



SITE NAME: W254BR CAMBRIDGE MARRIOTT

265-275 MAIN STREET
CAMBRIDGE, MA 02142
MIDDLESEX COUNTY



Know what's below.
Call before you dig.

SITE INFORMATION	
SITE NAME:	W254BR CAMBRIDGE MARRIOTT
SITE ADDRESS:	265-275 MAIN STREET CAMBRIDGE, MA 02142
LATITUDE (NAD 83):	42° 21' 46.44"
LONGITUDE (NAD 83):	-71° 05' 10.02"
JURISDICTION:	CITY OF CAMBRIDGE
COUNTY:	MIDDLESEX COUNTY
PARCEL OWNER:	ZUCKERMAN, MORTIMER B., EDWARD H. LINDE & DAVID BARRETT, TRS.
ADDRESS:	800 BOYLSTON STREET, STE #1900 BOSTON, MA 02199
PARCEL AREA:	1.32± ACRES
MBLU:	44-106
ZONING CLASSIFICATION:	MIXED USE DEVELOPMENT (AMES STREET DISTRICT)
GROUND ELEVATION:	9.0'± (AMSL)
STRUCTURE TYPE:	ROOFTOP
STRUCTURE HEIGHT:	293.0'± (AGL)



CODE COMPLIANCE	
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.	
<ul style="list-style-type: none"> 2009 INTERNATIONAL BUILDING CODE (MASSACHUSETTS AMENDED 8TH EDITION) 2014 NATIONAL ELECTRICAL CODE 2009 NFPA 101, LIFE SAFETY CODE 2009 IFC - REFERENCE 527 CMR AMERICAN CONCRETE INSTITUTE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION 13TH EDITION 	<ul style="list-style-type: none"> ANSI/TIA-222-G TIA 607 INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81 IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION TELECORDIA GR-1275 ANSI/T 311

DRAWING INDEX	
T-1	TITLE SHEET
C-1	ROOF PLAN & ELEVATION
A-1	SPECIFICATIONS

APPROVAL BLOCK			
	DATE	APPROVED	DISAPPROVED/ REVISE
PROPERTY OWNER	_____	<input type="checkbox"/>	<input type="checkbox"/>
SALEM MEDIA GROUP	_____	<input type="checkbox"/>	<input type="checkbox"/>
MARRIOTT HOTEL	_____	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	_____	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	_____	<input type="checkbox"/>	<input type="checkbox"/>
ZONING	_____	<input type="checkbox"/>	<input type="checkbox"/>
RF ENGINEER	_____	<input type="checkbox"/>	<input type="checkbox"/>

PROJECT TEAM	
APPLICANT:	SALEM MEDIA GROUP 4880 SANTA ROSA ROAD CAMARILLO, CA 93012 (805) 987-0400
ENGINEERING FIRM:	NB+C ENGINEERING SERVICES, LLC. 100 APOLLO DRIVE, SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308
DO NOT SCALE DRAWINGS	
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.	

ENGINEER	<p>TOTALLY COMMITTED.</p> <p>NB+C ENGINEERING SERVICES, LLC. 100 APOLLO DRIVE SUITE 303 CHELMSFORD, MA 01824 (978) 856-8308</p>																
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DESIGN RECORD	<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>05/01/17</td> <td>REVISED</td> <td>MJS</td> </tr> <tr> <td>A</td> <td>04/24/17</td> <td>PRELIMINARY</td> <td>MJS</td> </tr> </tbody> </table>	REVISIONS				REV	DATE	DESCRIPTION	BY	B	05/01/17	REVISED	MJS	A	04/24/17	PRELIMINARY	MJS
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PROFESSIONAL STAMP																	
ENGINEER	<p>KRUPAKARAN KOLANDAIVELU, P.E. MA PROFESSIONAL ENGINEER LIC. #50019</p>																
SHEET TITLE	<p>TITLE SHEET</p>																
SHEET NUMBER	<p>T-1</p>																



LEASE EXHIBIT

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE
SUITE 303
CHELMSFORD, MA 01824
(978) 855-8308

SALEM
MEDIA GROUP

4880 SANTA ROSA ROAD
CAMARILLO, CA 93012
(805) 987-0400

W254BR
CAMBRIDGE MARRIOTT
265-275 MAIN STREET
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MIDDLESEX COUNTY

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DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

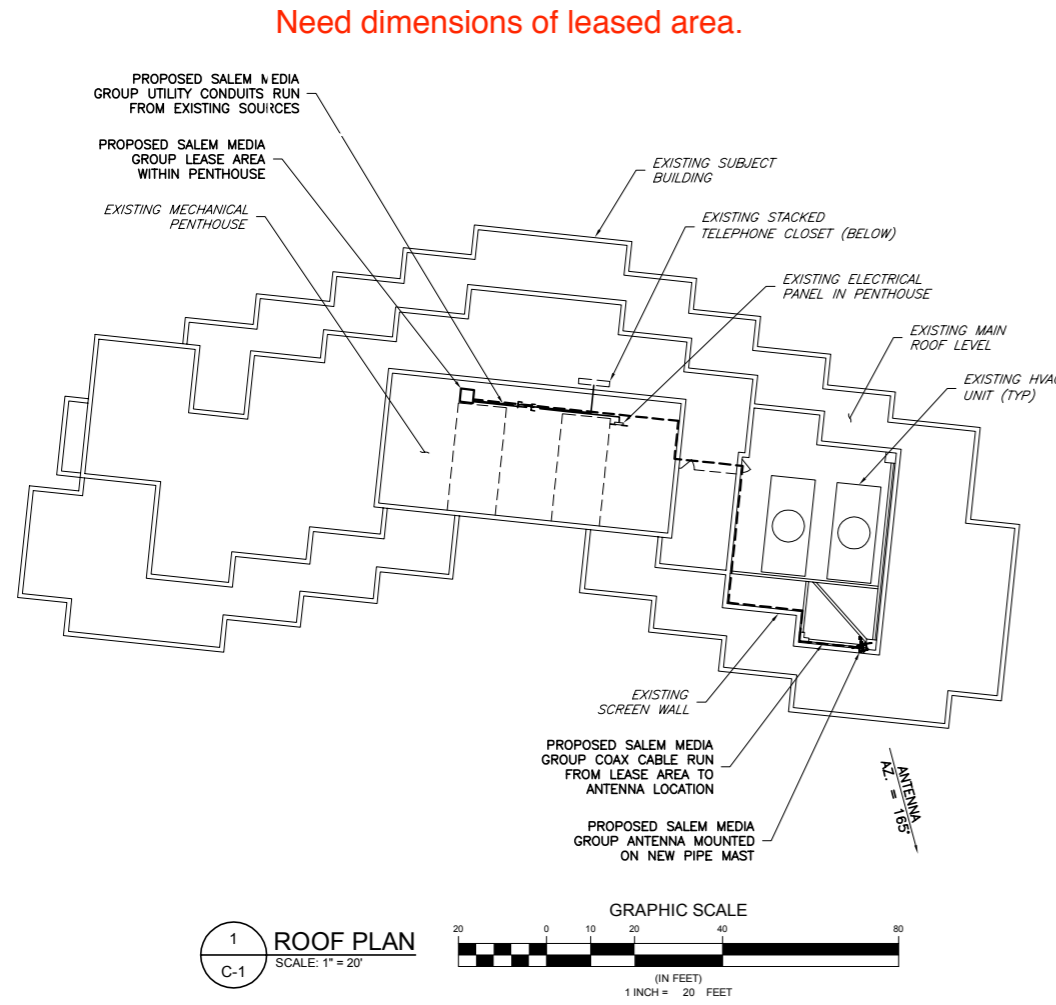
KRUPAKARAN KOLANDAIVELU, P.E.
MA PROFESSIONAL ENGINEER LIC. #50019

SHEET TITLE

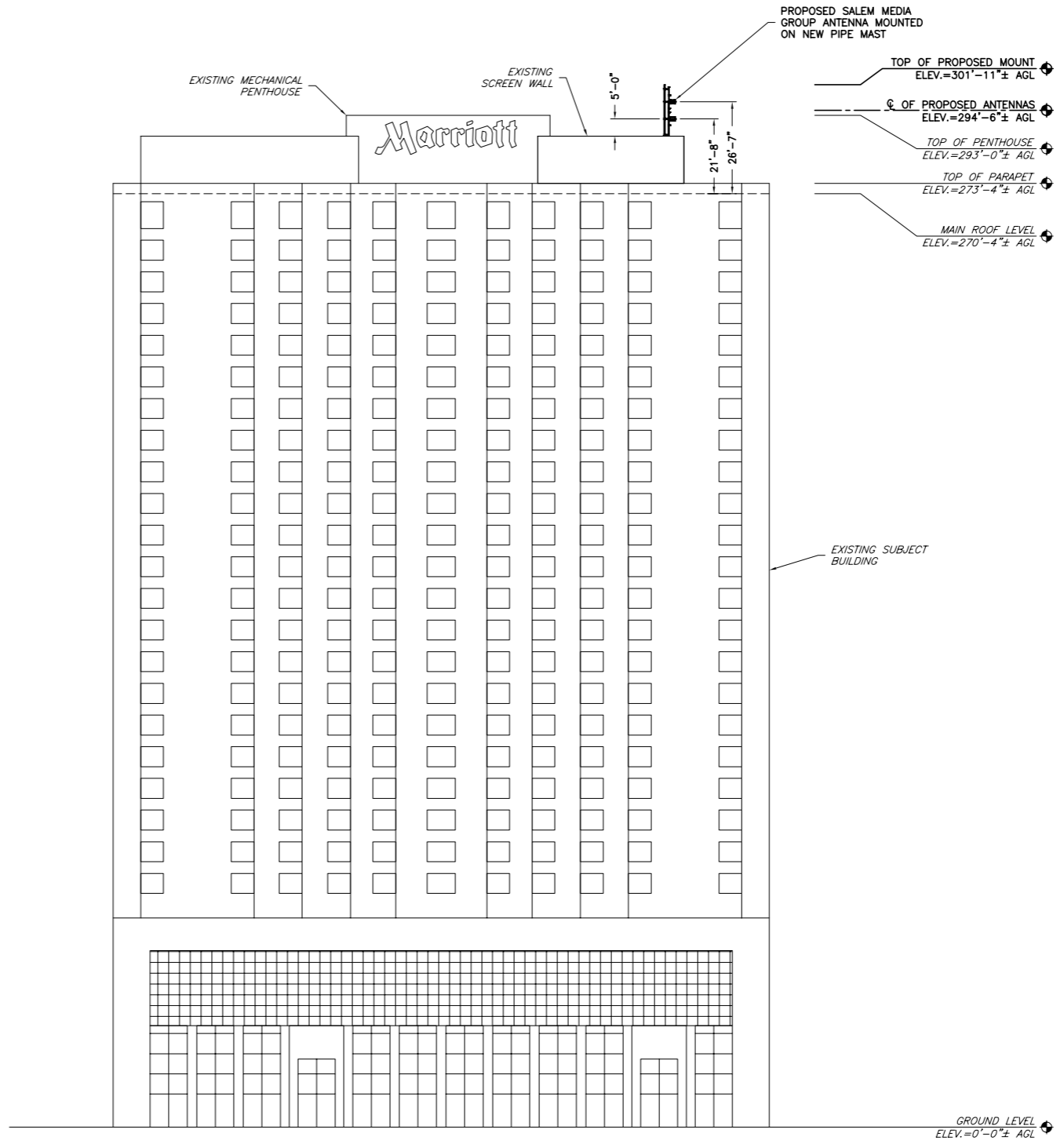
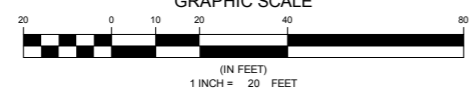
ROOF PLAN & ELEVATION

SHEET NUMBER

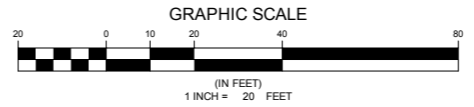
C-1



1 ROOF PLAN
SCALE: 1" = 20'



2 ELEVATION
SCALE: 1" = 20'



STRUCTURAL NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN COMPLETED. DRAWINGS ARE SUBJECT TO CHANGE PENDING A FULL STRUCTURAL REPORT.

LEASE EXHIBIT

ENGINEER



NB+C ENGINEERING SERVICES, LLC.
 100 APOLLO DRIVE
 SUITE 303
 CHELMSFORD, MA 01824
 (978) 856-8308

APPLICANT



4880 SANTA ROSA ROAD
 CAMARILLO, CA 93012
 (805) 987-0400

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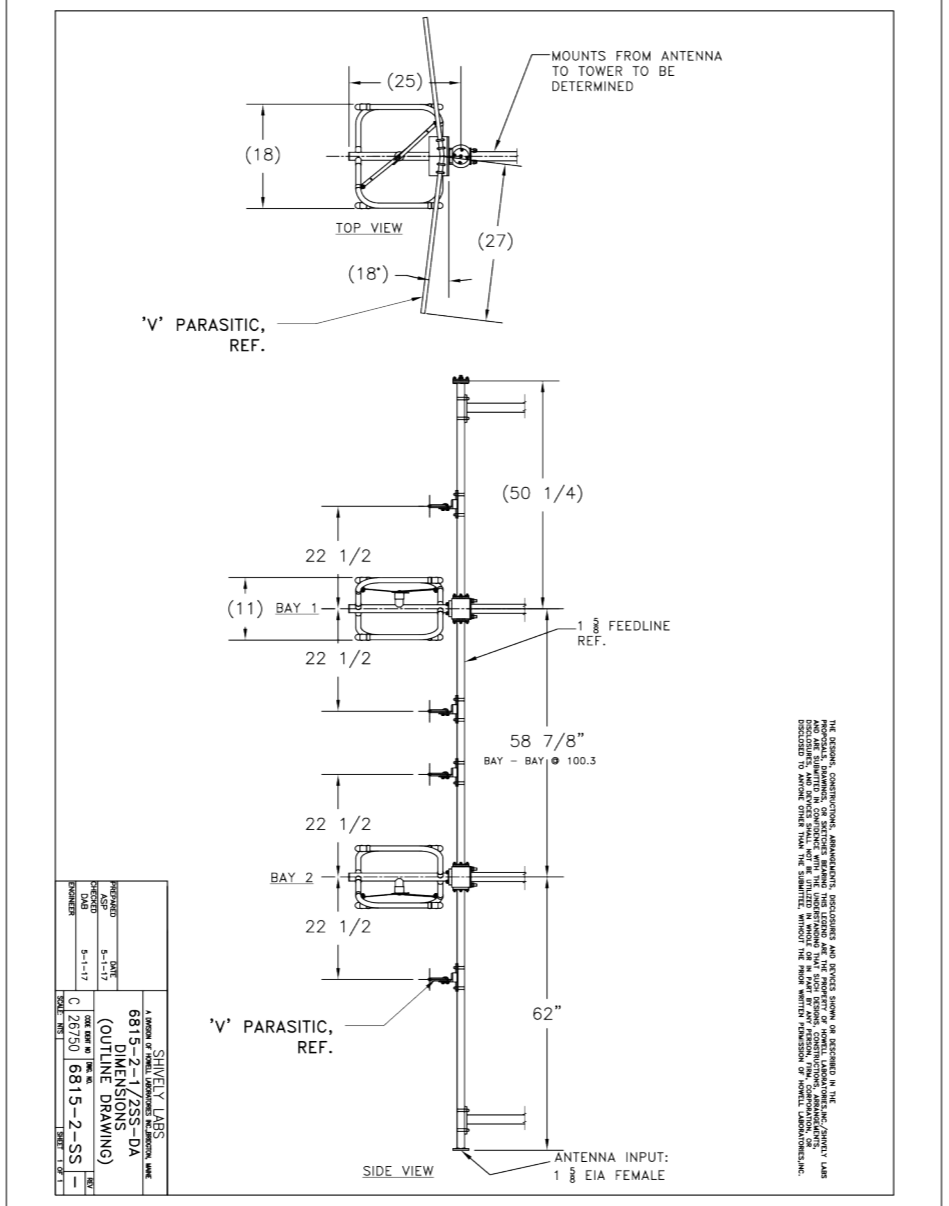
KRUPAKARAN KOLANDAIVELU, P.E.
 MA PROFESSIONAL ENGINEER LIC. #50019

SHEET TITLE

SPECIFICATIONS

SHEET NUMBER

A-1

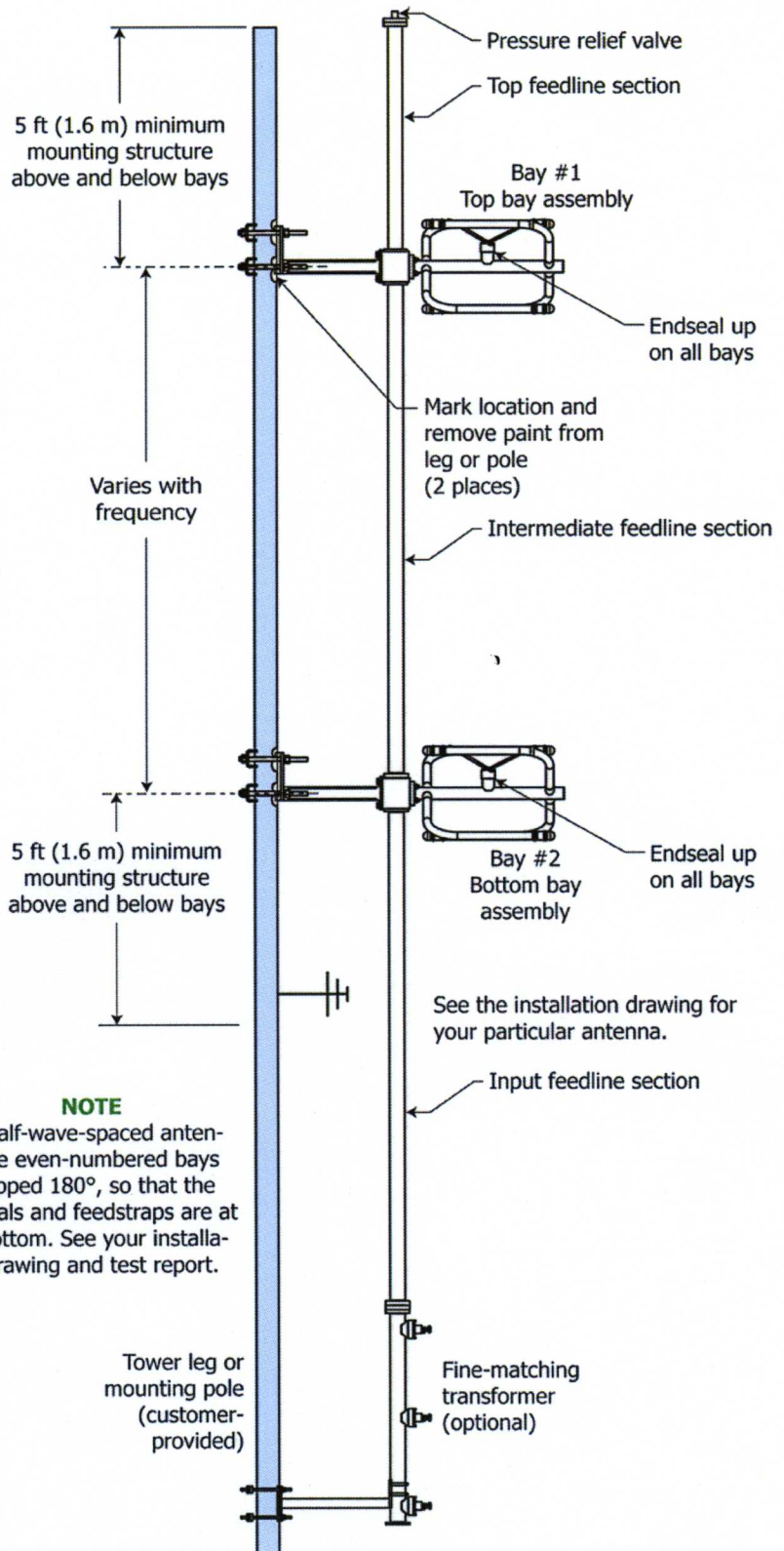


Precautions and Preparation

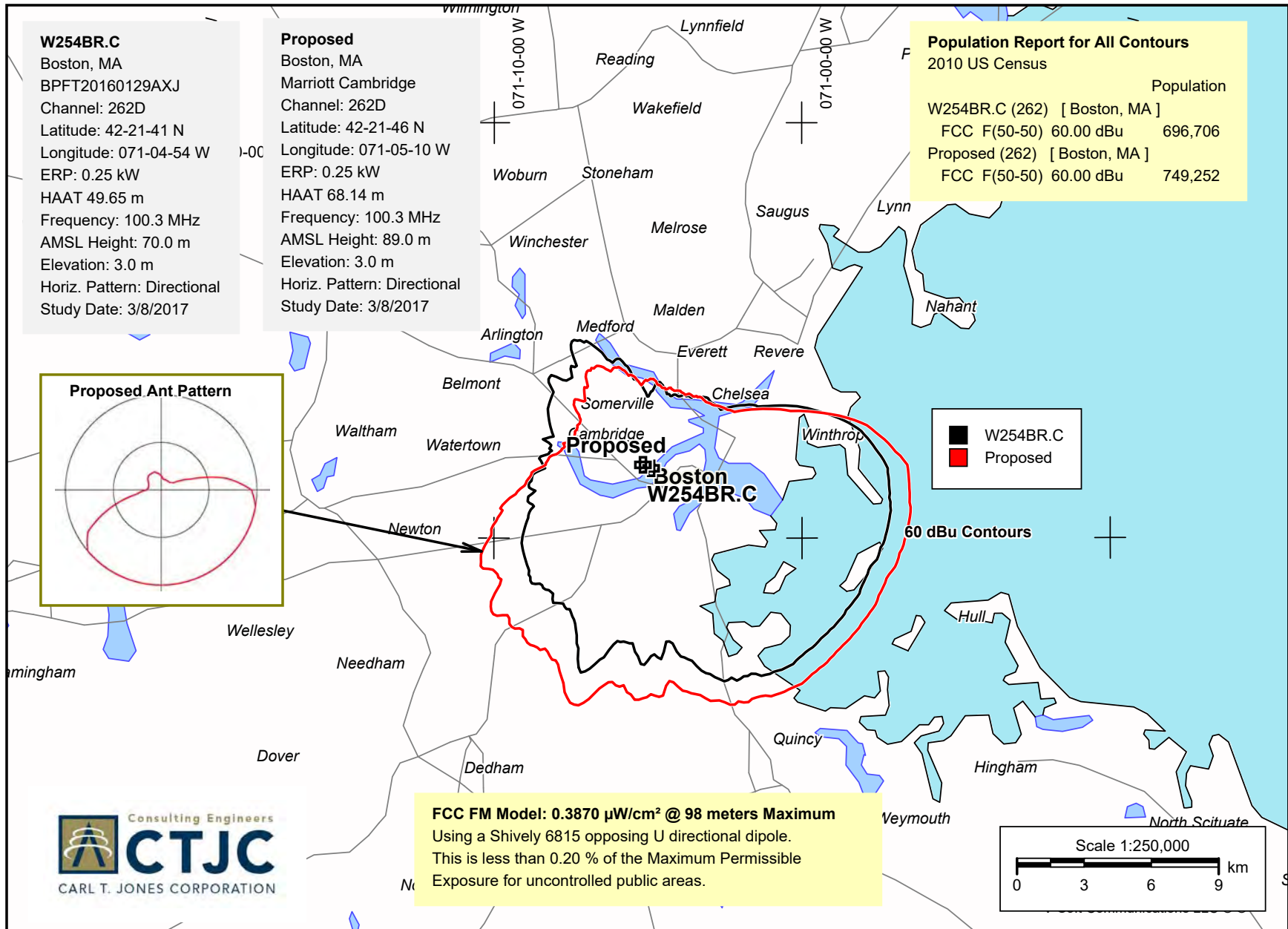
SHIVELY 6815

Figure 1. Tower layout, two-bay end-fed antenna without radomes

HALF WAVE
APPROXIMATE
± 58"



W254BR.C BPFT-20160129AXL 100.3 FM Boston, Relocation to the Cambridge Marriott Hotel



W254BR FM Translator Fill-In for WROL AM Boston, Relocation Proposal



W254BR CP Mod Boston to Marriott Bldg, Sheet 2



Marriott

EMPORIS

EMPORIS

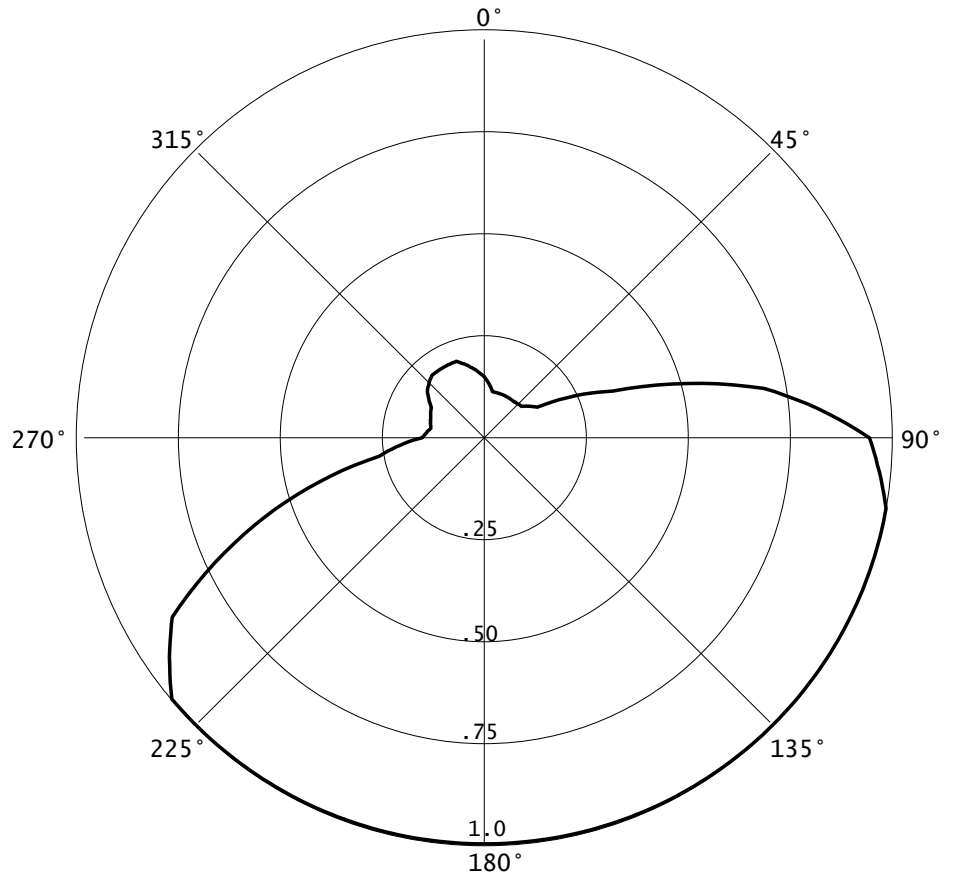
Proposed

03-08-2017

RMS(V)= .687

Graph is Relative Field

Azi	Field	dBk	kw
000	0.150	-22.499	0.006
010	0.115	-24.807	0.003
020	0.115	-24.807	0.003
030	0.115	-24.807	0.003
040	0.115	-24.807	0.003
050	0.120	-24.437	0.004
060	0.150	-22.499	0.006
070	0.336	-15.494	0.028
080	0.697	-09.156	0.121
090	0.944	-06.521	0.223
100	1.000	-06.021	0.250
110	1.000	-06.021	0.250
120	1.000	-06.021	0.250
130	1.000	-06.021	0.250
140	1.000	-06.021	0.250
150	1.000	-06.021	0.250
160	1.000	-06.021	0.250
170	1.000	-06.021	0.250
180	1.000	-06.021	0.250
190	1.000	-06.021	0.250
200	1.000	-06.021	0.250
210	1.000	-06.021	0.250
220	1.000	-06.021	0.250
230	1.000	-06.021	0.250
240	0.883	-07.101	0.195
250	0.574	-10.842	0.082
260	0.261	-17.688	0.017
270	0.152	-22.384	0.006
280	0.133	-23.544	0.004
290	0.140	-23.098	0.005
300	0.150	-22.499	0.006
310	0.182	-20.819	0.008
320	0.200	-20.000	0.010
330	0.200	-20.000	0.010
340	0.200	-20.000	0.010
350	0.175	-21.160	0.008



FM Model

Electromagnetic Compatibility Division

TVStudy Interference Analysis
Software

Measuring Broadband America

Incentive Auctions - TV Study
Software - OET Bulletin No. 69

Experimental License Filing
System

Technical Documents

OET - Bulletins

Radio Frequency Safety

Technological Advisory Council
(TAC)

Frequency Coordination with
Canada Below 470 MHz

FM Model

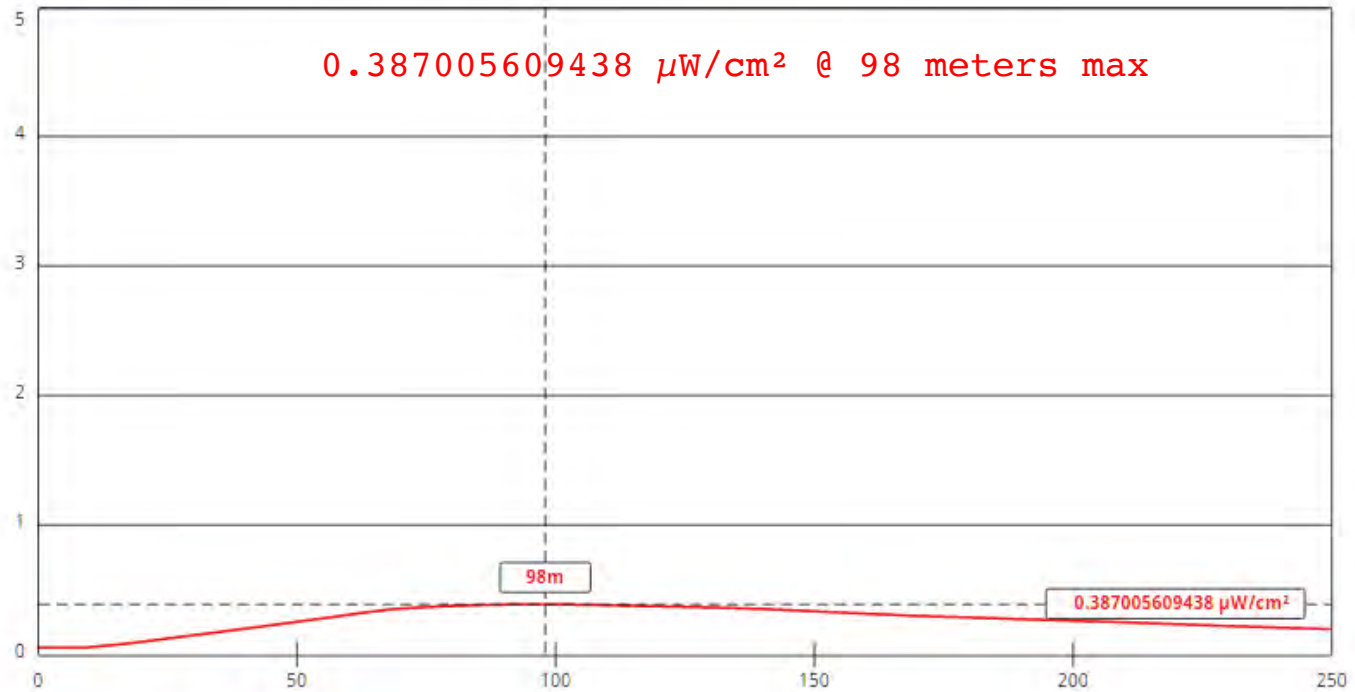
FCC Frequency Assignment
Databases

FCC Areas

Spectrum Utilization Study
Software (SUSS)

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA.

▼ Show More...



View Tabular Results +

Channel Selection	Channel 250 (97.9 MHz) ▼		
Antenna Type +	EPA Type 3: Opposed U Dipole ▼		
Height (m)	<input type="text" value="100"/>	Distance (m)	<input type="text" value="250"/>
ERP-H (W)	<input type="text" value="250"/>	ERP-V (W)	<input type="text" value="250"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value=".5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

W254BR CP Mod Boston to Marriott Bldg, Sheet 5

SHIVELY LABS

DATE: 16-Mar-16
 SHOP ORDER: 33375
 STATION: N/A
 FREQUENCY: 91.7
 ANTENNA TYPE: 6815

TOWER: POLE 4.5
 MOUNT: POLE MT'S
 MOUNT REMARKS: POLE MT'S
 A-DIMENSION INCHES: 2.500

HORIZONTAL PARASITIC: 2-PLCS
 B-DIMENSION: FEED LINE FRONT
 C-DIMENSION: 1/4 W/L UP&DOWN
 PARASITIC LENGTH: 14.000

VERTICAL PARASITIC: N/A
 D-DIMENSION:
 E-DIMENSION:
 F-DIMENSION
 PARASITIC LENGTH:

1st LEG AZIMUTH: POLE
 ANTENNA HEADING: 118-DEGREES
 LADDER: N/A

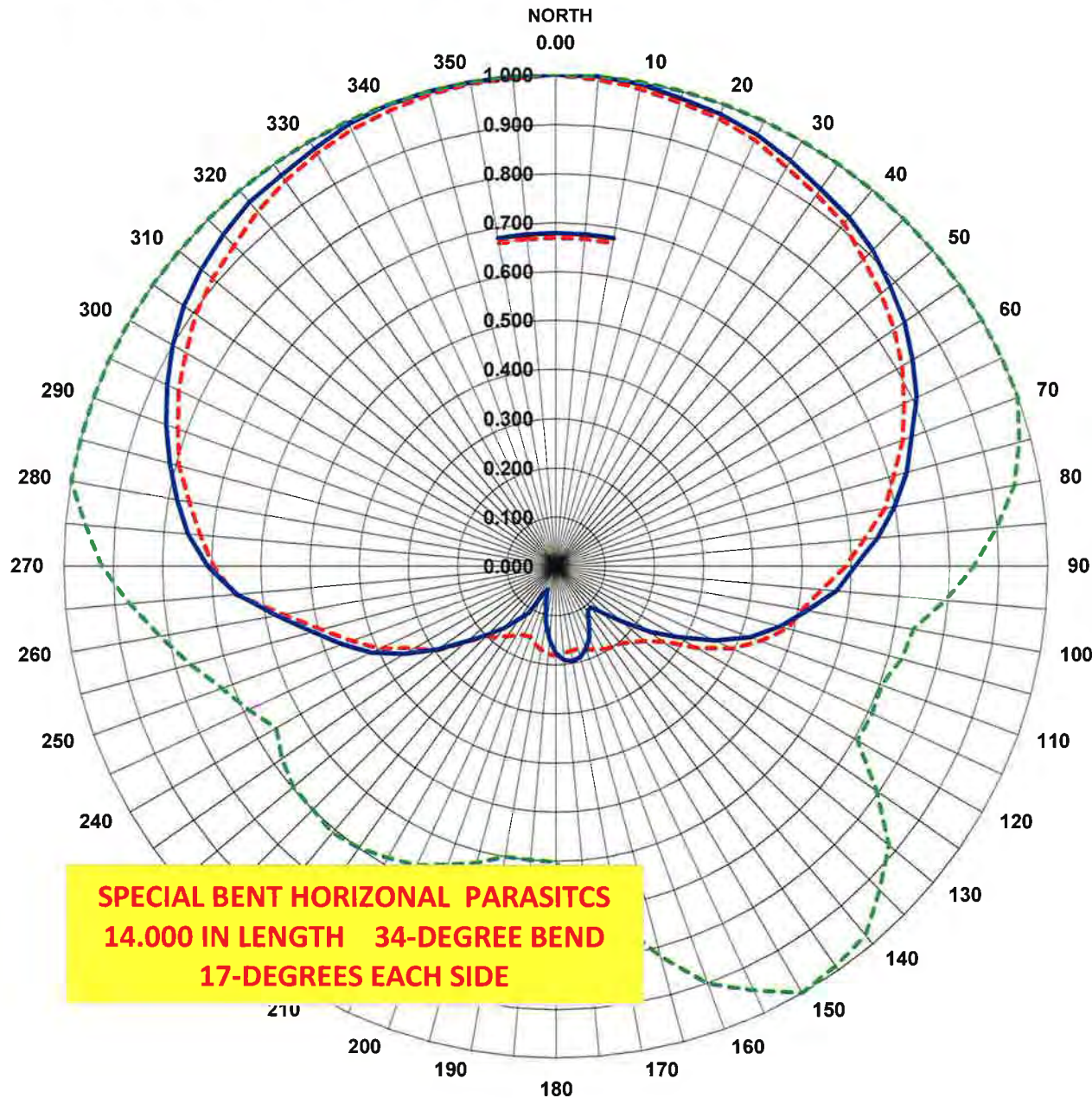
PATTERN NUMBER: 12-BB

VERTICAL RMS: 66.90%
 (indicated by a red dashed line)

HORIZONTAL RMS: 67.84%
 (indicated by a blue solid line)

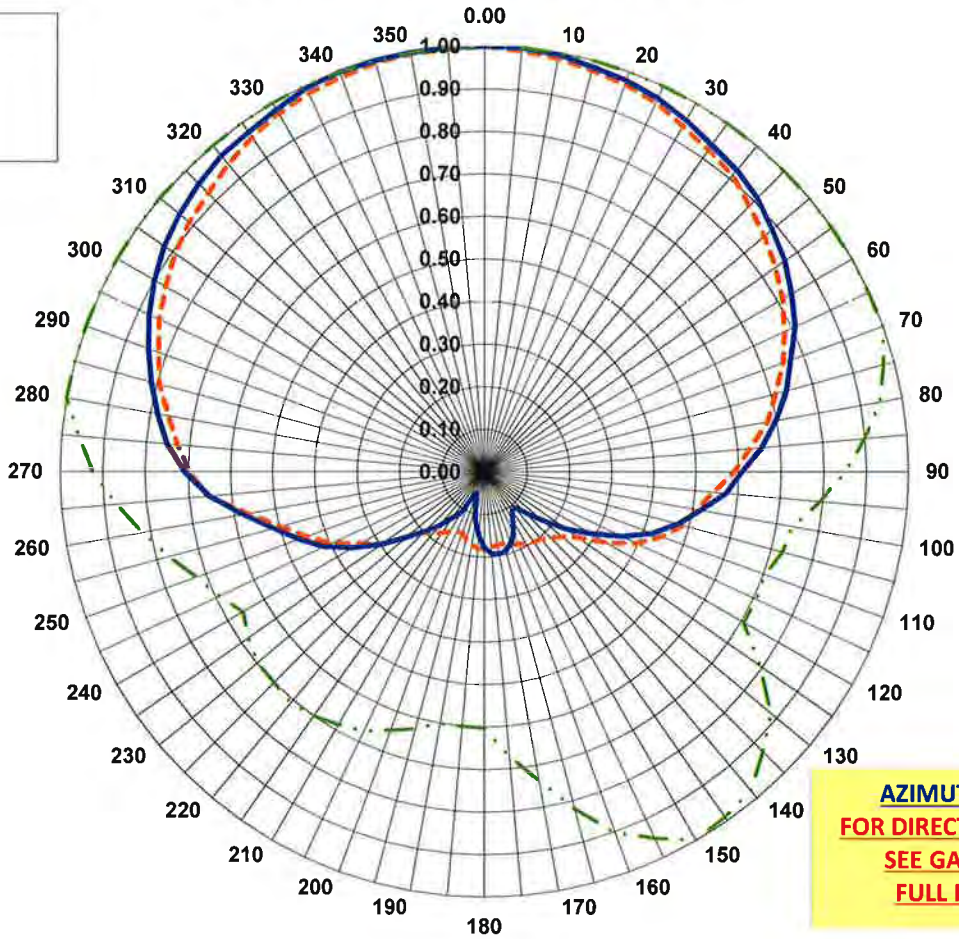
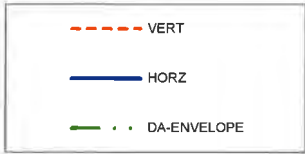


6815-DA ANTENNA
 MOUNTED TO A 4.5-IN POLE
 AZIMUTH 118-DEGREES



**SPECIAL BENT HORIZONTAL PARASITCS
 14.000 IN LENGTH 34-DEGREE BEND
 17-DEGREES EACH SIDE**

SHIVELY LABS



AZIMUTH GAIN ONLY
FOR DIRECTIONAL ANTENNA
SEE GAIN SHEET FOR
FULL POWER GAIN

SHOP ORDER 33375
 STATION N/A
 PATTERN 12-BB

V-RMS 66.90%
H-RMS 67.84%

DA-RMS 88.70%
DA 85% 75.39%

COMP RMS 68.237%
HORZ AZIMUTH GAIN 2.173

DEGREE	VERT	HORZ	DEGREE	VERT	HORZ	DEGREE	VERT	HORZ	DEGREE	VERT	HORZ
0	1.000	1.000	90	0.589	0.608	180	0.181	0.178	270	0.697	0.708
5	0.993	1.000	95	0.543	0.573	185	0.180	0.150	275	0.726	0.751
10	0.986	0.996	100	0.509	0.519	190	0.173	0.117	280	0.757	0.782
15	0.977	0.985	105	0.487	0.473	195	0.164	0.081	285	0.793	0.813
20	0.970	0.979	110	0.444	0.422	200	0.153	0.051	290	0.818	0.843
25	0.957	0.969	115	0.396	0.357	205	0.155	0.064	295	0.846	0.872
30	0.938	0.954	120	0.333	0.288	210	0.162	0.110	300	0.869	0.899
35	0.924	0.938	125	0.267	0.233	215	0.174	0.132	305	0.893	0.923
40	0.911	0.927	130	0.237	0.176	220	0.189	0.165	310	0.911	0.941
45	0.884	0.911	135	0.219	0.134	225	0.202	0.197	315	0.925	0.956
50	0.862	0.887	140	0.205	0.109	230	0.241	0.238	320	0.943	0.969
55	0.839	0.865	145	0.201	0.113	235	0.299	0.295	325	0.959	0.973
60	0.812	0.837	150	0.195	0.133	240	0.334	0.357	330	0.971	0.982
65	0.781	0.809	155	0.187	0.160	245	0.396	0.415	335	0.981	0.994
70	0.750	0.769	160	0.181	0.178	250	0.444	0.463	340	0.987	0.999
75	0.711	0.738	165	0.173	0.192	255	0.497	0.513	345	0.994	1.000
80	0.679	0.699	170	0.175	0.196	260	0.565	0.578	350	0.997	1.000
85	0.629	0.657	175	0.177	0.192	265	0.656	0.652	355	0.996	1.000

Model 6815 FM broadcast antenna

Shively standard features:

- Power up to 7.5 kW per bay.
- Economical and easy setup.
- Directional configurable.
- Allows multiplexing of closely-spaced stations (< 2.2 MHz separation).
- Full- or half-wave-spaced configurations available.
- Optional fine-matching transformer available.
- Radomes optional.
- Pressurization to 5 psig during operation (10 - 12 psig purge).
- Pattern studies available.



Performance specifications:

Operating frequency range:	88 - 108 MHz
VSWR bandwidth:	1.05 : 1 or better at center frequency
	1.1 : 1 to ± 200 kHz from center frequency
	1.15 : 1 or better to ± 400 kHz
Power rating:	7.5 kW per antenna bay; 15 kW per array. Contact factory for higher-power arrays.
Bay input connector:	1-5/8" EIA female flange standard. 3-1/8" EIA can be used for center-fed 4-bay and up, in even-numbered arrays with higher-power inputs.
Standard mounting:	To an offset pole or round tower leg, 1-1/2" to 3-1/2" OD with 1/2" hardware & SCP clamp. Custom mounts optional.

Electrical Specifications:

No. of bays	Gain		Maximum power rating kW	No. of bays	Gain		Maximum power rating* kW
	Power	dB			Power	dB	
1	0.46	-3.40	7.5	5	2.72	4.31	15
2	0.99	-0.04	15	6	3.28	5.16	15
3	1.55	1.90	15	7	3.87	5.88	15
4	2.12	3.26	15	8	4.46	6.50	15

* Based on 1-5/8" EIA input. Contact the factory for other options.

Notes:

1. Our gain figures are derived from the computed directivity and include the losses in the antenna feed system. Gain is provided for one polarization and is equal in circularly polarized antennas for both horizontal and vertical components. Gain will be reduced if null fill, beam tilt, special H/V ratio, or special wavelength spacing is provided. Gain will increase in a directional array by the directivity of the azimuth pattern.

Document No. ds-6815 (150410)

A Division of Howell Laboratories, Inc., P. O. Box 389, Bridgton, Maine 04009 USA

(207) 647-3327

1-888-SHIVELY

Fax: (207)647-8273

www.shively.com

sales@shively.com

Certified to ISO-9001

An Employee-Owned Company

Vertical Tower Space:

No. of Bays	Antenna radiation aperture		Physical space used		Total tower space recommended		No. of Bays	Antenna radiation aperture		Physical space used		Total tower space recommended	
	ft	m	ft	m	ft	m		ft	m	ft	m	ft	m
1	2	0.61	12	3.66	20	6.10	5	40	12.19	52	15.85	60	18.29
2	10	3.05	22	6.71	30	9.14	6	50	15.24	62	18.90	70	21.34
3	20	6.10	32	9.75	40	12.19	7	60	18.29	72	21.95	80	24.38
4	30	9.14	42	12.80	50	15.24	8	70	21.34	74	22.56	90	27.44

Weight:

Add 15 lb for fine-matching transformer.

No. of Bays	Without radomes		With radomes		With radomes & 1/2" (1.2 cm) radial ice		With radomes & 1" (2.5 cm) radial ice		With radomes & 1-1/2" (3.8 cm) radial ice	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
1	48.0	21.8	118.0	53.6	204.9	93.1	298.5	135.7	398.7	181.2
2	96.4	43.8	236.4	107.5	323.3	147.0	416.9	189.5	517.1	235.0
3	144.8	65.8	354.8	161.3	441.7	200.8	535.3	243.3	635.5	288.9
4	193.2	87.8	473.2	215.1	560.1	254.6	653.7	297.1	753.9	342.7
5	241.6	109.8	591.6	268.9	678.5	308.4	772.1	351.0	872.3	396.5
6	290.0	131.8	710.0	322.7	796.9	362.2	890.5	404.8	990.2	450.1
7	338.4	153.8	828.4	376.5	915.3	416.0	1009	458.6	1109	504.1
8	386.8	175.8	946.8	430.4	1033.7	469.9	1127	512.3	1227	557.7

Revision 'G' effective projected area:

See notes 5 & 8.

No. of Bays	Without radomes		With radomes		With radomes & 1/2" (1.2 cm) radial ice		With radomes & 1" (2.5 cm) radial ice		With radomes & 1-1/2" (3.8 cm) radial ice	
	ft ²		ft ²		ft ²		ft ²		ft ²	
	EPA _N	EPA _T	EPA _N	EPA _T	EPA _N	EPA _T	EPA _N	EPA _T	EPA _N	EPA _T
1	2.95	2.16	4.51	4.18	5.12	4.67	5.73	5.17	6.35	5.67
2	5.89	4.32	9.02	8.36	10.24	9.35	11.46	10.34	12.70	11.34
3	8.84	6.49	13.54	12.54	15.36	14.02	17.19	15.51	19.04	17.01
4	11.79	8.65	18.05	16.72	20.47	18.70	22.92	20.68	25.39	22.67
5	14.73	10.81	22.56	20.90	25.59	23.37	28.65	25.85	31.74	28.34
6	17.68	12.97	27.07	25.07	30.71	28.04	34.38	31.02	38.09	34.01
7	20.63	15.13	31.59	29.25	35.83	32.72	40.11	36.19	44.44	39.68
8	23.57	17.29	36.10	33.43	40.95	37.39	45.84	41.36	50.79	45.35

Notes:

- The mounting structure must not flex more than $\pm 3/4$ in (1.8 cm) in any ten-foot (3-meter) section. Five feet (1.5 m) of mounting structure is required above and below the antenna bays for proper pattern formation.
- Antenna radiation aperture is the distance from the center of the top bay to the center of the bottom bay. Physical space used is from the top of the top bay to the input flange at the bottom of the array, or the bottom of the bottom bay in a center-fed array. Total tower space recommended allows ten feet (3 m) of clear tower space above and below the antenna to protect from pattern interference by other antennas. At frequencies lower than 98 MHz, each of these dimensions will increase by up to 1 ft (0.3 m) per bay.
- Seven bays or less are normally end-fed. All antennas supplied with beam tilt will be center-fed. Antennas with an odd number of bays are normally not available with center feed.
- Windload and weight tabulations are estimates and assume 98 MHz. They include the bay, interbay feedline, and input con-

nection. No values have been included in these tabulations for mounts or fine-matching transformer. Actual values vary with the specific installation. Contact us with details of your installation if more precise values are needed.

- The effective projected area (EPA) is calculated per TIA standard ANSI/TIA-222-G.

EPA_N - Effective projected area associated with the windward face normal to the azimuth of the antenna: $EPA_N = \sum(C_o A_c)_N$

EPA_T - Effective projected area associated with the windward face at the side of the antenna: $EPA_T = \sum(C_o A_c)_T$

Assumptions: Structure class II; Exposure category C; Topographic category 1; Maximum basic windspeed 105 mph; with ice, 45 mph; Height above ground 500 ft.

- Ask for technical assistance at Shively if you are planning to mount antennas on AM towers or install them at altitudes over 3,000 ft (915 m) above mean sea level.
- Area of fine-matching transformer: Without ice, EPA_N = 0.9, EPA_T = 0.8; 1/2" radial ice, EPA_N = 1.2, EPA_T = 1.1; 1" radial ice, EPA_N = 1.5, EPA_T = 1.4; 1-1/2" radial ice, EPA_N = 1.9, EPA_T = 1.7.

w254BR relocated to Cambridge Marriott RoofTop

REFERENCE
42 21 46.0 N.
71 05 10.0 W.

CH# 262D - 100.3 MHz, Pwr= 0.25 kw DA, HAAT= 68.1 M, COR= 89 M
Average Protected F(50-50)= 10.76 km
Standard Directional

DISPLAY DATES
DATA 03-08-17
SEARCH 03-08-17

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
264B Boston	WZLX	LIC_CN MA	171.7 351.7	1.74 BLH19911018KF	42 20 50.0 71 04 59.0	21.500 235	5.8 258	65.3 Cbs Radio Inc. Of Boston	-14.1*<	-65.2*<
262B Portsmouth	WHEB	LIC_CN NH	18.6 198.8	80.99 BLH19910307KE	43 03 11.0 70 46 04.0	50.000 140	135.7 151	62.9 Capstar Tx, Llc	-58.3*<	1.5
262D Boston	W254BR	CP_DC MA	112.9 292.9	0.39 BPFT20160129AJ	42 21 41.0 71 04 54.0	0.250	15.7 70	4.9 Salem Media Of Massachuset	-27.4*<	-46.3*<
262A Middletown	WKKB	LIC_NC RI	185.8 5.7	85.52 BLH20000526AAB	41 35 48.0 71 11 24.0	1.550 200	79.6 223	27.4 Red Wolf Broadcasting Corp	-4.4<	23.2
261D Waltham	WBRS	LIC_CN MA	272.9 92.8	14.15 BMLD19941020KD	42 22 09.0 71 15 28.0	0.025 46	9.6 91	6.7 Brandeis University	0.3<	1.3
209B Boston	WGBH	LIC_CY MA	187.8 7.8	16.94 BLED19800609AH	42 12 42.0 71 06 51.0	100.000 198	0.0 242	0.0 Wgbh Educational Foundatio	15.0R	1.9M
261A Southbridge	WWFX	LIC_ZCN MA	257.0 76.5	67.31 BLH19990209KB	42 13 28.0 71 52 51.0	2.850 146	50.4 359	33.7 Radio License Holding Cbc,	10.9	25.1
260D Holliston	WHHB	LIC_CN MA	240.4 60.1	33.90 BLED19951205KA	42 12 42.0 71 26 36.0	0.017 62	1.9 144	6.4 Holliston High School	23.6	26.5
260B Barnstable	WQRC	LIC_CN MA	140.6 321.1	96.72 BLH19820607AO	41 41 19.0 70 20 49.0	50.000 116	5.4 125	61.2 Sandab Commun. Ltd. Partne	79.2	34.0
260D Lawrence	W260AS	LIC_C MA	358.5 178.5	45.58 BLFT20090304ABF	42 46 23.0 71 06 01.0	0.010 163	0.2 205	7.1 Educational Media Foundati	41.5	38.3
263D Hyannis	W263CU	LIC_DC MA	140.6 321.1	96.69 BLFT20140605AAO	41 41 20.0 70 20 49.0	0.250	18.7 151	12.6 Nantucket Public Radio, In	65.9	66.3
259A Wakefield-peacedale	WEAN-FM	LIC_ZCN RI	207.4 27.0	98.72 BLH19950609KB	41 34 22.0 71 37 55.0	2.300 163	2.4 242	27.8 Radio License Holding Cbc,	86.6	69.8
263B New Britain	WRCH	LIC_CX CT	243.6 62.5	162.09 BMLH20090430AAN	41 42 13.0 72 49 57.0	7.500 381	82.3 475	68.9 Cbs Radio Stations Inc.	71.9	77.1

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= East Zone, Co to 3rd adjacent.
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 restricted contour.
< = Contour Overlap