

GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

REQUEST FOR SPECIAL TEMPORARY AUTHORITY
IMPERIAL BROADCASTING COMPANY, LLC
WHGM AM RADIO STATION
1330 kHz - 0.01 KW
HAVRE DE GRACE, MARYLAND
April 2018

TECHNICAL EXHIBIT

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REQUEST FOR SPECIAL TEMPORARY AUTHORITY
IMPERIAL BROADCASTING COMPANY, LLC
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1330 kHz - 0.01 KW
HAVRE DE GRACE, MARYLAND
April 2018

This Technical Statement was prepared on behalf of Imperial Broadcasting Company, LLC (“Imperial”), licensee of AM station WHGM, 1330 kHz, Havre de Grace, Maryland. Imperial herein requests Special Temporary Authority (“STA”) to operate WHGM at 0.01 kilowatt (10 Watts) during daytime hours at its studio location using an ANXX Center-loaded, vertical, whip antenna, mounted on the top of its studio building. WHGM has lost the use of its licensed antenna/tower site. This operation is necessary to allow the WHGM to maintain service to the community of Havre de Grace, Maryland.

The station will utilize a TR6000, Model 15.73 AM band transmitter with a power output of 10.0 Watts. Power will be monitored by the indirect method using transmitter indicating instruments. Protection of persons to high levels of radio frequency radiation is maintained using by restricting access to the studio roof-top.

Attached is information concerning the transmitter and antenna, which was provided by the manufacturer. No tower construction is required for this operation. Exhibit A demonstrates the ‘estimated’ 0.5 mV/m contour of the STA operation which is contained entirely within the WHGM licensed 0.5 mV/m contour.

We have tried to be as accurate as possible in the preparation of this request. All information contained herein was extracted from the CDBS database. We assume no liability

for omissions or errors in this source. Should there be any questions concerning the information contained herein, we welcome the opportunity to discuss the matter by phone at 912-638-8028 or by email at rsg@grahambrock.com.

WHGM - HAVRE DE GRACE, MD
 Freq: 1330 kHz - Class: B
 Latitude: 39-33-55 N / Longitude: 076-07-08 W
 Power: 5 kW - RMS: 288.07 mV/m @1km
 # Towers: 1 - Licensed Operation

WHGM - HAVRE DE GRACE, MD
 Freq: 1330 kHz - Class: B
 Latitude: 39-33-02 N / Longitude: 076-05-30 W
 Power: 0.01 kW - RMS: 50 mV/m @1km
 # Towers: 1 - Proposed STA Operation

■ WHGM Licensed 0.5 mV/m
 ■ WHGM Proposed STA 0.5 mV/m
 ■ Havre de Grace, MD

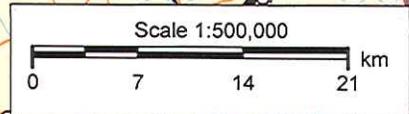
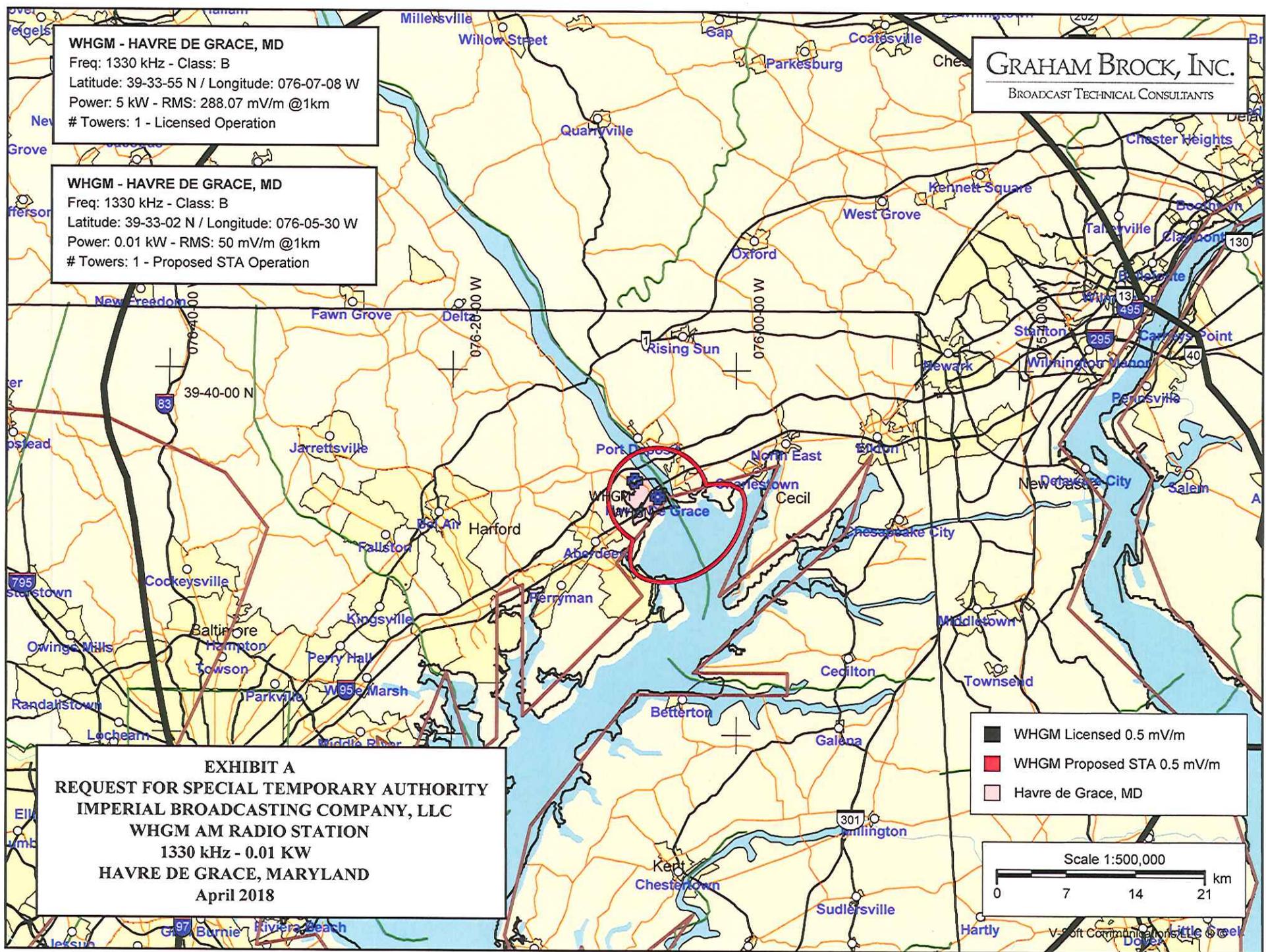


EXHIBIT A
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EXHIBIT B

NADCON

North American Datum Conversion

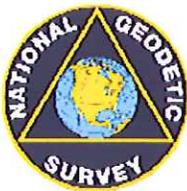
NAD 83 to NAD 27

NADCON Program Version 2.11

=====

Transformation #: 1 Region: Conus

| | Latitude | Longitude |
|-------------------------------|---------------|-----------------|
| NAD 27 datum values: | 39 33 1.99493 | 76 05 30.27881 |
| NAD 83 datum values: | 39 33 2.40000 | 76 05 29.10000 |
| NAD 27 - NAD 83 shift values: | -0.40507 | 1.17881(secs.) |
| | -12.493 | 28.144 (meters) |
| Magnitude of total shift: | | 30.792(meters) |



[NGS HOME PAGE](#)



Information Station Specialists, Inc.

www.theRADIOsource.com

PRODUCT INFORMATION SHEET

EXHIBIT C
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Component AM Band Transmitter for High Quality Broadcast Applications

Part Number TR6000 Model 15.73

Image



Description

- For Unlicensed Applications [per FCC Rules Part 15.221 Carrier Current, Cable and by Educational Institutions];
- For Emergency/Low Power Broadcast Operation under FCC Rules Part 73/1660. Certification: B7MTR-6000TIS-WB.
- 0-10-watt operation at 24 VDC, Class D, high efficiency output; internal components are rated to 3 times operating wattage, utilizing 2 output devices.
- IPC-610 certified.
- Manufactured in compliance with Class-3 wavesolder standards.
- Integral LED wattage and VU reference meters.
- Remote broadcast monitoring via output control relay.
- Remote transmitter control relay.
- Synthesized frequency selection,
- Defeat-able LED operation to save power.
- Internal monitor speaker with volume control driven by detector circuit to provide positive modulation indication.
- 24V DC, fully regulated power supply.
- Frequency range: 530 to 1710 kHz AM. Tunable to European 9kHz and other channel spacing formats.
- Frequency stability +/-20 Hz.
- Continuously adjustable power and audio modulation controls, externally accessible on front panel.
- Tunable series filter on RF output.
- Audio distortion: less than 1.2%, 100 Hz to 5 kHz.
- Audio frequency response: +/- 3 dB 50 Hz-12,000 Hz;
- Noise level: 70 dB below 95% modulation level, 100 Hz to 5 kHz.
- Modulation: 99%, -40 dB to +20 dB.
- Temperature: -40 to +85 degrees Celsius.
- Humidity: 95% (non-condensing).
- External audio (balanced), power and synchronization inputs.
- Relays for external control of power and to monitor audio.
- External PL-259 UHF style RF output.
- Spurious Emissions:

All products described are subject to availability based on manufacturing capacity and shipping dates. While every effort has been made to ensure the accuracy of all information, ISS does not accept liability for any errors or omissions and reserves the right to change information as needed.

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PRODUCT INFORMATION SHEET

- 10.2-20 KHz – greater than 25 dB below unmodulated carrier.
- 20-30 KHz – greater than 35 dB below unmodulated carrier.
- 30-60 KHz – greater than [5+1 dB/kHz] below unmodulated carrier.
- 60 KHz + – greater than 65 dB below unmodulated carrier.
- Harmonic attenuation: greater than 51 dB below carrier.
- 1 rack unit.
- Slim-line design (1.75" height, 17" width, 9" depth) and 4pounds.
- Power supply: input 90-265 VAC; output 24 VDC.
- Mean time between failure - in excess of 60 years.
- Estimated product life = in excess of 30 years.

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Component Antenna - 530-1700 kHz

Part Number ANXX

Image



Description

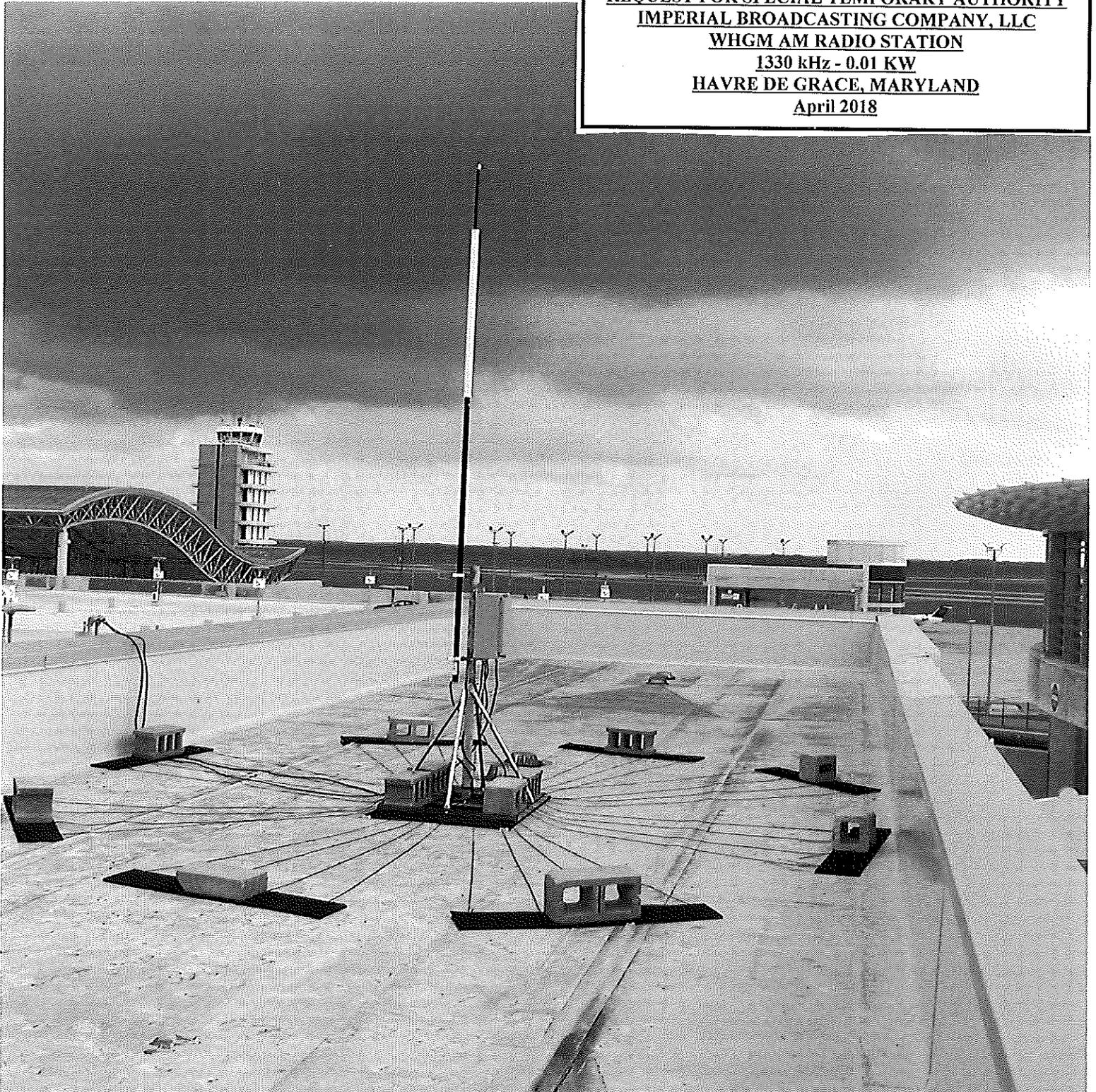
- Center-loaded, vertical, whip type antenna. Vertically polarized. Omni directional (0-360). -10 dB gain. 25 watts. Anodized aluminum finish. Adjustable tip for precise tuning.
- Mounts: high impact thermoplastic split type, providing 360° support to the antenna; stainless-steel studs, washers and nuts.
- Temperature endurance: -40°C. to 85°C.
- Wind endurance: 80 miles per hour with ¼" of ice.
- Weight of the complete antenna including lower base, loading coil form, mid tip pipe and adjustable stainless steel tip: 5.4 kilograms.
- Overall assembled length: varies with frequency, i.e., 297" for 530 kHz, 129" for 1700 kHz.
- Tip: .022" wall, 0.500" OD stainless steel tubing, Type 316, Heat 150907; .625" diameter acrylic tip ball.
- Mid pipe: 1.050" OD, 0.824" ID, aluminum Type 6063-T832 with 215-R1 black anodized finish (0.8 mil. anodic coating, standard etch).
- Base pipe: 6' long, 1.5" OD, 1.3" ID, aluminum Type 6063-T832 with 215-R1 black anodized finish (0.8 mil. anodic coating, standard etch).
- Lower antenna base: aluminum Type 6063-T832 with 215-R1 black anodized finish.
- Loading coil: continuous filament glass fabric, Epoxy G-11; enameled close-wound copper wire coil; 30-mil, white vinyl shrink tubing cover.
- Includes written documentation of safe RF exposure distance per ANSI/IEEE C95.1-1992 standard by a professional engineer (PE).

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EXHIBIT E
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AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

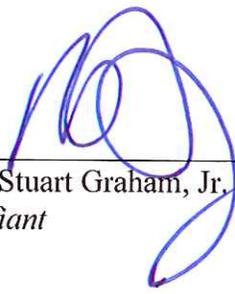
State of Georgia)
St. Simons Island) ss:
County of Glynn)

R. STUART GRAHAM, being duly sworn, deposes and says that he is an officer of Graham Brock, Inc. Graham Brock has been engaged by Imperial Broadcasting Company, LLC to prepare the attached Technical Exhibit.

His qualifications are a matter of record before the Federal Communications Commission. He is a graduate of Auburn University and has been active in Broadcast Engineering since 1972.

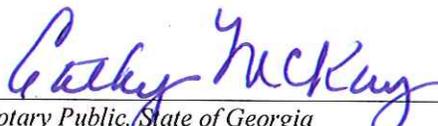
The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 9th day of April 2018.



R. Stuart Graham, Jr.
Affiant

*Sworn to and subscribed before me
this the 9th day of April 2018*



Notary Public, State of Georgia
My Commission Expires: March 12, 2019