

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA

October 27, 2008

1200 KHZ 50 KW-D 1 KW-N U DA-2

TECHNICAL EXHIBIT  
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Technical Narrative

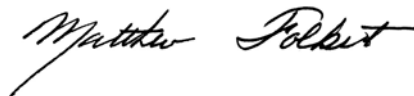
The technical exhibit of which this narrative is part has been prepared on behalf of Fort Myers Broadcasting Company, licensee of AM broadcast station WPTK at Pine Island Center, Florida. WPTK is licensed as a Class B station for operation on 1200 kilohertz with daytime power of 10 kilowatts and nighttime power of 1 kilowatts, operating with the different directional antenna patterns during daytime and nighttime hours. By means of this present application, the licensee proposes to re-apply for the returned permit BP-19880620AJ. As authorized in the returned permit, the daytime power will be 50 kilowatts while the nighttime power will be remain at 1.0 kilowatt. The daytime and nighttime services are proposed from the same site location.

The proposal is classified as a minor change according to 47 CFR 73.3571(a)(2). As a Class B station operating on one of the channels listed in 73.25(a), the proposal satisfies 47 CFR 73.21(a)(2) which permits operation with a nominal power of not less than 0.25 kilowatt nor more than 50 kilowatts at any time.

The proposed facility specified in this application is identical to what was authorized under the returned construction permit, BP-19880620AJ. A review of the allocation situation for the recently returned construction permit shows no change to the present with the exception of one station. The allocation requirements regarding this station has changed during daytime hours and is addressed in Figure 1 of this application. As a result, the supporting engineering data previously used for the recently returned construction permit is reproduced in the Appendix for both the daytime and nighttime proposals.

#### Daytime Allocation Study

Since the time of the allocation study used for the returned construction permit, WSRQ, 1220 kHz, Sarasota, FL has filed an application (BP-20060720AAL) to change its daytime pattern. Figure 1 shows a daytime allocation study showing protection to this station. Based on this analysis, accompanied with the data included in the appendix, the proposed WPTK facility will comply with all relevant allocation criteria.

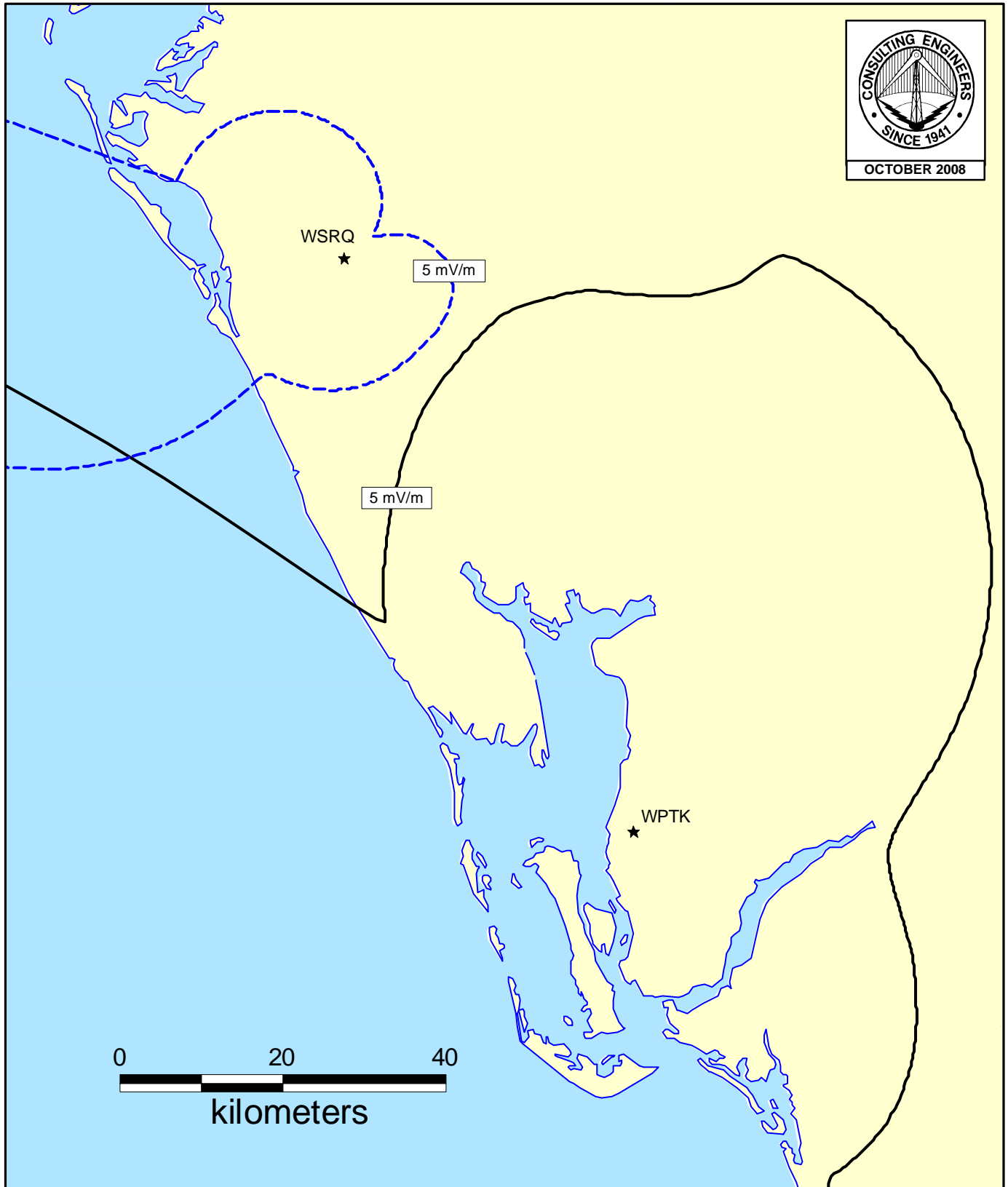


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October 27, 2008

Figure 1



## DAYTIME ALLOCATION STUDY

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ 50 KW-D 1.0 KW-N U DA-2

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

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
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RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA

1200 KHZ 50 KW-D 1 KW-N U DA-2

Appendix

ENGINEERING EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ   50 KW-D   1 KW-N   DA-2   U

ENGINEERING EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ   50 KW-D   1 KW-N   DA-2   U

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ENGINEERING EXHIBIT  
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FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

Engineering Statement

The engineering exhibit of which this statement is part was prepared on behalf of Fort Myers Broadcasting Company, licensee of AM broadcast station WPTK Pine Island Center, Florida, Facility ID 48329. Station WPTK is licensed for operation on 1200 kilohertz employing daytime power of 10 kilowatts and nighttime power of 1.0 kilowatt. An application on file with the Commission seeks a change in facilities for WPTK, File Number BP-19880620AJ. This modification replaces the previously filed material.

The applicant seeks a construction permit, which authorizes an increase in daytime power to 50 kilowatts while employing a new directional antenna pattern. No change is proposed in the existing nighttime operation.

Notification of the proposed tower construction to the Federal Aviation Administration is not required. The proposal meets the requirements of the FCC rules.

Transmitter Location

The existing transmitter site will be employed. Two new towers will be added to the existing three towers. No change is proposed in the towers employed for nighttime use.

Figure 1 is a map showing the transmitter location. Photographs of the site have been

previously filed with the Commission. The geographic coordinates for the center of the array are:

26° 42' 52" North Latitude

82° 02' 46" West Longitude.

Figure 2 is a transmitter site plat, which shows the location of the existing three towers and the proposed new towers, with the existing and proposed ground system. Copper straps will be positioned between towers as shown, on which existing and proposed radials will be terminated and bonded. The ground system copper wire radials for the new towers will extend from each tower base out to a distance of 62.5 meters (205 feet) or to the property boundary. Radials between adjacent towers will be shortened and bonded to a copper strap. The entire ground system will be buried approximately 10 cm (6 to 8 inches).

The height of the existing towers will remain unchanged at 60.3 meters (198 feet) AGL. The two new towers will have an overall height of 58.8 meters (193 feet) AGL. The height of each existing radiator is 85.6 electrical degrees.<sup>1</sup> The proposed radiators will be 83.5 electrical degrees in height.

#### Proposed Directional Antenna

During daytime hours, WPTK will operate with the proposed four-tower directional antenna system. Sheet 5 is a polar graph of the directional antenna standard pattern and Figure 6 is a tabulation of pattern values. The directional pattern was determined employing the method contained in 47 CFR 73.150.

No change is proposed in the existing nighttime directional antenna pattern.

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<sup>1</sup> The Commission's CDBS incorrectly shows the height of the existing towers at 90 electrical degrees.

### Proposed Coverage Contours

Sheet 2 of Figure 7 shows the proposed 5 and 0.5 mV/m contours for the proposed WPTK daytime operation. All of Pine Island Center, Florida is located within the proposed 5-mV/m contour.

The proposed 1,000 mV/m contour is shown on Sheet 1 of Figure 7. There are 39 persons residing within the proposed contour according to the 2000 Census. The proposal therefore complies with the provisions 47 CFR 73.24. The applicant recognizes the obligation to resolve blanketing interference problems.

For comparison purposes, the existing daytime coverage contours are shown in Figure 8.

### Daytime Allocation Study

Figure 9 is a daytime allocation report consisting of three sheets. Sheet 1 shows the daytime allocation situation with pertinent stations located in Florida. The proposal meets the requirements of 47 CFR 73.37 except for existing contour overlap with stations WPSP (1190 kHz) and WNMA (1210 kHz). Existing grandfathered contour overlap with these stations is reduced by the proposal.

Sheet 2 of Figure 9 shows the allocation situation with Class A station WOAI San Antonio, Texas. The proposed 0.005 mV/m contour will not overlap the WOAI 0.1 mV/m normally protected contour. The four points marked on the map are employed for the critical hours study as discussed below.

Sheet 3 of Figure 9 shows the allocation situation with Cuban stations. Where there is existing contour overlap, it will be reduced.

Information employed in determination of contour locations is shown in Figure 10. Except for the field strength measurements noted, all conductivity values are from Figure M-3. Measurements taken on WPTK are contained in Figure 11. These measurements were made by Don Charles, employing a recently calibrated field strength meter.

With respect to critical hours protection to Class A station WOAI, calculations of permitted field strength were calculated at the four point shown on Sheet 2 of Figure 9, with results summarized below.

<u>Point ID</u>	<u>Geographic Coordinates</u>	<u>From WPTK</u>		<u>Permissible Field Strength (mV/m)</u>	<u>Standard Pattern Value (mV/m)</u>
		<u>Dist (km)</u>	<u>Az (deg. T)</u>		
A	25-45-00 97-10-12	1,513	269.3	917	880
B	27-37-48 97-12-36	1,504	277.3	997	766
C	28-44-24 95-38-25	1,357	282.6	833	698
D	29-33-36 92-25-12	1,254	287.4	719	659

The standard pattern radiation value is the highest occurring within the vertical angle of protection, which is between zero and 5.5, 5.6, 6.9 and 7.9 degrees for each of the four points, respectively.

Environmental Considerations<sup>2</sup>

The proposed WPTK operation was evaluated for potential exposure of the general public and workers to electromagnetic radiation in accordance with OET Bulletin 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, Edition 97-01, August 1997. Based on Table 2 of Supplement A of OET Bulletin 65, the minimum “worse case” distance for towers with power of 50 kilowatts at which the electric and magnetic fields are predicted to fall below the guideline value is 4 meters. Fences at this distance will be installed around the base of each tower, unless measurements show that a lesser distance meets the guideline value. In addition, warning signs have and will be posted. The fences will assure that persons on the WPTK property outside of the fenced area will not be exposed to radiofrequency field levels in excess of the FCC guideline.



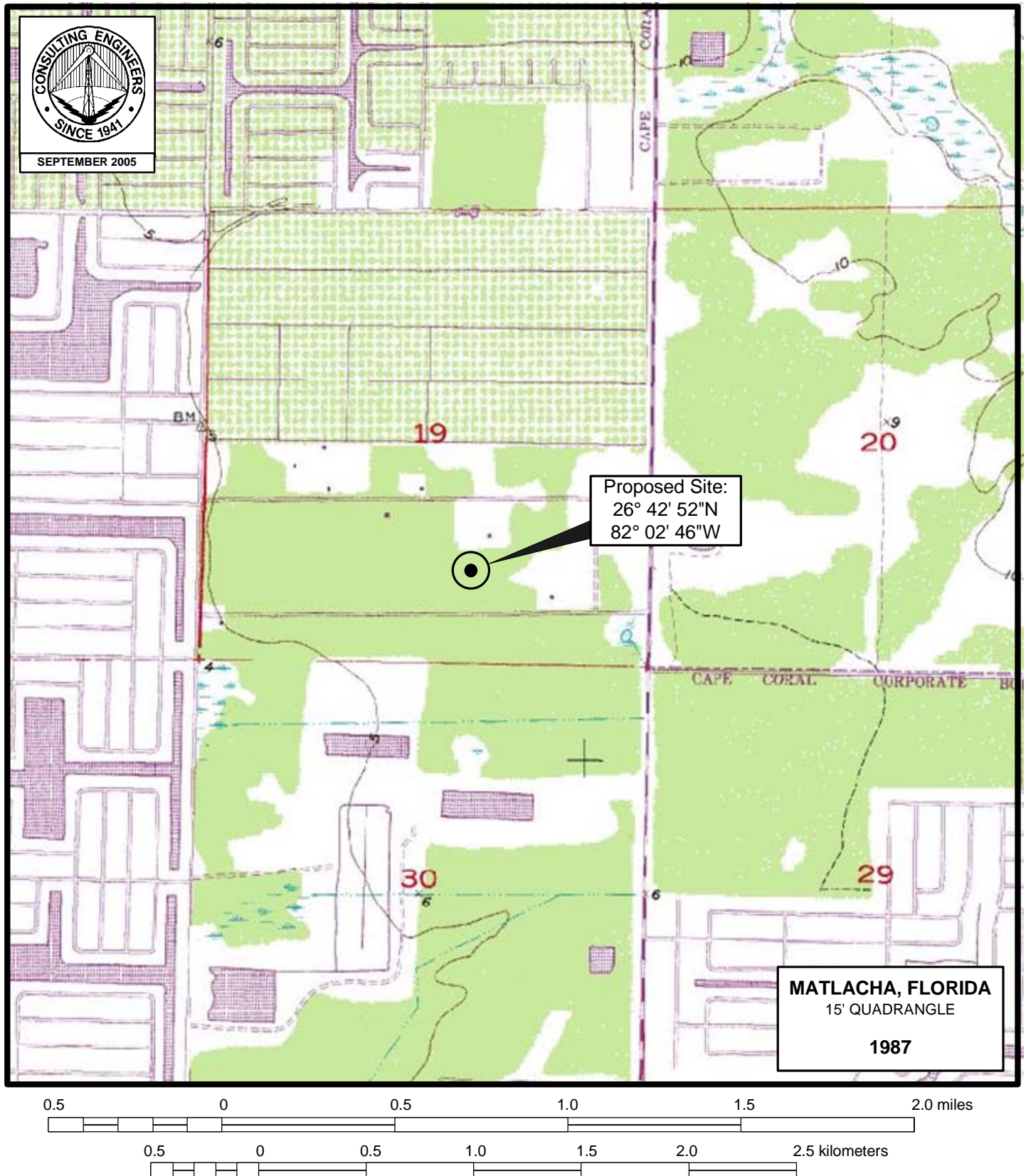
Louis R. du Treil, Sr.  
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237-6019  
941 329 6000

September 8, 2005

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<sup>2</sup> This statement addresses only human exposure to radiofrequency radiation and not the other non-radiofrequency radiation matters listed in the National Environmental Policy Act of 1969.

Figure 1

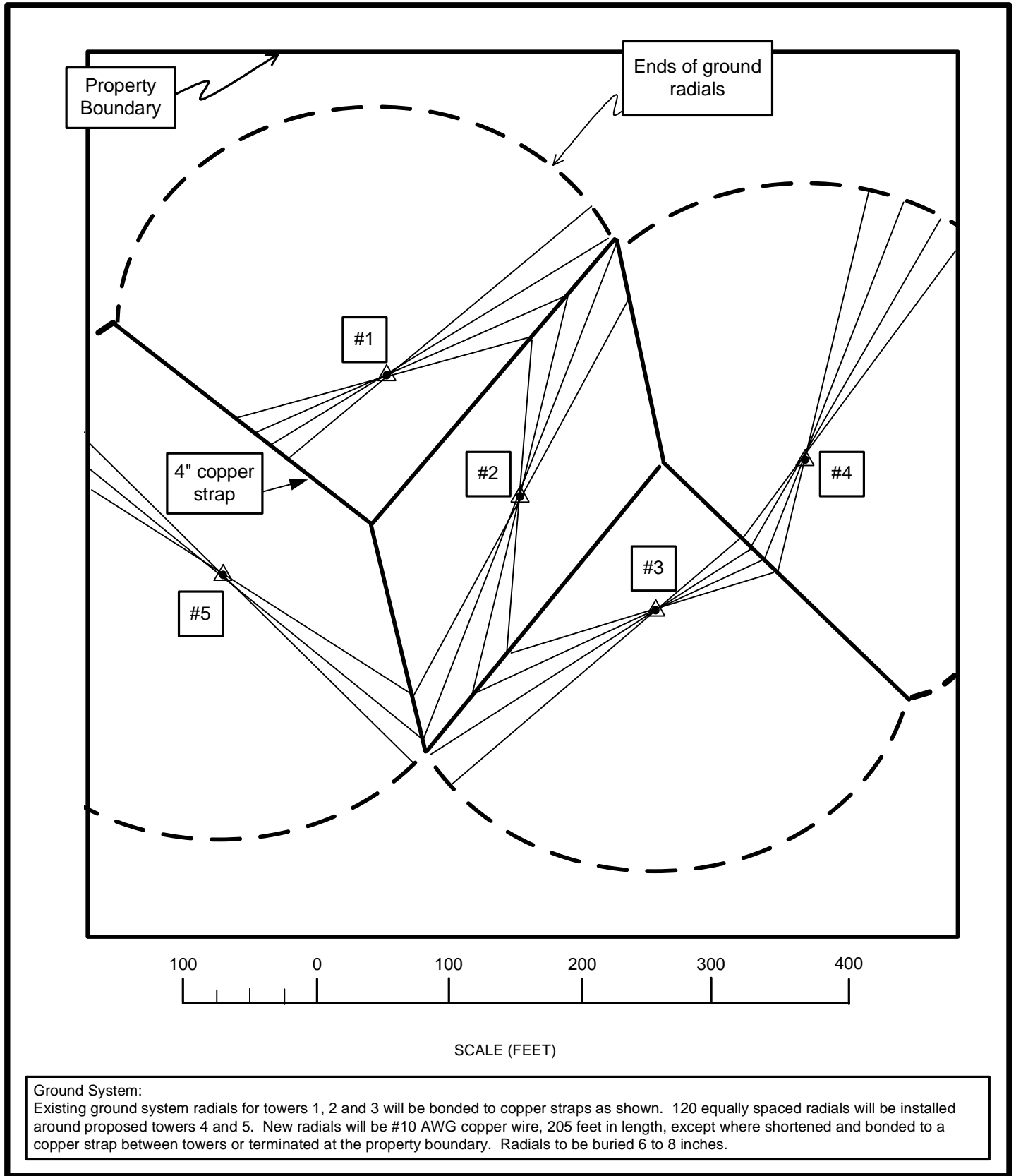


## **PROPOSED TRANSMITTER SITE**

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHz 50 KW-D 1 KW-N DA-2 U

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

Figure 2



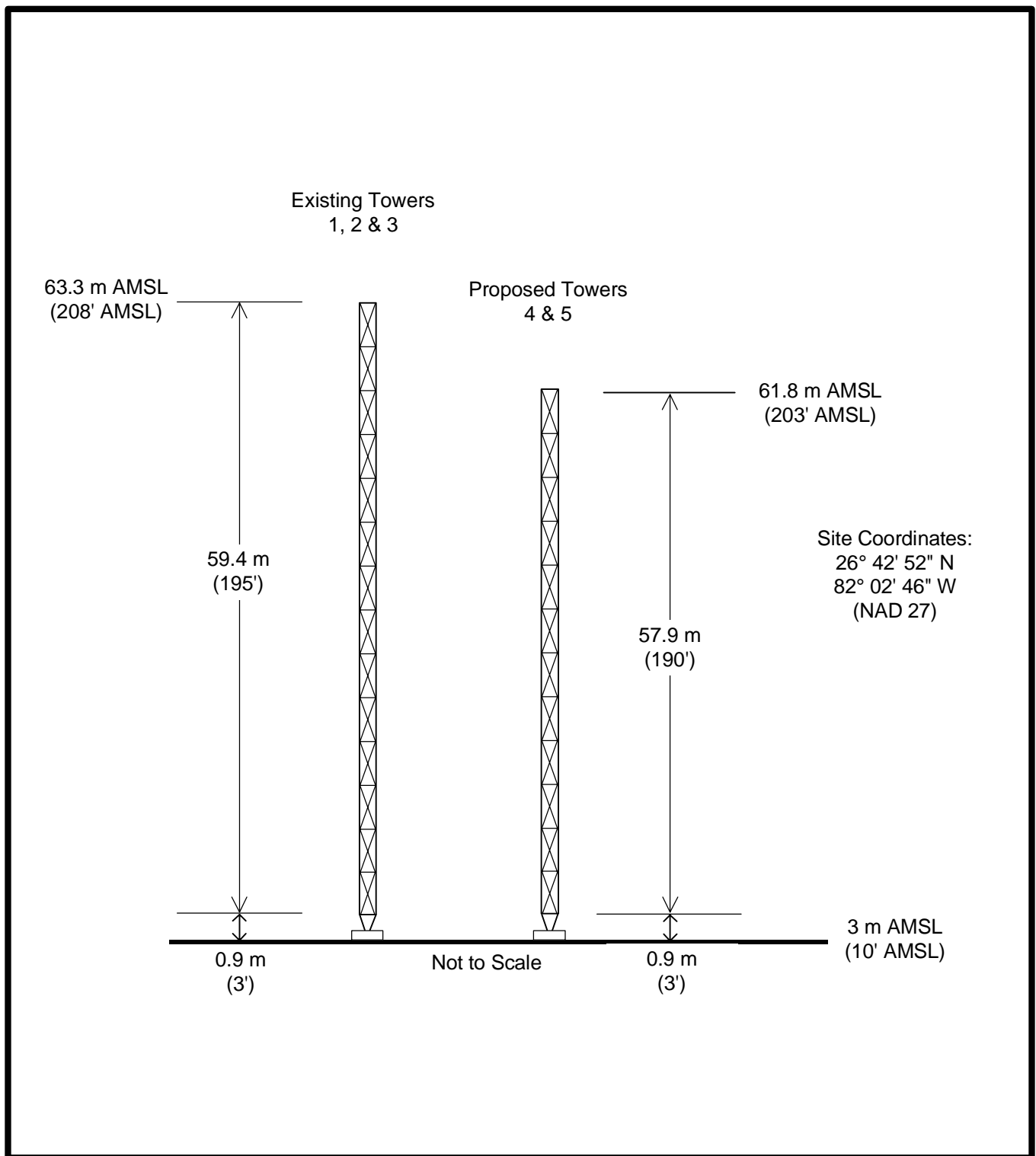
## PROPERTY BOUNDARY AND ANTENNA GROUND SYSTEM

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHz 50 KW-D 1 KW-N DA-2 U

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



Figure 3



## ANTENNA ELEMENTS

AM STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHz 50 KW-D 1 KW-N DA-2 U

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

ENGINEERING EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

Specifications for Proposed Daytime Directional Antenna System

Frequency	1200 kHz
Hours of Operation	Unlimited
Power	50 KW Day, 1 KW Night
Number of Towers	5
Type of Towers	Uniform cross section, guyed and base insulated.

Tower Height:

Above Base Insulator	Towers 1, 2 & 3	59.4 m (195')	85.6°
	Towers 4 & 5	57.9 m (190')	83.5°
Above Ground Level	Towers 1, 2 & 3	60.3 m (198')	
	Towers 4 & 5	58.8 m (193')	
Above Mean Sea Level	Towers 1, 2 & 3	63.3 m (208')	
	Towers 4 & 5	61.8 m (203')	

Tower Arrangement:

<u>Tower No.</u>	<u>Spacing (deg)/(m)</u>	<u>Orientation (deg. True)</u>
1 NW	0.0	0.0
2 C	60/41.6	130
3 SE	120/83.3	130
4 NE	144.3/100.1	100.1
5 SW	84.6/58.7	218.5

Daytime Parameters:

<u>Tower No.</u>	<u>Field Ratio</u>	<u>Phase (degrees)</u>
1 NW	1.000	0.0
3 SE	1.318	151.5
4 NE	1.762	4.3
5 SW	1.080	95.5

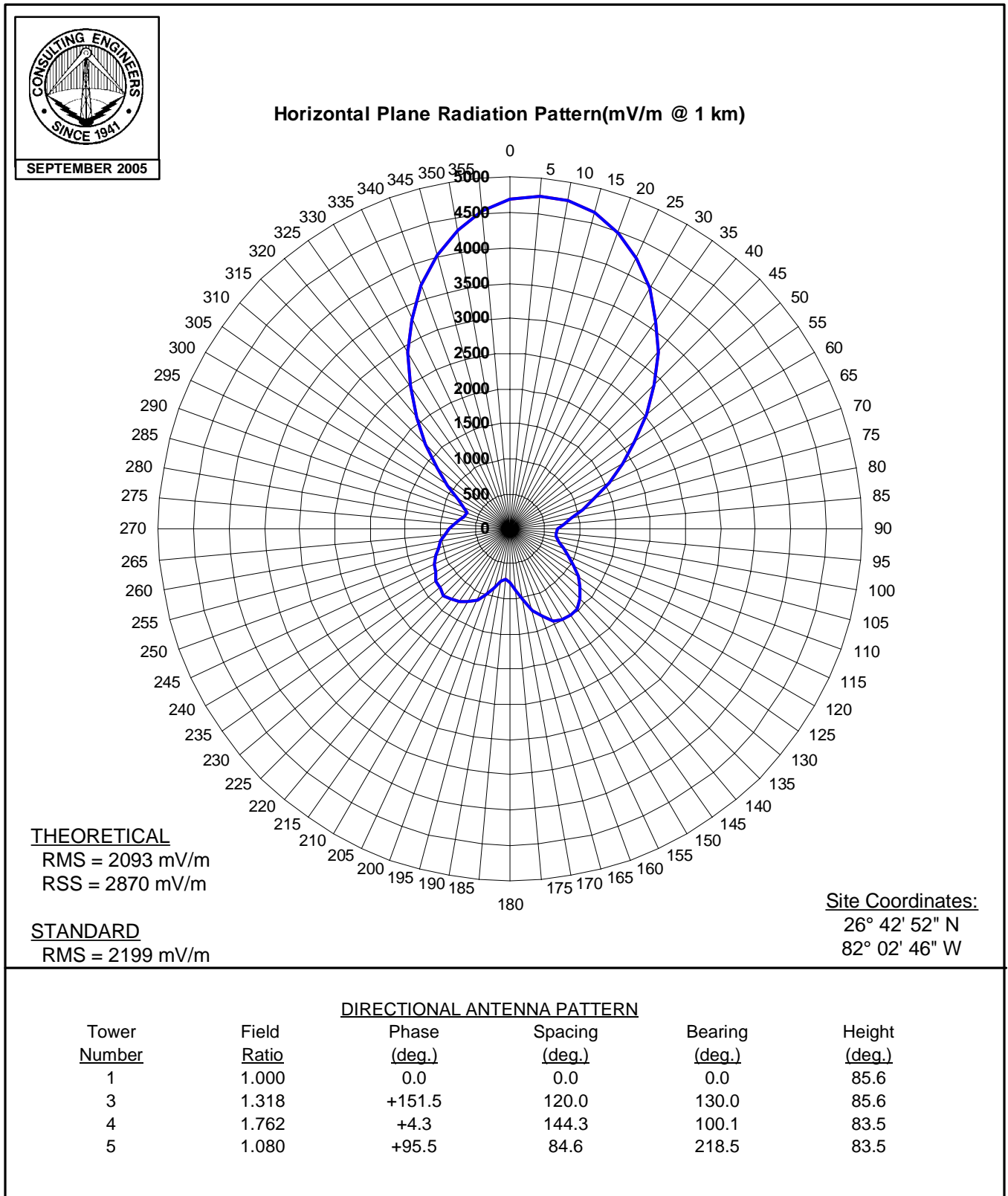
Ground System:

The existing ground system radials for existing towers 1, 2 and 3 will be bonded to copper straps as shown in Figure 2. 120 equally spaced radials will be installed around proposed towers 4 and 5. New radials will consist of #10 AWG copper wire, 205 feet in length, except where shortened and bonded to a copper strap between towers or where terminated at the property boundary. Radials will be buried 6 to 8 inches.

Geographic Coordinates:  
(Center of Array – NAD 27)

26° 42' 52" North Latitude  
82° 02' 46" West Longitude

Figure 5



## PROPOSED DAYTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHz 50 KW-D 1 KW-N DA-2 U

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

Figure 6

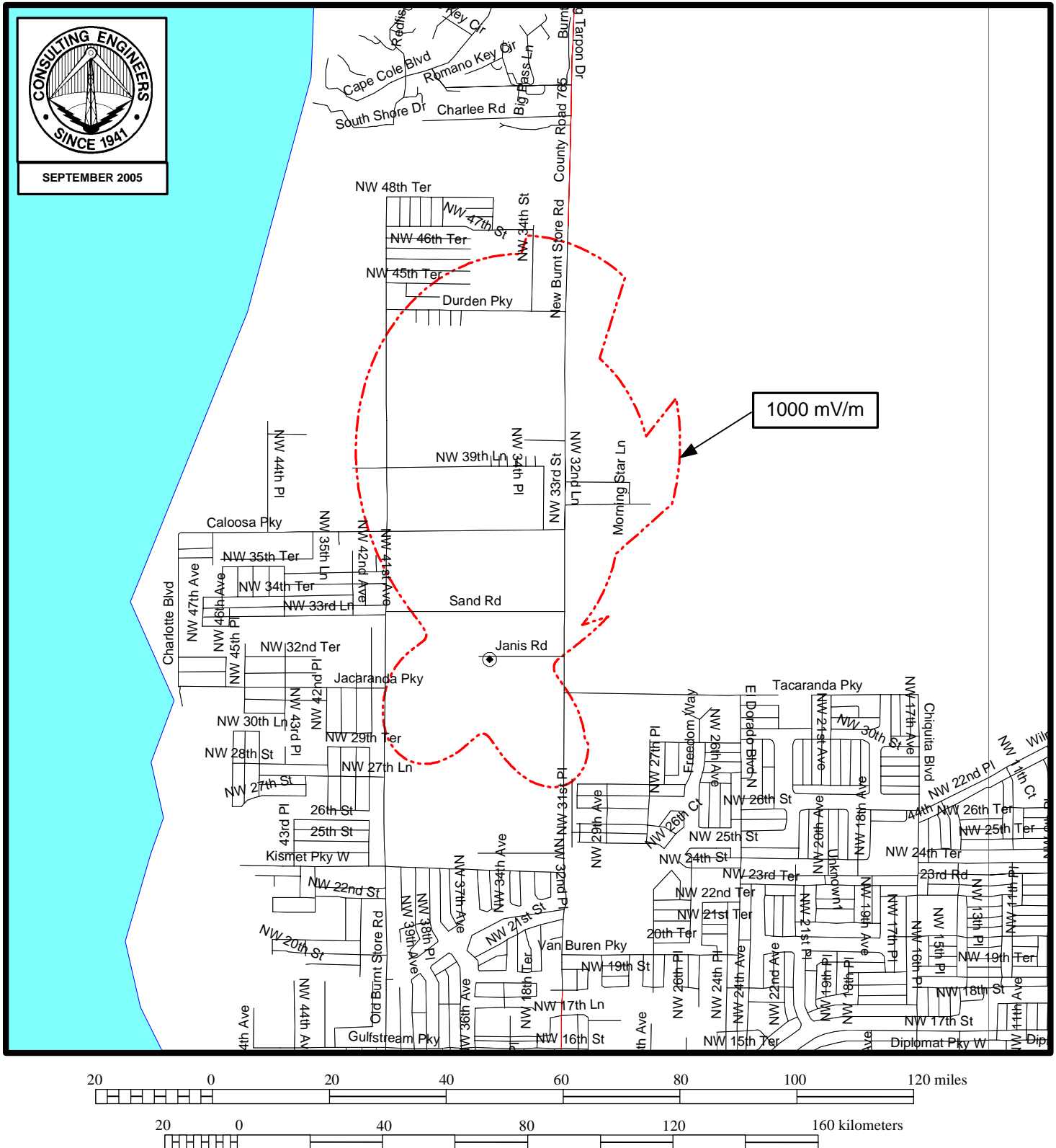
TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ    50 KW-D    1 W-N    DA-2    U

DAYTIME RADIATION PATTERN  
(Radiation Values at One Kilometer)

<u>Tower Number</u>	<u>Field Ratio</u>	<u>Phase (deg.)</u>	<u>Spacing (deg.)</u>	<u>Bearing (deg.)</u>	<u>Height (deg.)</u>
1	1.000	0.0	0.0	0.0	85.6
3	1.318	+151.5	120.0	130.0	85.6
4	1.762	+4.3	144.3	100.1	83.5
5	1.080	+95.5	84.6	218.5	83.5

<u>Input Power (kW)</u>	<u>Loop Loss (ohms)</u>	<u>Theo. RMS (mV/m)</u>	<u>Theo. RSS (mV/m)</u>	<u>Q Factor (mV/m)</u>	<u>Standard RMS (mV/m)</u>
50	1.0	2093	2870	71.7	2199

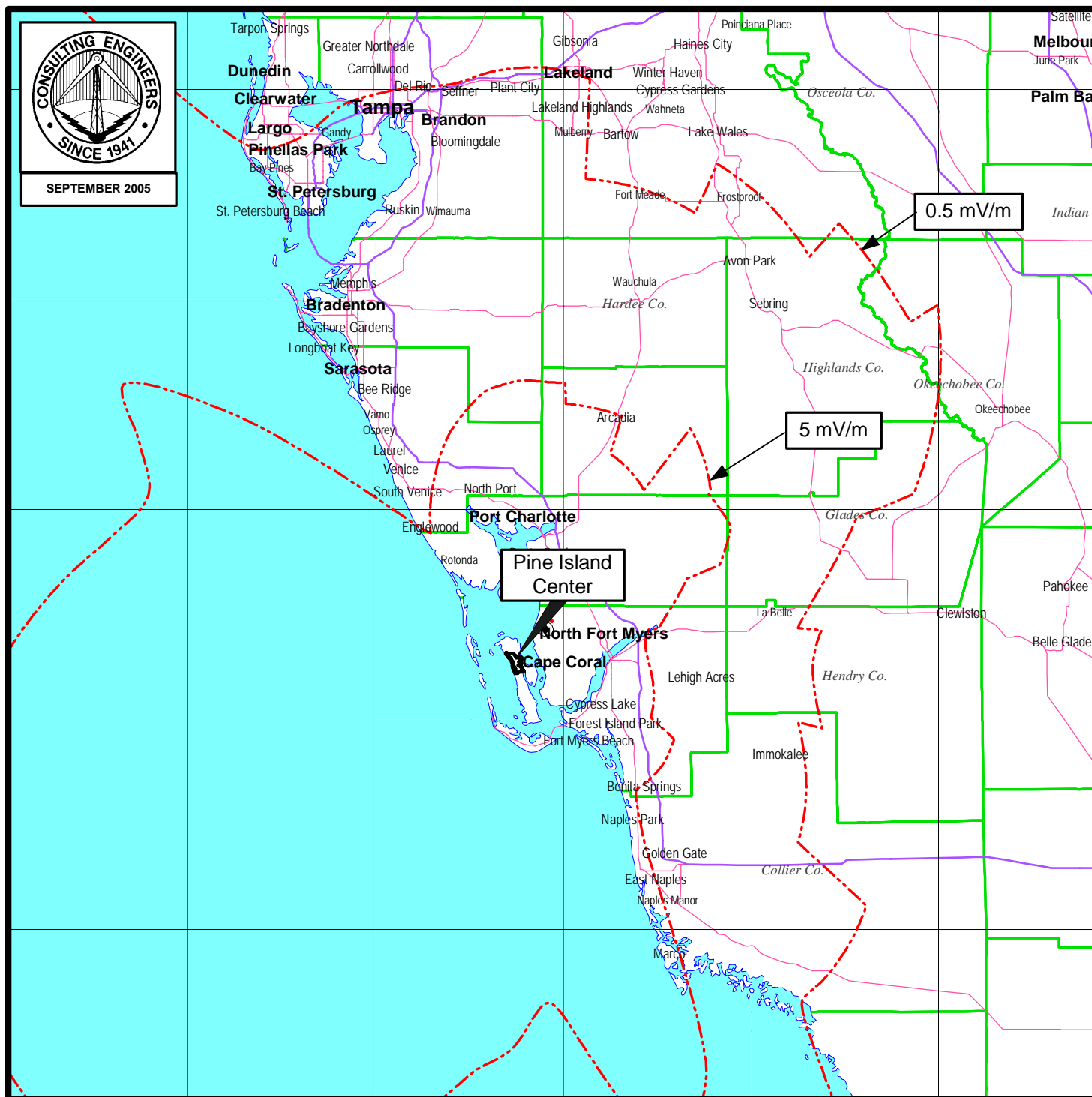
<u>Azimuth (mV/m)</u>	<u>Field (mV/m)</u>	<u>Azimuth (mV/m)</u>	<u>Field (mV/m)</u>	<u>Azimuth (mV/m)</u>	<u>Field (mV/m)</u>	<u>Azimuth (mV/m)</u>	<u>Field (mV/m)</u>
0	4680	90	680	180	769	270	870
5	4747	95	644	185	727	275	799
10	4731	100	655	190	770	280	730
15	4635	105	710	195	872	285	674
20	4466	110	800	200	995	290	657
25	4232	115	915	205	1112	295	708
30	3945	120	1044	210	1208	300	845
35	3618	125	1176	215	1276	305	1066
40	3265	130	1297	220	1313	310	1353
45	2900	135	1398	225	1323	315	1694
50	2536	140	1468	230	1309	320	2072
55	2183	145	1500	235	1277	325	2475
60	1853	150	1487	240	1233	330	2887
65	1554	155	1429	245	1181	335	3292
70	1292	160	1328	250	1124	340	3675
75	1071	165	1192	255	1065	345	4019
80	895	170	1037	260	1003	350	4308
85	764	175	885	265	938	355	4532



## PROPOSED DAYTIME COVERAGE CONTOUR

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

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

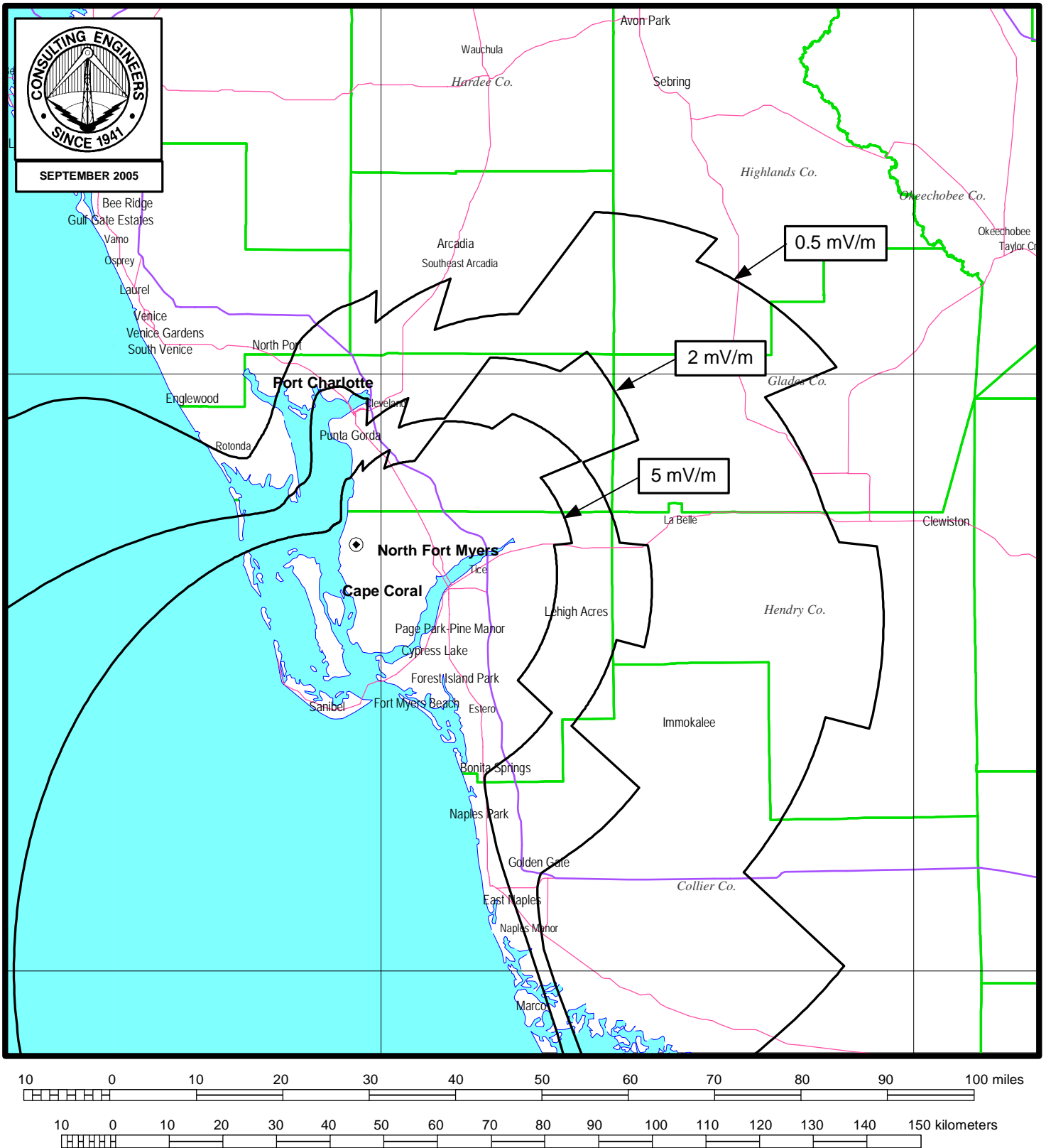


## PROPOSED DAYTIME COVERAGE CONTOURS

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

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

Figure 8

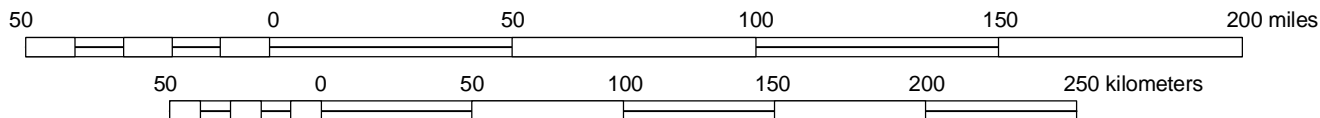
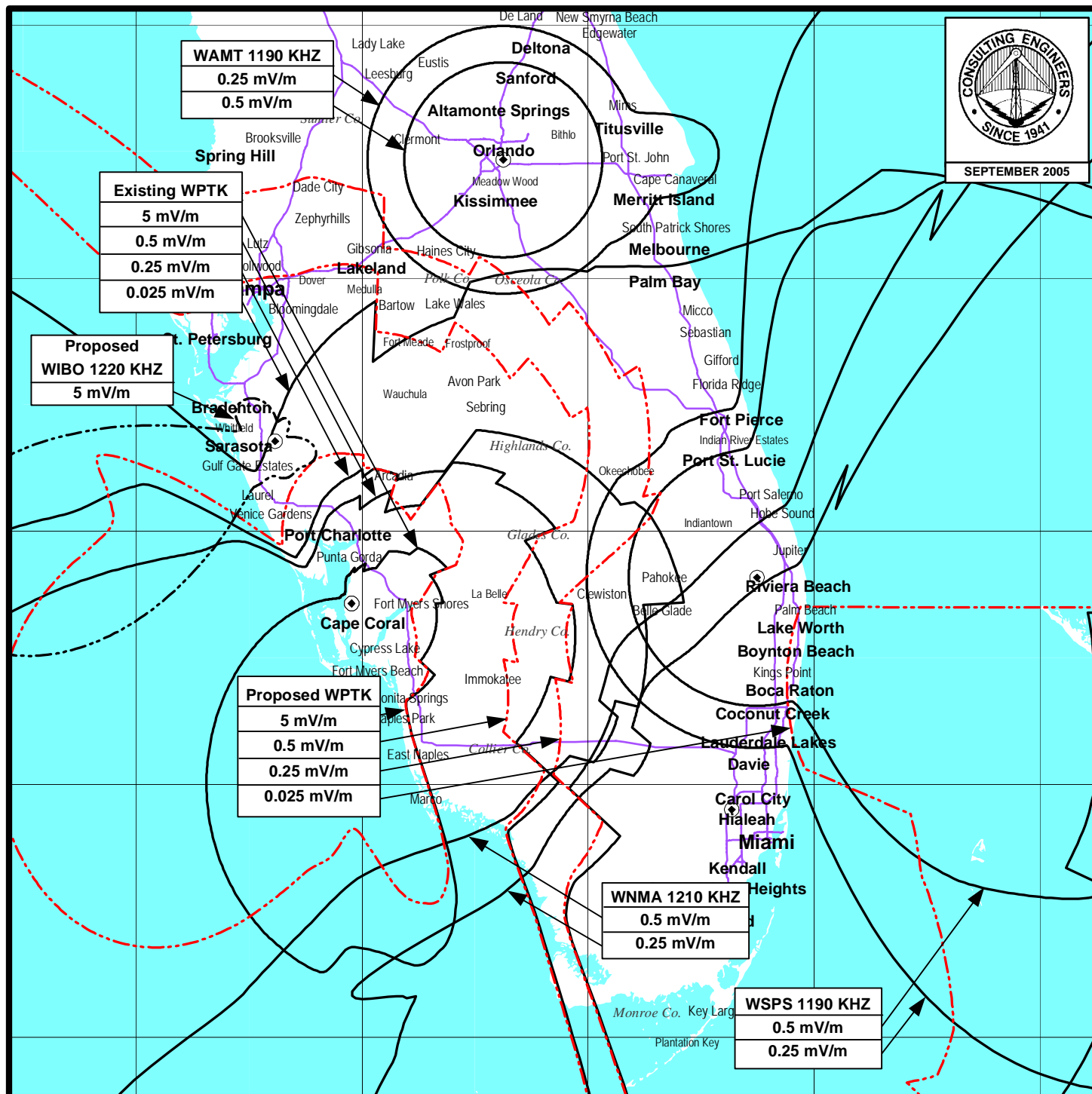


## EXISTING DAYTIME COVERAGE CONTOURS

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

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

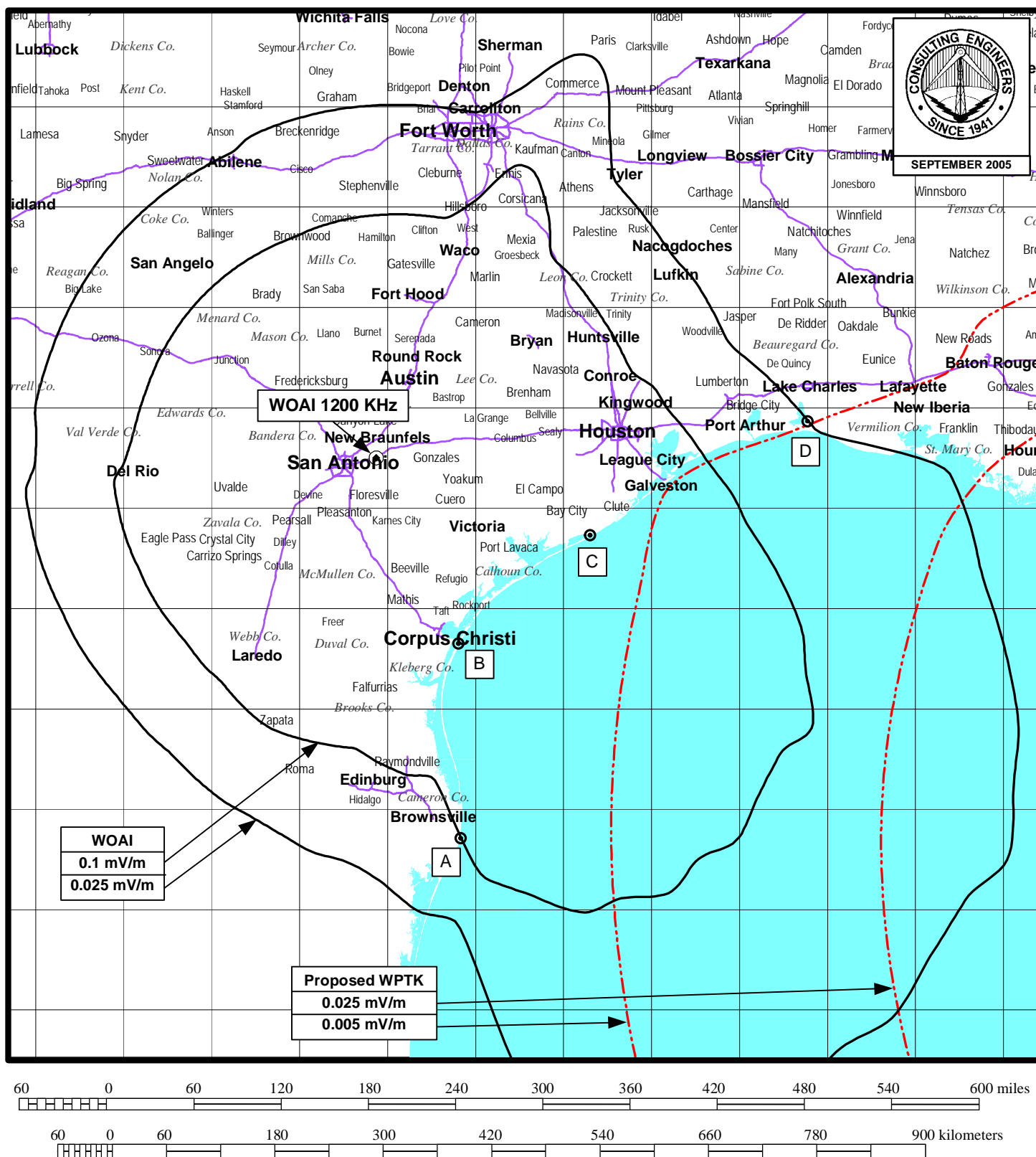




## DAYTIME ALLOCATION STUDY ALLOCATION WITH FLORIDA STATIONS

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

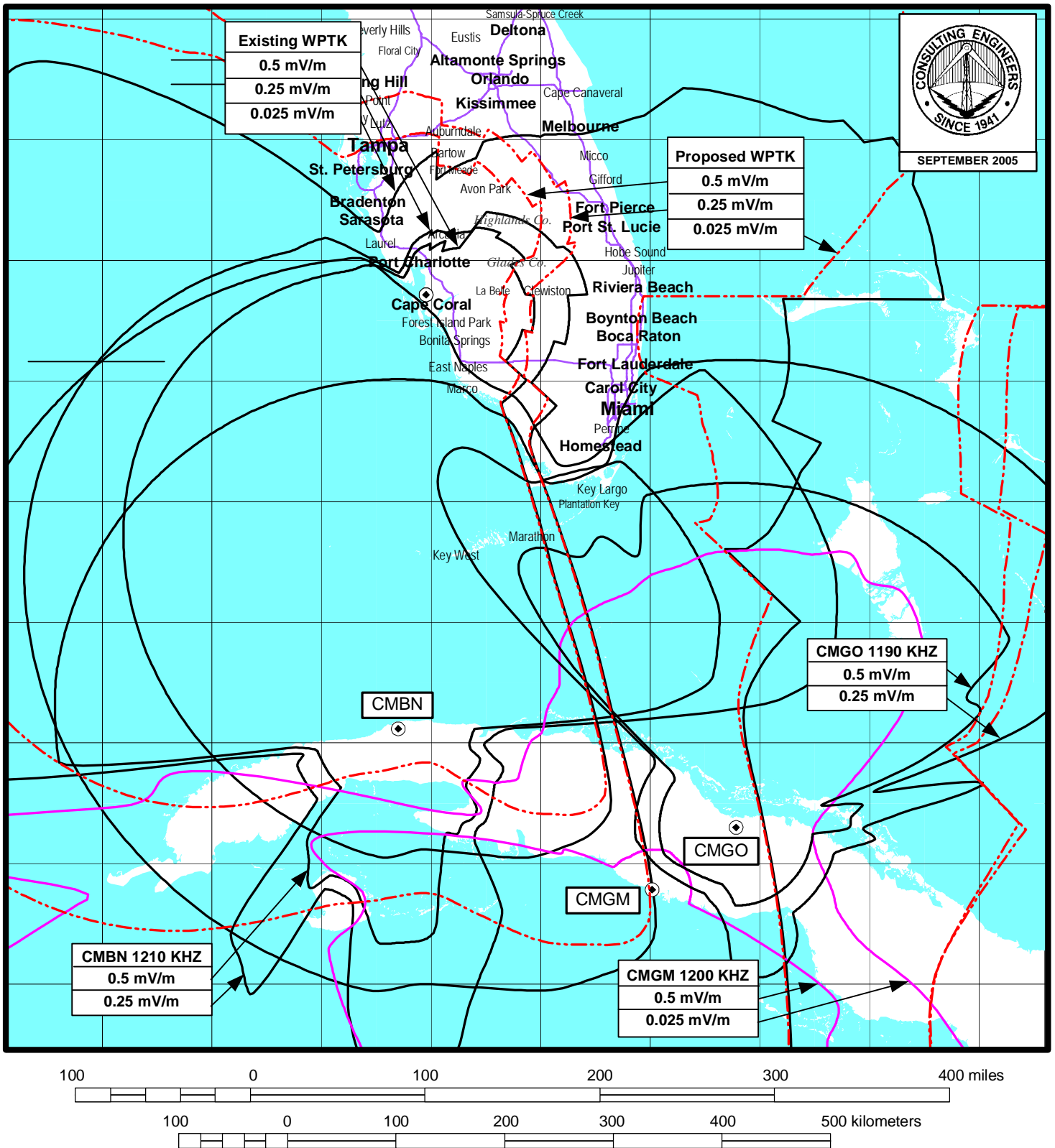
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## DAYTIME ALLOCATION STUDY ALLOCATION WITH FLORIDA STATIONS

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

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



## DAYTIME ALLOCATION STUDY ALLOCATION WITH CUBAN STATIONS

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 kHz 50 KW-D 1 KW-N DA-2 U

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

ENGINEERING EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

Data Employed in Calculation of Groundwave Contours

Existing WPTK Pine Island Center, Florida  
1200 kHz, 10 KW-D, 1 KW-N, DA-2, U  
26-42-52, 082-02-46  
Licensed Daytime Standard Radiation Pattern  
Conductivity: M-3, measurements from BP-20030109AEX and Figure 11

Proposed WPTK Pine Island Center, Florida  
1200 kHz, 50 KW-D, 1 KW-N, DA-2, U  
26-42-52, 082-02-46  
Proposed Daytime Standard Radiation Pattern – Figure 5  
Conductivity: M-3, measurements from BP-20030109AEX and Figure 11

WOAI San Antonio, Texas  
1200 kHz, 50 KW-U  
29-30-07, 098-07-43  
Radiation: 400.7 mV/m/km for 1 kW  
Conductivity: M-3

WPSP Royal Palm Beach, Florida  
1190 kHz, 0.69 KW-D, 0.41 KW-N, DA-N, U  
26-49-01, 080-15-07  
Radiation: 300 mV/m/km for 1 kW  
Conductivity: M-3

WAMT Pine Castle, Florida  
1190 kHz 5 KW-D  
28-28-00, 081-22-29  
Radiation: 296.1 mV/m/km for 1 kW  
Conductivity: M-3

CMGO Yaguajay, Cuba  
1190 kHz, 1 KW-U  
22-18-00, 079-13-00  
Radiation: 332.8 mV/m/km at 1 kW  
Conductivity: Region 2

CMGM Trinidad 1, Cuba  
1200 kHz, 1 KW-U  
21-47-00, 079-59-00  
Radiation: 317.8 mV/m/km for 1 kW  
Conductivity: Region 2

WNMA Miami Springs, Florida  
1210 kHz, 47 KW-D, 2.5 KW-N, DA-2, U  
25-54-00, 080-21-49  
Licensed Standard Radiation Pattern  
Conductivity: M-3 and measurements in BP-20030109AEX

CMBN Guanabacoa, Cuba  
1210 kHz, 1 KW-U  
23-07-00, 082-18-00  
Radiation: 336.6 mV/m/km at 1 kW  
Conductivity: Region 2

WIBQ Sarasota, Florida  
CP 1220 kHz, 5 KW, DA-D  
27-21-17, 082-23-06  
CP Standard Radiation Pattern (BP-20021016AAB)  
Conductivity: M-3

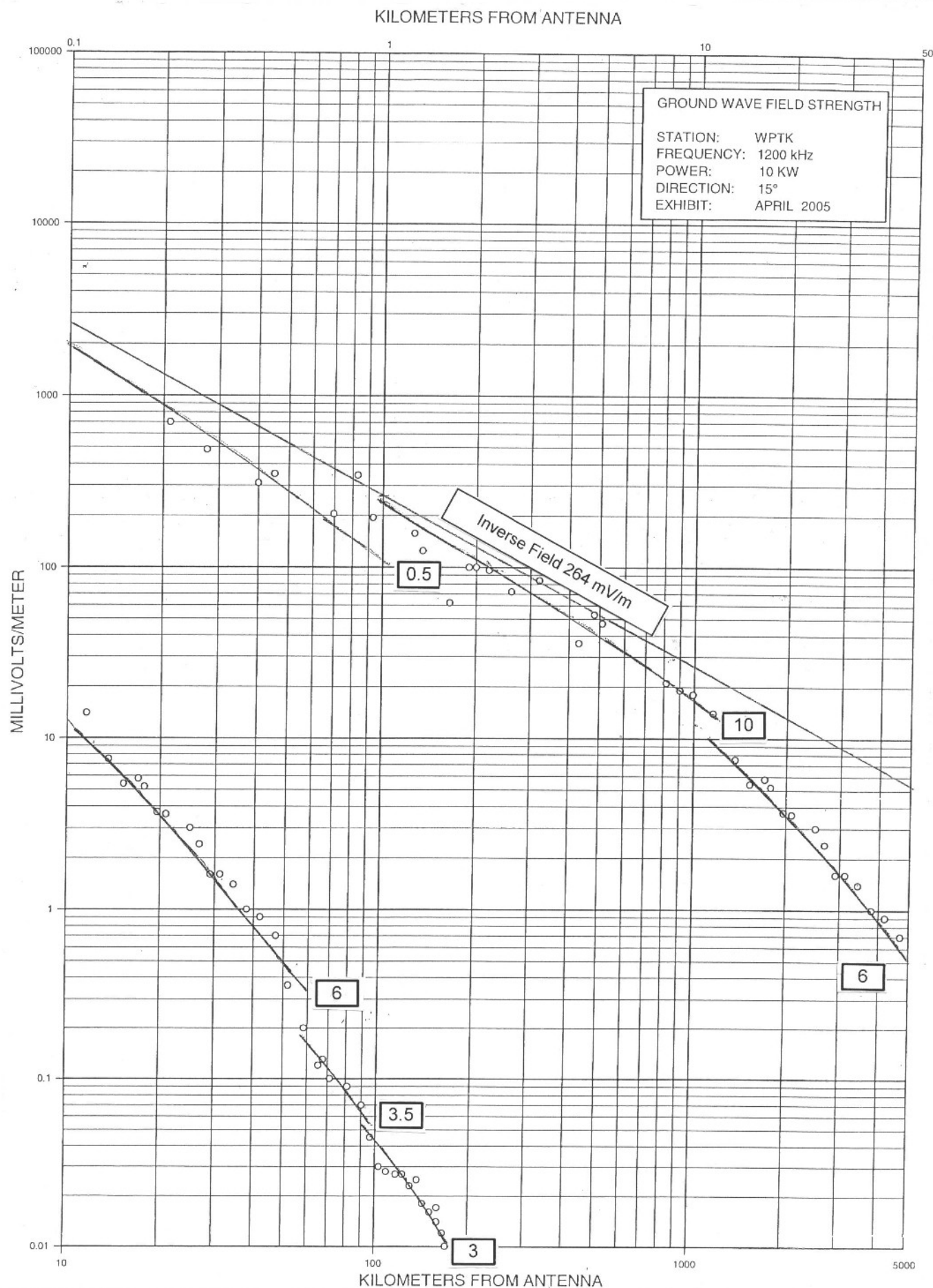
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RADIO STATION WPTK  
PINE ISLAND, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

WPTK FIELD STRENGTH MEASUREMENTS  
15° TRUE

<b>DIST.</b>	<b>FIELD</b>	<b>TIME</b>	<b>DATE</b>
<b>(KM)</b>	<b>MV/M</b>	<b>(LOCAL)</b>	
0.21	700	1555	4/22/2005
0.28	485	1600	4/22/2005
0.40	310	1604	4/22/2005
0.45	350	1610	4/22/2005
0.70	205	1614	4/22/2005
0.83	345	1618	4/22/2005
0.93	195	1624	4/22/2005
1.27	158	1628	4/22/2005
1.35	125	1632	4/22/2005
1.65	62	1635	4/22/2005
1.90	100	1640	4/22/2005
2.00	100	1648	4/22/2005
2.20	96	1642	4/22/2005
2.60	72	1655	4/22/2005
3.20	84	1700	4/22/2005
4.30	36	1710	4/22/2005
4.80	53	1714	4/22/2005
5.10	47	1718	4/22/2005
8.15	21	1730	4/22/2005
9.00	19	1733	4/22/2005
9.90	18	1738	4/22/2005
11.50	14	1748	4/22/2005
13.60	7.5	1755	4/22/2005
15.20	5.4	1807	4/22/2005
17.00	5.8	1816	4/22/2005
17.80	5.2	912	4/23/2005
19.60	3.7	919	4/23/2005
20.90	3.6	929	4/23/2005

<b>DIST.</b>	<b>FIELD</b>	<b>TIME</b>	<b>DATE</b>
<b>(KM)</b>	<b>MV/M</b>	<b>(LOCAL)</b>	
25.00	3.0	948	4/23/2005
26.80	2.4	1004	4/23/2005
29.10	1.6	1014	4/23/2005
31.20	1.6	1025	4/23/2005
34.40	1.4	1033	4/23/2005
38.00	1.0	1041	4/23/2005
42.00	0.90	1053	4/23/2005
47.10	0.70	1100	4/23/2005
51.90	0.36	1112	4/23/2005
58.50	0.20	1126	4/23/2005
65.30	0.12	1142	4/23/2005
67.50	0.13	1152	4/23/2005
71.20	0.100	1204	4/23/2005
81.00	0.090	1217	4/23/2005
90.20	0.070	1236	4/23/2005
96.40	0.045	1250	4/23/2005
103.00	0.030	1314	4/23/2005
109.00	0.028	1329	4/23/2005
117.00	0.027	1347	4/23/2005
123.00	0.027	1400	4/23/2005
130.00	0.023	1427	4/23/2005
137.00	0.025	1443	4/23/2005
143.00	0.018	1143	4/24/2005
151.00	0.016	1200	4/24/2005
159.00	0.015	1232	4/24/2005
166.00	0.012	1246	4/24/2005
170.00	0.010	1304	4/24/2005
174.00	0.009	1312	4/24/2005

Figure 11  
Sheet 2 of 5

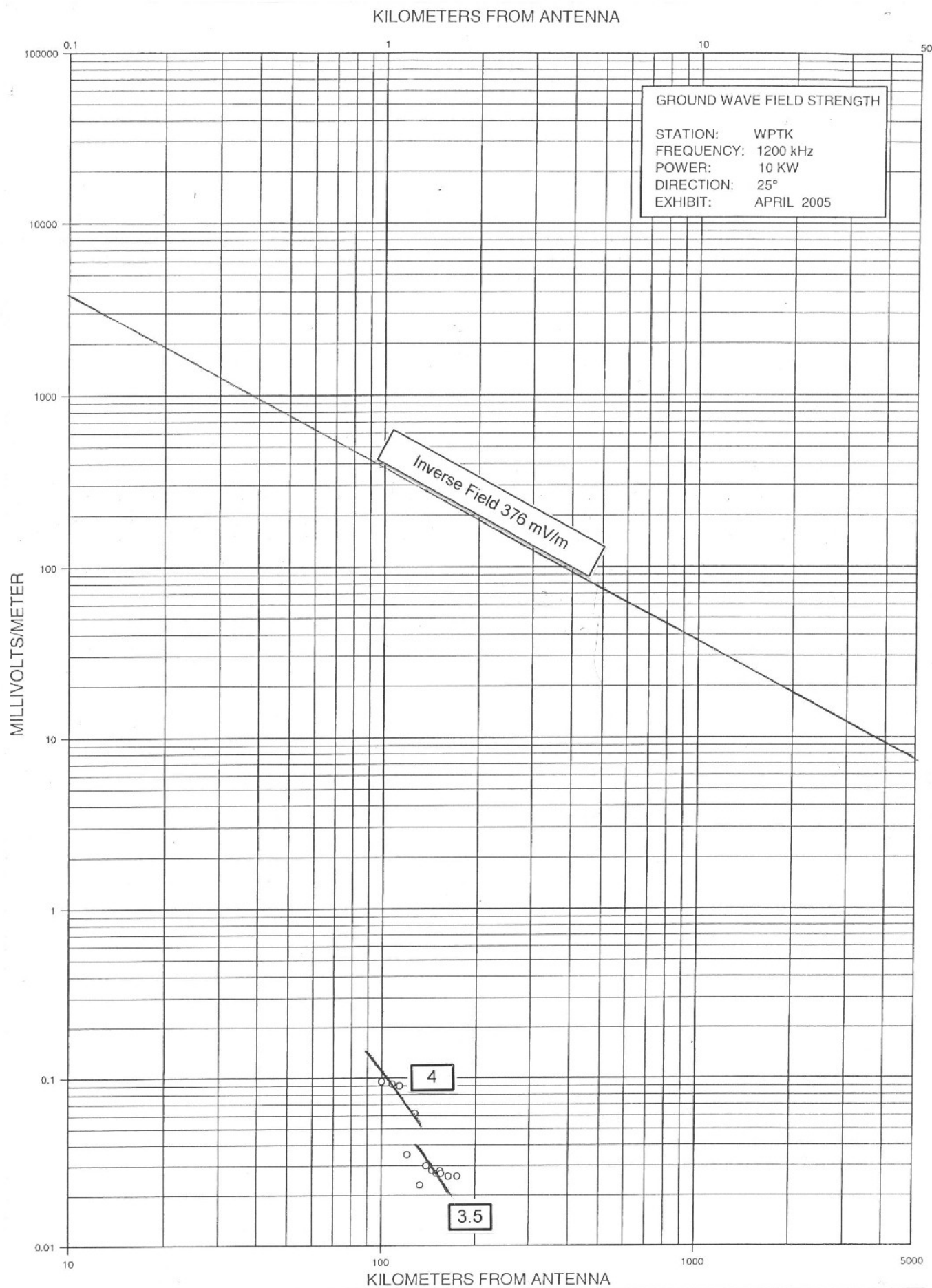


ENGINEERING EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

WPTK FIELD STRENGTH MEASUREMENTS  
25° TRUE

<b>DIST.</b>	<b>FIELD</b>	<b>TIME</b>	<b>DATE</b>
<b>(KM)</b>	<b>MV/M</b>	<b>(LOCAL)</b>	
100.00	0.095	1525	4/23/2005
108.00	0.092	1538	4/23/2005
114.00	0.09	1604	4/23/2005
121.00	0.035	1619	4/23/2005
128.00	0.062	1633	4/23/2005
133.00	0.023	1654	4/23/2005
139.00	0.030	1712	4/23/2005
145.00	0.028	1728	4/23/2005
150.00	0.027	935	4/24/2005
154.00	0.028	944	4/24/2005
155.00	0.027	954	4/24/2005
164.00	0.026	1032	4/24/2005
175.00	0.026	1446	4/21/2005







ENGINEERING EXHIBIT  
FURTHER MODIFICATION OF APPLICATION  
FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

Engineering Statement

The engineering exhibit consisting of this Statement and the attached Figures 1A and 2A, have been prepared on behalf of Fort Myers Broadcasting Company, licensee of AM broadcast station WPTK Pine Island Center, Florida, Facility ID 48329. This Exhibit responds to the Federal Communications Commission's letter of November 22, 2005, regarding the pending application for improved facilities, File Number BP-19880620AJ, by providing information concerning the nighttime directional antenna system. There is no change proposed in the nighttime directional operation, only a correction of the tower heights, which are listed in the FCC database as being 90 electrical degrees but are actually 85.6 degrees.

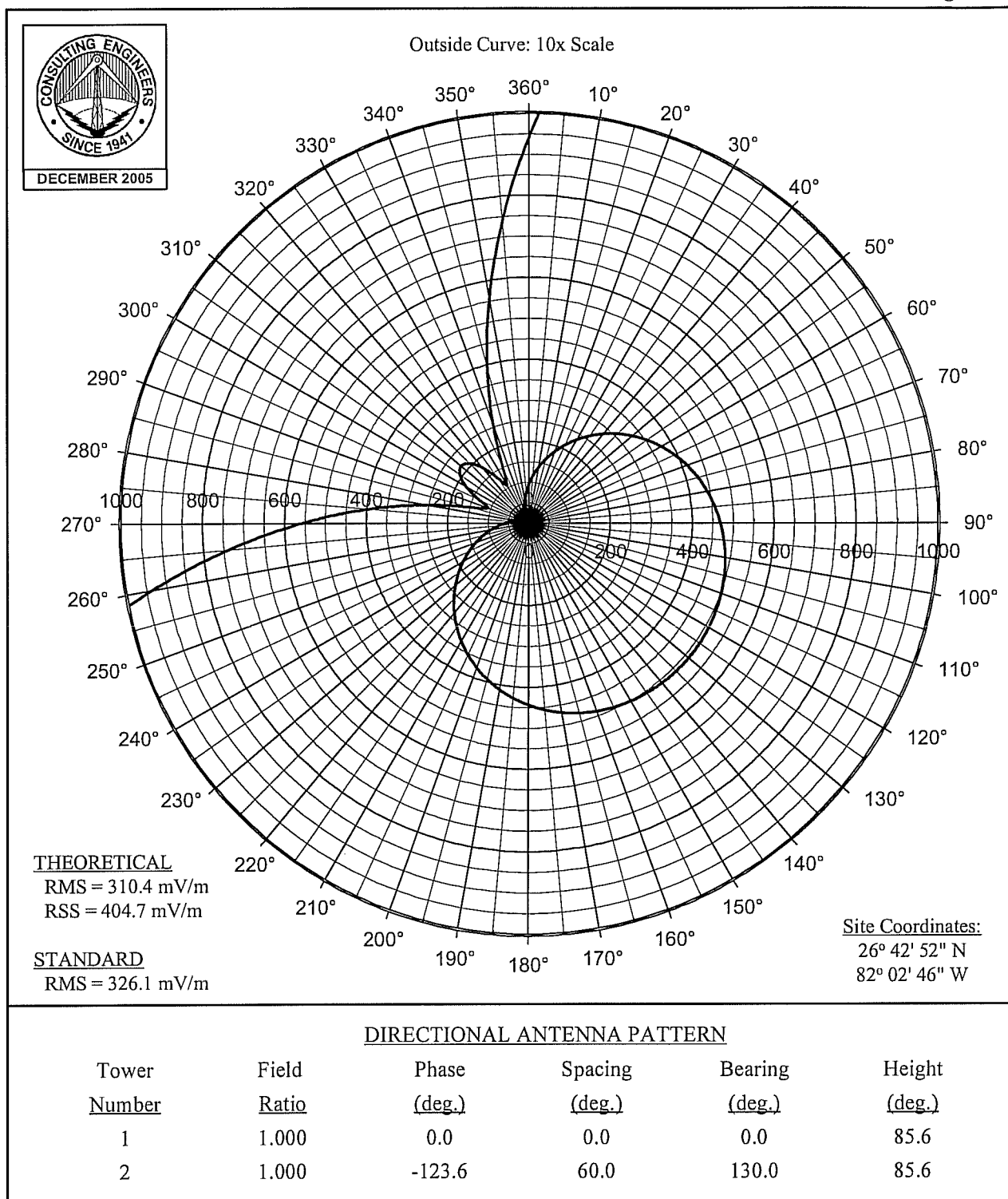
Figure 1A is a polar plot of the nighttime horizontal plane standard radiation pattern. Figure 2A is a tabulation of the pattern fields at vertical angles. No physical change has been made in the nighttime directional antenna system. Only tower heights are being corrected based on the height of the existing towers. The pattern information provided complies with the requirements of 47 CFR 73.150.



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

December 7, 2005

Figure 1A



## PROPOSED NIGHTTIME HORIZONTAL PLANE STANDARD RADIATION PATTERN

RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

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

TECHNICAL EXHIBIT  
FURTHER MODIFICATION OF APPLICATION  
FOR CONSTRUCTION PERMIT  
FORT MYERS BROADCASTING COMPANY  
RADIO STATION WPTK  
PINE ISLAND CENTER, FLORIDA  
FACILITY ID 48329  
1200 KHZ 50 KW-D 1 KW-N DA-2 U

NIGHTTIME RADIATION PATTERN  
(Radiation Values at One Kilometer)

<u>Tower Number</u>	<u>Field Ratio</u>	<u>Phase (deg.)</u>	<u>Spacing (deg.)</u>	<u>Bearing (deg.)</u>	<u>Height (deg.)</u>
1	1.000	0.0	0.0	0.0	85.6
2	1.000	-123.6	60.0	130.0	85.6

<u>Input Power (kW)</u>	<u>Loop Loss (ohms)</u>	<u>Theo. RMS (mV/m)</u>	<u>Theo. RSS (mV/m)</u>	<u>Q Factor (mV/m)</u>	<u>Standard RMS (mV/m)</u>
1.0	1.0	310.4	404.7	10.1	326.1

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	94	94	95	96	97	98	99
5	115	115	115	115	115	115	114
10	138	137	137	136	135	133	130
15	161	161	160	158	155	151	146
20	185	185	183	180	176	170	164
25	210	209	207	203	197	190	181
30	235	234	231	225	218	209	199
35	260	258	255	248	240	229	216
40	284	283	278	271	261	248	234
45	308	306	301	293	281	267	251
50	331	329	323	314	301	285	267
55	353	351	345	334	320	303	283
60	374	372	365	353	338	319	298
65	393	391	384	371	355	335	312
70	412	409	401	388	371	350	325
75	428	425	417	404	385	363	338
80	443	440	432	418	399	375	349
85	456	453	445	430	410	386	359
90	468	465	456	441	421	396	368
95	479	475	466	451	430	405	375
100	487	484	475	459	438	412	382
105	495	491	482	466	444	418	388
110	501	497	487	471	450	423	392
115	505	502	492	476	454	427	396
120	508	505	495	479	457	430	398
125	510	507	497	481	458	431	400
130	511	507	497	481	459	432	400
135	510	507	497	481	458	431	400
140	508	505	495	479	457	430	398
145	505	502	492	476	454	427	396
150	501	497	487	471	450	423	392
155	495	491	482	466	444	418	388
160	487	484	475	459	438	412	382
165	479	475	466	451	430	405	375
170	468	465	456	441	421	396	368
175	456	453	445	430	410	386	359

Standard Radiation Pattern  
(at One Kilometer)

Azimuth Angle (deg)	Elevation Angle in Degrees						
	35	40	45	50	55	60	65
	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)
0	99	98	96	93	88	82	73
5	112	110	106	101	94	86	76
10	126	122	116	109	100	91	79
15	141	134	126	117	107	95	83
20	156	147	137	126	114	100	86
25	171	160	148	135	120	106	90
30	186	173	159	143	127	111	93
35	202	186	170	152	134	116	97
40	217	200	181	161	141	121	101
45	232	212	192	170	148	126	104
50	247	225	202	179	155	131	108
55	261	237	212	187	161	136	111
60	274	248	222	195	168	141	115
65	287	259	231	202	173	145	118
70	298	270	240	209	179	149	121
75	309	279	248	216	184	153	124
80	319	288	255	222	189	157	126
85	328	296	262	228	194	161	129
90	336	303	268	233	198	164	131
95	343	309	273	237	201	166	133
100	349	314	278	241	204	169	135
105	354	319	282	244	207	171	136
110	359	322	285	247	209	172	137
115	362	325	287	249	211	174	138
120	364	327	289	250	212	175	139
125	365	328	290	251	213	175	139
130	366	329	290	251	213	175	140
135	365	328	290	251	213	175	139
140	364	327	289	250	212	175	139
145	362	325	287	249	211	174	138
150	359	322	285	247	209	172	137
155	354	319	282	244	207	171	136
160	349	314	278	241	204	169	135
165	343	309	273	237	201	166	133
170	336	303	268	233	198	164	131
175	328	296	262	228	194	161	129

Standard Radiation Pattern  
(at One Kilometer)

Azimuth	Elevation Angle in Degrees						
Angle	0	5	10	15	20	25	30
(deg)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)	(mV/m)
180	443	440	432	418	399	375	349
185	428	425	417	404	385	363	338
190	412	409	401	388	371	350	325
195	393	391	384	371	355	335	312
200	374	372	365	353	338	319	298
205	353	351	345	334	320	303	283
210	331	329	323	314	301	285	267
215	308	306	301	293	281	267	251
220	284	283	278	271	261	248	234
225	260	258	255	248	240	229	216
230	235	234	231	225	218	209	199
235	210	209	207	203	197	190	181
240	185	185	183	180	176	170	164
245	161	161	160	158	155	151	146
250	138	137	137	136	135	133	130
255	115	115	115	115	115	115	114
260	93.7	94.0	94.7	95.7	96.9	98.0	98.8
265	73.9	74.3	75.5	77.5	79.8	82.4	84.7
270	55.7	56.3	58.0	60.7	64.1	67.9	71.8
275	39.5	40.2	42.3	45.7	50.0	55.0	60.1
280	25.6	26.4	28.8	32.6	37.7	43.6	49.8
285	15.0	15.7	17.9	21.8	27.3	33.9	41.0
290	10.6	10.6	11.3	14.0	19.1	26.0	33.8
295	13.4	12.7	11.0	10.3	13.5	20.0	28.1
300	17.7	16.6	13.9	10.7	10.6	16.0	24.2
305	20.6	19.5	16.4	12.1	9.8	13.8	21.8
310	21.7	20.5	17.3	12.8	9.7	13.1	21.0
315	20.6	19.5	16.4	12.1	9.8	13.8	21.8
320	17.7	16.6	13.9	10.7	10.6	16.0	24.2
325	13.4	12.7	11.0	10.3	13.5	20.0	28.1
330	10.6	10.6	11.3	14.0	19.1	26.0	33.8
335	15.0	15.7	17.9	21.8	27.3	33.9	41.0
340	25.6	26.4	28.8	32.6	37.7	43.6	49.8
345	39.5	40.2	42.3	45.7	50.0	55.0	60.1
350	55.7	56.3	58.0	60.7	64.1	67.9	71.8
355	73.9	74.3	75.5	77.5	79.8	82.4	84.7



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	319	288	255	222	189	157	126
185	309	279	248	216	184	153	124
190	298	270	240	209	179	149	121
195	287	259	231	202	173	145	118
200	274	248	222	195	168	141	115
205	261	237	212	187	161	136	111
210	247	225	202	179	155	131	108
215	232	212	192	170	148	126	104
220	217	200	181	161	141	121	101
225	202	186	170	152	134	116	97.1
230	186	173	159	143	127	111	93.5
235	171	160	148	135	120	106	89.9
240	156	147	137	126	114	100	86.3
245	141	134	126	117	107	95.5	82.8
250	126	122	116	109	100	90.6	79.4
255	112	110	106	101	94.1	86.0	76.2
260	99.0	98.3	96.4	93.1	88.2	81.6	73.2
265	86.6	87.7	87.5	86.0	82.7	77.5	70.3
270	75.3	77.9	79.4	79.4	77.6	73.8	67.7
275	65.0	69.1	72.1	73.5	73.0	70.4	65.3
280	55.9	61.3	65.6	68.3	68.9	67.3	63.2
285	48.1	54.6	60.0	63.7	65.4	64.7	61.4
290	41.7	49.1	55.4	60.0	62.5	62.6	59.9
295	36.6	44.7	51.7	57.0	60.2	60.9	58.7
300	33.0	41.6	49.1	54.9	58.6	59.6	57.8
305	30.9	39.7	47.5	53.6	57.6	58.9	57.3
310	30.2	39.1	47.0	53.2	57.2	58.6	57.1
315	30.9	39.7	47.5	53.6	57.6	58.9	57.3
320	33.0	41.6	49.1	54.9	58.6	59.6	57.8
325	36.6	44.7	51.7	57.0	60.2	60.9	58.7
330	41.7	49.1	55.4	60.0	62.5	62.6	59.9
335	48.1	54.6	60.0	63.7	65.4	64.7	61.4
340	55.9	61.3	65.6	68.3	68.9	67.3	63.2
345	65.0	69.1	72.1	73.5	73.0	70.4	65.3
350	75.3	77.9	79.4	79.4	77.6	73.8	67.7
355	86.6	87.7	87.5	86.0	82.7	77.5	70.3