

# Exhibit 12.1 - Copy of Existing Antenna Structure Registration

**Registration Detail**

Reg Number	1008868	Status	Constructed
File Number	A0444885	Constructed	01/01/1993
FAA Study	97-ANE-0202-OE	EMI	No
FAA Issue Date	06/04/1997	NEPA	No

**Antenna Structure**

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

**Location** (in NAD83 Coordinates)

Lat/Long	42-22-25.0 N 072-40-24.0 W	ON HORSE MOUNTAIN 6 KM NW OF NORTHAMPTON MA
City, State	WILLIAMSBURG , MA	

Center of  
AM Array

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
189.9	83.8
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
273.7	82.3

**Painting and Lighting Specifications**

FAA Chapters 3, 4, 5, 13

Paint and Light in Accordance with FAA Circular Number 70/7460-1H

**Owner & Contact Information**

FRN	0009269424	Licensee ID	L00074278
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**Owner**

Saga Communications of New England, LLC  
Attention To: Greg Urbiel  
73 Kercheval Avenue, Suite 201  
Grosse Pointe Farms , MI 48236

P: (313)886-7070  
E: gurbriel@sagacom.com

**Contact**

Smithwick , Gary S Esq  
5028 Wisconsin Avenue, NW Suite 301  
Washington , DC 20016

P: (202)363-4050  
E: gsmithwick@fccworld.com

**Last Action Status**

Status	Constructed	Received	04/27/2005
Purpose	Admin Update	Entered	04/27/2005
Mode	Interactive		

**Related Applications**

04/27/2005	A0444885 - Admin Update (AU)
10/14/1997	A0010552 - Modification (MD)
11/22/1996	A0010551 - New (NE)



## Exhibit 12.2

### Vertical Plan of Antenna System

The site is located on Horse Mountain,  
the city of Williamsburg, Hampshire County Massachusetts.

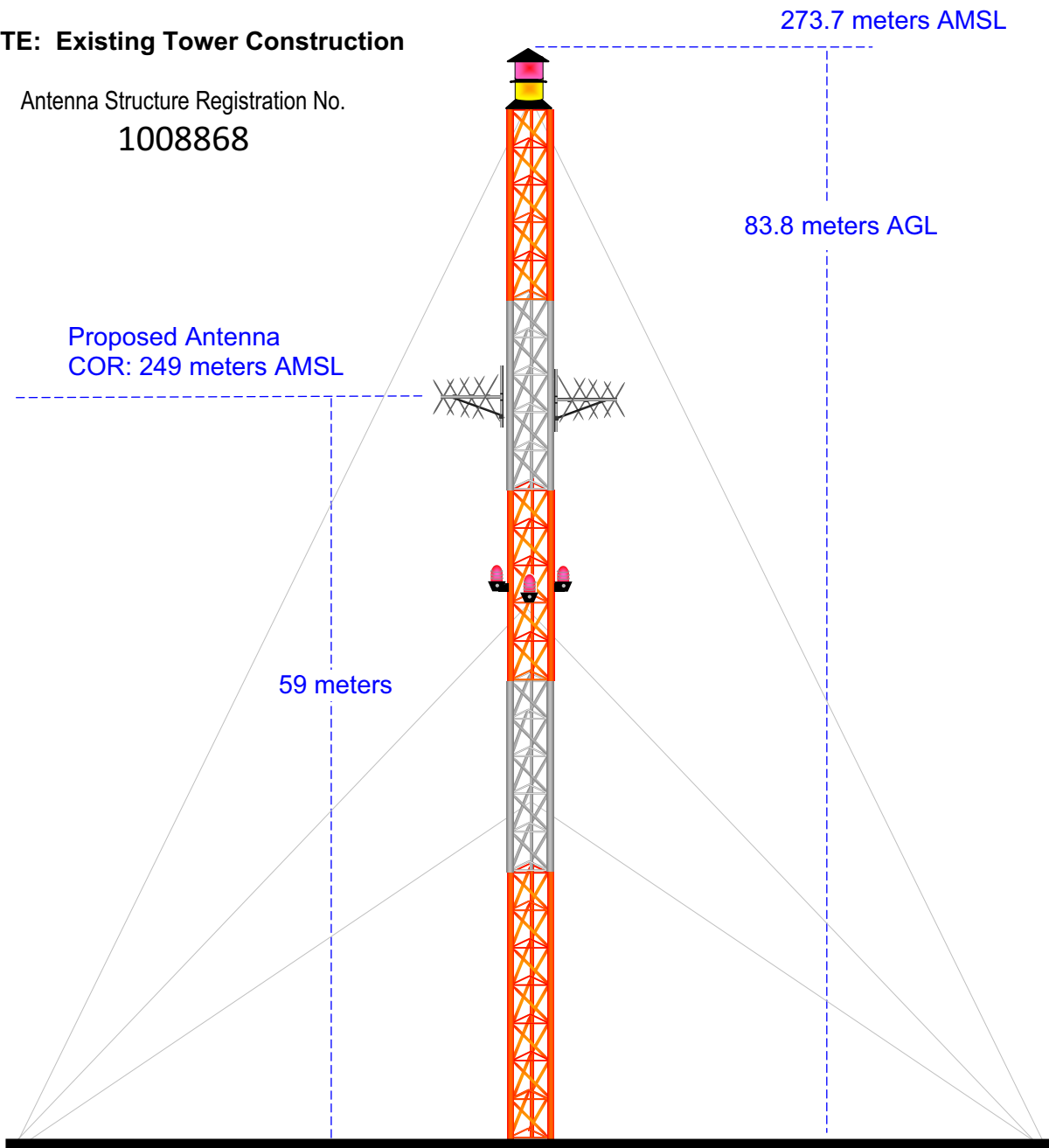
#### Site Location (NAD 27)

NL: 42° 22' 25"

WL: 72° 40' 26"

#### **NOTE: Existing Tower Construction**

Antenna Structure Registration No.  
**1008868**



Ground Elevation = 189.9 m AMSL

Drawing is not to Scale

**MUNN-REESE, INC.**

Broadcast Engineering Consultants  
Coldwater, MI 49036

**W246AM**  
**BLFT19991112ACX**  
Latitude: 42-21-49 N  
Longitude: 072-25-24 W  
ERP: 0.027 kW  
Channel: 246  
Frequency: 97.1 MHz  
AMSL Height: 394.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**60 dBu Contour**  
Total Population: 39,061  
Total Area: 144.34 sq. km

**CH245D**  
Proposed Operation  
Latitude: 42-22-25 N  
Longitude: 072-40-26 W  
ERP: 0.088 kW  
Channel: 245  
Frequency: 96.9 MHz  
AMSL Height: 249.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**60 dBu Contour**  
Total Population: 48,671  
Total Area: 223.66 sq. km

## Exhibit 12.3

### Present vs. Proposed Service Contour Study

**Proposed 60 dBu**

**Present 60 dBu**

CH245D



Hatfield

North Amherst

Amherst

South Amherst

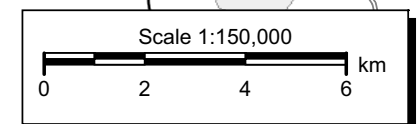
W246AM



Northampton

Belchertown

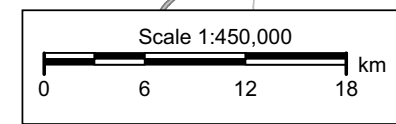
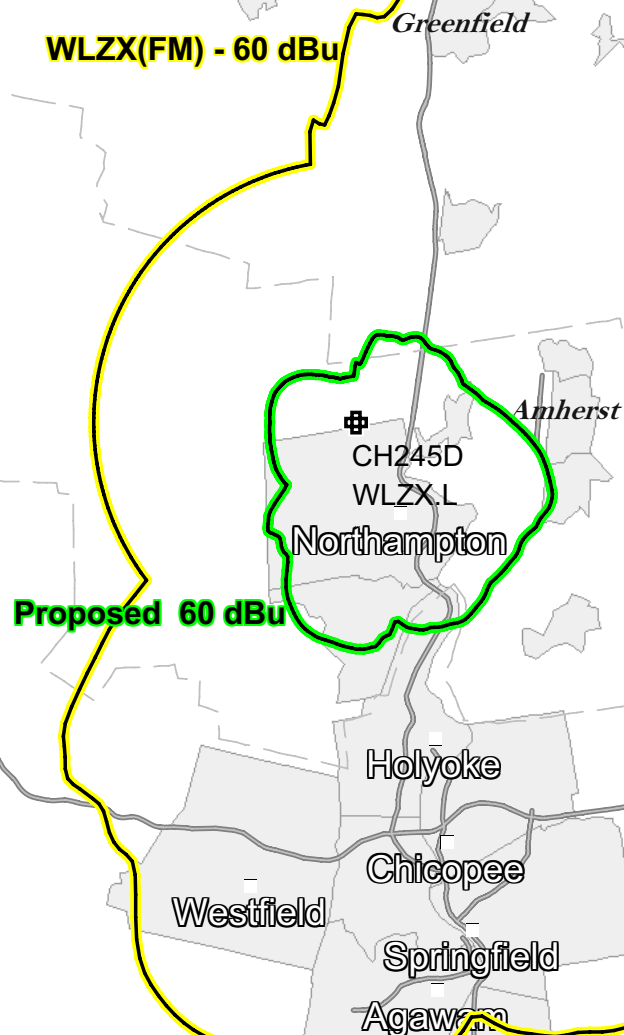
Granby



**CH245D**  
Proposed Operation  
Latitude: 42-22-25 N  
Longitude: 072-40-26 W  
ERP: 0.088 kW  
Channel: 245  
Frequency: 96.9 MHz  
AMSL Height: 249.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**WLZX.L**  
BLH20000112ABC  
Latitude: 42-22-25 N  
Longitude: 072-40-26 W  
ERP: 5.80 kW  
HAAT: 101.0 m  
Channel: 257  
Frequency: 99.3 MHz  
AMSL Height: 268.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

## Exhibit 12.4 Proposed vs. Primary Service Contour Study



# Exhibit 12.5

## Tabulation of Proposed Allocation

Tabulations of contours will be supplied upon request.

Saga Communications Of New England, Llc

REFERENCE		CH# 245D - 96.9 MHz, Pwr= 0.088 kw, HAAT= 83.9 M, COR= 249 M								DISPLAY DATES		
42 22 25.0 N.		Average Protected F(50-50)= 9.17 km								DATA 05-10-08		
72 40 26.0 W.		Standard Directional								SEARCH 05-19-08		
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*	
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)		
245D	W246AM	CP	DC_	0.0	0.00	42 22 25.0	0.095	11.3	3.6	-15.02*	-15.24*	
Amherst		MA		0.0	BPFT20071206ACA	72 40 26.0		244	Saga	Communications Of Ne		
246D	W246AM	LIC	DCN	93.0	20.67	42 21 49.0	0.027	19.8	13.4	-9.02	-6.50	
Amherst		MA		273.2	BLFT19991112ACX	72 25 24.0		394	Saga	Communications Of Ne		
245B	WTKK	LIC	_CN	90.8	131.09	42 20 50.0	22.500	129.2	65.0	-7.51<	22.52	
Boston		MA		271.8	BLH19960903KE	71 04 59.0	224	247	Greater Boston Radio, Inc.			
247D	630365	APP	_C_	157.2	11.28	42 16 48.0	0.001	0.1	4.0	-1.90*<	6.66	
South Hadley		MA		337.3	BNPFT20030314BAW	72 37 15.0		262	Great Northern Radio, Llc			
243B	WTIC-FM	LIC	_CX	189.3	67.47	41 46 27.0	20.000	5.3	61.4	49.23	4.80	
Hartford		CT		9.2	BMLH20060809ADR	72 48 20.0	239	325	Cbs Radio Stations Inc.			
244A	WTSA-FM	LIC	_CN	4.9	57.49	42 53 21.0	5.200	36.6	24.1	17.17	28.20	
Brattleboro		VT		185.0	BLH19910821KF	72 36 47.0	41	330	Four Seasons Media, Inc.			
Proposed to Canada as B1 on 910327-Accepted by Canada 910416												
247D	637213	APP	_C_	167.1	30.89	42 06 09.0	0.100	0.7	5.6	17.90	24.63	
Westfield		MA		347.2	BNPFT20030317AHB	72 35 25.0		51	Capstar Tx Limited Partner			
247A	WJDF	LIC	_C_	43.2	34.74	42 36 03.0	5.800	1.6	15.6	26.96	18.98	
Orange		MA		223.4	BLH19950814KC	72 23 01.0	25	255	Deane Brothers Broadcastin			
244D	W244BG	LIC	_C_	290.9	53.71	42 32 38.0	0.001	7.7	4.9	40.97	41.68	
Lanesborough		MA		110.5	BLFT20061025ABC	73 17 06.0		733	Northeast Gospel Broadcast			
248A	WHAZ-FM	LIC	_CX	320.2	71.19	42 51 49.0	0.420	1.4	21.9	66.13	49.01	
Hoosick Falls		NY		139.8	BLH20070126ADA	73 13 59.0	361	730	Capital Media Corporation			
247A	WZBG	LIC	_CN	212.6	75.31	41 48 08.0	3.000	2.3	25.2	64.52	49.49	
Litchfield		CT		32.3	BLH19920813KA	73 09 50.0	100	411	Local Girls And Boys Broad			
242D	W242AT	LIC	_C_	311.0	57.34	42 42 36.0	0.250	1.1	7.1	52.00	49.85	
Williamstown		MA		130.6	BMLFT20070409ACS	73 12 12.0		220	University Of Massachusett			

Terrain database is NGDC 30 SEC Distance + R = 73.215 or FCC Spacings in KM, Distance + M = Margin in KM  
 Contour distances are on direct line to and from reference station. Reference zone = 1. with 3rd Adj Channels.  
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
 "\*"affixed to 'IN' or 'OUT' values = site inside protected contour.  
 "<" = Contour overlap  
 Reference station has protected zone issue: Canada

Antenna: HDCA-5CP array

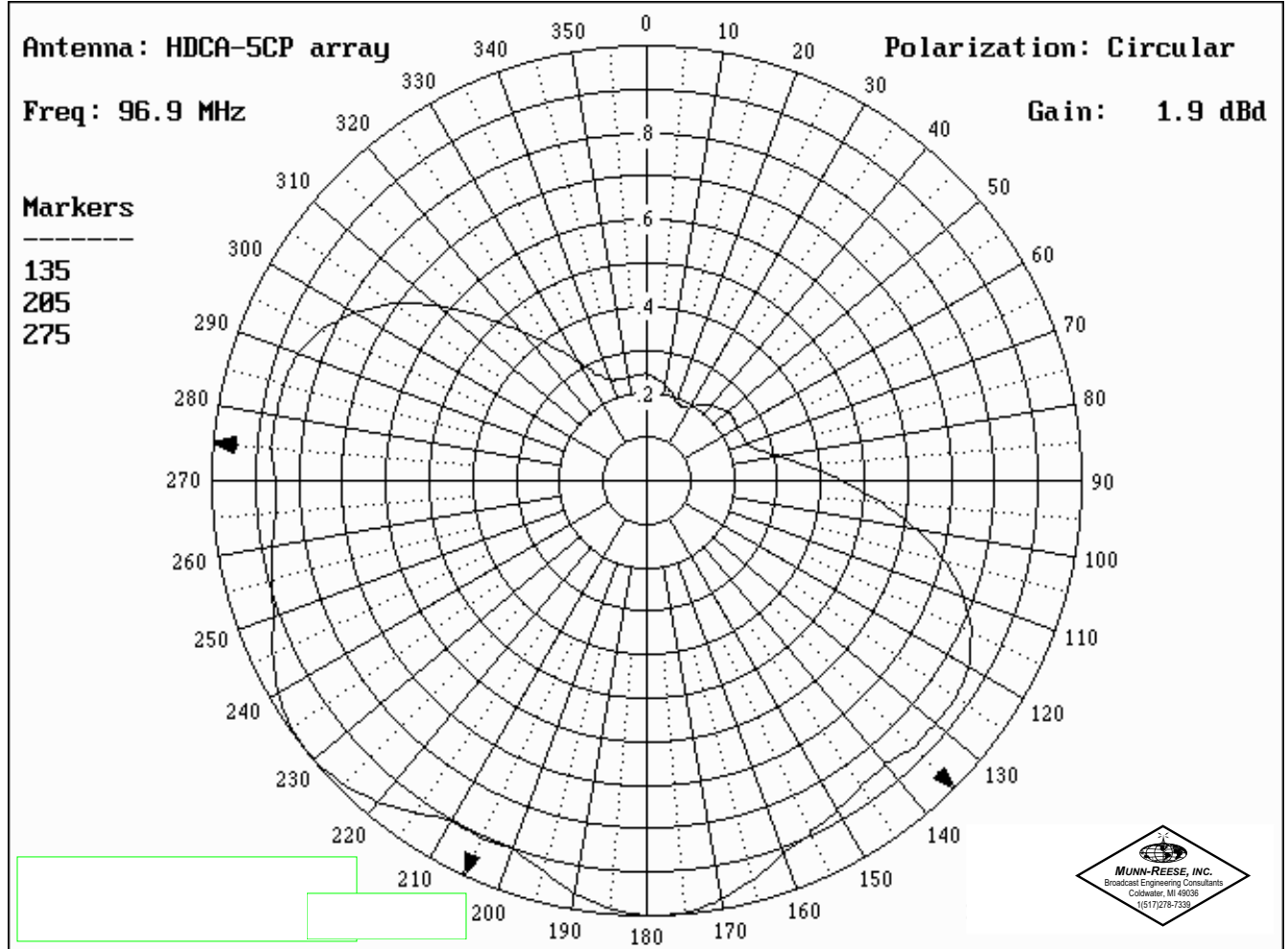
12-03-2007

Frequency: 96.9 MHz

Polarization: Circular

## Exhibit 12.6 Tabulation of Proposed Directional Pattern

Azimuth	Field	Rel.dB	dBd	Pwr Gain
0	0.246	-12.2	-10.3	0.093
10	0.226	-12.9	-11.0	0.079
20	0.193	-14.3	-12.4	0.058
30	0.193	-14.3	-12.4	0.058
40	0.226	-12.9	-11.0	0.079
50	0.246	-12.2	-10.3	0.093
60	0.240	-12.4	-10.5	0.089
70	0.244	-12.3	-10.4	0.091
80	0.316	-10.0	-8.1	0.155
90	0.449	-7.0	-5.1	0.309
100	0.628	-4.0	-2.2	0.603
110	0.773	-2.2	-0.4	0.912
120	0.855	-1.4	0.5	1.122
130	0.866	-1.2	0.6	1.148
140	0.852	-1.4	0.5	1.122
150	0.876	-1.2	0.7	1.175
160	0.914	-0.8	1.1	1.288
170	0.980	-0.2	1.7	1.479
180	1.000	0.0	1.9	1.549
190	0.962	-0.3	1.5	1.413
200	0.900	-0.9	1.0	1.259
210	0.900	-0.9	1.0	1.259
220	0.962	-0.3	1.5	1.413
230	1.000	0.0	1.9	1.549
240	0.980	-0.2	1.7	1.479
250	0.914	-0.8	1.1	1.288
260	0.876	-1.2	0.7	1.175
270	0.852	-1.4	0.5	1.122
280	0.866	-1.2	0.6	1.148
290	0.855	-1.4	0.5	1.122
300	0.773	-2.2	-0.4	0.912
310	0.628	-4.0	-2.2	0.603
320	0.449	-7.0	-5.1	0.309
330	0.316	-10.0	-8.1	0.155
340	0.244	-12.3	-10.4	0.091
350	0.240	-12.4	-10.5	0.089



## Exhibit 12.7

### Tabulation of Proposed 34.0 dBu f(50:10) Contour

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Call Letters: CH245D                      File Number: Proposed  
Latitude: 42-22-25 N                      Longitude: 072-40-26 W  
ERP: 0.088 Kw  
Channel: 245                                  Frequency: 96.9 MHz  
AMSL Height: 249.0 m  
Horiz. Antenna Pattern: Directional  
Vert. Elevation Pattern: No

Type of contour: FCC  
Location Variability: 50.0 %  
Time Variability: 10.0 %  
# of Radials Calculated: 360  
Field Strength: 34.00 dBuV/m

Primary Terrain: V-Soft 30 Second US Database

Bearing (deg)	Distance (km)	Bearing (deg)	Distance (km)	Bearing (deg)	Distance (km)
0.0	16.9	120.0	55.6	240.0	25.7
5.0	17.0	125.0	54.8	245.0	25.2
10.0	22.7	130.0	55.6	250.0	24.7
15.0	25.7	135.0	55.8	255.0	24.5
20.0	26.0	140.0	55.8	260.0	24.2
25.0	26.8	145.0	57.8	265.0	24.0
30.0	27.0	150.0	59.1	270.0	23.9
35.0	29.6	155.0	58.7	275.0	24.0
40.0	29.9	160.0	57.8	280.0	24.1
45.0	29.6	165.0	56.9	285.0	24.0
50.0	31.0	170.0	56.4	290.0	23.9
55.0	31.8	175.0	59.3	295.0	23.3
60.0	31.6	180.0	59.6	300.0	22.7
65.0	32.0	185.0	58.7	305.0	21.5
70.0	32.0	190.0	57.9	310.0	20.3
75.0	34.1	195.0	56.3	315.0	18.7
80.0	36.0	200.0	52.9	320.0	16.8
85.0	39.5	205.0	46.8	325.0	15.1
90.0	42.9	210.0	42.7	330.0	13.7
95.0	47.0	215.0	40.5	335.0	12.9
100.0	50.8	220.0	40.5	340.0	12.1
105.0	53.4	225.0	34.5	345.0	12.1
110.0	55.7	230.0	25.9	350.0	12.0
115.0	55.9	235.0	25.8	355.0	12.1