

**ENGINEERING STATEMENT
CONCERNING 309 APPLICATION
BY SPORTSONIC, INC.
EXPERIMENTAL FM STATION
99.1 mHz 10 WATT ERP RC 10 m AGL
ATLANTA, GEORGIA**

SEPTEMBER 20, 2004

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99.1 mHz 10 WATT ERP RC 10 m AGL
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SEPTEMBER 20, 2004

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SUMMARY

The following engineering statement has been prepared on behalf of **SportSonic, Inc.**, (“SSI”) in support of it’s application for temporary experimental authorization to construct a 10 watt LPFM station at the East Lake Country Club in Atlanta, Georgia. The FM facility will be operated from the golf course club house located on East Lake Drive.

FCC FORM 309 – SECTION V

FCC Form 309 - Section V has been completed and is attached. Questions requiring a narrative are addressed below:

Question 4. Known broadcast station within 3.2 kilometers of the proposed site are listed below:

WAEC 890 kHz 0.5/5 kW LS DA - N U
Atlanta, Georgia 2.4 kM distant

WWWE 1100 kHz 5 kW ND - D
Hopeville, Georgia 2.4 kM distant

WXIA-TV CH 11 NTSC & CH 10 DTV
Atlanta, Georgia 3.08 kM distant

The 10 watt power and 10 m height (3 m above an existing structure) will have no impact on the AM stations or the TV station. There are no existing FM stations within 3.2 kilometers of the site and the closest FCC monitoring station is 41 kilometers distant at Powder Springs, Georgia.

It is noted that the proposed facility fails to meet the allocation criteria established for LP10 FM stations as seen on *Table I*. However, any potential interference to existing stations is limited to two third adjacent channel facilities whose signal level is so high at the subject property as to make any interference highly unlikely to occur and not anticipated.

Question 7. The proposed antenna is a single bay, circularly polarized, broad band antenna with an average RMS power gain of 0.46. The transmitter output power will be set for 38.5 watts to obtain the desired 10 watt ERP unless a larger section of transmission line is required. If that should be the case the transmitter power output will be adjusted to maintain the 10 watt ERP.

Question 9. The circularly polarized antenna will be mounted on a 10' mast placing the antenna center 3 meters above the roof of the clubhouse building. The building roof is not accessible to the general public. Based on *Table I*, *FCC Rule Section 1.1307(b)(1)* experimental stations with an ERP of less than 100 watts are excluded from an RF assessment.

The antenna will be temporarily mounted on the roof of the building in an unobtrusive location avoiding any impact associated with construction or other physical environmental impacts.

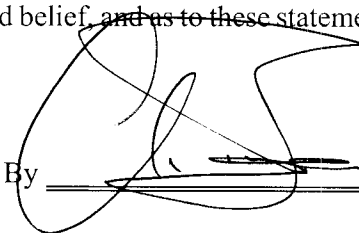
FCC FORM 309, SECTION V-G

FCC Form 309, Section V-G has been completed and is attached. FCC computer routine TOWAIR was utilized to ascertain the potential impact for a 60 m AGL structure at the proposed location with a conclusion that an FAA 7460-1 filing was not required. Since the proposed facility involves the addition of a 3 meter mast on the roof of an existing building it is believed that there are no potential FAA impacts.

PUBLIC INTEREST

The FCC has not yet implemented the LP10 FM service. Short term experimental operation during a PGA tour championships as proposed by **SportSonic, Inc.**, will provide a quality laboratory environment to assess real world coverage to portable listening devices on a large golf course with significant foliage cover, large bodies of water and rolling terrain. Due to limited time available for testing **SportSonic, Inc.** tests must be limited to operating at reduced power levels to determine the minimum power level that yields essentially 100 percent coverage across the 4,800' east to west by 1,900' north to south course. This information can then be employed in future requests for itinerant sports and other special event broadcast.

The foregoing was prepared on behalf of **SportSonic, Inc.** by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.

By 

Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey

SUBSCRIBED AND SWORN TO before me,

this 20th day of September, 2004,

Esther G. Sperbeck, NOTARY PUBLIC

ESTHER G. SPERBECK
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES OCT. 15, 2007

Section V

ENGINEERING DATA			NAME OF APPLICANT	
			SportSonic, Inc.	
1. Purpose of authorization applied for: (Put "X" in appropriate box) ☒ Construct a new station ☐ Modify an existing authorization (Specify)				
2. Facilities requested				
FREQUENCY ¹	POWER ²	NECESSARY BANDWIDTH (KHZ)	TYPE OF EMISSION ³	
99.1 mHz	10 watts	pluse and minus 75 kHz	300KF8E	
¹ International Broadcast Station applicants need not specify frequency. ² For amplitude modulation television (AS), give maximum antenna input power during synchronizing pulses. If particulars are not fully described above, such as aural and visual carrier frequencies and power for television and type of emission, etc., supply this information as Exhibit No. _____. Developmental stations using amplitude modulation or frequency modulation, give unmodulated antenna input power. For other types of emission, give a full description of method of determining power as Exhibit No. _____. Describe in Exhibit No. _____ the means which will be used for determining and maintaining power output of the transmitter to the values specified. ³ See Part 2 of the Commission's Rules and Regulations.				
3. Proposed transmitter location			See Engineering	
STATE	COUNTY	CITY	7. (a) Antenna structure	
Georgia	Fulton	Atlanta	Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any AM broadcast station, FM broadcast station, television broadcast station, or other class of radio station? See Engineering ☒ YES ☐ NO If "Yes", attach as EXHIBIT No. _____ complete engineering data thereon. See Engineering	
Number and Street (or other indication of location) East Lake Country Club East Lake Drive, Atlanta, GA			Submit as EXHIBIT No. See Eng. a vertical plan sketch for the proposed total structure (including supporting buildings, if any) giving heights above ground in feet for all significant features.	
Geographic coordinates (to be determined to nearest second) of the proposed antenna structure		Over-all height in feet above ground. (Do not include the height of any obstruction lighting which may be required.) 10 m		
NORTH LATITUDE	WEST LONGITUDE	Over-all height in feet above mean sea level. (Do not include the height of any obstruction lighting which may be required.) 302 m		
33 deg. 44' 36"	84 deg. 18' 10"	(b) Antenna data NOTE: Applicants for international broadcasting stations should submit all pertinent data regarding antenna characteristics in accordance with the requirements of the International Telecommunication Union's Radio Regulations.		
4. Attach as EXHIBIT No. _____ a map(s) (topographic where obtainable, such as U.S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and show drawn thereon the following data: 1. Proposed transmitter location—accurately plotted. 2. Transmitter location and call signs of all known radio stations (except amateur) and the location of known commercial and government receiving stations within 2 miles of the proposed transmitter location. See Engineering			MAKE Aldena TYPE NO. OR DESCRIPTION ACF 02.02.215LO	
5. Transmitting apparatus to be installed			NUMBER OF SECTIONS 1 ANTENNA POWER GAIN 0.46	
MANUFACTURER	TYPE NO.		(c) During course of experimentation, will antenna system be changed? If "Yes", attach EXHIBIT No. _____ the changes or modifications contemplated. ☐ YES ☒ NO	
Ramsey Electronics	PX 50		(d) Is directional antenna proposed? If "Yes", attach as EXHIBIT No. _____ complete engineering data thereon. ☐ YES ☒ NO	
Rated Unmodulated Carrier Power Output 50 watts (If the above transmitter(s) is/are composite or of a type for which data has not been filed with the F.C.C., attach as EXHIBIT No. _____ a complete technical description of the transmitter(s) and auxiliary equipment with functional (block) diagrams indicating tube complements and the operating constants of the last radio stage. Include also auxiliary radio frequency equipment such as multiplexing networks, sideband filters, etc. If experimental program is likely to make major changes necessary, indicate the tentative arrangement contemplated indicating those portions which are subject to change.)			8. Frequency or percentage of modulation measurement. (a) Method of measuring or monitoring station frequency. External Frequency Counter	
6. Transmission line proposed to supply power to the antenna from the transmitter			(b) Method of measuring or monitoring station modulation. Internal Modulation Monitor	
MAKE	TYPE NO.	DESCRIPTION	9. Environmental Statement, See Part 1, Subpart I of the rules.	
Andrew	LDF1RN-50	Helix Foam	Would a Commission grant of your application be a major action as defined by Section 1.1305 of the Commission's rules? If "Yes", attach as EXHIBIT No. _____ the required statement in accordance with Section 1.1311 of the rules. If "No", explain briefly. ☐ YES ☒ NO	
SIZE IN INCHES (nominal inside transverse dimension)	LENGTH IN FEET	Rated efficiency in percent for this length	See Engineering	
1/4"	200'	56.4%		

ANTENNA AND SITE INFORMATION (See Instructions B, Section 1)	NAME OF APPLICANT SportSonic, Inc.	CALL SIGN N/A
CLASS OF STATION LP 10	STATION LOCATION East Lake Drive, Atlanta, Georgia	

FACILITIES REQUESTED 10 watt ERP 99.1 mHz Joseph M. DiScipio, Esq. Cohn & Marks	PURPOSE OF APPLICATION (Put "X" in appropriate box) ☒ a. New antenna construction ☐ b. Alteration of existing antenna structure ☐ c. Change in location
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LEGAL COUNSEL 1920 N. Street NW, Suite 300	3. Has the FAA been notified of proposed construction? (See Part 17 of FCC Rules) ☐ YES If yes, give date and office where notice was filed. ☒ NO Not required per FCC TOWAIR Routine.
ADDRESS Washington, DC 20036-1622	
CONSULTING ENGINEER Clarence M. Beverage Communications Technologies, Inc.	
ADDRESS P. O. Box 1130 Marlton, NJ 08053	

1. LOCATION OF ANTENNA			4. FEATURES OF SURROUNDING TERRAIN See Engineering Submit as Exhibit No. _____ a chart on which is plotted the exact location of the antenna site, and also the relative location and height of any natural formation or existing man-made structures (trees, water tanks, towers, buildings, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft. The chart used shall be a 7.5 or 15 minute series topographic quadrangle (choice depending upon proximity of the antenna site to landing areas) or full scale photo copy. On the chart include 1) a scale of miles, 2) sufficient latitude and longitude lines, clearly labeled, so that the location of sites may be verified, and 3) all identifying map information. These charts may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or, for areas west of the Mississippi River, from the U.S. Geological Survey, Denver, Colorado 80225. (Exception — Where the proposed antenna site is within the boundary of landing areas, submit a self-made, large scale map showing antenna site runways and existing man-made structures.)
STATE Georgia	COUNTY Fulton	CITY OR TOWN Atlanta	

Exact antenna location (street address). If outside city limits, give name of nearest town and distance and direction of antenna from the town.
East Lake Country Club
East Lake Drive
Atlanta, Georgia

Geographical coordinates (to nearest second). For directional antenna give coordinates of center of array. For single vertical radiator give tower location.	
North latitude 33 ° 44 ' 36 "	West longitude 84 ° 18 ' 10 "

2. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission?
☐ YES ☒ NO If yes, give call sign: N/A

5. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

Landing Area	Distance	Direction
(a) No airports within 5 miles per FCC Routine TOWAIR.		
(b)		
(c)		

6. Description of antenna system (If directional, give spacing and orientation of towers).

Type	One bay FM antenna.					
Description of tower(s)	Pole on building roof.					
Self-supporting	Guyed			Tubular (Pole)		
Tower (height figures should include obstruction lighting)	#1	#2	#3	#4	#5	#6
Height of radiating elements	2'					
Overall height above ground	33'					
Overall height above mean sea level	991'					

7. If a combination of AM, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. N/A a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing.

8. Submit as Exhibit No. See Eng a vertical plan sketch for the proposed total structure (including supporting building, if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting lighting, and distinguish between the skeletal or other main supporting structure and the antenna elements.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

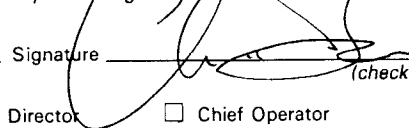
9-17-2004 (date)	Signature 	(check appropriate box below)
☐ Technical Director ☐ Chief Operator ☐ Registered Professional Engineer ☒ Consultant		

TABLE I

LP10 FM ALLOCATION STUDY
CH 256 EAST LAKE COUNTRY CLUB
ATLANTA, GEORGIA
SEPTEMBER 20,2004

Search of channel 256 (99.1 MHz Class LP10) at 33-44-36.0 N, 84-18-10.0 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
WSB-FM	ATLANTA	GA 253 C	3.52	92.00	301.2	-88.5 1
WNNX	ATLANTA	GA 259 C0	7.86	84.00	334.5	-76.1 2
WRAS	ATLANTA	GA 203 C1	6.64	18.00	169.5	-11.4 3
961010TD	ATLANTA	GA 256 D	8.30	16.00	291.7	-7.7 4
WDEN-FM	MACON	GA 256 C1	118.04	103.00	142.6	15.0
NEW	LAWRENCEVILLE	GA 255 D	35.30	10.00	39.9	25.3
WDEN-FM	MACON	GA 256 C1	128.83	103.00	147.4	25.8
WDEN-FM	MACON	GA 256 C1	129.90	103.00	147.7	26.9
WCON-FM	CORNELIA	GA 257 C2	103.88	77.00	33.3	26.9
NEW	MARIETTA	GA 255 D	40.06	10.00	314.7	30.1
NEW	PEACHTREE CITY	GA 255 D	41.34	10.00	214.4	31.3
NEW	PEACHTREE CITY	GA 255 D	41.34	10.00	214.4	31.3
NEW	ALPHARETTA	GA 255 D	42.68	10.00	5.5	32.7
NEW	KENNESAW	GA 255 D	43.53	10.00	320.6	33.5
WCON-FM	CORNELIA	GA 257 C2	110.94	77.00	39.1	33.9
	TALLAPOOSA	GA 255 A	89.05	53.00	264.0	36.0

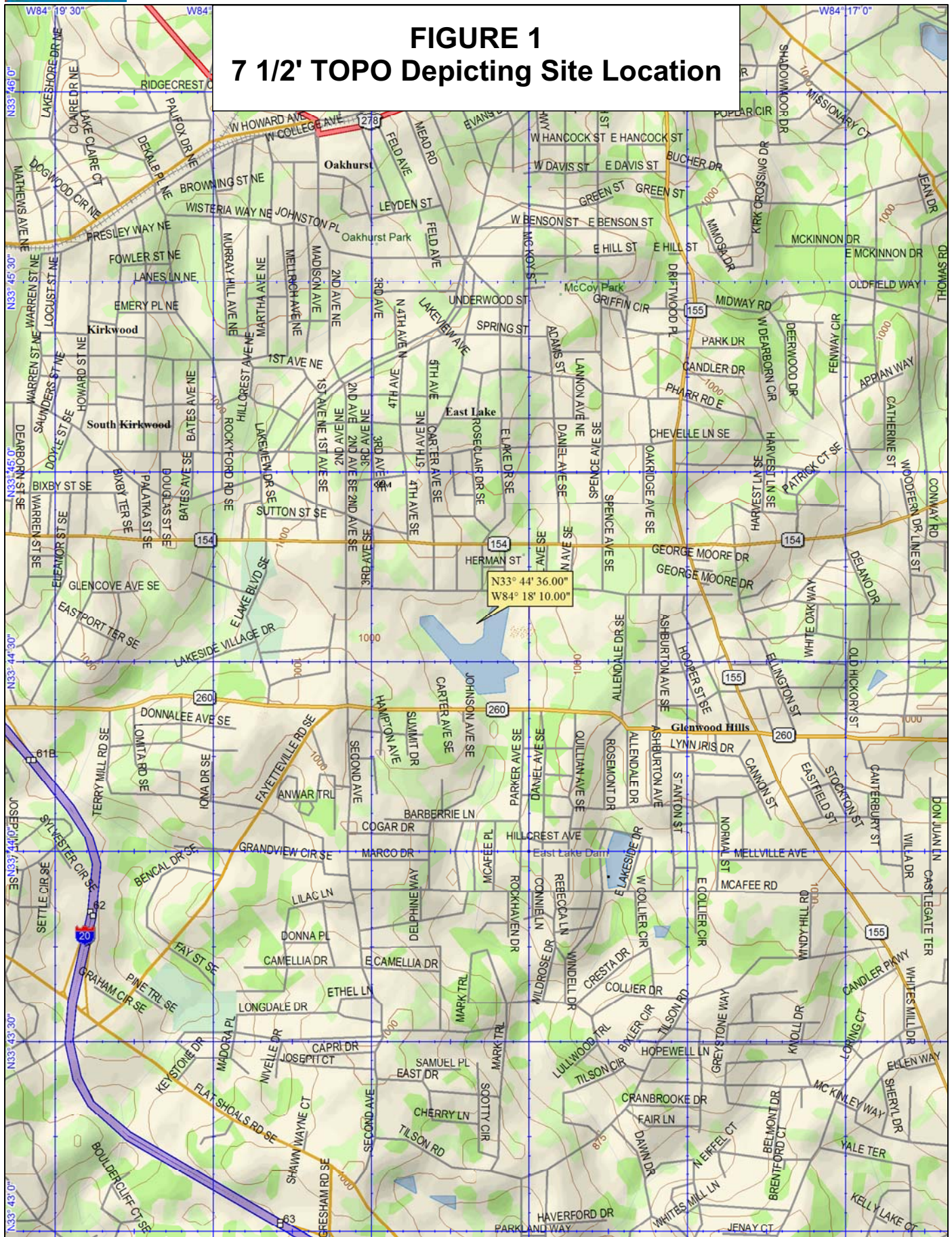
1 - The WSB F(50,50) signal level at the proposed site is 114.5 dBu. For a D/U ratio of 40 dB the proposed facility interfering contour would need to exceed 154.5 dBu to cause predicted interference to WSB.

2 - The WNNX F(50,50) signal level at the proposed site is 102 dBu. For a D/U ratio of 40 dB the proposed facility interfering contour would need to exceed 142 dBu to cause predicted interference to WSB. Employing the classic free space formula for an ERP of 10 watts the 141 dBu signal level would lie at a worst case distance of 0.2 kilometers from the proposed site location. Under these circumstances the predicted, worst case, interference area would lie in an entirely unpopulated area inside the property and no interference to WSB or WNNX is predicted to occur.

3 - The i.f. separation distance to another station does not apply due to the 10 watt power level and no interference to WRAS is anticipated.

4 - This is a pending application and thus unable to receive any interference from the proposed, short term, experimental operation.

FIGURE 1
7 1/2' TOPO Depicting Site Location



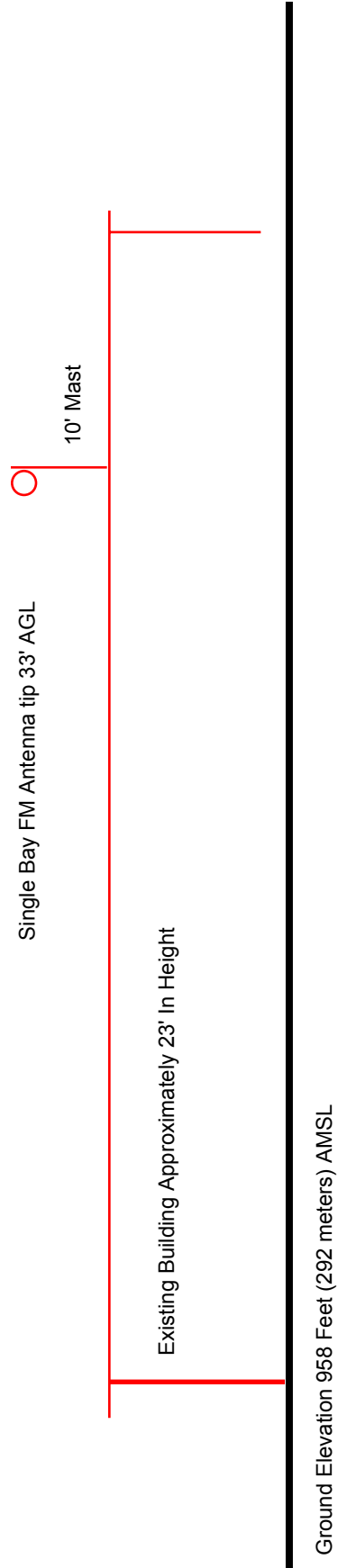


FIGURE 2

VERTICAL PLAN SKETCH

SportSonic 99.1 mHz LP10 Atlanta, Georgia September 2004