

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

=====

ENGINEERING STATEMENT IN SUPPORT OF
APPLICATION OF CONCORD MEDIA GROUP, INC.
CONSTRUCTION PERMIT TO CHANGE TRANSMITTER SITE
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE

=====

SEPTEMBER, 2001

SELLMEYER ENGINEERING
BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS
P.O. Box 356 McKinney, Texas 75070
MEMBER AFCCE
(972) 542-2056

TABLE OF CONTENTS
APPLICATION OF CONCORD MEDIA GROUP, INC.
CONSTRUCTION PERMIT TO CHANGE TRANSMITTER SITE
RADIO STATION KWAM
990 KHZ, 0.33 KW, 10.0 KW-LS, DA-2
MEMPHIS, TENNESSEE
SEPTEMBER, 2001

=====

COPYRIGHT NOTICE AND USE AGREEMENT

FCC FORM 301

ENGINEERING STATEMENT

Certification of Engineer

Exhibit E1-0	Description of Antenna System
Exhibit E1-1	Vertical Plan Sketch of Proposed Antenna System
Exhibit E1-2	Plat of Antenna System

DAYTIME SECTION

Exhibit E1-5A	Map Showing Daytime 5, 2, 0.5 mV/M Contours
Exhibit E1-5B	Map Showing Daytime 1000 mV/m Contour
Exhibit E1-5C	Tabulation of Distances to Proposed Contours
Exhibit E1-5D	Tabulation of Conductivities, Proposed Operation
Exhibit E1-6A	Daytime Allocation Study - 980 KHZ
Exhibit E1-6B	Daytime Allocation Study - 990 KHZ
Exhibit E1-6C	Daytime Allocation Study - 1000 KHZ
Exhibit E1-7A	Tabulation of Distances to Proposed Contours
Exhibit E1-7B	Tabulation of Ground Conductivities
Exhibit E1-8A	Plot of Proposed Daytime Standard Pattern
Exhibit E1-8B	Tabulation of Proposed Daytime Standard Pattern

NIGHTTIME SECTION

Exhibit E1-9A	Map Showing Nighttime Interference Free Contour
Exhibit E1-9B	Tabulation of Distances to Nighttime Contour
Exhibit E1-10A	Tabulation of Existing Night Limits to Other Stns
Exhibit E1-10B	Tabulation of Proposed Night Limits to Other Stns
Exhibit E1-10C	Tabulation of Interference to Proposed Station
Exhibit E1-11A	Plot of Proposed Night Radiation Pattern
Exhibit E1-11B	Tabulation of Proposed Night Radiation Pattern
Exhibit E1-12A	Map Showing Study Pts Along CBW 0.5 mV/m Contour
Exhibit E1-12B	Tabulation of Nighttime Skywave Interference to CBW

SELLMEYER ENGINEERING
BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS
P.O. Box 356 McKinney, Texas 75070
MEMBER AFCCE
(972) 542-2056

COPYRIGHT NOTICE AND USE AGREEMENT

COPYRIGHT NOTICE

This document shall not be reproduced, transmitted, or otherwise used in whole or in part without permission of Sellmeyer Engineering. Work Product released prior to account settlement remains the sole property of Sellmeyer Engineering. Any and all signed originals and copies shall be subject to our demand for immediate return and dismissal with the Federal Communications Commission including, but not limited to, any construction permits, licenses or authorizations resulting from use of this report, at any time until such time as all charges incurred in preparation of this document are paid in full.

DISCLAIMER NOTICE

Any coverage contours shown herein are calculated in accordance with the appropriate Federal Communications Commission Rules and Regulations and do not, in any way, constitute a guarantee of specific coverage. FCC regulations prescribe certain methods of coverage calculation which can lead to anomalies in the calculation of coverage in specific instances. **Sellmeyer Engineering explicitly does not warrant or guarantee any specific coverage.** Sellmeyer Engineering assumes no liability for any errors and omissions in the exhibit hereby provided and shall not be liable for injuries and damages (including consequential damages) which might result from use of the said information.

APPLICABLE LAW

This agreement is made under terms of law in effect at McKinney, Collin County, Texas.

ACCEPTANCE OF TERMS

Filing of this document with the Federal Communications Commission constitutes acceptance of this entire agreement.

(c) COPYRIGHT, 2001 BY
SELLMEYER ENGINEERING
P. O. BOX 356
McKINNEY, TEXAS 75070
(214) 492-9764

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

ENGINEERING STATEMENT IN SUPPORT OF APPLICATION
FOR CONSTRUCTION PERMIT TO CHANGE TRANSMITTER SITE
CONCORD MEDIA GROUP, INC.
RADIO STATION KWAM
MEMPHIS, TENNESSEE
MINOR CHANGE
SEPTEMBER, 2001

=====

INTRODUCTION

This Firm has been retained by Concord Media Group, Inc. to prepare this Engineering Statement in support of its application to relocate the transmitter site of Station KWAM, Memphis, Tennessee to the present site of Station WREC, Memphis, Tennessee. Under present policies of the Commission, this application represents a Minor Change in the station's operations.

This move is permissible under the present Rules and Policies of the Commission.

This Engineering Statement will demonstrate compliance with all applicable Rules and Policies of the Federal Communications Commission.

CITY OF LICENSE

The city of license remains Memphis, Tennessee.

PROPOSED FACILITY

The proposed facility will operate with ten kilowatts during daytime hours and three hundred and thirty watts at night using different directional antenna patterns. The antenna system will utilize a total of three towers located on the present WREC site. The two existing self supporting towers will be used in conjunction with a third shorter uniform cross section guyed tower to be erected near the southeast corner of the WREC property. Sufficient land exists to install a suitable ground system for the additional tower. The tower will be detuned at the 600 kilohertz operating frequency of Station WREC.

The towers will be painted and lighted in accordance with FCC specifications. The arrangement of the towers is shown graphically in exhibits E1-1 and E1-2 of this statement.

Since this is an existing site, no aerial photographs are being supplied. Station WREC has operated in a satisfactory manner from this since the 1930's.

Appropriate coupling filters will be installed in the present WREC coupling networks and in the coupling networks of the proposed operation to assure compliance with the Rules.

The proposed 1000 mV/m daytime contour is shown on the map of Exhibit E1-5A. The proposed 1000 mV/m nighttime contour is contained entirely within the daytime 1000 mV/m contour. The applicant will comply with Commission policies with respect to correction of valid interference complaints from the affected area.

ENVIRONMENTAL CONSIDERATIONS

The proposed site was chosen for maximum coverage of population consistent with the allocation constraints. A grant of the application would not come within Section 1.1307 of the Rules since it would not have significant environmental impact. The site is substantially flat land and will require no significant changes in the surface characteristics to accommodate the proposed use. It is not within any known bird flyway nor is it a site of historical significance. The land is not within a designated wetlands area or flood plain.

Each tower will be fenced in compliance with the current ANSI standards for radiofrequency exposure. All fences will be sized for the appropriate level of power. The minimum distance from any tower to the nearest point of the fence will be two meters.

DAYTIME ANTENNA SYSTEM

The daytime antenna system consists of towers 1, 2 and 3. The system was designed in

SELLMEYER ENGINEERING
BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS
P.O. Box 356 McKinney, Texas 75070
MEMBER AFCCE
(972) 542-2056

accordance with the methods outlined in Section 73.150 of the Rules. Sinusoidal current distribution was assumed.

The daytime 1000 mV/M contour is plotted on the map of exhibit E1-5A. The 5, 2 and 0.5 mV/M contours are plotted on the map of exhibit E1-5B. The distances to the contours were determined in accordance with the methods outlined in Section 73.183 of the Rules. The conductivities were determined from a computer program maintained by this Firm which uses a digitized version of Map M-3. All contour distances are based on the directional antenna design with conductivities determined from map M-3 with the exception of those for Station KWAM. Measured conductivity data from the WREC and KWAM directional antenna proofs of performance was used, where available, to determine the present and proposed service and interference contours of Station KWAM. Where more than one value of conductivity was encountered along a path, the "equivalent distance" method of computation outlined in Section 73.183 was utilized. The tabulation of the distances to the relevant contours appears herein as exhibit E1-5C. The summary of pertinent conductivities appears herein as exhibit E1-5D.

The 5.0 mV/M contour encompasses the entire city limits of Memphis, Tennessee. A full scale exhibit showing the daytime allocation study appears in exhibits E1-6A through E1-6C.

There is existing overlap with Station KCAB, 980 kilohertz in Dardenelle, Arkansas. This overlap is removed by the proposed operation. There is also existing interference caused to Station KRMO, 990 kilohertz, Cassville, Missouri. This overlap is removed by the proposed operation. Interference caused to Stations WMUF, 1000 kilohertz, Paris, Tennessee and WXTN, 1000 kilohertz, Lexington, Mississippi, is either relocated or reduced in area.

There are no second or third adjacent channels stations pertinent to the proposed daytime operation. All such stations are fully protected by the proposed operation.

The tabulation of distances to contours for all stations pertinent to the allocation study appear herein as exhibit E1-7A. The ground conductivity data used in the calculations appears herein as exhibit E1-7B.

The proposed daytime standard radiation pattern is plotted on exhibit E1-8A and tabulated in exhibit E1-8B.

NIGHTTIME ANTENNA SYSTEM

The nighttime antenna system consists of towers 1 and 2 with tower 3 detuned. The system was designed in accordance with the methods outlined in Section 73.150 of the Rules. Sinusoidal current distribution was assumed.

The nighttime interference free contour is shown on the map of exhibit E1-9A. The RSS night limits from all stations operating on 980, 990 and 1000 kilohertz were included in the computation of the night limit. The 50% RSS limit was computed to be 9.06 mV/M. The contours is shown on the map of exhibit E1-9A.

The night interference free contour covers a significantly greater area within the city limits of Memphis, Tennessee than that of the existing site, primarily due to the fact that much of the night interference free area of the present site is within the Mississippi river flood plain. The present and proposed nighttime interference free contours are shown on the map of Exhibit E1-9B.

The existing and proposed nighttime limits to each station operating on 980, 990 and 1000 kilohertz were calculated according to the method outlined in Section 73.182. From the calculations, it was determined that the existing operation of Station KWAM enters the 50% exclusion night limit of the application site of Radio Station KXXL at its proposed site near Farmersville, Texas. It also enters the 25 % exclusion night limit of the presently licensed site of Station KXXL at Wichita Falls, Texas. It does not enter the 50% exclusion night limit of any other existing or proposed station.

The present KWAM operation enters the 25% night limit of Stations WDYZ, Orlando, Florida,

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

WNOX, Knoxville, Tennessee and the presently licensed site of Station KXXL at Wichita Falls, Texas, The present operation appears below the 25% night limit of Station WGSO, New Orleans, Louisiana.

The night interference contribution of the existing operation to stations on 990 kilohertz is listed in exhibit E1-10A. The night interference contribution of the proposed operation to stations on 990 kilohertz is listed in exhibit E1-10B. In the case of the application site of Station KXXL, the proposed limit has been reduced below 90% of the present contribution as required by Section 73.182(q)(1) of the Rules. In all cases where the present KWAM operation enters the 25% night limit of stations on 990 kilohertz, the interference contribution to the affected station has been maintained at the existing level or, in most cases, reduced to a lower level. In all cases where the interference contribution of the existing KWAM operation falls below the 25 percent domestic limit, the level of interference has been maintained below the 25% limit.

There are no domestic stations operating on adjacent channels or foreign stations operating on the 990 kilohertz channel which receive interference from the existing or proposed operations of KWAM.

Exhibit E1-10C is a tabulation of stations contributing nighttime interference to the proposed operation. The 50% and 25% exclusion RSS levels were calculated by the methods outlined in Section 73.182 of the Rules.

The proposed operation fully protects the operation of class A Station CBW, Winnipeg, Manitoba, Canada at the U.S./Canadian border. Exhibit E1-12A is a map showing detailed study points at or near the 0.5 mV/m 50% skywave contour of Station CBW along the U.S./Canadian border. At locations A and B on land within Canada, the ratio of interference from Station KWAM to the 0.5 mV/m contour of Station CBW is greater than 20:1 as required by the U.S./Canadian treaty. At point C on the border, the ratio is slightly below the 20:1 requirement. This is permissible under the treaty since it lies within a body of water and no other interference in excess of the 20:1 ratio is caused over land areas.

Canadian Class A station CBY is also fully protected to its 0.5 mV/m 50% skywave contour.

The proposed nighttime standard radiation pattern is plotted on exhibit E1-11A and tabulated in exhibit E1-11B. The proposed pattern is plotted in five degree increments for elevations from 0 to 60 degrees in the vertical plane.

SITE LOCATION

Since the site is an existing site, no topographic map is being supplied. The coordinates listed are slightly different from the coordinates on file for Station WREC. This difference occurs because of the addition of the third tower in an offset, or dogleg, configuration. The site elevation and heights of the existing towers of Station WREC were taken from the FCC Tower Registration Database.

There are no existing or proposed AM, FM or TV transmitting stations within three kilometers of the proposed site. There are no non broadcast radio stations or known commercial or government receiving stations located in the general area of the station which would be adversely affected by the proposed operation.

The FAA is being notified of the proposed additional tower. Upon receipt of a Determination of No Hazard to Air Navigation from the FAA, the tower will be registered with the FCC and the registration number reported to the Commission.

OPERATION DURING MAINTENANCE OF TOWERS

The stations will reduce power to the extent required, operate with non directional facilities at reduced power or suspend operation as required to comply with the radiofrequency radiation exposure limits of OST Bulletin 65.

SELLMEYER ENGINEERING
BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS
P.O. Box 356 McKinney, Texas 75070
MEMBER AFCCE
(972) 542-2056

CERTIFICATION OF ENGINEER

I hereby state that:

I am President of Sellmeyer Engineering

The Firm of Sellmeyer Engineering has been retained by Concord Media Group, Inc. prepare this Engineering Exhibit

I am a graduate of Arizona State University with the degree of Bachelor of Science in Engineering

I am a Registered Professional Engineer in the States of Ohio and Texas

My qualifications as an Engineer are a matter of record with the Federal Communications Commission

This Engineering Exhibit was prepared by me personally or under my direct supervision, and

All facts stated herein are true and correct to the best of my knowledge and belief.

J. S. Sellmeyer

J. S. Sellmeyer, P. E.

September, 7, 2001

P. O. Box 356
McKinney, Texas 75070
214-495-9764

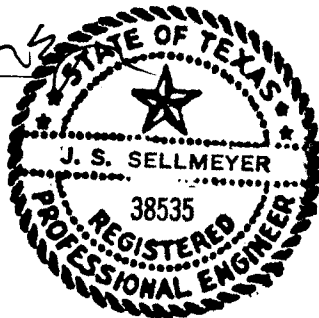


EXHIBIT E1-0, PAGE 1
DIRECTIONAL ANTENNA SPECIFICATIONS

=====

COMMON SPECIFICATIONS

No. of Elements:	3
Type of Elements:	Towers 1 & 2: Self Supporting, Top Loaded, Tapered Vertical Radiator Tower 3: Uniform Cross-section, Guyed, Vertical Radiator
Height of Elements:	Towers 1 & 2:
Effective Height:	149.9 Degrees
Top Loading:	6.8 Degrees
Above Insulator:	126.2 Mtrs (414 Ft)
Above Ground Level:	128.3 Mtrs (421 Ft)
Above Mean Sea Level:	203.0 Mtrs (666 Ft)
	Tower 3 (Daytime Only)
Effective Height:	90.6 Degrees
Above Insulator:	76.2 Mtrs (250 Ft)
Above Ground Level:	78.3 Mtrs (257 Ft)
Above Mean Sea Level:	154.5 Mtrs (507 Ft)*
Site Elevation AMSL	74.7 Mtrs (245 Ft)
* Including Beacon, if required	
Geographical Coordinates:	NL: 35 Deg 11 Min 45 Sec
(Center of Array)	WL: 90 Deg 00 Min 32 Sec
Ground System:	Towers 1 & 2: 120 # 10 SD copper wire radials about base of each tower spaced 3 degrees, 400 feet long buried 6-12 inches below grade level, except where intersecting with other towers or where foreshortened by property line. Where intersecting other towers, radials are bonded to copper strap. Tower 3: 120 # 10 SD copper wire radials about base of each tower spaced 3 degrees, 250 feet long buried 6-12 inches below grade level, except where intersecting with other towers or where foreshortened by property line. Where intersecting other towers, radials are bonded to copper strap.

SELLMEYER ENGINEERING
BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS
P.O. Box 356 McKinney, Texas 75070
MEMBER AFCCE
(972) 542-2056

EXHIBIT E1-0, PAGE 2
DIRECTIONAL ANTENNA SPECIFICATIONS

=====
Orientation & Spacing:

Three towers referenced to Tower 1 as follows:

Twr 2: Spaced 410.0 Ft, (186.81 mtrs), (148.5 Deg) on a line bearing 204.0 Deg True

Twr 3: Spaced 612.9 Ft, (124.97 mtrs), (222.0 Deg) on a line bearing 167.0 Deg True

Theoretical Specifications:

DAYTIME ARRAY

<u>TWR</u>	<u>RATIO</u>	<u>PHASE</u>
1	1.000	0.0
2	0.526	-170.0
3	0.520	- 25.0

POWER: 10.0 kW
RMS (Theo): 1075.64 mV/m
RMS (Std): 1129.91 mV/m
RSS: 1270.15 mV/m
Q: 31.8

NIGHTTIME ARRAY

<u>TWR</u>	<u>RATIO</u>	<u>PHASE</u>
1	1.000	0.0
2	0.649	-49.5

0.33 kW
196.64 mV/m
206.74 mV/m
202.30 mV/m
10.00

Registration Numbers:

Tower 1 (North) 1051771
Tower 2 (Southwest) 1051770
Tower 3 (Southeast) Pending

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

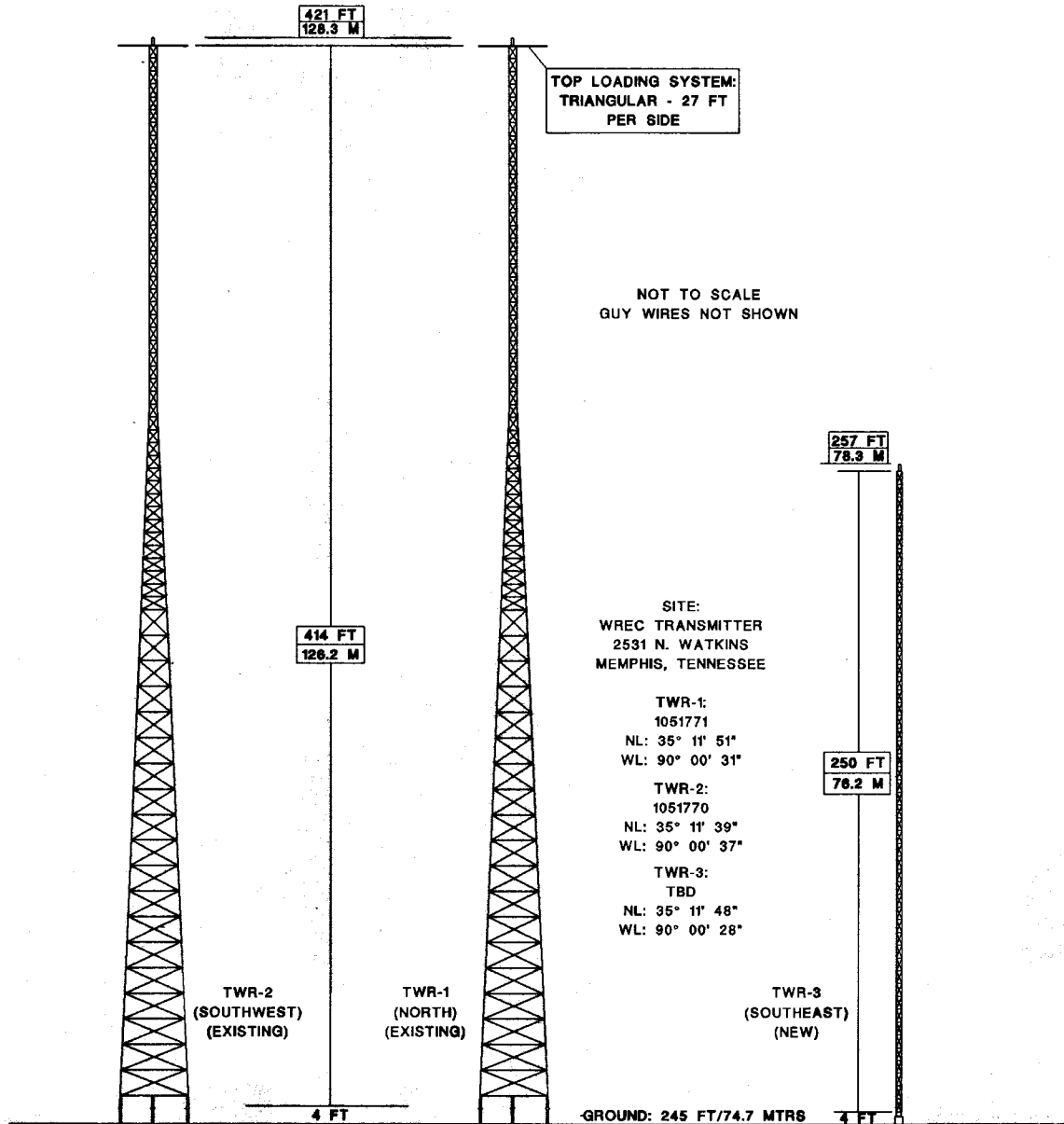


EXHIBIT E1-1

VERTICAL SKETCH OF PROPOSED ANTENNA SYSTEM

RADIO STATION KWAM

990 KHZ, 0.33 KW, 10 KW-LS, DA-2

MEMPHIS, TENNESSEE

SELLMEYER ENGINEERING

BROADCAST AND COMMUNICATIONS CONSULTING ENGINEERS

P.O. Box 356 McKinney, Texas 75070

MEMBER AFCCE

(972) 542-2056

EXHIBIT E1-2 PLAT OF TRANSMITTER SITE PROPERTY RADIO STATIONS WREC & KWAM MEMPHIS, TENNESSEE

