

ENGINEERING EXHIBIT

Application for Construction Permit

prepared for

Delta Media Corporation

KOGM(FM) Opelousas, LA

Facility ID 33220

Ch. 296A (107.1 MHz) 0.75 kW 284 m

Delta Media Corporation (“*Delta*”) is the proposed assignee of station KOGM(FM), Channel 296A, Opelousas, LA, Facility ID 33220 (BLH-20100816ACY). *Delta* herein proposes to relocate KOGM to a different tower site. An assignment application is being filed contemporaneously to assign the KOGM license to *Delta*, and *Delta* has secured the assignor’s consent to file this minor modification application (see Exhibit 1, attached separately). The instant proposal also specifies a change in the reference point coordinates associated with a vacant allotment on Channel 295C3 at Franklin, LA.

Proposed Operation

As specified herein, the KOGM facility will be relocated 24.5 km and will operate with an effective radiated power (“ERP”) of 0.75 kW nondirectional and an antenna height above average terrain (“HAAT”) of 284 meters. This ERP / HAAT combination represents a maximum Class A facility.

The proposed KOGM antenna will be side-mounted on an existing antenna supporting structure, having FCC Antenna Structure Registration number 1251823. No change in overall structure height is proposed.

Principal Community Coverage

A coverage contour map is supplied as Figure 1, showing that the principal community of Opelousas is not entirely encompassed by the 70 dBμ coverage contour when plotted per standard

FCC curves as specified in §73.313(a)-(d). The principal community is substantially encompassed by the 70 dB μ contour when determined with a supplemental method as discussed in the following.

Section 73.313(e) permits the use of a supplemental method of coverage prediction when the intervening terrain departs widely from the average. For the case at hand, the principal community is located within an arc contained by radials 321° to 337° True from the proposed transmitter site. Terrain data (USGS 3-arc second) and the terrain roughness factor (Δh) determination are provided in Table 1 for each radial.

The supplemental method of determining the 70 dB μ coverage contour location presented herein relies on the Longley-Rice methodology (Irregular Terrain Model / National Bureau of Standards Technical Note 101). As is customary, Version 1.2.2 of the Longley-Rice code was executed on a computer. Predicted signal levels were computed for 0.25 km cells using a terrain increment of 0.1 km with standard USGS 3-arc second terrain data.

The Longley-Rice 70 dB μ contour is depicted on Figure 1 along with the 70 and 60 dB μ contours as derived from the FCC's standard F(50,50) curves. A detailed map is provided as Figure 2. The Longley-Rice contour distance represents the mean occurrence of 70 dB μ signal levels along each radial. For example, along the 330 degree radial the 70 dB μ contour distance is calculated at 27.4 km. A terrain profile is depicted in Figure 3 which shows the line of sight path and provides sample calculated signal level data along the 330 degree radial through Opelousas. The Longley-Rice predicted signal level along this radial at the most distant point of Opelousas is 72.4 dB μ .

Terrain and Longley-Rice data are summarized in Table 1 for each radial (321° to 337° T) showing that the Longley-Rice contour distance exceeds the standard method by an average of 67.5 percent. This is well in excess of the 10 percent FCC benchmark for consideration of an alternate propagation method. Further, the average Δh along these radials is 13.5 meters, well below the 50 meter average Δh upon which the FCC's standard propagation curves are based. The larger contour distance and minimal Δh are due to the flat terrain in the vicinity of the transmitter and Opelousas as depicted in Figure 3. Thus it can be concluded that the terrain departs widely from the

average and an alternative means of predicting coverage is acceptable.¹ For these reasons it is believed that the proposal satisfies the FCC's current policies regarding demonstration of principal community coverage with a supplemental method.

The supplemental method shows that the proposed KOGM 70 dBμ contour covers 18.2 square kilometers of the area of Opelousas and 22,860 persons within Opelousas (based on 2000 census block level population data). This is 99.5 percent of the area and 100 percent of the population of the principal community.² Therefore, the proposal satisfies the FCC's current policies regarding principal community coverage since at least 80 percent of the community's area or population is within the 70 dBμ coverage contour. The principal community is entirely within the standard 60 dBμ protected contour as determined by the FCC's curves.

Proposed Site Allocation

An allocation spacing summary table for the proposed transmitter site is provided in Table 2. The proposed site satisfies the full spacing requirements of §73.207 to all authorized full power facilities, proposed stations, and allotments contained in the Commission's CDBS, except for the vacant Ch. 295C3 allotment at Franklin, LA. *Delta* herein requests a 15.2 km change in the location of the allotment reference point for vacant Channel 295C3 at Franklin, LA to 29° 39' 30" N-Lat, 91° 29' 09" W-Lon, which is fully spaced to the proposed KOGM site.

An allocation spacing summary is provided in Table 3 for the proposed Franklin allotment point which includes the location of the proposed KOGM facility. Table 3 demonstrates that the relocated Franklin allotment reference point complies with §73.207 to all authorized facilities, proposed stations, and allotments contained in the Commission's CDBS. Figure 4 supplies a map depicting the uniform terrain city-grade contour radius from the allotment point, which totally encompasses Franklin (community boundaries based on 2000 Census Tiger data).

¹ See *CMP Houston-KC, LLC*, FCC 08-139, Memorandum Opinion and Order, released July 2, 2008.

² Opelousas contains 22,860 persons and an area of 18.3 square kilometers, according to 2000 US Census data.

Other Allocation Factors

The nearest FCC monitoring station is 661 km distant at Kingville, TX. This exceeds the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with “quiet” zones specified in §73.1030(a) and (b). Based on information extracted from the Commission’s engineering database, there are no AM stations within 3.2 km of the proposed site. The site is located well beyond the international coordination zones for FM stations.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed transmitting antenna will be side-mounted on an existing antenna support structure. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No change in structure height is proposed, thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission’s rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission’s OET Bulletin Number 65. Based on OET-65 equation (10), and assuming the worst-case of 100 percent relative field at downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $0.6 \mu\text{W}/\text{cm}^2$, which is 0.3 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal’s contribution is less than five percent. The calculated RF exposure will be even lower when the antenna’s actual elevation pattern is considered.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will

reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.
December 9, 2010

Chesapeake RF Consultants, LLC
207 Old Dominion Road
Yorktown, VA 23692
703-650-9600

List of Attachments

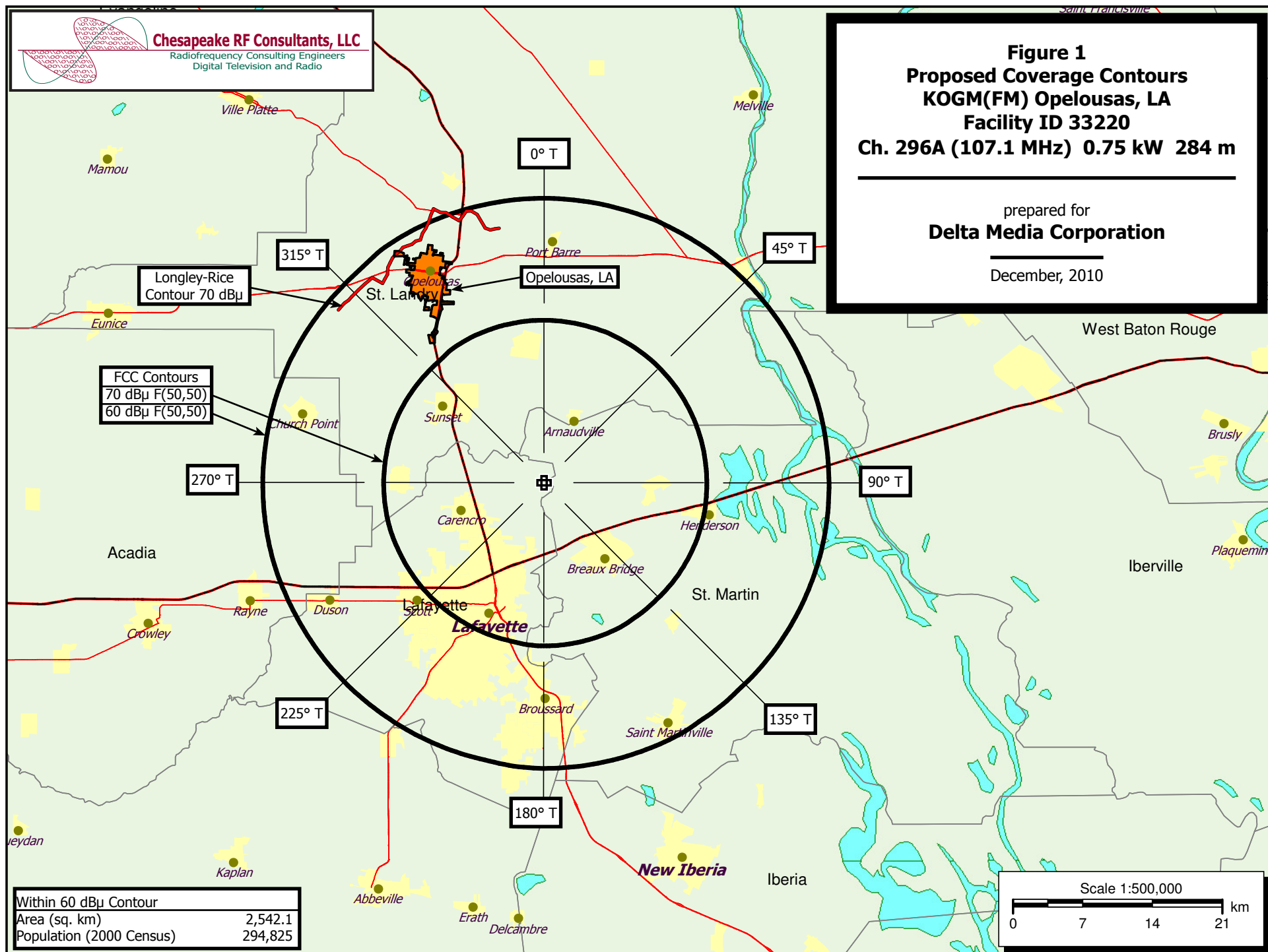
| | |
|----------|---|
| Figure 1 | Proposed Coverage Contours |
| Figure 2 | Principal Community Coverage |
| Figure 3 | Terrain Profile and Longley-Rice Signal |
| Table 1 | Terrain Data and Contour Distances |
| Table 2 | Proposed Transmitter Site §73.207 Allocation Spacing Study |
| Table 3 | Ch. 295C3 Franklin, LA §73.207 Allocation Spacing Study |
| Figure 4 | Ch. 295C3 Franklin, LA - Allotment Point Principal Community Coverage |
| Form 301 | Saved Version of Engineering Sections from FCC Form at Time of Upload |

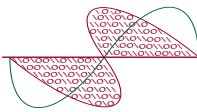
This material was entered December 9, 2010 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's account number and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

Figure 1
Proposed Coverage Contours
KOGM(FM) Opelousas, LA
Facility ID 33220
Ch. 296A (107.1 MHz) 0.75 kW 284 m

prepared for
Delta Media Corporation

December, 2010





Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 2
Principal Community Coverage
KOGM(FM) Opelousas, LA
Facility ID 33220
Ch. 296A (107.1 MHz) 0.75 kW 284 m

prepared for
Delta Media Corporation

December, 2010

FCC Contours
70 dBμ F(50,50)
60 dBμ F(50,50)

Longley-Rice
Contour 70 dBμ

Opelousas, LA
(2000 Census Boundary)

Proposed Site
30° 20' 32" N-Lat
91° 57' 46" W-Lon

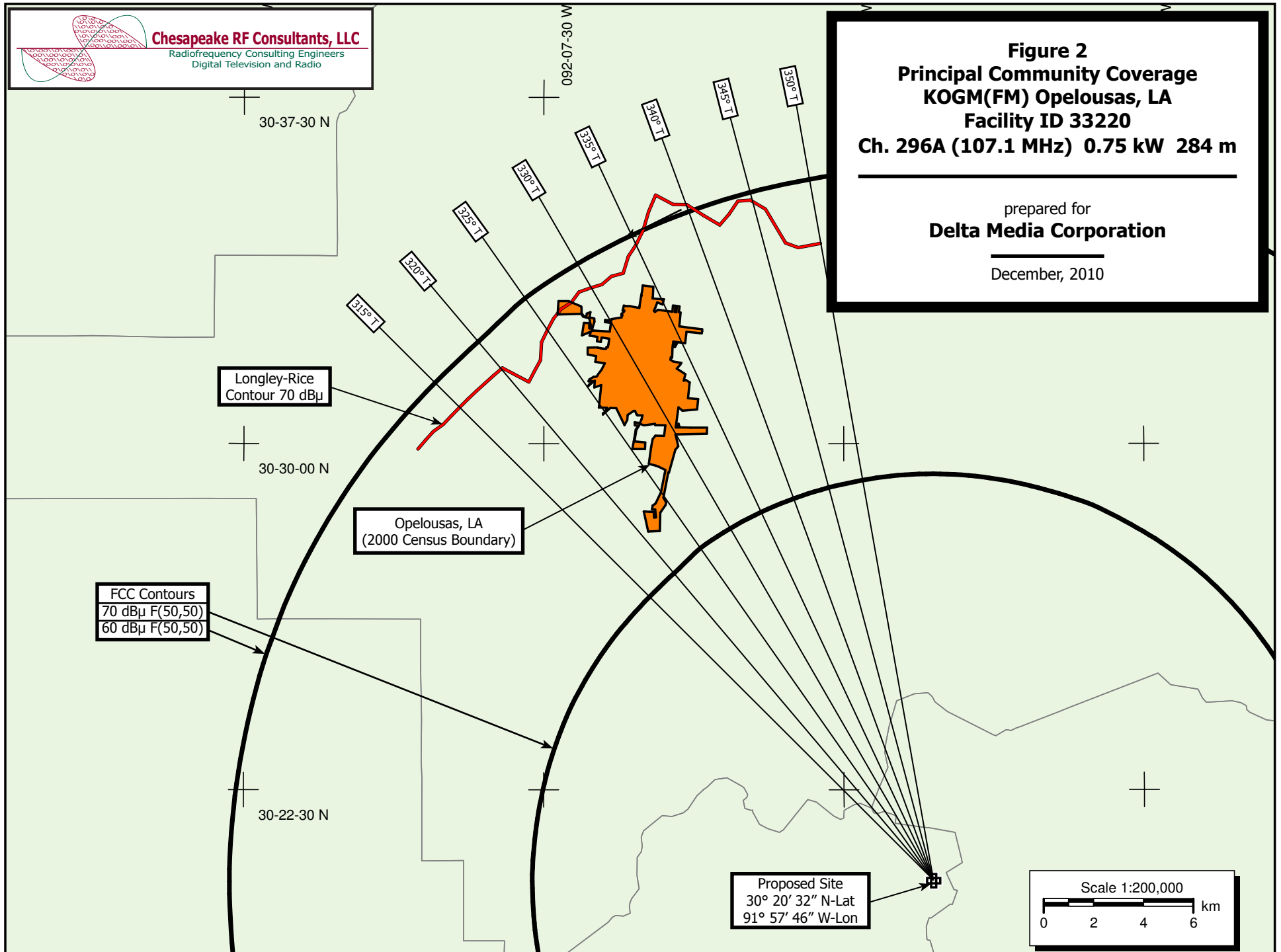
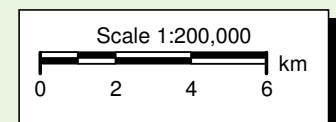
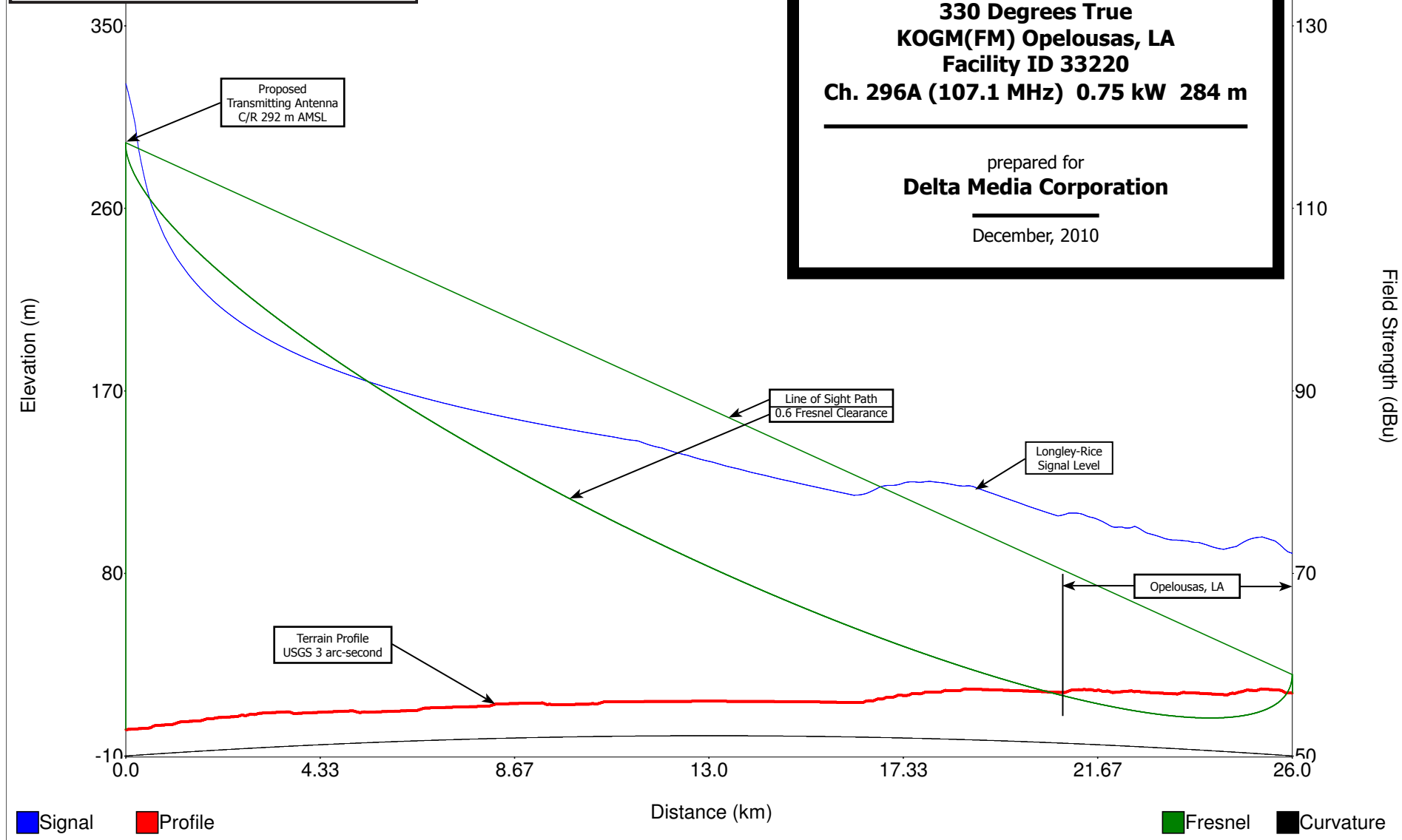


Figure 3
Terrain Profile and Longley-Rice Signal
330 Degrees True
KOGM(FM) Opelousas, LA
Facility ID 33220
Ch. 296A (107.1 MHz) 0.75 kW 284 m

prepared for
Delta Media Corporation
 December, 2010



Starting Latitude: 30-20-32 N
 Starting Longitude: 091-57-46 W

End Latitude: 30-32-42.97 N
 End Longitude: 092-05-53.72 W

Distance: 26. km
 Bearing: 330 deg

Table 1

Terrain Data and Contour Distances

prepared for

Delta Media Corporation

KOGM(FM) Opelousas, LA



| Azimuth (°T) | 3-16 km Effective Height (m) | "Delta-h" | | Contour Distance | | |
|-----------------|---------------------------------------|-------------------------------|--|----------------------------------|----------------------------|----------------------------|
| | | 10-50 km Δh (m) | Δh ≤ 20 m or ≥ 100 ? | FCC Curve 70 dB μ (km) | L-R 70 dB μ (km) | L-R Percent Increase |
| 321 | 281.0 | 7.0 | Yes | 16.1 | 25.7 | 59.6% |
| 322 | 282.0 | 9.0 | Yes | 16.1 | 25.9 | 60.9% |
| 323 | 283.0 | 11.6 | Yes | 16.2 | 26.1 | 61.1% |
| 324 | 284.3 | 13.1 | Yes | 16.2 | 26.6 | 64.2% |
| 325 | 285.2 | 14.6 | Yes | 16.3 | 26.9 | 65.0% |
| 326 | 285.4 | 15.0 | Yes | 16.3 | 27.1 | 66.3% |
| 327 | 285.6 | 15.0 | Yes | 16.3 | 27.3 | 67.5% |
| 328 | 285.7 | 14.0 | Yes | 16.3 | 27.3 | 67.5% |
| 329 | 285.7 | 14.0 | Yes | 16.3 | 27.5 | 68.7% |
| 330 | 285.8 | 14.0 | Yes | 16.3 | 27.4 | 68.1% |
| 331 | 285.9 | 14.0 | Yes | 16.3 | 27.3 | 67.5% |
| 332 | 286.0 | 14.0 | Yes | 16.3 | 27.4 | 68.1% |
| 333 | 286.0 | 14.9 | Yes | 16.3 | 27.3 | 67.5% |
| 334 | 286.1 | 14.3 | Yes | 16.3 | 27.8 | 70.6% |
| 335 | 286.1 | 15.0 | Yes | 16.3 | 28.1 | 72.4% |
| 336 | 286.1 | 15.0 | Yes | 16.3 | 28.5 | 74.8% |
| 337 | 286.1 | 15.0 | Yes | 16.3 | 29.1 | 78.5% |

Longley-Rice Study Input Data

Signal Resolution: 0.25 km

Area of calculation: Circle: R = 100 km

Terrain: USGS 3 Second

Latitude: 30-20-32 N

Longitude: 091-57-46 W

ERP: 0.75 kW

Channel: 296

Frequency: 107.1 MHz

AMSL Height: 292.3 m

Horiz. Antenna Pattern: Omni

Vert. Elevation Pattern: No

Propagation Model: Longley/Rice

Climate: Continental temperate

Conductivity: 0.0050

Dielectric Constant: 15.0

Refractivity: 311.0

Receiver Height AG: 9.1 m

Receiver Gain: 0 dB

Time Variability: 50.0%

Situation Variability: 50.0%

ITM Mode: Broadcast

Table 2

KOGM \$73.207 Allocation Spacing Study

prepared for

Delta Media Corporation

KOGM(FM) Opelousas, LA



Proposed KOGM(FM)
Ch. 296A Opelousas, LA

| | | | |
|-------------------------------------|---------|----------------------|-----------------|
| REFERENCE | | CLASS = A | DISPLAY DATES |
| 30 20 32.0 N. | | | DATA 12-02-10 |
| 91 57 46.0 W. | Current | Spacings to 3rd Adj. | SEARCH 12-02-10 |
| ----- Channel 296 - 107.1 MHz ----- | | | |

| Call | | Channel | Location | | Azi | Dist | FCC | Margin |
|--|--------|---------|---------------|----|-------|-------|-------|---------|
| VA1388 | VAC | 295C3 | Franklin | LA | 143.9 | 75.1 | 89.0 | -13.9 |
| <u>Current Allotment Point for Vacant Ch. 295C3 at Franklin, LA</u> <u>(29° 47' 42" N-Lat 91° 30' 12" W-Lon)</u> | | | | | | | | |
| 295C3 | VacJMD | 295C3 | Franklin | LA | 148.8 | 88.7 | 89.0 | -0.32 * |
| <u>Proposed New Allotment Point for Vacant Ch. 295C3 at Franklin, LA</u> <u>(29° 39' 30" N-Lat 91° 29' 09" W-Lon)</u> | | | | | | | | |
| AL5639 | VAC | 296C3 | Cameron | LA | 245.5 | 144.6 | 142.0 | 2.6 |
| KFNV-FM | LIC-N | 296C3 | Ferriday | LA | 15.9 | 145.4 | 142.0 | 3.4 |
| KLEJ | LIC | 294A | Rayne | LA | 267.3 | 37.8 | 31.0 | 6.8 |
| KPEL-FM | LIC-Z | 243C2 | Breaux Bridge | LA | 186.0 | 26.7 | 15.0 | 11.7 |
| WYPY | LIC | 297A | Baker | LA | 80.2 | 87.9 | 72.0 | 15.9 |
| KQXL-FM | LIC | 293C2 | New Roads | LA | 67.6 | 82.8 | 55.0 | 27.8 |
| KJMH | LIC-Z | 298C2 | Lake Arthur | LA | 260.9 | 95.9 | 55.0 | 40.9 |
| KEDG | LIC-N | 295A | Alexandria | LA | 338.9 | 114.8 | 72.0 | 42.8 |
| WHMD | LIC | 296A | Hammond | LA | 86.3 | 161.7 | 115.0 | 46.7 |

* Fully spaced when rounded to the nearest kilometer per \$73.208

Table 3

Vacant Ch. 295C3 Franklin, LA
§73.207 Allocation Spacing Study

prepared for

Delta Media Corporation

KOGM(FM) Opelousas, LA



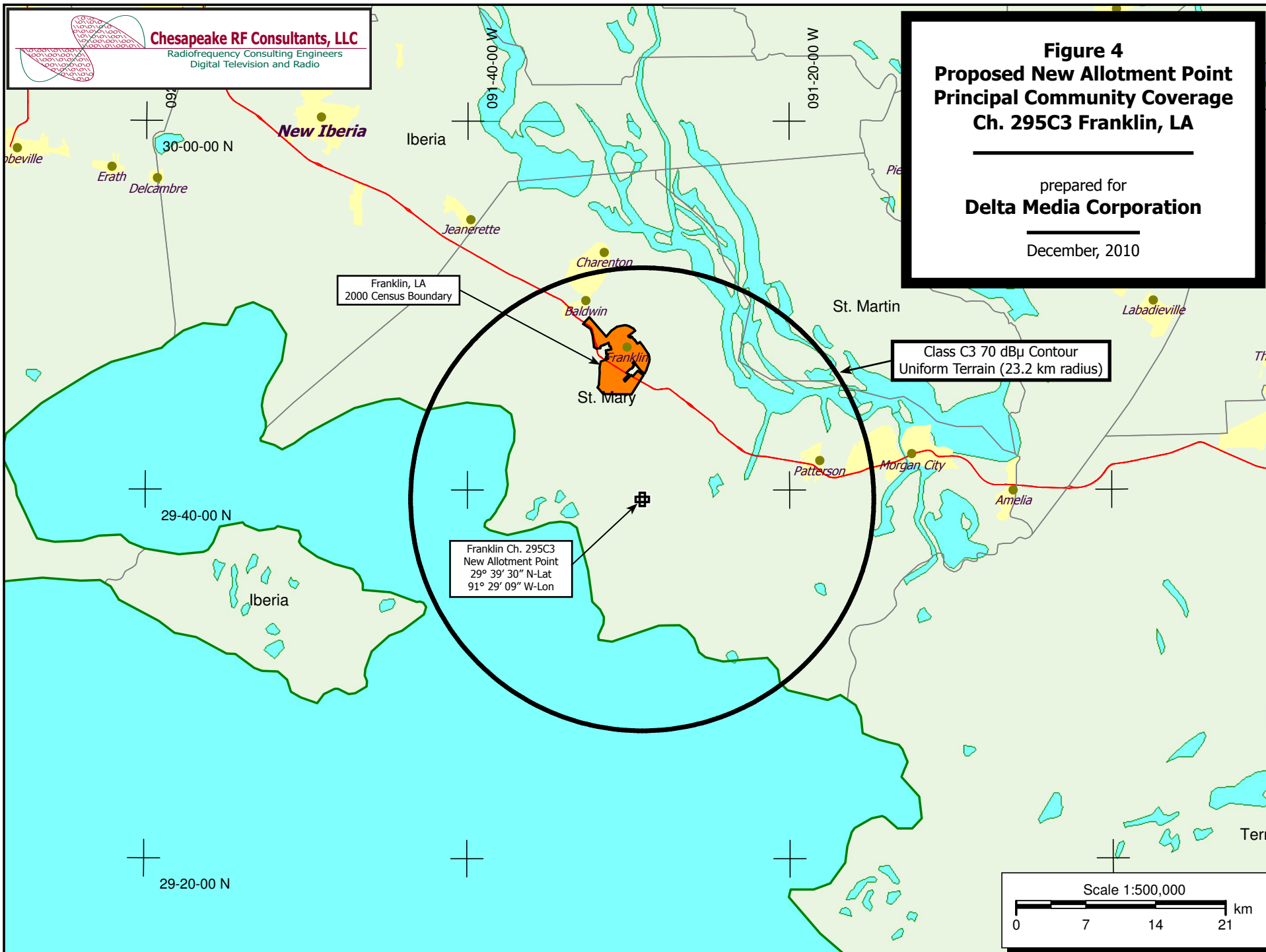
Relocation of Allotment Reference Point
 Ch. 295C3 Franklin, LA

| | | |
|-------------------------------------|------------------------------|-----------------|
| REFERENCE | | DISPLAY DATES |
| 29 39 30.0 N. | CLASS = C3 | DATA 12-02-10 |
| 91 29 09.0 W. | Current Spacings to 3rd Adj. | SEARCH 12-02-10 |
| ----- Channel 295 - 106.9 MHz ----- | | |

| Call | | Channel | Location | | Azi | Dist | FCC | Margin | |
|---|------|---------|-----------|----|-------|------|------|--------|---|
| KOGM | PROP | 296A | Opelousas | LA | 329.0 | 88.7 | 89.0 | -0.32 | * |
| <u>Proposed Site for KOGM Ch. 296A at Opelousas, LA</u> <u>(30° 20' 32" N-Lat 91° 57' 46" W-Lon)</u> | | | | | | | | | |

| | | | | | | | | | |
|---------|-------|-------|--------------|----|-------|-------|-------|-------|---|
| KCIL | LIC-N | 298C1 | Houma | LA | 107.9 | 75.7 | 76.0 | -0.26 | * |
| KLEJ | LIC | 294A | Rayne | LA | 311.8 | 111.9 | 89.0 | 22.9 | |
| KMEZ | LIC | 294C1 | Port Sulphur | LA | 83.9 | 167.6 | 144.0 | 23.6 | |
| KOGM | LIC | 296A | Opelousas | LA | 328.4 | 113.2 | 89.0 | 24.2 | |
| KXOR-FM | LIC | 292C3 | Thibodaux | LA | 90.7 | 76.8 | 43.0 | 33.8 | |
| KYMK-FM | LIC | 292A | Maurice | LA | 303.9 | 82.6 | 42.0 | 40.6 | |

* Fully spaced when rounded to the nearest kilometer per §73.208



| Section III-B - FM Engineering | | | | | | | | | | | | |
|---|--|---------|-------|---------|-------|---------|-----------------|---------|-----------------|---------|-------|--|
| TECHNICAL SPECIFICATIONS | | | | | | | | | | | | |
| Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable. | | | | | | | | | | | | |
| TECH BOX | | | | | | | | | | | | |
| 1. | Channel Number: 296 | | | | | | | | | | | |
| 2. | Class (select one): <input checked="" type="radio"/> A <input type="radio"/> B1 <input type="radio"/> B <input type="radio"/> C3 <input type="radio"/> C2 <input type="radio"/> C1 <input type="radio"/> C0 <input type="radio"/> C <input type="radio"/> D | | | | | | | | | | | |
| 3. | Antenna Location Coordinates: (NAD 27) Latitude: Degrees 30 Minutes 20 Seconds 32 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 91 Minutes 57 Seconds 46 <input checked="" type="radio"/> West <input type="radio"/> East | | | | | | | | | | | |
| 4. | Proposed Allotment or Assignment Coordinates: (NAD 27) <input checked="" type="checkbox"/> Not Applicable Latitude: Degrees Minutes Seconds <input type="radio"/> North <input type="radio"/> South Longitude: Degrees Minutes Seconds <input type="radio"/> West <input type="radio"/> East | | | | | | | | | | | |
| 5. | Antenna Structure Registration Number: 1251823 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA | | | | | | | | | | | |
| 6. | Overall Tower Height Above Ground Level: | | | | | | 312.7meters | | | | | |
| 7. | Height of Radiation Center Above Mean Sea Level: | | | | | | 292.3 meters(H) | | 292.3 meters(V) | | | |
| 8. | Height of Radiation Center Above Ground Level: | | | | | | 285.3meters(H) | | 285.3meters(V) | | | |
| 9. | Height of Radiation Center Above Average Terrain: | | | | | | 284.4meters(H) | | 284.4meters(V) | | | |
| 10. | Effective Radiated Power: | | | | | | 0.75 kW(H) | | 0.75 kW(V) | | | |
| 11. | Maximum Effective Radiated Power: <input checked="" type="checkbox"/> Not Applicable (Beam-Tilt Antenna ONLY) | | | | | | kW(H) | | kW(V) | | | |
| 12. | Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> Not applicable (Nondirectional) Rotation (Degrees): <input type="checkbox"/> No Rotation | | | | | | | | | | | |
| Degrees | Value | Degrees | Value | Degrees | Value | Degrees | Value | Degrees | Value | Degrees | Value | |
| 0 | | 10 | | 20 | | 30 | | 40 | | 50 | | |
| 60 | | 70 | | 80 | | 90 | | 100 | | 110 | | |
| 120 | | 130 | | 140 | | 150 | | 160 | | 170 | | |
| 180 | | 190 | | 200 | | 210 | | 220 | | 230 | | |
| 240 | | 250 | | 260 | | 270 | | 280 | | 290 | | |
| 300 | | 310 | | 320 | | 330 | | 340 | | 350 | | |
| Additional Azimuths | | | | | | | | | | | | |

[Relative Field Polar Plot](#)

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

AUXILIARY ANTENNA APPLICANTS ARE NOT REQUIRED TO RESPOND TO ITEMS 13-16. PROCEED TO ITEM 17.

| | | |
|-----|--|--|
| 13. | Availability of Channels. The proposed facility complies with the allotment requirements of 47 C.F.R. Section 73.203. | <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 26] |
| 14. | Community Coverage. The proposed facility complies with 47 C.F.R. Section 73.315. | <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 27] |
| 15. | Main Studio Location. The proposed main studio location complies with 47 C.F.R. Section 73.1125. | <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in |

| | | |
|--|--|--|
| | | See Explanation in [Exhibit 28] |
| 16. | Interference. The proposed facility complies with all of the following applicable rule sections: Check all those that apply: Separation Requirements. <input checked="" type="checkbox"/> a) 47 C.F.R. Section 73.207 Grandfathered Short-Spaced. <input type="checkbox"/> b) 47 C.F.R. Section 73.213(a) with respect to station(s): [Exhibit 30] Exhibit required <input type="checkbox"/> c) 47 C.F.R. Section 73.213(b) with respect to station(s): [Exhibit 31] Exhibit required <input type="checkbox"/> d) 47 C.F.R. Section 73.213(c) with respect to station(s): [Exhibit 32] Exhibit required. Contour Protection <input type="checkbox"/> e) 47 C.F.R. Section 73.215 with respect to station(s): [Exhibit 33] Exhibit required. | <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 29] |
| 17. | Environmental Protection Act. The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an Exhibit is required. By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines. | <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 34] |
| 18. | Community of License Change - Section 307(b). If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change constitutes a preferential arrangement of station assignments under Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)). An exhibit is required unless this question is not applicable. | <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A [Exhibit 35] |
| PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED. | | |

SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

| | | |
|--|--|---------------------|
| Name JOSEPH M. DAVIS, P.E. | Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER | |
| Signature | Date 12/09/2010 | |
| Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 207 OLD DOMINION ROAD | | |
| City YORKTOWN | State or Country (if foreign address) VA | Zip Code 23692 - |
| Telephone Number (include area code) 7036509600 | E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM | |