | 0.106 |
| 0.2   | 0.990 | 8.4   | 0.176 | 25.0  | 0.041 | 45.5  | 0.079 | 66.0  | 0.101 | 86.5  | 0.103 |
| 0.4   | 0.996 | 8.6   | 0.174 | 25.5  | 0.057 | 46.0  | 0.086 | 66.5  | 0.094 | 87.0  | 0.100 |
| 0.6   | 0.999 | 8.8   | 0.175 | 26.0  | 0.072 | 46.5  | 0.092 | 67.0  | 0.087 | 87.5  | 0.096 |
| 0.8   | 1.000 | 9.0   | 0.178 | 26.5  | 0.085 | 47.0  | 0.095 | 67.5  | 0.080 | 88.0  | 0.092 |
| 1.0   | 0.999 | 9.2   | 0.182 | 27.0  | 0.095 | 47.5  | 0.097 | 68.0  | 0.073 | 88.5  | 0.089 |
| 1.2   | 0.995 | 9.4   | 0.188 | 27.5  | 0.101 | 48.0  | 0.096 | 68.5  | 0.067 | 89.0  | 0.084 |
| 1.4   | 0.990 | 9.6   | 0.193 | 28.0  | 0.103 | 48.5  | 0.093 | 69.0  | 0.062 | 89.5  | 0.080 |
| 1.6   | 0.982 | 9.8   | 0.196 | 28.5  | 0.101 | 49.0  | 0.089 | 69.5  | 0.058 | 90.0  | 0.076 |
| 1.8   | 0.972 | 10.0  | 0.202 | 29.0  | 0.096 | 49.5  | 0.083 | 70.0  | 0.055 |       |       |
| 2.0   | 0.959 | 10.2  | 0.207 | 29.5  | 0.087 | 50.0  | 0.076 | 70.5  | 0.054 |       |       |
| 2.2   | 0.945 | 10.4  | 0.212 | 30.0  | 0.075 | 50.5  | 0.068 | 71.0  | 0.054 |       |       |

**Exhibit E, Figure 1**