ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
BMP SAN ANTONIO LICENSE COMPANY, L.P.
RADIO STATION KZDC
SAN ANTONIO, TEXAS
FACILITY ID 65330
1250 KHZ 25 KW-D 2 KW-N DA-2 U

July 18, 2006

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PART B – NIGHTTIME SITE

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Engineering Statement

The engineering exhibit of which this statement is part was prepared on behalf of BMP San Antonio License Company, L.P., licensee of AM broadcast station KZDC San Antonio, Texas, Facility ID 65330. Station KZDC is licensed for operation on 1250 kilohertz employing power of 1 kilowatt unlimited time. A directional antenna is employed during nighttime hours. Due to expiration of the current transmitter site lease, the applicant seeks to relocate the transmitting facility to a new location. A power increase is sought both daytime and nighttime, and due to the allocation conditions during daytime and nighttime hours, separate daytime and nighttime transmitter sites are proposed. The applicant proposes to operate with daytime power of 25 kilowatts, and nighttime power of 2 kilowatts

This exhibit is divided into two parts. Part A provides information regarding the daytime transmitting location, while Part B contains information regarding the nighttime location.

PART A

Proposed Daytime Operation

Figure 1 is a sketch showing the pertinent heights of the four towers proposed for the daytime directional antenna pattern. The towers will have an overall height above ground level of 60.7 meters and an overall height above mean sea level of 170.7 meters.

The proposed tower construction will be filed with the Federal Aviation Administration as the location and height of the towers does not pass the Commission's TOWAIR computer program.

Figure 2 shows the proposed daytime property boundaries, with the location of the four towers and the associated ground system. The ground system will consist of 120 equally spaced copper wire (#10 AWG) radials, each 60 meters (197 feet) in length, except where terminated and bonded to a 4-inch wide copper strap between adjacent towers or where terminated at the property boundary. The radials will be buried approximately 7 inches.

The proposed daytime transmitter site is located on the west side of U.S. Highway 281, approximately 2.3 kilometers south of the intersection of Highway 281 and Interstate Highway 410. The geographic coordinates (NAD 27) for the center of the proposed four-tower array are:

29º 17' 01" North Latitude

98º 28' 25" West Longitude.

Figure 3 is a map showing the location of the daytime transmitter site. Also shown on Figure 3 is the daytime 1,000 mV/m contour, which contains 3 persons, based on the 2000 census. The proposal therefore complies with 47 CFR 73.24(g). An aerial photograph of the proposed site is shown on Figure 4.

Specifications for the daytime directional antenna system are outlined in Figure 5. Figure 6 is a tabulation of the daytime radiation standard pattern. The pattern was designed using the criteria listed in 47 CFR 73.150. The daytime directional pattern is plotted on Figure 7.

The existing and proposed daytime contours are shown in the two sheets of Figure 8. The existing 5 mV/m contour covers 89.3 percent of the area of San Antonio. The 5 mV/m coverage will be increased to 98.2 percent with the proposed operation.

The daytime allocation study is shown in Figure 9. The proposal meets the requirements of 47 CFR 73.37, as there is no prohibited overlap of field strength contours. Figure 10 lists the stations pertinent to the daytime allocation situation. This list contains information used in generating the various signal contours for the stations.

The proposed KZDC daytime operation was evaluated in terms of both electric and magnetic field components, which will be present at the base of each tower. Employing Section 1 of Supplement A contained in OET Bulletin 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields,* the worse case interpolated distance at which the electric and magnetic fields would fall below ANSI guidelines is 3 meters. This worse case distance is based on assuming the entire power of 25 kilowatts is radiated from each tower rather than divided between the four towers. A fence having a minimum radius of 3 meters will be constructed about each tower unless measured data obtained after construction has been completed indicates otherwise. The fence will assure that persons located outside of the fenced area will not be exposed to radiofrequency field levels in excess of those recommended by the ANSI. Additionally, warning signs will be posted on the fence.

PART B

Proposed Nighttime Operation

Figure 11 is a sketch showing the pertinent heights of the four towers proposed for the nighttime directional antenna pattern. The towers will have an overall height above ground level of 60.7 meters and an overall height above mean sea level of 350.5 meters.

Notification of the proposed construction has not been filed with the Federal Aviation Administration, as the height of the towers and location passes the Commission's TOWAIR computer program.

Figure 12 shows the nighttime tower layout and the associated ground system. Property boundaries have not yet been established, but will include the entire ground system, which will consist of 120 equally spaced copper wire (#10 AWG) radials, each 60 meters (197 feet) in length, except where terminated and bonded to a 4-inch wide copper strap between adjacent towers. The radials will be buried approximately 7 inches.

The proposed nighttime transmitter site is in a quarry located on the west side of NW Military Highway, approximately 1.5 kilometers north of Texas Highway 1604. The geographic coordinates (NAD 27) for the center of the proposed four-tower array are:

29º 36' 35" North Latitude

98º 34' 31" West Longitude.

Figure 13 is a map showing the location of the nighttime transmitter site. Also shown on Figure 13 is the nighttime 1,000 mV/m contour. According to the 2000 census, no one resides within the proposed contour. The proposal therefore complies with 47 CFR 73.24(g). An aerial photograph of the proposed site is shown on Figure 14.

Specifications for the nighttime directional antenna system are outlined in Figure 15. Figure 16 is a tabulation of the nighttime radiation standard pattern. The pattern was designed using the criteria listed in 47 CFR 73.150. The nighttime directional pattern is plotted on Figure 17.

The existing and proposed nighttime interference free (NIF) contours are shown in the two sheets of Figure 18. The existing 10.4 mV/m NIF contour covers 50.0 percent of the area of San Antonio. The proposed NIF increases coverage to 56.5 percent of the city area.

The nighttime allocation study is shown in Figure 19. The proposal meets the requirements of 47 CFR 73.182.

The proposed KZDC nighttime operation was evaluated in terms of both electric and magnetic field components, which will be present at the base of each tower. Employing Section 1 of Supplement A contained in OET Bulletin 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields,* the worse case interpolated distance at which the electric and magnetic fields would fall below ANSI guidelines is 1.5 meters. This worse case distance is based on assuming the entire power of 2 kilowatts is radiated from each tower rather than divided between the four towers. A fence having a minimum radius of 1.5 meters will be constructed about each tower unless measured data obtained after construction has been completed indicates otherwise. The fence will assure that persons located outside of the fenced area will not be exposed to radiofrequency field levels in excess of those recommended by the ANSI. Additionally, warning signs will be posted on the fence.

Louis R. du Treil

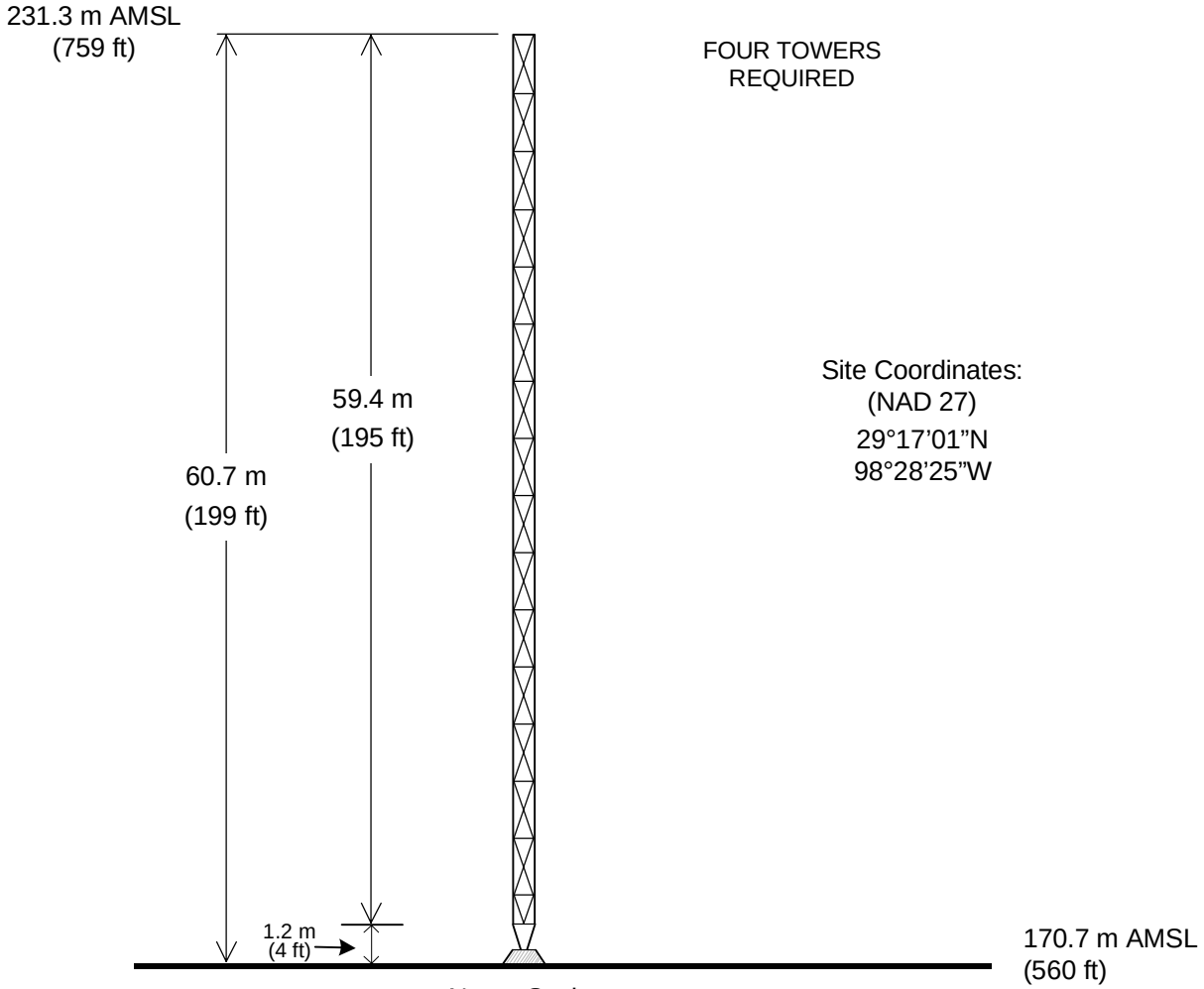
Louis R. du Treil, Sr.
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237-6019
941 329 6000

July 18, 2006

Figure 1

NOTE: METRIC HEIGHTS MAY
NOT AGREE DUE TO ROUNDING

JULY 2006



Not to Scale

DAYTIME PATTERN ANTENNA ELEMENTS

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

GROUND SYSTEM: ABOUT EACH TOWER, 120 EQUALLY SPACED COPPER WIRE (#10 AWG) RADIALS, EACH 60 METERS (197 FEET) IN LENGTH EXCEPT WHERE TERMINATED AND BONDED TO A 4 INCH WIDE COPPER STRAP BETWEEN ADJACENT TOWERS OR WHERE TERMINATED AT THE PROPERTY BOUNDARY. RADIALS WILL BE BURIED APPROXIMATELY 7 INCHES.

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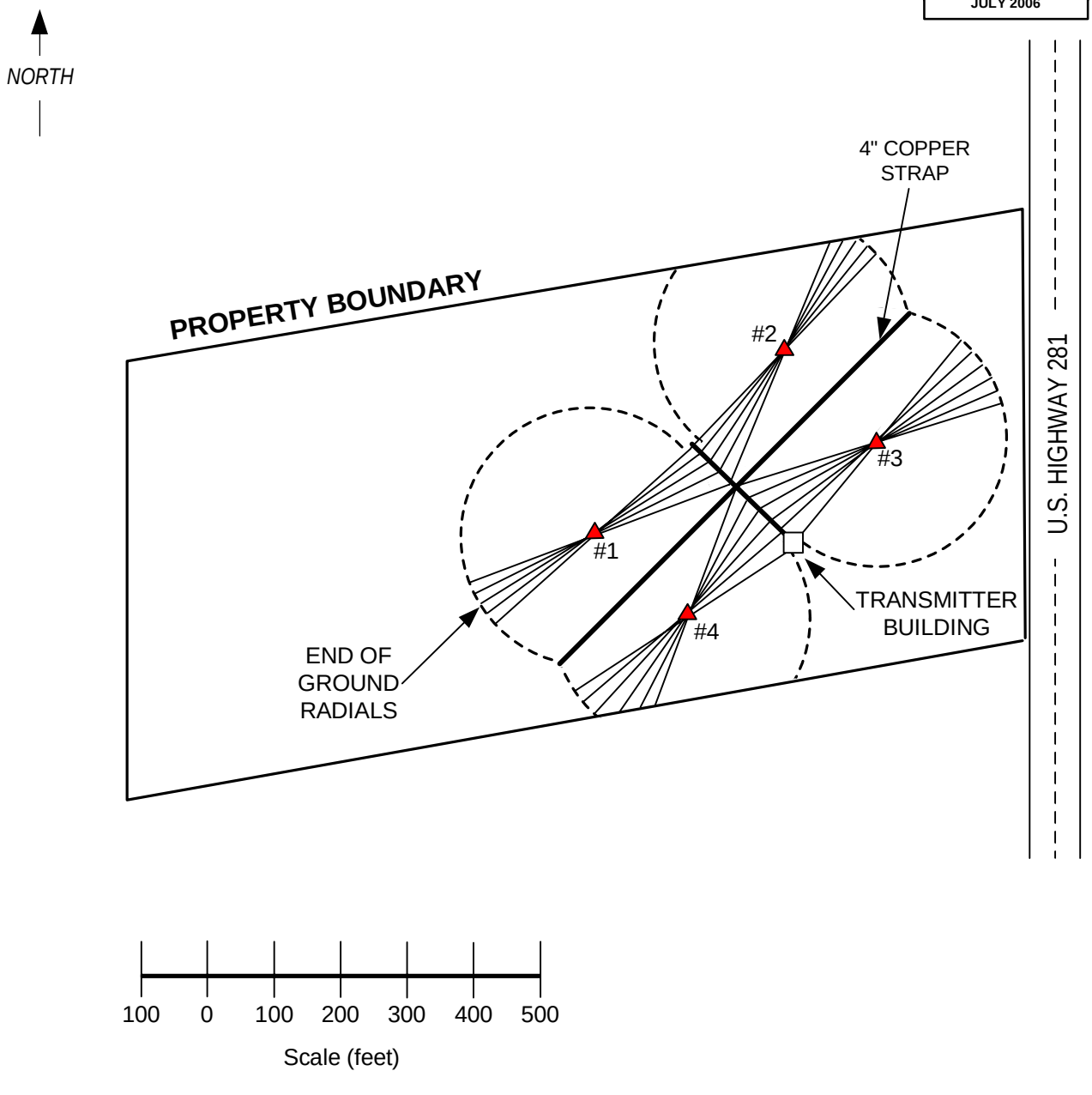
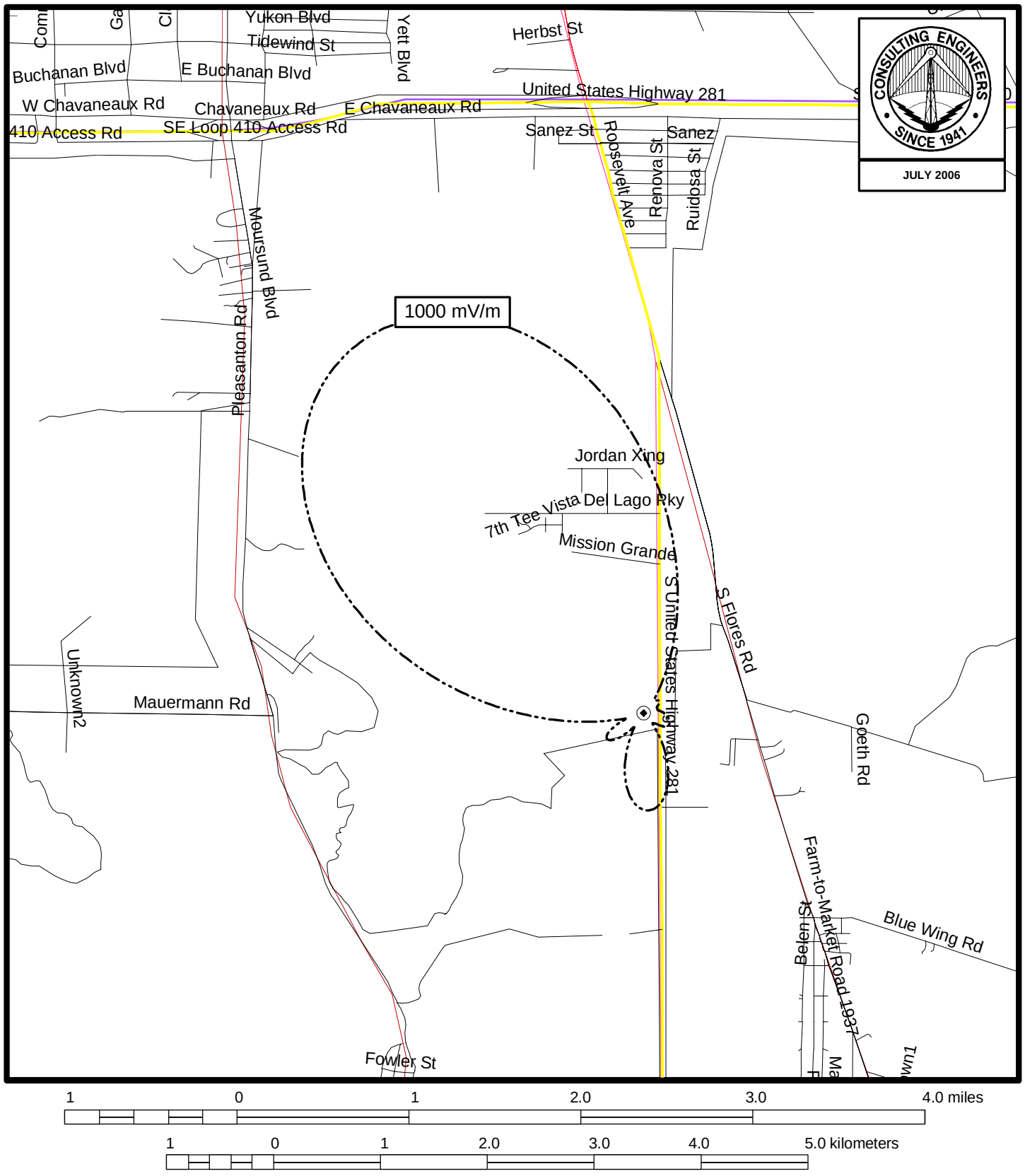


PROPERTY PLAN AND ANTENNA GROUND SYSTEM

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

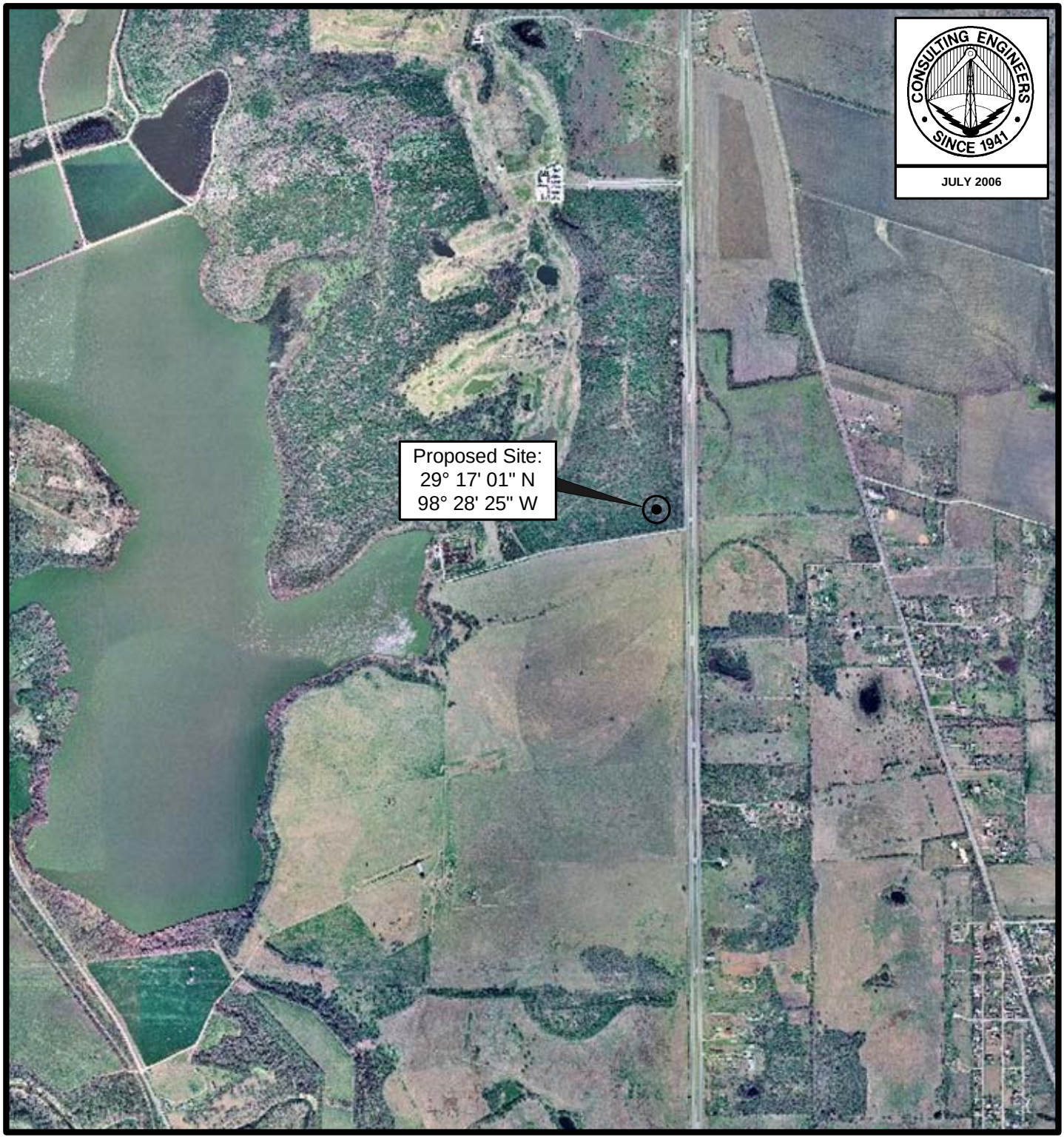
Figure 3



PREDICTED DAYTIME 1000 mV/m COVERAGE CONTOUR

RADIO STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



DAYTIME AERIAL PHOTOGRAPH

RADIO STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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RADIO STATION KZDC
SAN ANTONIO, TEXAS
FACILITY ID 65330
1250 KHZ 25 KW-D 2 KW-N DA-2 U

Specifications for Daytime
Directional Antenna System

Frequency:	1250 KHZ
Hours of Operation:	Unlimited
Power:	25 KW
Number of Towers:	4
Tower Type:	Uniform Cross-Section Guyed & Base Insulated

All Towers:

Tower No.	**Spacing (deg.)/m**	**Orientation (deg. true)**
1 (NW)	0/0	0
2 (NE)	190/126.6	46.1
3 (SE)	208.6/139.0	71.2
4 (SW)	88.9/59.2	133.3

Element Parameters:

Tower No.	Field Ratio	Phase (degrees)
1	1.000	0
2	0.895	-27.7
3	1.109	73.3
4	0.707	85.8

Ground System:

About each tower, 120 equally spaced copper wire (#10 AWG) radials, each 60 meters (197 feet) in length except where terminated and bonded to a 4 inch wide copper strap between adjacent towers or where terminated at the property boundary. Radials will be buried approximately 7 inches.

Geographic Coordinates:
(Array Center – NAD 27)

29° 17’ 01” North Latitude
98° 28’ 25” West Longitude

Figure 6

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION KZDC
SAN ANTONIO, TEXAS

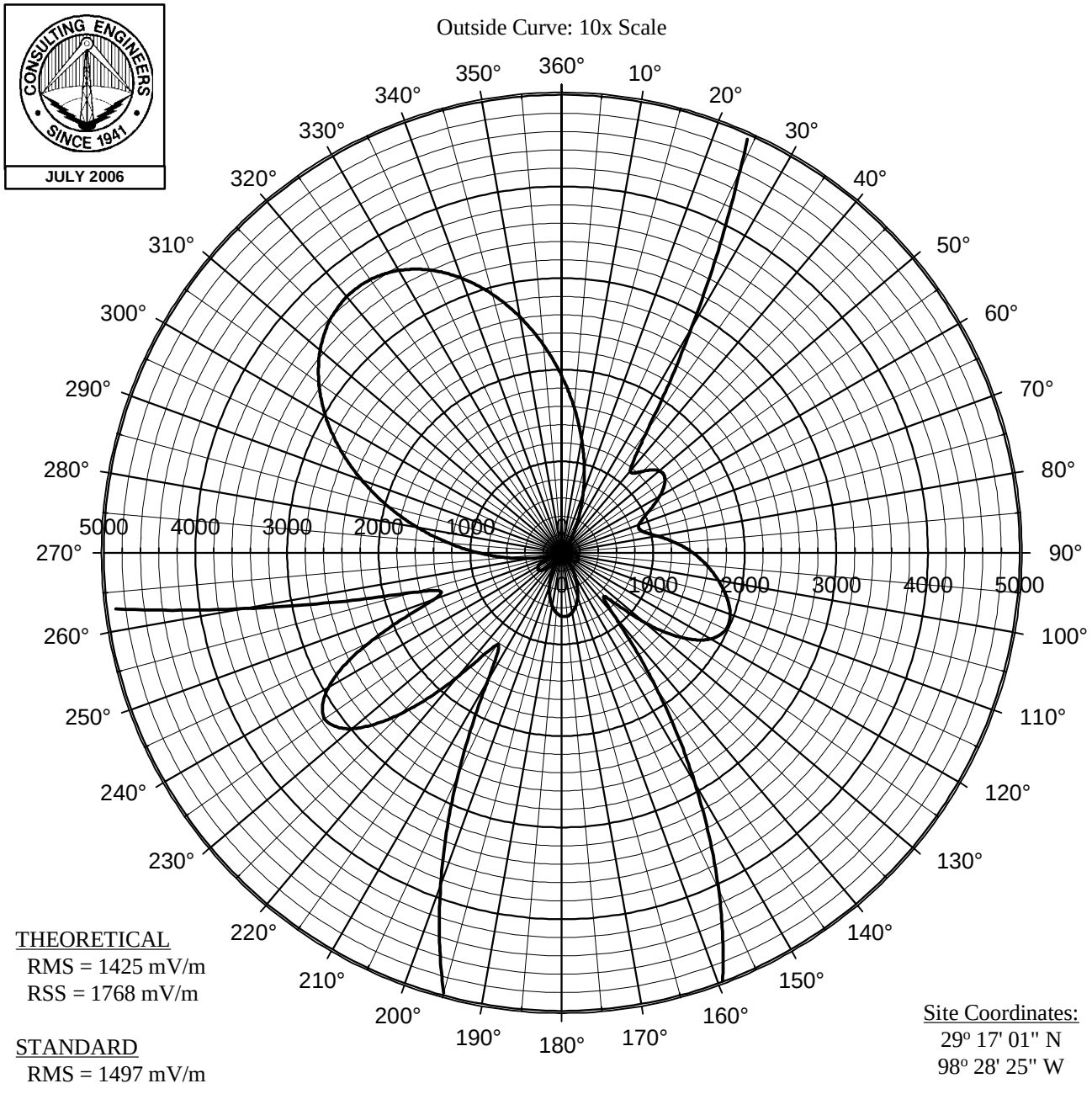
1250 KHZ 25 KW-D 2 KW-N DA-2 U

DAYTIME RADIATION PATTERN
(Radiation Values at One Kilometer)

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	1.000	0.0	0.0	0.0	89.2
2	0.895	-27.7	190.0	46.1	89.2
3	1.109	+73.3	208.6	71.2	89.2
4	0.707	+85.8	88.9	133.3	89.2

Input Power (kW)	Loop Loss (ohms)	Theo. RMS (mV/m)	Theo. RSS (mV/m)	Q Factor (mV/m)	Standard RMS (mV/m)
25	1.0	1425	1768	50.0	1497

Azimuth (mV/m)	Field (mV/m)	Azimuth (mV/m)	Field (mV/m)	Azimuth (mV/m)	Field (mV/m)	Azimuth (mV/m)	Field (mV/m)
0	1932	90	143	180	694	270	908
5	1588	95	159	185	658	275	1242
10	1259	100	174	190	591	280	1598
15	955	105	187	195	497	285	1963
20	687	110	196	200	386	290	2323
25	461	115	198	205	267	295	2664
30	283	120	188	210	161	300	2973
35	163	125	162	215	122	305	3236
40	116	130	118	220	177	310	3442
45	126	135	68.6	225	249	315	3581
50	139	140	87.9	230	299	320	3649
55	138	145	180	235	316	325	3641
60	124	150	292	240	294	330	3559
65	104	155	405	245	231	335	3406
70	89.7	160	511	250	147	340	3190
75	90.8	165	600	255	166	345	2922
80	105	170	663	260	351	350	2614
85	125	175	695	265	607	355	2279



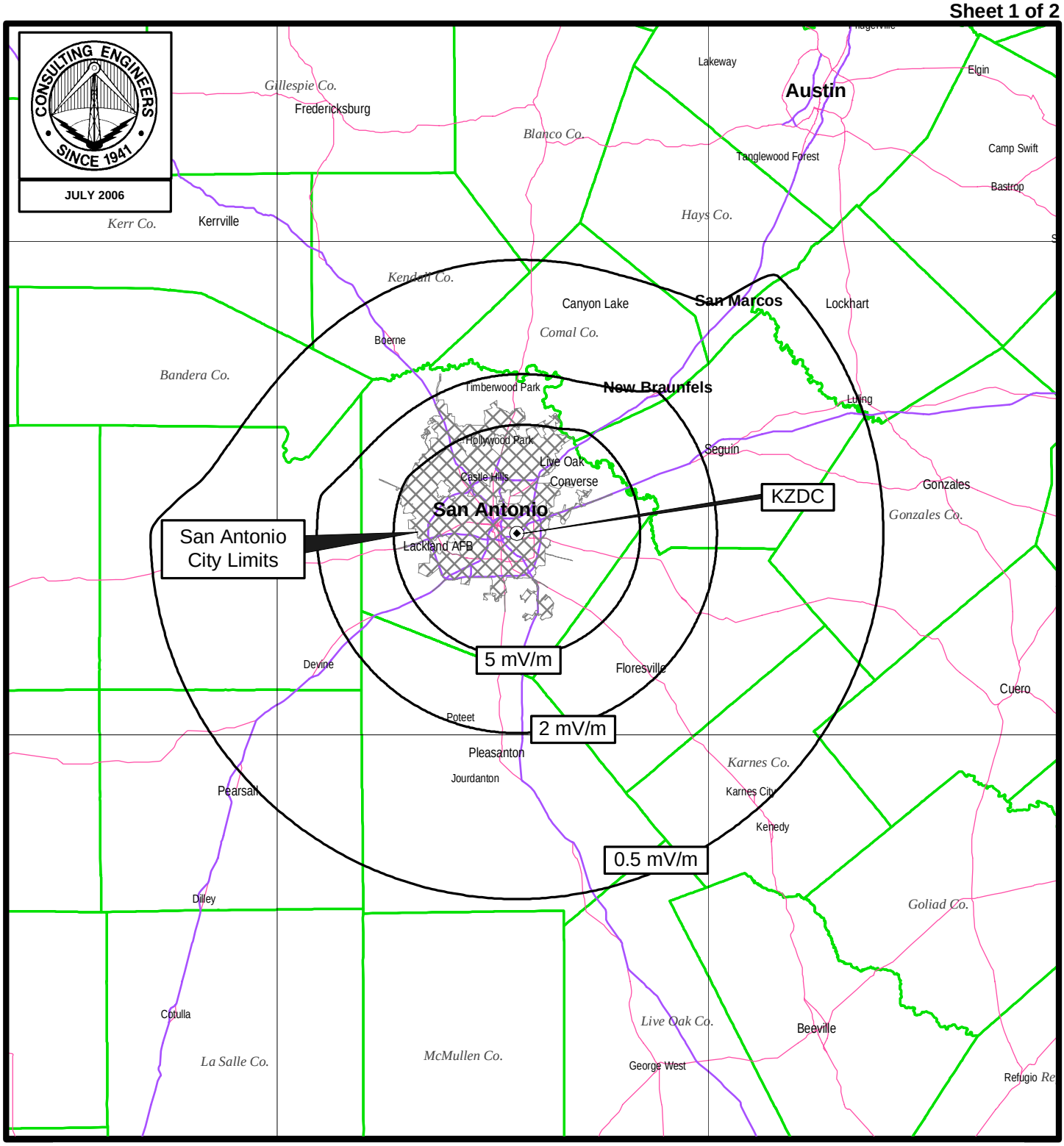
DIRECTIONAL ANTENNA PATTERN

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	1.000	0.0	0.0	0.0	89.2
2	0.895	-27.7	190.0	46.1	89.2
3	1.109	+73.3	208.6	71.2	89.2
4	0.707	+85.8	88.9	133.3	89.2

POLAR PLOT OF PROPOSED DAYTIME STANDARD RADIATION PATTERN

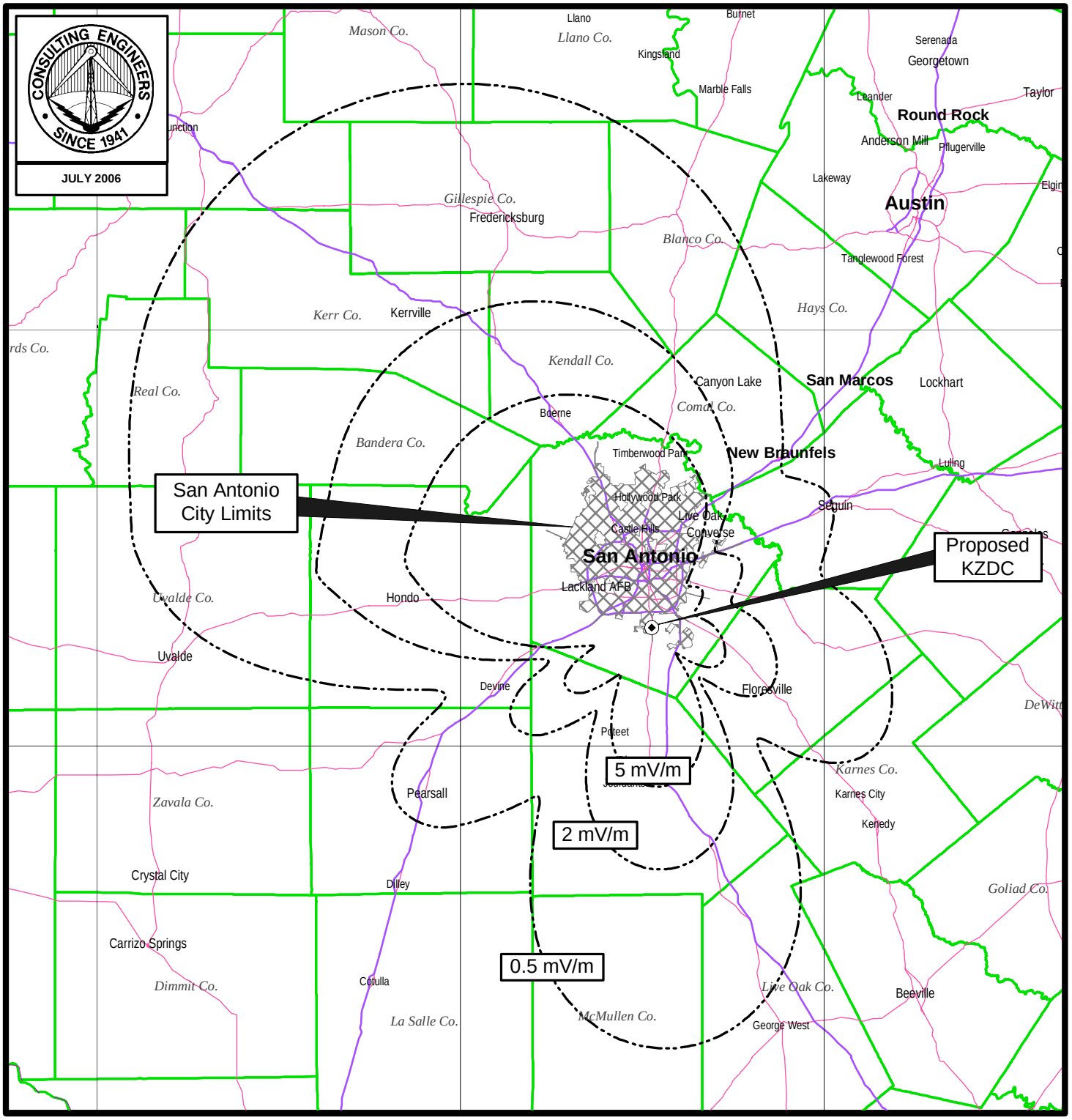
RADIO STATION KZDC
SAN ANTONIO, TEXAS
1250 KHZ 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



EXISTING DAYTIME COVERAGE CONTOURS

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

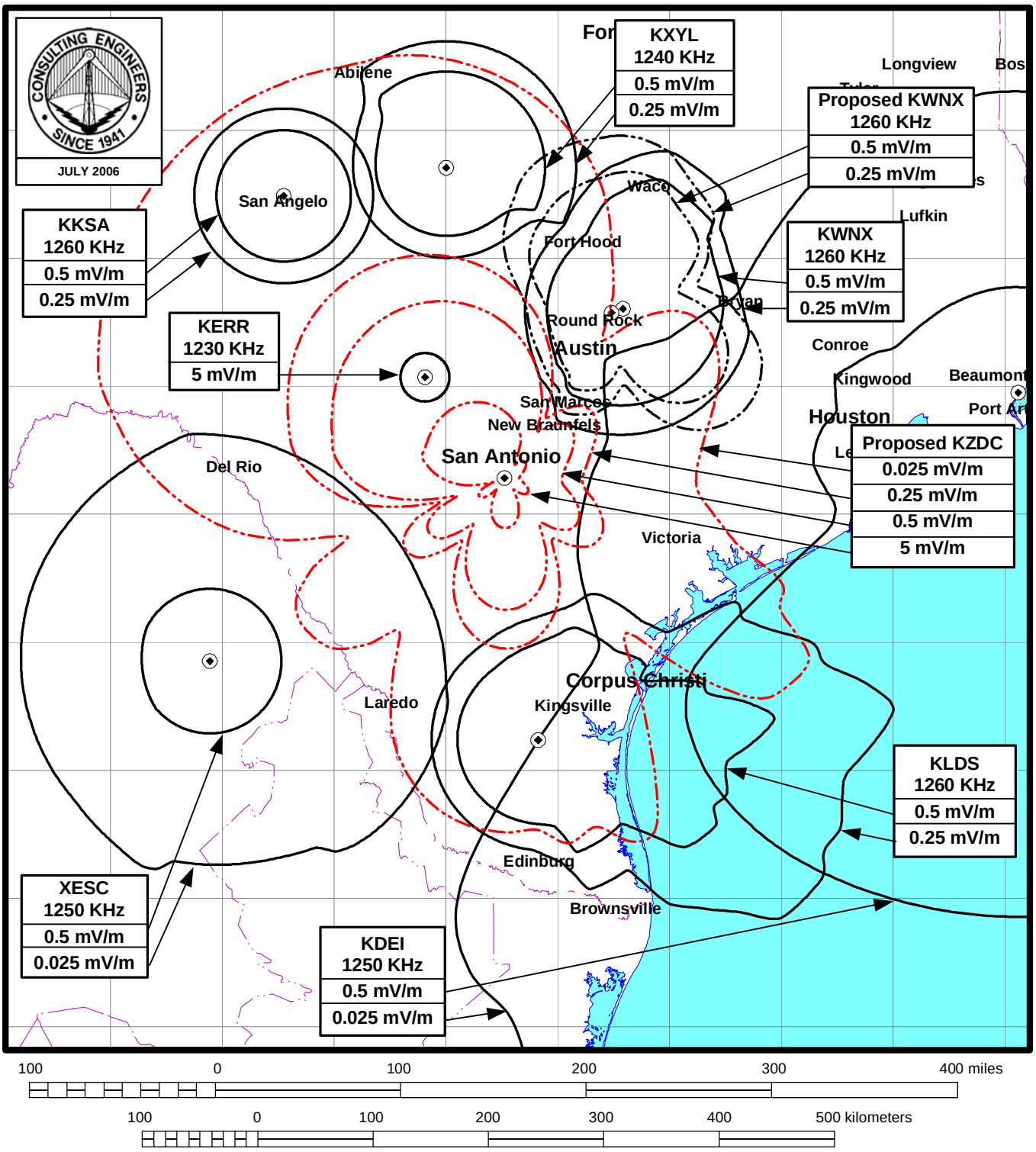


PROPOSED DAYTIME COVERAGE CONTOURS

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 9



DAYTIME ALLOCATION STUDY

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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FACILITY ID 65330
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Data Employed in Calculation
of Groundwave Contours

Station:	**KZDC San Antonio, Texas**
Existing Facility:	1250 KHZ, 1 KW, DA-N, U 29-24-29 N. Latitude, 98-26-39 West Longitude
Existing Radiation:	313.8 MV/M/KM
Conductivity:	Figure M-3
Proposed Daytime Facility:	1250 KHZ, 25 KW, DA-2, U 29-17-01 N. Latitude, 98-28-25 W. Longitude
Proposed Radiation:	Standard Pattern – Figure 7
Conductivity:	Figure M-3
Station:	**KDEI Port Arthur, Texas**
Facility:	1250 KHZ, 5 KW-D, 1 KW-N, DA-N, U 29-57-04 N. Latitude, 93-52-46 W. Longitude
Radiation:	384.3 MV/M/KM
Conductivity:	Figure M-3
Station:	**KLDS Falfurrias, Texas**
Facility:	1260 KHZ, 0.5 KW-D, 0.33 KW-N, U
Radiation:	307.4 MV/M/KM
Conductivity:	Figure M-3
Station:	**KWNX Taylor, Texas**
Existing Facility:	1260 KHZ, 1 KW-D 30-36-19 N. Latitude, 97-24-51 W. Longitude
Proposed Facility:	1260 KHZ, 2.5 KW-D, 0.4 KW-N, DA-2, U 30-34-26 N. Latitude, 97-30-57 W. Longitude
Existing Radiation:	309.0 MV/M/KM
Proposed Radiation:	Standard Pattern
Conductivity:	Figure M-3

Station:	**KERV Kerrville, Texas**
Facility:	1230 KHZ, 0.99 KW, U 30-04-14 N. Latitude, 99-11-07 W. Longitude
Radiation:	296.1 MV/M/KM
Conductivity:	Figure M-3
Station:	**XESC Sabinas, CI**
Facility:	1250 KHZ, 1 KW, U 27-51-13 N. Latitude, 101-06-34 W. Longitude
Radiation:	284.4 MV/M/KM
Conductivity:	Region 2
Station:	**KXYL Brownwood, Texas**
Facility:	1240 KHZ, 1 KW, U 31-42-21 N. Latitude, 98-59-45 W. Longitude
Radiation:	272.0 MV/M/KM
Conductivity:	Figure M-3
Station:	**KKSA San Angelo, Texas**
Facility:	1260 KHZ, 0.54 KW-D, D 31-29-14 N. Latitude, 100-26-57 W. Longitude
Radiation:	416.0 MV/M/KM
Conductivity:	Figure M-3

Figure 11

NOTE: METRIC HEIGHTS MAY
NOT AGREE DUE TO ROUNDING

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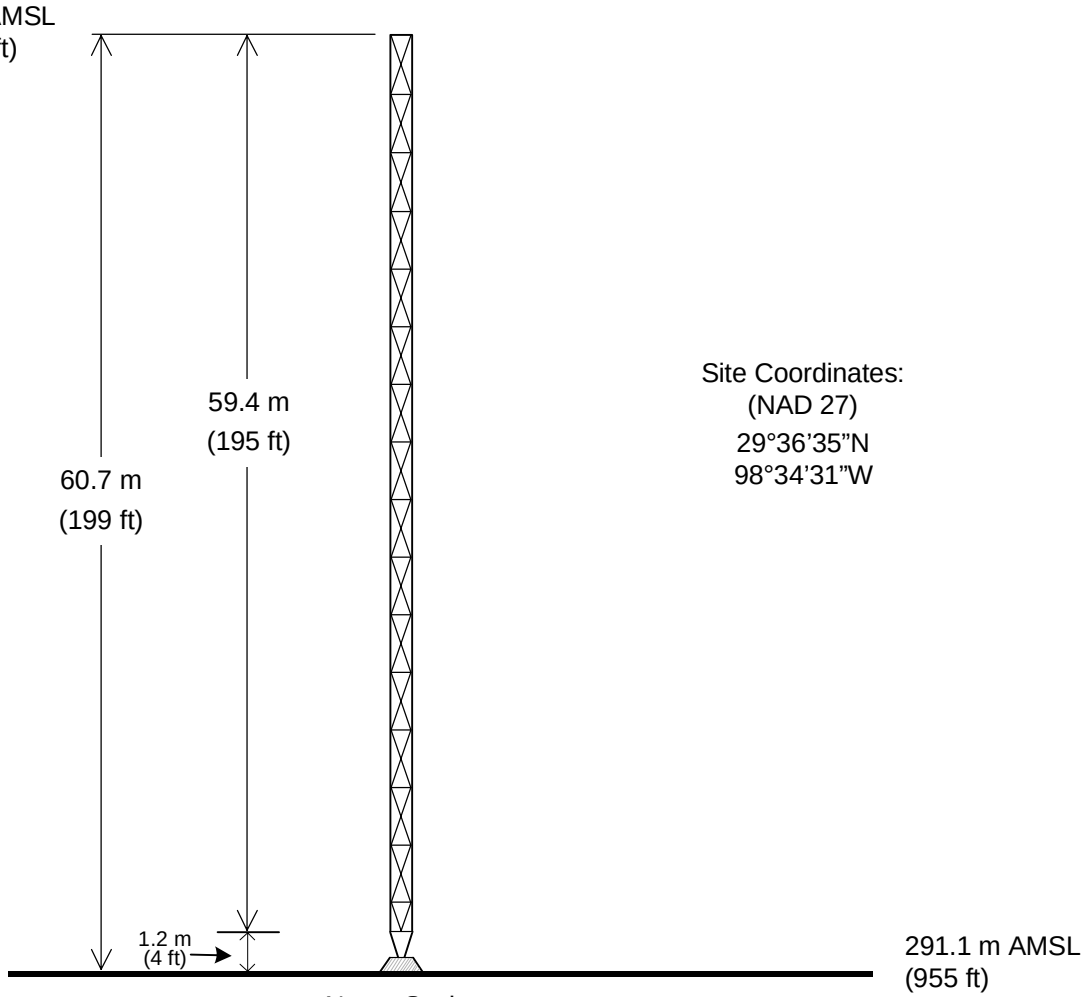

Site Coordinates:
(NAD 27)
29°36'35"N
98°34'31"W

Not to Scale

NIGHTTIME PATTERN ANTENNA ELEMENTS

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

GROUND SYSTEM: ABOUT EACH TOWER, 120 EQUALLY SPACED COPPER WIRE (#10 AWG) RADIALS, EACH 60 METERS (197 FEET) IN LENGTH EXCEPT WHERE TERMINATED AND BONDED TO A 4 INCH WIDE COPPER STRAP BETWEEN ADJACENT TOWERS OR WHERE TERMINATED AT THE PROPERTY BOUNDARY. RADIALS WILL BE BURIED APPROXIMATELY 7 INCHES.

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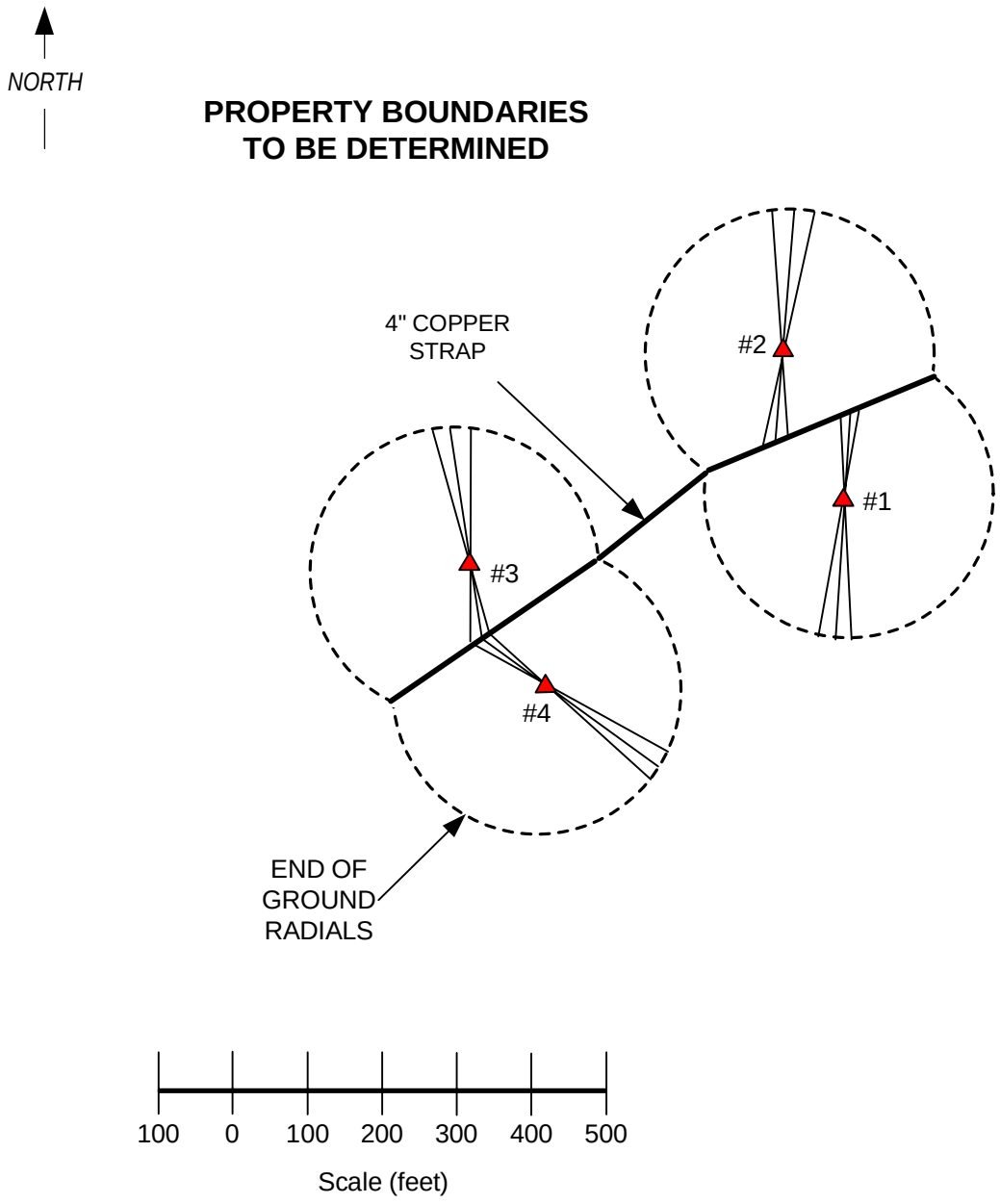
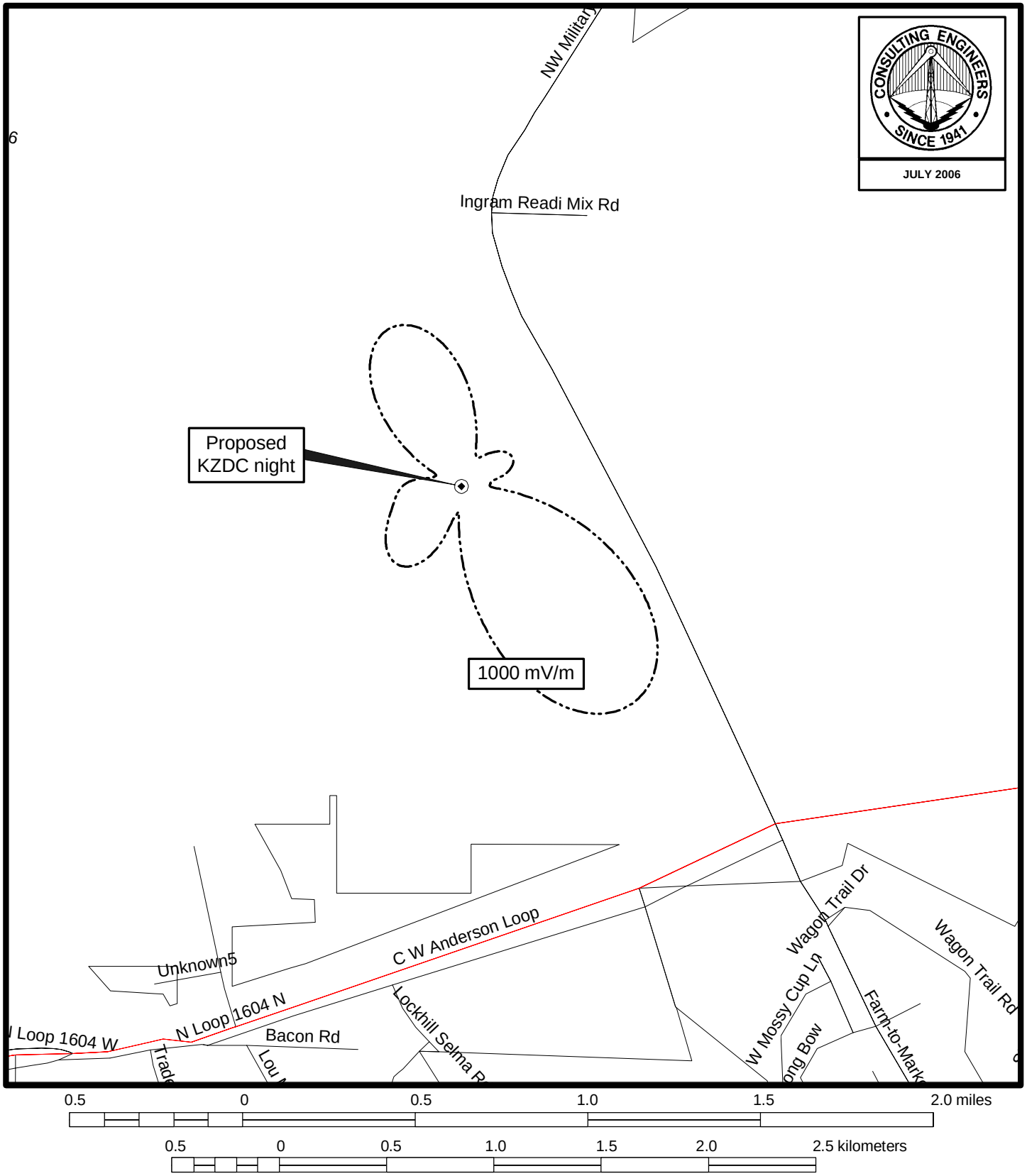
JULY 2006



PROPOSED NIGHTTIME TOWER LAYOUT AND GROUND SYSTEM

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U



LOCATION OF NIGHTTIME SITE AND 1000 mV/m CONTOUR

RADIO STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

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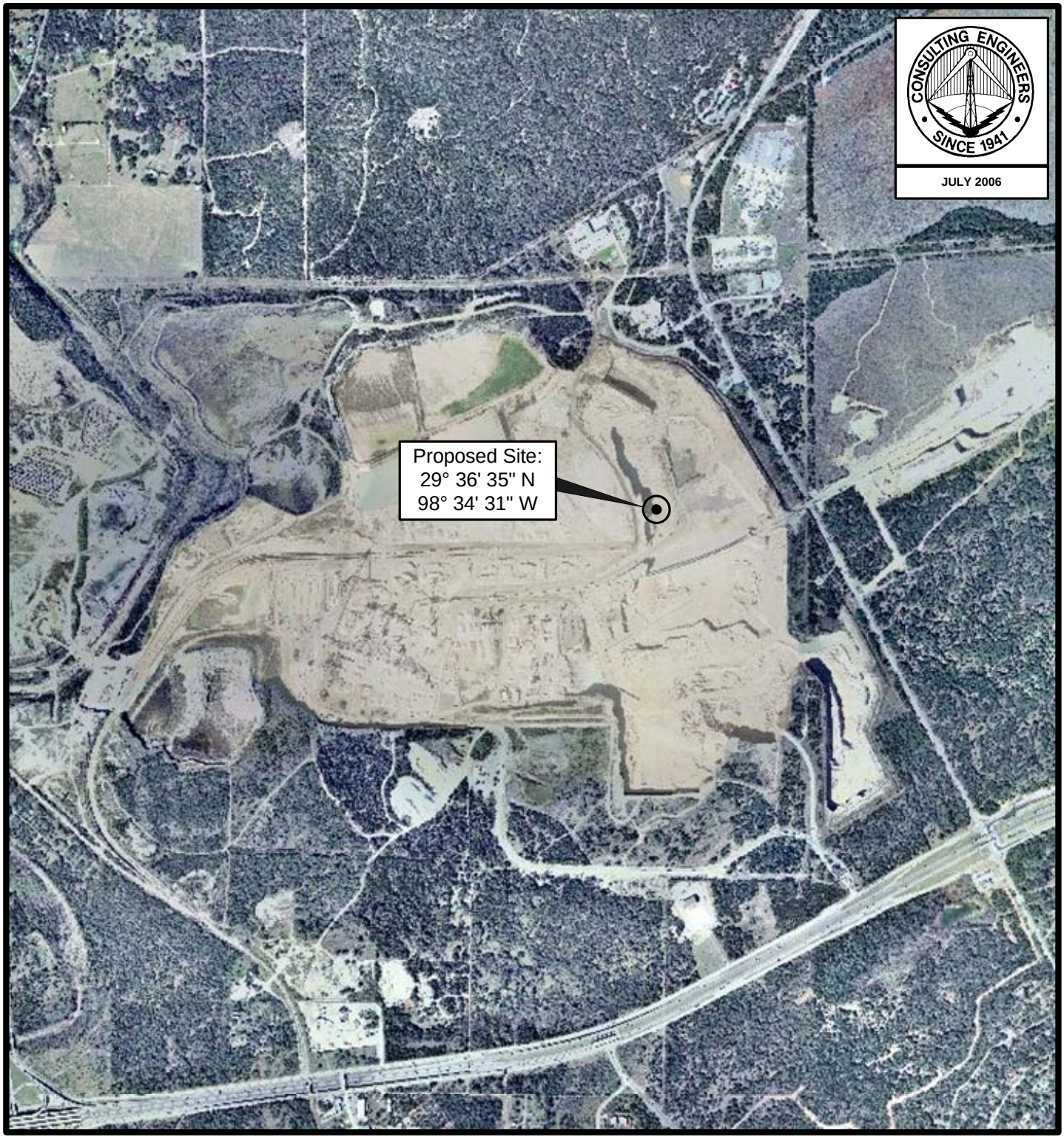

NIGHTTIME AERIAL PHOTOGRAPH

RADIO STATION KZDC
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FACILITY ID 65330
1250 KHZ 25 KW-D 2 KW-N DA-2 U

Specifications for Nighttime
Directional Antenna System

Frequency:	1250 KHZ
Hours of Operation:	Unlimited
Power:	2 KW
Number of Towers:	4
Tower Type:	Uniform Cross-Section Guyed & Base Insulated

Tower Height:

Above Base Insulator	59.4 M
Above Ground Level	60.7 M
Above Mean Sea Level	350.5 M

Tower Arrangement:

Tower No.	Spacing (deg.)/m	Orientation (deg. true)
1 (SE)	0/0	0
2 (NE)	87.2/58.1	333.5
3 (NW)	237.8/158.4	257.3
4 (SW)	222.0/67.7	238.0

Element Parameters:

Tower No.	Field Ratio	Phase (degrees)
1 (SE)	1.000	0
2 (NE)	2.853	150.7
3 (NW)	2.837	-177.8
4 (SW)	1.662	38.4

Ground System:

About each tower, 120 equally spaced copper wire (#10 AWG) radials, each 60 meters (197 feet) in length except where terminated and bonded to a 4 inch wide copper strap between adjacent towers or where terminated at the property boundary. Radials will be buried approximately 7 inches.

Geographic Coordinates of
Array Center (NAD 27):

29° 36’ 35” North Latitude
98° 34’ 31” West Longitude

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SAN ANTONIO, TEXAS

1250 KHZ 25 KW-D 2 KW-N DA-2 U

NIGHTTIME RADIATION PATTERN
(Radiation Values at One Kilometer)

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	1.000	0.0	0.0	0.0	89.2
2	2.853	+150.7	87.2	333.5	89.2
3	2.837	-177.8	237.8	257.3	89.2
4	1.662	+38.4	222.0	238.0	89.2

Input Power (kW)	Loop Loss (ohms)	Theo. RMS (mV/m)	Theo. RSS (mV/m)	Q Factor (mV/m)	Standard RMS (mV/m)
2.0	1.0	438.8	618.3	15.5	461.1

Standard Radiation Pattern
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees 0 (mV/m)	5 (mV/m)	10 (mV/m)	15 (mV/m)	20 (mV/m)	25 (mV/m)	30 (mV/m)
0	419	417	410	400	385	366	343
5	343	342	339	333	324	312	297
10	269	269	268	266	263	258	250
15	203	203	204	205	206	206	204
20	150	151	152	154	156	159	162
25	120	120	119	118	119	121	125
30	117	115	111	104	98	94.5	95.6
35	133	130	122	110	95	82.1	74.8
40	156	152	142	125	104	82.1	63.7
45	178	174	162	142	117	88.2	60.2
50	196	191	178	156	128	94.5	59.6
55	208	203	188	165	134	97.2	57.7
60	212	207	191	166	133	94.0	51.4
65	207	201	185	159	124	83.2	39.4
70	190	184	167	140	105	64.2	23.7
75	159	154	137	110	76.1	39.6	28.1
80	115	110	94.1	70.4	44.3	37.1	63.9
85	65.1	61.6	53.0	47.3	56.9	82.1	114
90	72.4	75.0	83.4	98.9	121	148	175
95	158	161	171	186	205	226	246
100	269	271	278	289	301	314	324
105	393	394	397	402	406	408	407
110	524	524	522	519	514	505	492
115	654	652	646	636	621	600	574
120	777	774	763	745	721	689	650
125	885	880	865	841	807	765	715
130	970	963	945	916	875	825	766
135	1026	1019	999	965	920	864	800
140	1050	1042	1021	986	938	880	813
145	1038	1031	1010	975	928	871	805
150	992	985	966	934	891	837	776
155	913	908	891	864	827	781	728
160	807	803	791	770	741	705	662
165	680	678	670	657	638	613	583
170	540	539	536	531	523	511	495
175	393	394	397	400	403	404	402

Standard Radiation Pattern
(at One Kilometer)

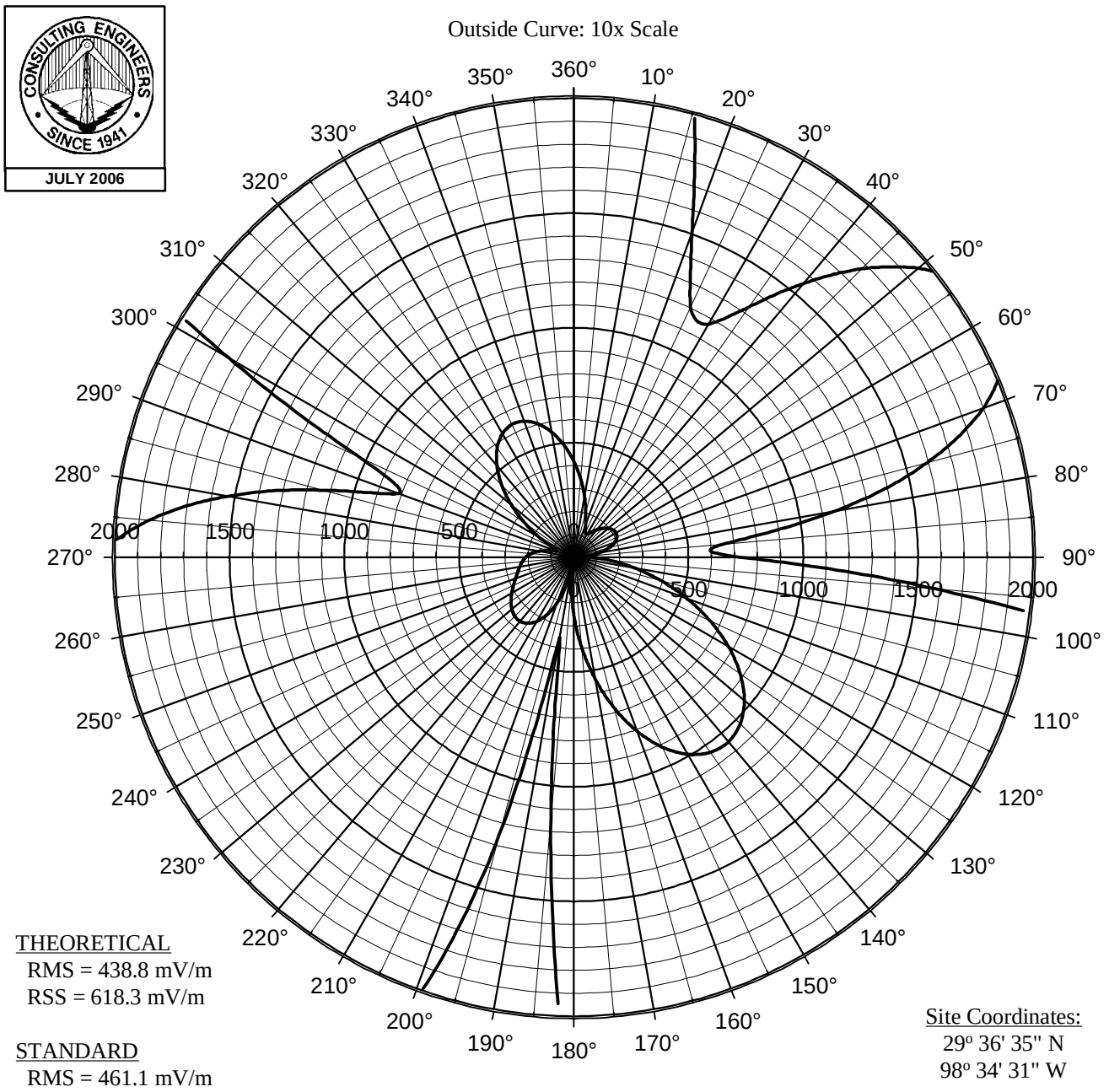
Azimuth Angle (deg)	Elevation Angle in Degrees						
	35 (mV/m)	40 (mV/m)	45 (mV/m)	50 (mV/m)	55 (mV/m)	60 (mV/m)	65 (mV/m)
0	317	289	259	230	201	174	148
5	279	259	237	213	190	168	145
10	240	227	212	196	179	161	142
15	201	195	188	179	167	154	139
20	164	165	164	161	156	148	136
25	131	136	142	145	146	142	133
30	102	111	122	131	136	137	131
35	77.5	88.9	104	119	129	133	130
40	58.7	70.3	90.0	109	124	131	130
45	44.7	55.5	79.6	103	122	131	131
50	34.3	44.7	73.9	101	122	133	133
55	25.1	39.5	73.6	104	125	137	137
60	16.0	42.0	79.3	110	132	143	141
65	15.0	53.4	91.2	121	142	151	147
70	33.0	73.0	109	137	155	161	155
75	62.0	100	133	157	171	173	163
80	100	134	162	181	189	186	172
85	146	175	196	209	211	202	182
90	201	222	235	239	234	218	193
95	263	274	278	273	258	235	204
100	330	330	323	308	284	253	215
105	401	389	369	343	309	270	226
110	473	447	415	378	334	287	236
115	542	503	459	410	357	302	246
120	605	554	498	439	378	315	254
125	659	597	532	464	395	326	261
130	701	631	557	482	407	335	265
135	728	652	573	494	415	340	268
140	739	660	579	498	418	342	269
145	732	655	575	494	416	340	268
150	708	635	560	483	408	334	265
155	668	603	534	465	394	326	260
160	613	559	501	439	377	314	252
165	547	506	459	409	355	300	244
170	473	446	413	374	331	283	234
175	395	382	363	337	304	265	222

Standard Radiation Pattern
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees 0 (mV/m)	5 (mV/m)	10 (mV/m)	15 (mV/m)	20 (mV/m)	25 (mV/m)	30 (mV/m)
180	249	251	259	270	282.7	296	308
185	114	118	129	147	169	193	217
190	35.4	33.1	31.0	41.4	66.3	98.5	133
195	125	119	101	72.6	38.4	23.1	58.6
200	210	203	183	151	110	62.0	17.1
205	277	269	248	214	169	117	62.2
210	323	316	294	259	214	160	102
215	352	345	323	289	243	189	131
220	364	357	337	303	259	207	149
225	363	357	337	306	264	214	158
230	352	346	328	298	259	212	160
235	334	328	312	284	248	205	156
240	312	307	292	267	234	194	149
245	290	285	271	248	218	181	141
250	269	265	252	231	203	169	132
255	252	248	236	216	190	159	124
260	239	235	223	204	178	149	117
265	225	221	210	191	167	138	109
270	209	205	194	175	152	126	100
275	185	182	171	154	133	110	89.4
280	153	150	140	126	109	92.1	80.6
285	113	110	104	94.7	85.7	80.4	81.6
290	81.0	80.6	80.1	80.7	84.2	91.0	101
295	103	104	107	113	120	129	137
300	173	174	176	178	181	184	185
305	262	261	260	257	252	246	239
310	355	353	347	339	326	311	294
315	443	440	431	417	397	373	346
320	521	517	505	485	459	427	392
325	582	577	562	539	508	470	428
330	622	616	600	575	540	499	453
335	639	633	616	590	554	512	465
340	631	626	610	584	550	509	463
345	602	597	583	559	528	490	448
350	554	549	537	518	491	459	421
355	491	488	478	463	442	416	386

Standard Radiation Pattern
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees 35 (mV/m)	40 (mV/m)	45 (mV/m)	50 (mV/m)	55 (mV/m)	60 (mV/m)	65 (mV/m)
180	315	317	311	298	276	246	211
185	238	253	260	259	248	227	198
190	165	192	212	221	220	208	186
195	100	137	167	186	194	190	174
200	44.1	88.8	127	154	170	173	163
205	13.3	48.4	92.3	126	148	157	152
210	44.2	19.0	64.2	103	130	143	143
215	71.4	19.9	43.1	83.8	114	131	134
220	90.1	35.8	30.1	69.6	101	121	127
225	101	47.8	26.0	60.0	92.0	113	121
230	106	55.3	28.3	54.6	85.5	107	116
235	106	59.1	32.7	52.9	81.6	102	112
240	103	60.6	37.8	53.9	80.0	100	109
245	98.7	61.2	43.0	57.0	80.3	98.4	107
250	94.1	61.8	48.6	61.5	82.1	98.4	106
255	90.0	62.9	54.6	66.9	85.2	100	106
260	86.4	64.6	60.9	73.1	89.4	102	107
265	82.8	66.9	67.6	80.0	94.4	105	108
270	79.1	70.1	75.2	87.8	100	109	110
275	76.4	75.5	84.4	96.9	107	113	113
280	78.1	84.8	96.2	108	116	119	116
285	89.0	100	111	120	125	125	119
290	112	122	130	135	136	132	123
295	144	150	152	152	147	139	127
300	185	182	177	170	160	147	132
305	229	217	204	189	173	155	136
310	274	252	230	208	185	163	140
315	317	286	255	225	197	170	144
320	354	315	277	241	207	176	148
325	384	339	295	253	216	181	151
330	404	355	307	262	221	185	153
335	414	363	314	267	225	187	154
340	413	363	314	267	225	188	155
345	402	354	308	263	223	186	154
350	381	338	296	255	218	183	153
355	352	316	280	244	210	179	151



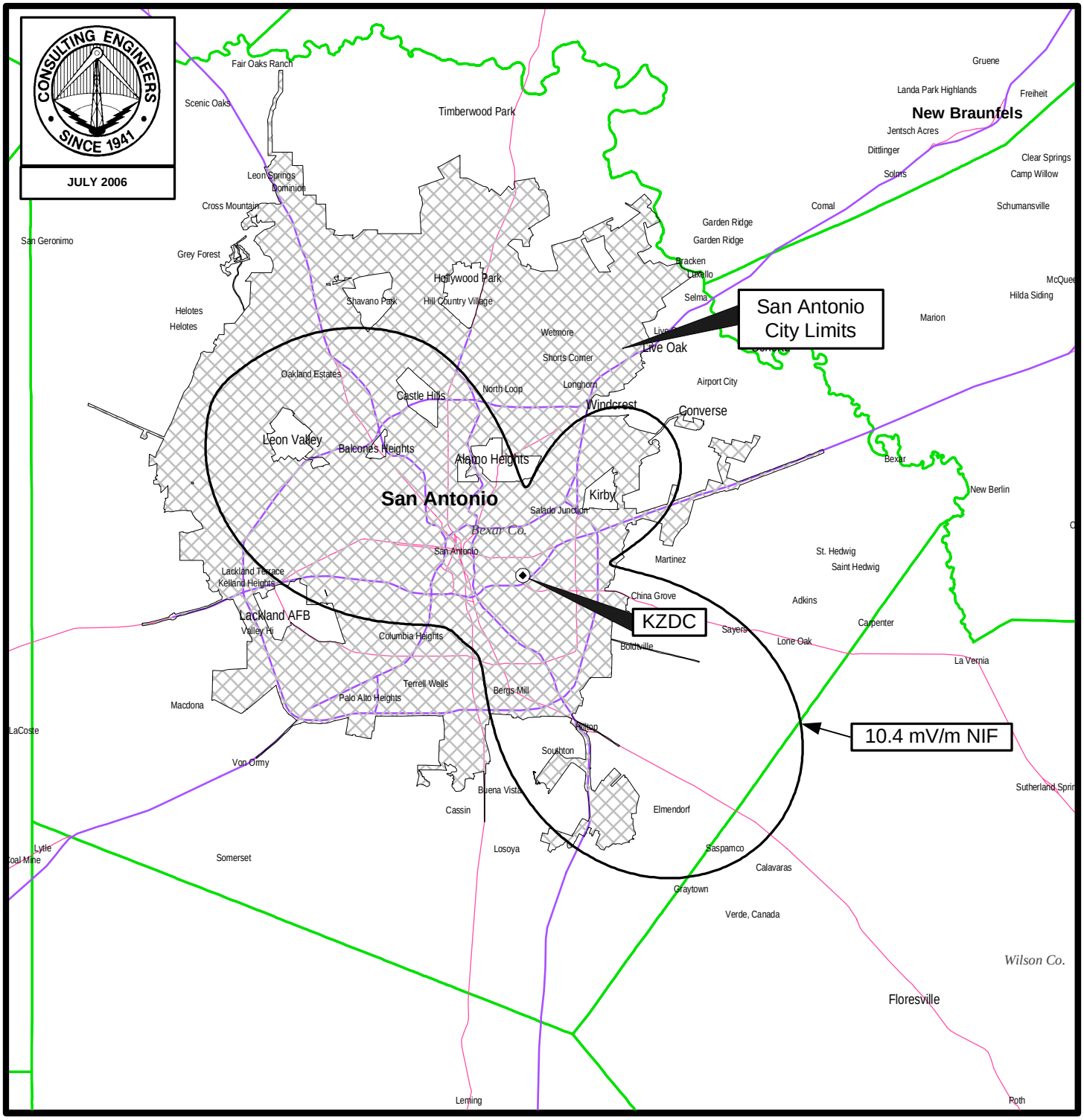
DIRECTIONAL ANTENNA PATTERN

Tower Number	Field Ratio	Phase (deg.)	Spacing (deg.)	Bearing (deg.)	Height (deg.)
1	1.000	0.0	0.0	0.0	89.2
2	2.853	+150.7	87.2	333.5	89.2
3	2.837	-177.8	237.8	257.3	89.2
4	1.662	+38.4	222.0	238.0	89.2

POLAR PLOT OF PROPOSED NIGHTTIME STANDARD RADIATION PATTERN

RADIO STATION KZDC
SAN ANTONIO, TEXAS
1250 KHZ 25 KW-D 2 KW-N DA-2 U

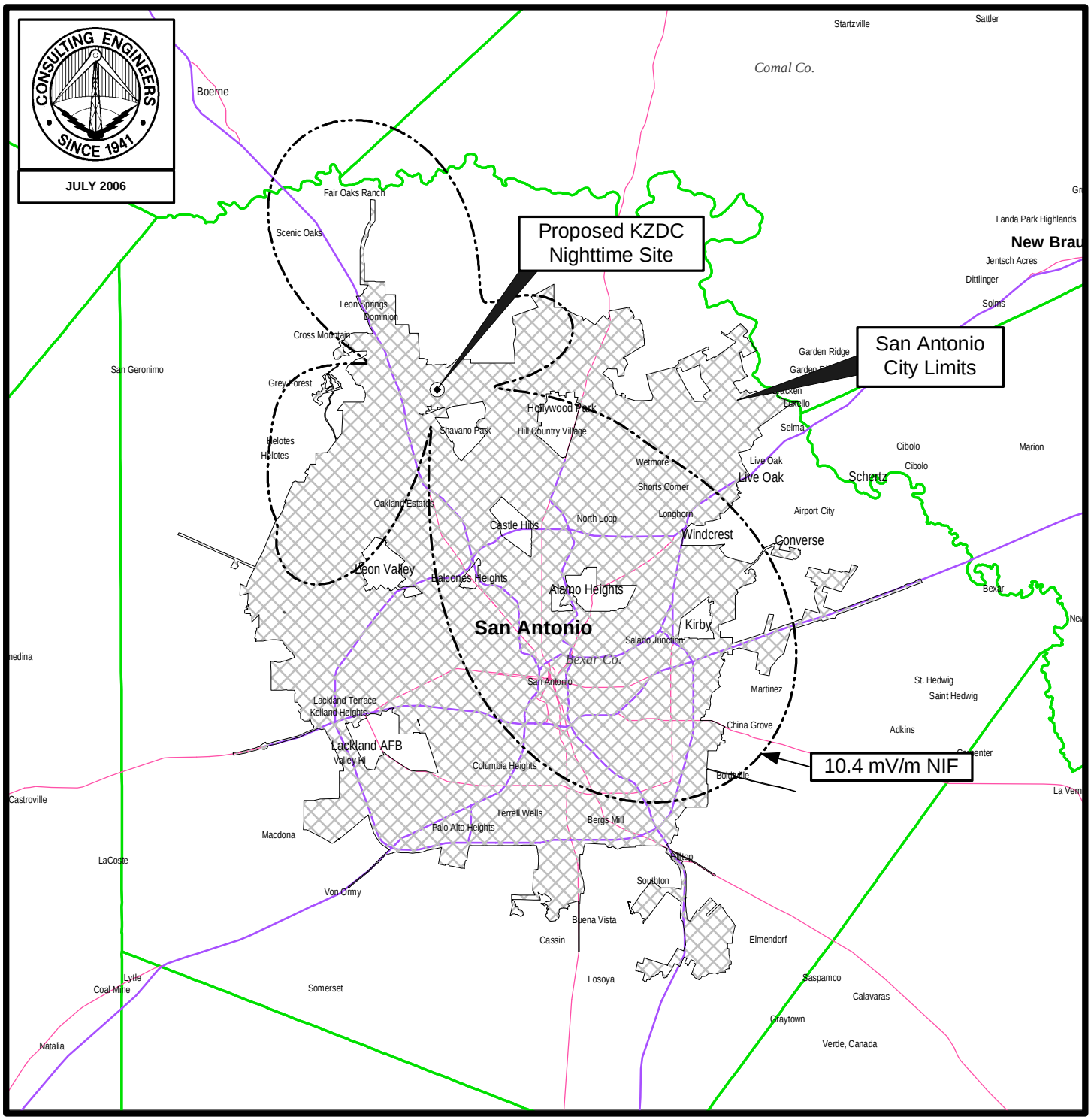
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



EXISTING NIGHTTIME COVERAGE CONTOUR

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PROPOSED NIGHTTIME COVERAGE CONTOUR

AM STATION KZDC
SAN ANTONIO, TEXAS
1250 KHz 25 KW-D 2 KW-N DA-2 U

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
BMP SAN ANTONIO LICENSE COMPANY, L.P.
RADIO STATION KZDC
SAN ANTONIO, TEXAS
FACILITY ID 65330
1250 KHZ 25 KW-D 2 KW-N DA-2 U

Nighttime Allocation Study

Call Letters	Ct	St	City	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
KWSU	US	WA	PULLMAN	7.88	0.92	582.36	580.22	2.14
KKHK	US	KS	KANSAS CITY	37.07	1.26	169.52	166.82	2.70
XEUO/O	MX	QR	CHETUMAL	20.74	4.33	1043.34	1039.80	3.54
KDEI	US	TX	PORT ARTHUR	136.74	2.37	86.48	81.90	4.59
WHNY	US	MS	MCCOMB	64.99	1.97	151.91	145.76	6.15
XEAT/O	MX	CH	HIDALGO DEL PAR	91.62	4.67	254.99	247.93	7.06
XEAT1/O	MX	CH	HIDALGO DEL PAR	91.62	4.67	254.99	247.93	7.06
XETF/A	MX	VC	VERACRUZ	46.97	5.8	617.19	609.99	7.20
XESC/O	MX	CI	SABINAS	166.84	5.7	170.69	152.66	18.03
XESJ/A	MX	CI	SALTILLO	121.46	5.87	241.69	206.38	35.31
XESJ1/O	MX	CI	SALTILLO	121.39	5.87	241.94	204.78	37.16
KPZK	US	AR	LITTLE ROCK	61.96	2.82	227.22	166.81	60.40
NEW	US	CO	JOHNSTOWN	28.49	3.97	697.46	636.66	60.79
NEW	US	CO	JOHNSTOWN	28.49	3.97	697.46	636.66	60.79
KIKZ	US	TX	SEMINOLE	116.97	10.46	447.33	382.77	64.55
XEREY/A	MX	SI	SAN BLAS	56.03	4.04	360.08	255.89	104.19
WHNZ	US	FL	TAMPA	23.41	1.39	297.71	115.20	182.51
XEDL/A	MX	SO	VILLA DE SERIS	45.58	3.7	405.78	202.30	203.49
NEW	US	AZ	MANY FARMS	31.59	3.45	545.81	334.58	211.23
NEW	US	AZ	MANY FARMS	31.59	3.45	545.81	334.58	211.23
XEDK/A	MX	JA	GUADALAJARA	53.99	5.45	504.95	279.34	225.61
XEDK1/A	MX	JA	GUADALAJARA	53.99	5.45	504.95	279.34	225.61
XEMG/A	MX	CS	ARRIAGA	23.26	4.73	1016.75	774.30	242.45
XEMG1/A	MX	CS	ARRIAGA	23.26	4.73	1016.75	774.30	242.45
HRQG-D	HO		S PEDRO SULA	4.86	1.25	1288.13	1045.62	242.50
WEAE	US	PA	PITTSBURGH	12.08	1.1	455.49	194.61	260.88
KBRF	US	MN	FERGUS FALLS	13.71	1.81	658.88	326.95	331.93

KTFJ	US	NE	DAKOTA CITY	23.66	3.03	641.28	303.51	337.76
KDNZ	US	IA	CEDAR FALLS	20.93	2.23	533.48	159.25	374.23
NEW	US	NV	MESQUITE	20.41	2.56	628.4	224.71	403.69
NEW	US	NV	MESQUITE	20.41	2.56	628.4	224.71	403.69
KLDS	US	TX	FALFURRIAS	240.83	4.24	881.2	475.01	406.19
XE/A	MX	MC	PURUANDIRO	54.67	6.03	551.82	134.85	416.98
KZER	US	CA	SANTA BARBARA	13.98	1.43	509.55	80.06	429.49
WTMA	US	SC	CHARLESTON	17.45	2.09	597.98	167.65	430.33
XEZT/A	MX	PU	PUEBLA	47.75	7.27	761.15	305.80	455.35
XEZT1/A	MX	PU	PUEBLA	47.15	7.29	772.97	298.19	474.78
WSSP	US	WI	MILWAUKEE	16.16	2.03	629.08	116.21	512.86
KWNX	US	TX	TAYLOR	343.51	4.42	643.61	128.38	515.23
KWNX	US	TX	TAYLOR	343.51	4.42	643.61	128.38	515.23
XESN/A	MX	SO	CABORCA	38.05	5.36	704.92	157.62	547.30
XEJX/O	MX	QE	QUERETARO	61.9	7.64	617.37	38.07	579.31
XEJX1/O	MX	QE	QUERETARO	61.9	7.64	617.37	38.07	579.31
WGL	US	IN	FORT WAYNE	16.59	2.68	807.42	155.95	651.47
XEPI1/A	MX	GR	TIXTLA	35.43	6.41	904.41	148.94	755.48
XEPI/A	MX	GR	TIXTLA	35.44	6.41	904.55	145.58	758.97
XETEJ/A	MX	MX	TEJUPILCO	45.63	7.71	844.66	52.87	791.78
XETEJ1/A	MX	MX	TEJUPILCO	45.63	7.71	844.66	52.87	791.78
XE/A	MX	GR	ZIHUATANEJO	34.12	6.18	905.04	90.47	814.57
KTRC	US	NM	SANTA FE	48.86	1.25	1279	458.17	820.83
WDVA	US	VA	DANVILLE	14.55	3.03	1040.52	211.86	828.66
NEW	US	AK	KETCHIKAN	2.05	0.61	1490.28	601.50	888.78
KSGF	US	MO	SPRINGFIELD	47.04	1.18	1252.66	113.56	1139.11
KLLK	US	CA	WILLITS	9.14	2.52	1377.51	214.14	1163.36
NEW	US	TX	MCNARY	77.58	2.95	1898.85	93.24	1805.61
KKDZ	US	WA	SEATTLE	5.8	3.26	2805.02	540.21	2264.81
WSDZ	US	IL	BELLEVILLE	30.87	1.54	2488.59	138.13	2350.47
WNDE	US	IN	INDIANAPOLIS	19.75	1	2543.29	162.85	2380.43
NEW	US	HI	KEAHOU	2.5	1.35	2700.16	196.61	2503.55
WNEM	US	MI	BRIDGEPORT	12.24	7.11	2906.77	139.53	2767.24
KWSH	US	OK	WEWOKA	87.14	5.47	3138.47	188.43	2950.04
CMDU-D	CU		PLAYA LARGA	4.76	3.35	3522.32	552.96	2969.36
HRJU-A	HO		JUTICALPA 5	3.69	3.01	4069.3	1049.56	3019.74
CHSM/A	CA	MB	STEINBACH	7.82	5.46	3490.97	372.83	3118.15
WGHB	US	NC	FARMVILLE	12.98	8.82	3398.95	205.09	3193.86
WJIT	US	PR	SABANA	6.3	4.82	3828.35	355.31	3473.04
HRIO 2-A	HO		DANLI	3.49	3.16	4531.82	1049.22	3482.59
WKBR	US	NH	MANCHESTER	5.76	4.67	4048.43	198.26	3850.17

WARE	US	MA	WARE	6.32	5.55	4389.97	201.54	4188.42
WMTR	US	NJ	MORRISTOWN	7.99	7.19	4496.23	205.57	4290.66
CKOM/	CA	SK	SASKATOON	5.2	5.33	5124.57	579.07	4545.50
KPOW	US	WY	POWELL	13.96	1.46	5226.5	638.18	4588.32
KOIT	US	CA	SAN FRANCISCO	10.41	1.22	5848.41	151.04	5697.37
KKGO	US	CA	BEVERLY HILLS	15.68	2.03	6463.69	79.98	6383.71
WNXT	US	OH	PORTSMOUTH	17.03	2.32	6813.87	196.56	6617.30
WWRC	US	DC	WASHINGTON	10.65	1.51	7070.72	209.97	6860.75
CBGA/A	CA	QC	MATANE	2.72	4.16	7667.45	165.15	7502.29
KROX	US	MN	CROOKSTON	11.22	1.82	8129.66	354.16	7775.49
KROX	US	MN	CROOKSTON	11.23	1.83	8138.02	354.35	7783.67
CJYE/A	CA	ON	OAKVILLE	7.29	12.28	8418.53	165.57	8252.96
CJYE/A	CA	ON	OAKVILLE	7.29	12.28	8418.53	165.57	8252.96
CJYE/A	CA	ON	OAKVILLE	7.28	12.34	8470.46	166.00	8304.46
WSUA	US	FL	MIAMI	18.47	3.25	8801.39	248.00	8553.40
WSUA	US	FL	MIAMI	18.47	3.25	8801.6	248.01	8553.59
WWMK	US	OH	CLEVELAND	12.72	2.28	8965.59	177.94	8787.65
WCHV	US	VA	CHARLOTTESVILLE	12.43	2.54	10209.95	211.35	9998.60
KLYC	US	OR	MCMINNVILLE	6.64	1.42	10662.53	456.33	10206.20
WIYD	US	FL	PALATKA	21.29	4.4	10341.27	59.89	10281.37
WXCE	US	WI	AMERY	14.52	3.25	11175.24	195.34	10979.90
GATIN/	CA	QC	GATINEAU	4.83	11.44	11845.76	165.91	11679.85
NEW/A	CA	ON	OTTAWA	4.91	11.69	11907.57	168.15	11739.42
WMKI	US	MA	BOSTON	5.85	1.43	12209.39	203.24	12006.15
WRIE	US	PA	ERIE	10.73	2.68	12467.19	178.48	12288.71
WBUD	US	NJ	TRENTON	8.42	2.28	13549.65	207.72	13341.93
WBNR	US	NY	BEACON	7.43	2.34	15736.61	202.71	15533.90