

Engineering Statement
In Support of an Application for
Modification of Construction Permit to
Change Frequency, Increase Daytime Power
And Add Nighttime Service
KLDC, Brighton, Colorado
810 kHz, 2.2 kW-D/0.430 kW-N, DA-2

The Corporate Engineering Department of the Crawford Broadcasting Company, on behalf of its subsidiary, KLZ Radio, Inc. ("KLZ"), has prepared this Engineering Statement and associated exhibits to accompany an Application for Modification of Construction Permit to modify the proposed nighttime facilities of KLDC, Brighton, Colorado.

On May 4, 2004, the Commission issued KLZ a Construction Permit to change frequency from 800 to 810 kHz, increase the daytime power from 1 kW to 2.2 kW, and add nighttime service with 227 watts (BP-20040109AAT). The CP specified the existing daytime site for the upgraded daytime operation, and specified shared use of the antenna site of co-owned station KLZ (560 kHz, 5 kW-U, DA-1) for the nighttime operation.

An application for modification of construction permit was filed on July 9, 2004 (BMP-20040709ABW). This application proposed a different three-tower array than that specified in the construction permit. It has since become clear that it will be difficult to achieve acceptable impedance and pattern bandwidth with this array. Since both are critical to anticipated future IBOC operation, a new four-tower pattern was designed and proposed by amendment on July 26, 2004.

On November 4, 2004, The Commission issued KLZ a notice that the July 26 amendment was found to be unacceptable for filing as the proposed 0.25 mV/m 10% skywave contour would overlap the 0.5 mV/m groundwave contour of first-adjacent channel class A station WBAP. As such, the amendment was dismissed pursuant to 47 C.F.R. §0.283.

In accordance with the Public Notice entitled, "Commission States Future Policy on Incomplete and Patently Defective AM and FM Construction Permit Applications," FCC 84-366, released August 2, 1984, the Commission indicated that it would reinstate applications nunc pro tunc where the original application was returned and where a relatively minor curative amendment was filed in conjunction with a petition for reconsideration within 30 days of the date of dismissal. The application filed herewith constitutes such a minor curative amendment and it is filed pursuant to this policy.

The KLDC nighttime directional array proposed herein will utilize four uniform cross-section guyed towers 61.0 meters in overall height and 59.6 meters above base insulator (58.0 electrical degrees at 810 kHz) in a trapezoid configuration. One tower line (1-2) will be on a bearing 257° True with element spacing of 90 electrical degrees. The second tower line (1-3) will be on a bearing of 3.5° True with element spacing of 161.0 electrical degrees. The third tower line (1-4) will be on a bearing of 320.9° True with element spacing of 197.2 electrical degrees. This proposed directional array will be situated in the center of the KLZ antenna field. The KLZ two-tower array employs wide element spacing (197 electrical degrees or 293 meters), so there is adequate room between the elements for the KLDC three-tower nighttime array. The closest spacing between any element in the proposed KLDC array and any element in the existing KLZ array is 105 meters (70.6 electrical degrees on 560 kHz, or 102 electrical degrees on 810 kHz). Both KLZ elements will be detuned on 810 kHz to minimize reradiation. Likewise, all four KLDC elements will be detuned on 560 kHz. Pass-reject filters will be installed in series with each element of both arrays to prevent intermodulation products from being developed by either station.

None of the proposed nighttime towers will employ top loading or sectionalization. All towers are series fed. The nighttime ground system will consist of 120 equally-spaced, buried copper radials about the base of each tower, 92.6 meters in length except where intersecting radials are shortened and bonded to a transverse strap. In addition, a 14.6 meter by 14.6 meter square copper ground screen will be installed about the base of the towers. The existing KLZ ground system, which consists of 120 equally-spaced, buried copper radials 134.11 meters in length plus a 14.6 meter by 14.6 meter copper ground screen about the base of each tower, will remain in place for both elements in the KLZ directional array. The details of the ground system are shown in Figure 2 herein.

The proposed nighttime operation specifies 430 watts at a standard pattern RMS of 200.50 mV/m, in excess of the 141 mV/m threshold for class B designation. The proposed nighttime facility will provide 100% of the community of Brighton with interference-free service.

No changes are proposed to the daytime facility specified in the construction permit.

The entire technical operation will be in compliance with all applicable FCC Rules and will be constructed in accordance with the standards of good engineering practice. All elements of the proposed nighttime directional antenna system meets the minimum requirements of 47 C.F.R. §73.189 with respect to both height and effective field strength. The calculated effective field of the nighttime array is 305.76 mV/m at 1 km (adjusted for 1 kW). This value exceeds the 282 mV/m class minimum prescribed by 47 C.F.R. §73.182(m) and §73.189(b)(2)(ii).

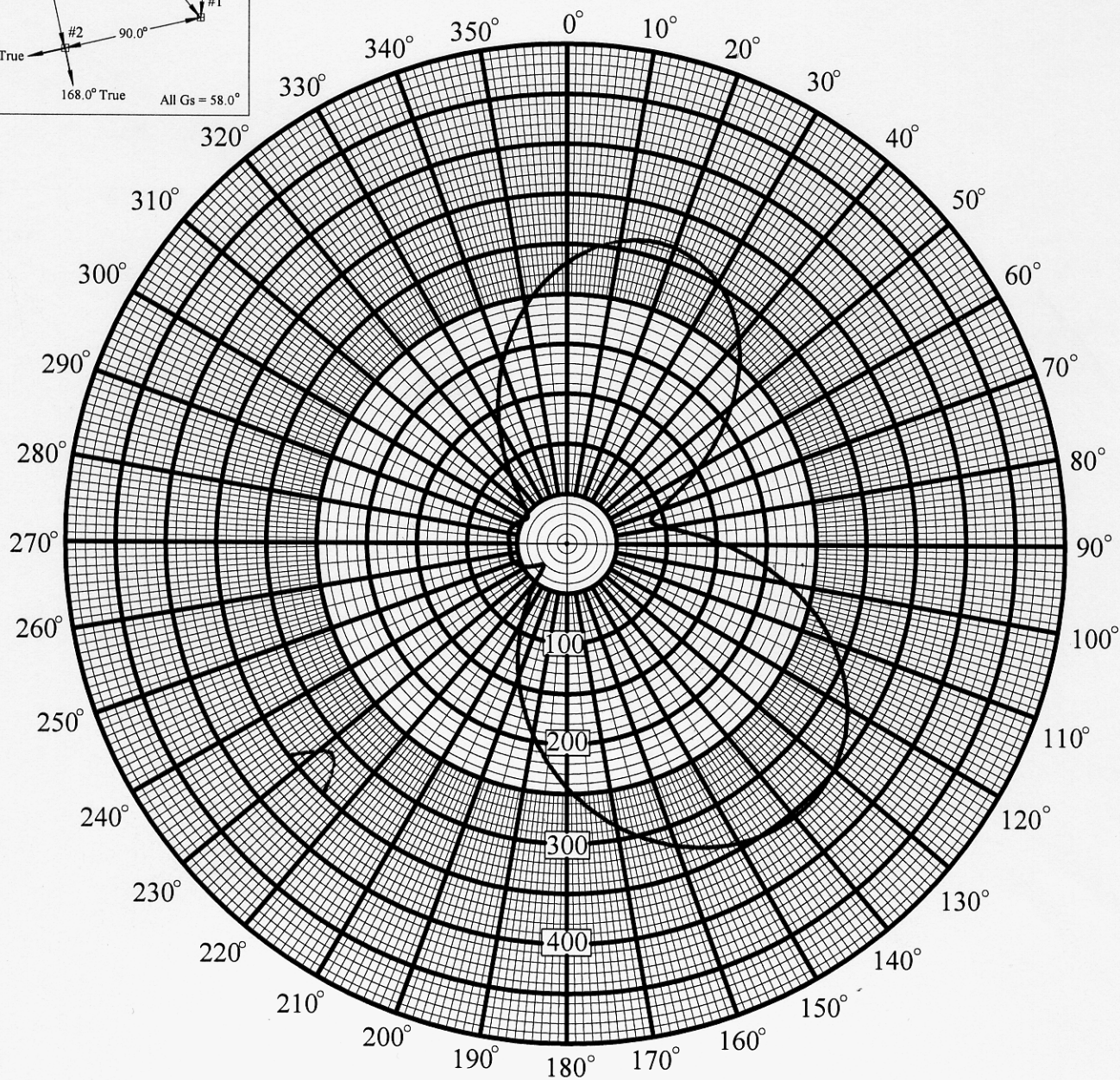
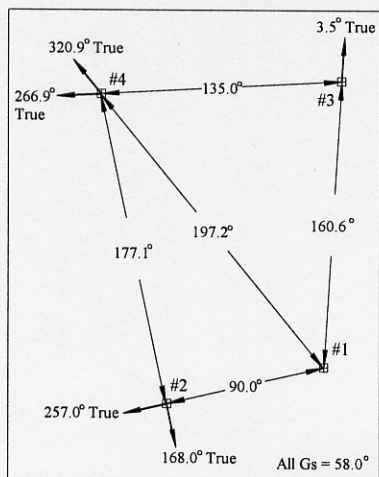
There are no population centroids within the nighttime 1 V/m contour. The total population within the nighttime 25 mV/m contour has been determined to be 161,415 (2000 Census). The area within the 1 V/m contour is largely rural in nature with a low population density. There are no houses within the 1 V/m contour. As such, the total population within the 1 V/m contour can be presumed to be well below the threshold of 1% of the population within the 25 mV/m specified in 47 C.F.R. §73.24(g).

The proposed facility is in compliance with all the engineering standards of allocation specified in the Commission's Rules.

Respectfully submitted,

W.C. Alexander
Director of Engineering
Crawford Broadcasting Company

Exhibit 11
Figure 1



Twr.	Field	Phasing
1	0.460	0.0
2	0.520	+101.5
3	0.820	+162.0
4	1.000	-121.0

RMS(TH) = 200.50
RMS(STD) = 210.78
RSS(TH) = 186.54
Q = 10.00

PROJECT TITLE	Proposed Nighttime Standard Horizontal Pattern	PROJECT NO.	
DATE	11/09/2004	SCALE	
PROJECT	KLDC - Brighton, Colorado 810 kHz, 2.2 kW-D/0.430 kW-N, DA-2	DRAWN BY	WCA
		CHECKED BY	
		DRAWING NO.	
		1 OF 1 SHEETS	

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11-09-2004 11:55

KLDC-N

39-50-36 N 104-57-14 W 0.430 kW

Crawford Broadcasting

Twr. No.	Field	Phasing	Spacing	Azimuth	Height
1	0.460	0.0	0.0	0.0	58.0
2	0.520	101.5	90.0	257.0	58.0
3	0.820	162.0	160.6	3.5	58.0
4	1.000	-121.0	197.2	320.9	58.0
RMS	200.50 mV/m	(kilometer)		Q 10.00 mV/m	

Standard Horizontal Plane Radiation Pattern

Azi.	mV/m	Azi.	mV/m
0	281.3	180	242.7
5	296.6	185	218.6
10	307.6	190	193.2
15	313.9	195	166.8
20	315.1	200	140.0
25	311.1	205	113.3
30	301.6	210	87.7
35	286.7	215	64.2
40	266.8	220	44.8
45	242.1	225	33.1
50	213.6	230	32.4
55	182.2	235	38.8
60	149.7	240	46.1
65	118.9	245	51.8
70	95.2	250	55.2
75	87.3	255	56.6
80	99.5	260	56.9
85	125.7	265	56.8
90	157.8	270	57.0
95	191.3	275	57.7
100	223.9	280	58.1
105	254.2	285	57.7
110	281.4	290	55.8
115	304.7	295	52.4
120	323.7	300	48.7
125	338.3	305	47.3
130	348.2	310	52.2
135	353.5	315	65.1
140	354.4	320	84.5
145	351.2	325	108.2
150	344.2	330	134.5
155	333.9	335	161.8
160	320.5	340	189.2
165	304.4	345	215.6
170	285.9	350	240.2
175	265.2	355	262.3