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ORIGINAL
FILE

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Federal Communications Commission
Office of the Secretary

May 21, 1992

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

RE: MM Docket No. 92-70
Gadsden State Community College
Station WSGN(FM)
Gadsden, Alabama
BPED-860307MK

Dear Ms. Searcy:

Herewith in triplicate on behalf of our client, Gadsden State Community College, is an amendment to its above-referenced application to make changes in non-commercial FM broadcast Station WSGN, Gadsden, Alabama. Also enclosed are an original and six copies of a Motion for Leave to Amend.

Please direct inquiries concerning these submissions to M. Scott Johnson, Esquire of this office or to the undersigned.

Sincerely,

James K. Edmundson

James K. Edmundson

Enclosure

cc: Per Motion for Leave To Amend
Certificate of Service

JKE:vld
38053-001/30975

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United States of America
Federal Communications Commission
Washington, D.C. 20554

Approved by OMB
3060-0034
Expires 9/30/87

AMENDMENT

APPLICATION FOR CONSTRUCTION PERMIT FOR NONCOMMERCIAL EDUCATIONAL BROADCAST STATION

*(Carefully read instructions before filling out Form—***RETURN ONLY FORM TO FCC)**

For Commission Use Only
File No.

RECEIVED
MAY 21 1992
Federal Communications Commission
Office of the Secretary

Section I **General Information**

1. Name of Applicant

GADSDEN STATE COMMUNITY COLLEGE

Street Address

1001 George Wallace Dr

City	State	ZIP Code	Telephone No. (*Include Area Code*)
Gadsden	AL	35999-9900	(205) 549-8439

Send notices and communications to the following named person at the address below:

Name	Street Address
Neil D. Mullin, Director Department of Radio and Television	1001 George Wallace Dr

Copies to: *

City	State	ZIP Code	Telephone No. (*Include Area Code*)
Gadsden	AL	35999-9900	(205)549-8439

2. This application is for: ☐ AM ☒ FM ☐ TV

(a) Channel No. or Frequency: 218 (91.5 MHz)

(b) Community of license:

City	State
Gadsden	AL

(c) Check one of the following boxes:

- ☐ Application for new station
- ☐ Major Change in Existing station; call sign: _____
- ☐ Minor Change in Existing station; call sign: _____
- ☐ Modification of Construction Permit; File No. of CP: _____
- ☒ Amendment to Pending Application; Reference Number (ARN): BPED-860307MK

NOTE: It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application?

☐ YES ☒ NO

If Yes, State:	Call letters:	Community of license: City	State
	____-____		

* M. Scott Johnson, Esq.
Gardner, Carton & Douglas
1301 K Street, N.W., 900 East Tower
Washington, D.C. 20005

Section VI **Equal Employment Opportunity Program**

1. Does the applicant propose to employ five or more fulltime employees? N/A ☐ YES ☐ NO

If the answer is Yes, the applicant must include an EEO program called for in the separate 5 Point Model EEO Program [FCC Form 396 (A)].

Section VII **Certification**

1. Has or will the applicant comply with the public notice requirement of Section 73.3580 of the Commission's Rules? ☒ YES ☐ NO

The APPLICANT hereby waives any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. *(See Section 304 of the Communications Act of 1934, as amended.)*

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and that all exhibits are a material part hereof and are incorporated herein.

The APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

In accordance with Section 1.65 of the Commission's Rules, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT.
U.S. CODE, TITLE 18, Section 1001.

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signed and dated this 18th day of May, 19 92.

GADSDEN STATE COMMUNITY COLLEGE
Name of Applicant

Signature

President
Title

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The principal purpose for which the information will be used is to determine if the benefit requested is consistent with the public interest. The staff, consisting variously of attorneys, accountants, engineers, and application examiners, will use the information to determine whether the application should be granted, denied, dismissed, or designated for hearing. If all the information requested is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Accordingly, every effort should be made to provide all necessary information. Your response is required to obtain the requested Permit.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

ORIGINAL

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

Gadsden State Community College

Call letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No
WSGN	If Yes, specify closing date: N/A

Purpose of Application: *(check appropriate box(es))*

- ☐ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☒ Amend application to Modify licensed main facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☐ Antenna supporting-structure height
- ☒ Effective radiated power
- ☐ Antenna height above average terrain
- ☒ Frequency
- ☐ Antenna location
- ☒ Class
- ☐ Main Studio location
- ☐ Other *(Summarize briefly)*

File Number(s) BPED-860307MK/BLED-1362

1. Allocation:

Channel No.	Principal community to be served:		
	City	County	State
218	Gadsden	Etowah	AL

Class *(check only one box below)*

☐ A ☐ B1 ☐ B ☒ C3
☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Lookout Mountain, near Tuckahoe Hts., Etowah Co., AL

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	°	'	"	Longitude	°	'	"
	34	04	29		86	01	11

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ☒ No

If Yes, give call letter(s) or file number(s) or both. _____

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

_____

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Note: Existing tower, no construction proposed
Exhibit No. N/A

Date _____ Office where filed _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	None		
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 329 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 60 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 389 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground --- meters (H)

55 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] --- meters (H)

384 meters (V)

(3) above average terrain --- meters (H)

159 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.
Exhibit No. *
*On file - no change

9. Effective Radiated Power:
(a) ERP in the horizontal plane --- kw (H*) 6.3 (MAX-DA) kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.
Exhibit No. N/A
_____ kw (H*) _____ kw (V*)

*Polarization

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed? [X] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. Tech.

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [X] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [X] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. Tech.

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. * *No change - on file

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. Tech.

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 2,359 sq. km. Population 131,235

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. Tech.

Enter the following from Exhibit above: Gain Area 1,630 ~~sq. km.~~ sq. km.
Loss Area 48 ~~sq. km.~~ sq. km.

Percent change (gain area plus loss area as percentage of present area) 220 %.
If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.:_____)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Other *(briefly summarize)* Standard eight radials from BPED-860307MK. Other supplemental radials from NGDC 30-second database.

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	127.3	31.9
45	109.0	29.8
90	176.9	37.3
135	207.0	29.0
180	207.4	20.0
225	202.3	17.6
270	129.4	17.7
315	110.3	27.0

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No. N/A

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. Tech.

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference).* Exhibit No. Tech.

23.(a) Is the proposed operation on Channel 218, 219, or 220? ☒ Yes ☐ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? ☒ Yes ☐ No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. Tech.

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 6)

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. Tech.

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. N/A

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No. N/A

If No, explain briefly why not. Categorically excluded per 47 CFR 1.1306. See Technical Narrative.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
David E. Dickmann	Technical Consultant
Signature: David E. Dickmann	Address *(Include ZIP Code)*: du Treil, Lundin & Rackley, Inc. 1019 19th Street, N.W., 3rd Floor Washington, D.C. 20036
Date: May 14, 1992	Telephone No. *(Include Area Code)*: (202) 223-6700

TECHNICAL EXHIBIT
AMENDMENT TO
APPLICATION FOR CONSTRUCTION PERMIT
GADSDEN STATE COMMUNITY COLLEGE
RADIO STATION WSGN(FM)
GADSDEN, ALABAMA

May 14, 1992

CH 218C3 6.3 KW (V, MAX-DA) 159 M

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Technical Narrative

The technical exhibit of which this narrative is part has been prepared on behalf of the Gadsden State Community College (herein "Gadsden"), licensee of non-commercial, educational broadcast station WSGN(FM), Gadsden, Alabama (FCC File No. BLED-1362), in support of an amendment to its application for modification of its licensed main facility (FCC File No. BPED-860307MK). The proposed station will operate on channel 218C3 (91.5 MHz) with maximum effective radiated power of 6.3 kilowatts using a directional antenna and antenna height above average terrain of 159 meters. Vertical-only polarization is proposed.

The purpose of this amendment is to eliminate prohibited contour overlap between the proposed WSGN(FM) facility and the proposed new FM station on channel 217A at Oxford, Alabama (FCC File No. BPED-860512MB). In order to eliminate this overlap, Gadsden is proposing the use of channel 218C3 instead of 217C2 and will use a directional antenna to avoid prohibited overlap with the proposed Oxford station and other pertinent FM facilities. The proposal for modified facilities, as amended herein, is considered a major change for FCC processing purposes

according to 47 CFR 73.3573 since the change in 60 dBu land area coverage is greater than 50 percent of the present licensed coverage area.

The proposal meets the allocation requirements with respect to all existing and proposed stations. The WSGN(FM) application (FCC File No. BPED-860307MK) will no longer be mutually exclusive with the Oxford, Alabama application as a result of this amendment.

The proposal does not appear to be subject to environmental processing in accordance with 47 CFR 1.1306. Since there will be no change in the height of the existing structure to be employed, it is not necessary to notify the Federal Aviation Administration. Specifications for the proposed operation are included herein as Figure 1.

Proposed Transmitter Location

The proposed 3-bay custom directional antenna will be mounted at the same height on the same existing structure as proposed in the original application. Thus, there are no changes proposed in antenna elevation data or transmitter location. Therefore, neither a site map nor antenna sketch are included as these are already on file with the Commission.

Directional Antenna

A directional antenna is proposed for use by WSGN(FM) in order to eliminate prohibited contour overlap between the WSGN(FM) proposal and the proposed, new

Oxford, Alabama facility (FCC File No. BPED-860512MB). Graphs of the proposed horizontal plane radiation pattern envelope are included herein as Figure 2, and tabulations of the pattern envelope relative field and effective radiated power are included herein as Figure 3.

The directional antenna ultimately constructed will be custom designed to maintain the radiation within the proposed pattern envelope. Details concerning the directional antenna will be supplied with the WSGN(FM) application for license. The proposed antenna will be side-mounted on the existing tower in accordance with specific instructions provided by the manufacturer. No other antennas will be mounted on the tower at the same level as the proposed antenna, nor will any antennas be mounted within the distance specified by the manufacturer for proper directional operation.

Allocation Considerations

The proposed facility complies with the requirements of 47 CFR 73.509 with respect to all stations and it complies with 47 CFR 73.207 with respect to all intermediate frequency (IF) related stations and stations on commercial FM channel 221. Figure 6 is an allocation study which contains a tabulation of all the stations considered in the allocation study. Sheet 3 of Figure 6 illustrates the protected and interfering contours along all azimuths for the proposed facility and the protected and interfering contours along required azimuths for other pertinent facilities.

It can be seen from Sheet 3 of Figure 6 that no prohibited overlap occurs with any other station except co-channel WUAL-FM, channel 218C1, Tuscaloosa, Alabama, with respect to which the proposed WSGN(FM) will have a small area of approximately 40 square kilometers of received interference. This area of received interference, however, is not in contravention of 47 CFR 73.509, since the licensed WSGN(FM) operation is also predicted to receive interference over a small area of approximately 50 square kilometers and the area of proposed overlap meets the four criteria of 47 CFR 73.509(d). Sheet 4 of Figure 6 shows both the proposed and present, predicted overlap areas.

Determination of Contours

The predicted coverage, protected and interfering contours for all stations studied were determined in accordance with the provisions of 47 CFR 73.313. In accordance with current FCC practice, no consideration was given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along pertinent radials from each site were determined by the method of 47 CFR 73.313 using data from the NGDC 30-second terrain database. The value of the antenna radiation center height above mean sea level for each station, as specified in the Commission's records, was employed in determining the antenna height above average terrain along each radial. For stations employing non-directional antennas, the contours are based on the standard eight radials. For stations employing

directional antennas, the contours are based on radials at 10-degree intervals over pertinent azimuthal arcs using the effective radiated power in each radial direction. Directional antenna patterns were obtained from the Commission's FM directional antenna information database. For the proposed WSGN(FM) operation, the antenna heights above average terrain along the standard eight radials were obtained from the original application and those along 32 supplemental radials were obtained using elevation data from the NGDC 30-second terrain database.

Figure 4 is a tabulation of average elevations and distances to the proposed predicted WSGN(FM) 60 dBu coverage contour. Figure 5 is a map showing this contour.

The "blanketing" contour of a 6.3-kilowatt FM station, as defined by 47 CFR 73.318, extends radially from the transmitter site to a distance of approximately 1 kilometer. The applicant recognizes its responsibility to remedy complaints of blanketing interference as required by 47 CFR 73.318.

Within 10 kilometers of the proposed transmitter site, there are no known TV stations and only one known full service FM station, WQSB(FM), channel 286C, Albertville, Alabama. No form of interference is anticipated with respect to any broadcast or non-broadcast facilities. However, the applicant recognizes its responsibility to protect existing facilities in accordance with applicable rules.

TV Channel 6 Protection

The Commission requires that non-commercial educational FM facilities provide interference protection to "affected" TV channel 6 facilities, as specified in 47 CFR 73.525(a)(1). The only TV channel 6 station within the 166 kilometer distance specified in this section of the rules is WBRC-TV, Birmingham, Alabama, which is located approximately 93 kilometers southwest of the proposed WSGN(FM) facility. Accordingly, a TV channel 6 protection study has been prepared with respect to WBRC-TV.

In accordance with 47 CFR 73.525(b)(2) and (e), the proposed predicted channel 6 interference area and the existing predicted channel 6 interference area were determined. These two areas are shown in Figure 7, in which the predicted area of new interference and the predicted area where interference will be eliminated are identified along with the area of interference common to both the proposed and existing WSGN(FM) facilities. The population predicted to receive new interference and the population within the area for which predicted existing interference is to be eliminated were determined by the method of 47 CFR 73.525(e)(2) using the appropriate County Subdivision Map and population information from the 1980 U.S. Census (1990 U.S. Census County Subdivision Maps are not yet available). Because the area of predicted new interference is in a less densely populated area than area of predicted existing interference, there are only 7,760 persons predicted to receive new interference whereas it is predicted that interference will be eliminated to an estimated 23,967 persons. Therefore, for every person

predicted to receive new interference, it is predicted that existing interference will be eliminated to slightly over 3 persons. Thus, the proposal complies with the requirement of 47 CFR 73.525(b)(2).

The effective radiated power along all azimuths for the proposed WSGN(FM) operation is 10 times that used in determining the proposed predicted TV channel 6 interference area in accordance with the adjustment for vertical polarization only which is allowed under the provisions of 47 CFR 73.525(e)(4)(i).

Population and Area

The population to be served within the predicted 60 dBu contour was determined by a computer program which sums the population of each 1990 census enumeration district having its centroid within the contour. The area within the 60 dBu contour was determined by a computer program using a root mean square algorithm. The proposed, predicted WSGN(FM) 60 dBu service contour encompasses an area of 2,359 square kilometers within which an estimated 131,235 persons reside.

Environmental Considerations

The proposed facility was evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." Using Equation (4) on Page 8 of this Bulletin, the "worst-case" (assuming a downward relative field factor of 1) estimated power

density level at the tower base is approximately 7 percent of the ANSI guideline.

Gadsden verifies that access to the tower base will be restricted by a fence which will be kept locked and that appropriate warning signs will be posted. Should it become necessary for workers or other authorized personnel to enter the restricted area and climb the tower, Gadsden verifies that appropriate measures will be taken (including reduction in or shut down of power, as necessary) to assure that no exposure to radiofrequency radiation in excess of the ANSI guidelines will occur.

The proposal appears to be categorically excluded from environmental processing as it appears to qualify for such an exclusion under 47 CFR 1.1306. The proposal involves no new tower construction and the potential for human exposure to radiofrequency radiation is predicted to be within the standards specified in 47 CFR 1.1307(b).

David E. Dickmann

David E. Dickmann

May 14, 1992

TECHNICAL EXHIBIT
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RADIO STATION WSGN(FM)
GADSDEN, ALABAMA
CH 218C3 6.3 KW (V, MAX-DA) 159 M

Technical Specifications

Channel	218C3
Frequency	91.5 MHz
Site coordinates	34° 04' 29" North Latitude
	86° 01' 11" West Longitude
Site elevation above mean sea level	329.2 m (1080 ft)
Average elevation above mean sea level of standard eight radials, 3-16 kilometers	225.4 m (739 ft)
Overall height of proposed antenna supporting structure with lighting	
Above ground	60.1 m (197 ft)
Above mean sea level	389.3 m (1277 ft)
Height of FM antenna radiation center	
Above ground	54.9 m (180 ft)
Above mean sea level	384.1 m (1260 ft)
Above average terrain	158.7 m (521 ft)
Transmitter	*Continental, type 814R-1
Rated power output	2.5 kW

*Or equivalent

Transmission line	*Andrew, type LDF5-50A
Nominal diameter	2.2 cm (7/8 in)
Length	64 m (210 ft)
Efficiency (0.74 dB loss)	84.3%
Antenna	*Shively, Custom
Number of bays	3
Polarization	Vertical
Estimated power gain	6.0

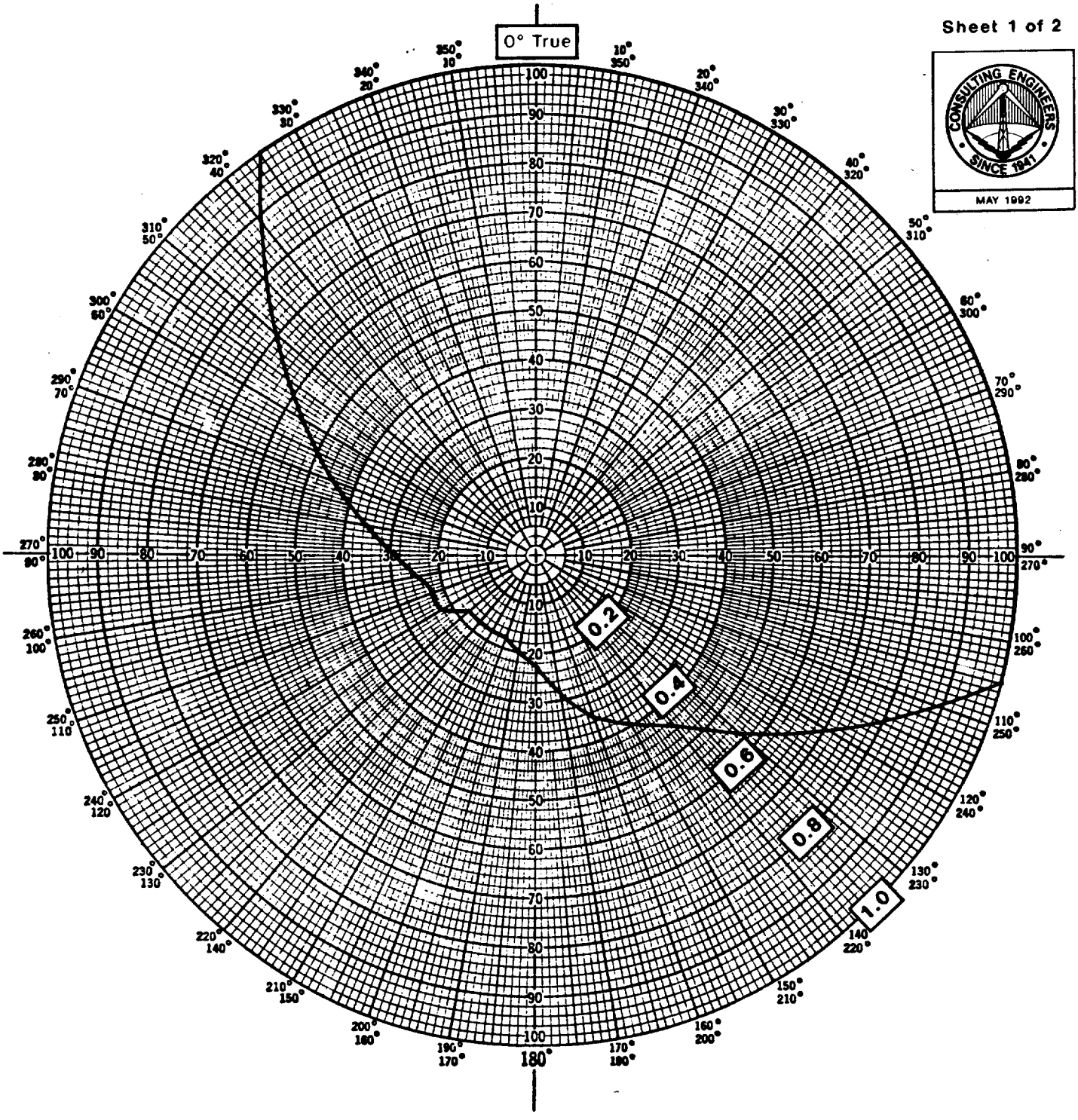
Proposed Operation

Transmitter output power	1.25 kW
Transmission line loss	0.20 kW
Antenna input power	1.05 kW
Maximum effective radiated power	
Vertical polarization	6.3 kW

*Or equivalent

CONSULTING ENGINEERS SINCE 1941

MAY 1992



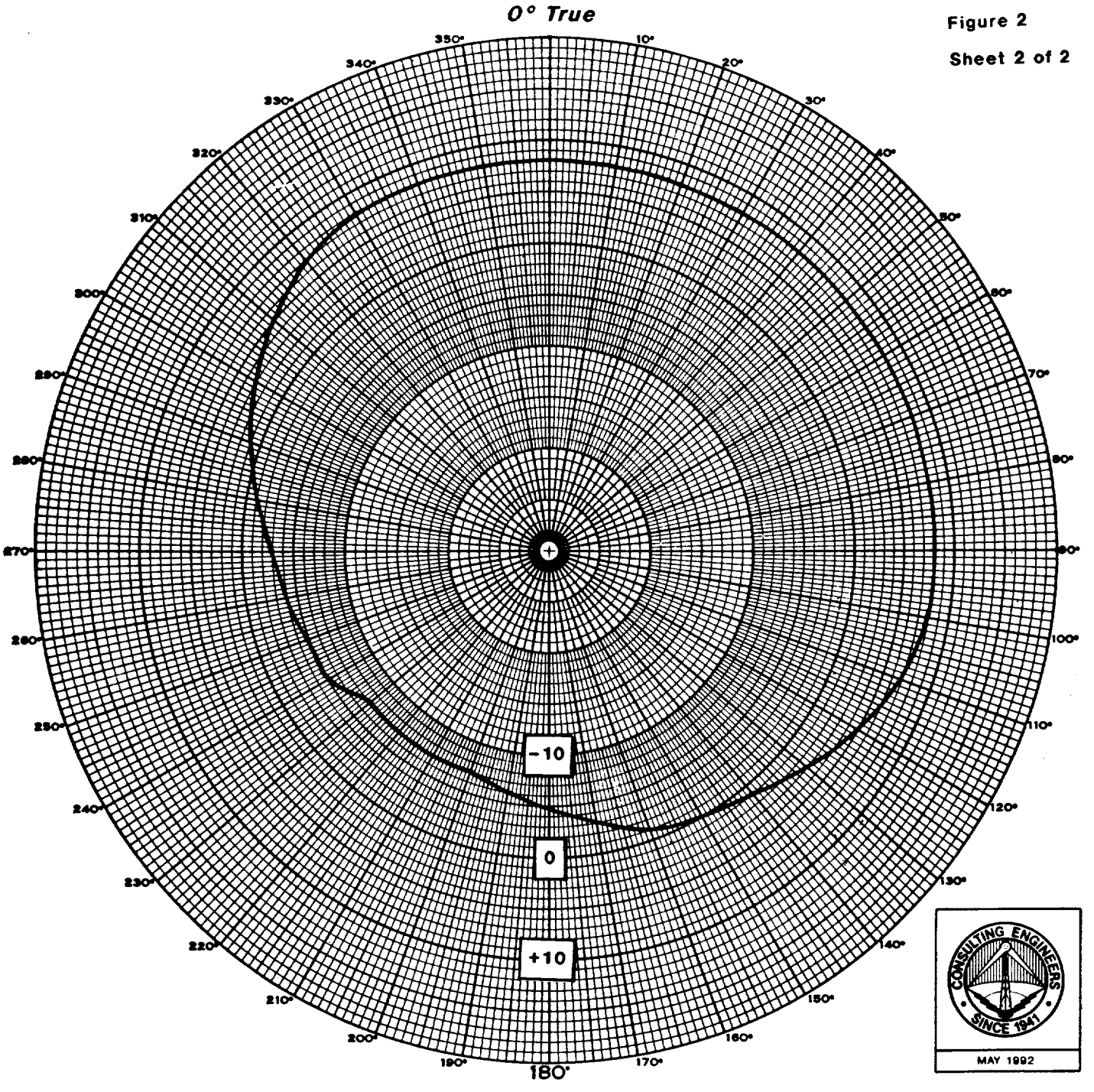
PROPOSED HORIZONTAL PLANE RADIATION PATTERN ENVELOPE
(Relative Field)

GADSDEN STATE COMMUNITY COLLEGE

WSGN(FM) GADSDEN, ALABAMA

CH 218C3 6.3 KW(V,MAX-DA) 159 M

duTreil, Lundin & Rackley, Inc. Washington, D.C.



PROPOSED HORIZONTAL PLANE RADIATION PATTERN ENVELOPE
(Effective Radiated Power - dBk)

GADSDEN STATE COMMUNITY COLLEGE

WSGN(FM) GADSEN, ALABAMA

CH 218C3 6.3 KW (V, MAX-DA) 159 M

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TECHNICAL EXHIBIT
AMENDMENT TO
APPLICATION FOR CONSTRUCTION PERMIT
GADSDEN STATE COMMUNITY COLLEGE
RADIO STATION WSGN(FM)
GADSDEN, ALABAMA
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Tabulation of Proposed Horizontal
Plane Radiation Pattern Envelope

Azimuth (Degrees True)	Relative Field
0	1.000
10	1.000
20	1.000
30	1.000
40	1.000
50	1.000
60	1.000
70	1.000
80	1.000
90	1.000
100	1.000
110	0.891
120	0.708
130	0.562
140	0.447
150	0.398
160	0.355
170	0.282
180	0.224
190	0.200
200	0.178
210	0.178
220	0.178
230	0.178
240	0.224
250	0.224
260	0.251
270	0.282
280	0.355
290	0.447
300	0.562
310	0.708
320	0.891
330	1.000
340	1.000
350	1.000

Note: Maxima occur over the range from 325° True to 105° True.
Minima occur over the range from 200° True to 230° True.

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CH 218C3 6.3 KW (V, MAX-DA) 159 M

Tabulation of Proposed Horizontal
Plane Radiation Pattern Envelope

Azimuth (Degrees True)	Effective Radiated Power (dBk)
0	8.00
10	8.00
20	8.00
30	8.00
40	8.00
50	8.00
60	8.00
70	8.00
80	8.00
90	8.00
100	8.00
110	7.00
120	5.00
130	3.00
140	1.00
150	0.00
160	-1.00
170	-3.00
180	-5.00
190	-6.00
200	-7.00
210	-7.00
220	-7.00
230	-7.00
240	-5.00
250	-5.00
260	-4.00
270	-3.00
280	-1.00
290	1.00
300	3.00
310	5.00
320	7.00
330	8.00
340	8.00
350	8.00

Note: Maxima occur over the range from 325° True to 105° True.
Minima occur over the range from 200° True to 230° True.