

Special Operating Conditions Compliance

The above-referenced facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.

1. The permittee/licensee in coordination with other users of the site will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

2. Attached is the complete proof-of-performance establishing the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components, supplied by Dielectric, pages 2 –9 of this Exhibit.

3. Attached on page 10 of this Exhibit is an affidavit from a licensed surveyor certifying that the directional antenna has been oriented at the proper azimuth. Also included on page 11 of this Exhibit is a survey certification establishing the correct orientation of the tower.

4. Attached on page 12 of this Exhibit is an affidavit from a qualified engineer certifying that the installation of the directional antenna system was installed pursuant to the manufacturer's instructions.

5. As certified by the antenna manufacturer's proof-of-performance, the relative field strength of either the measured horizontally or vertically polarized radiation component does not exceed, at any azimuth, the values indicated on the composite radiation pattern authorized by the construction permit. The relative field strength of 1.0 on the composite radiation pattern corresponds to the maximum effective radiated power of 10.0 kW. At the 10 and 20 degree azimuths, the pattern does not exceed 1.3 kW.

6. Program testing has not commenced, and will not be conducted until authorized by the FCC.

7. During equipment testing, proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area will be done to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. The tower site is fenced to preclude casual or inadvertent access, and includes rf hazard warning signs at appropriate intervals. Any areas within the fence found to exceed the recommended guidelines will be clearly marked with appropriate visual warning signs.

8. The tower is not shared with other broadcast facilities, nor is it within 315 meters of any other tower utilized by other broadcast facilities. The tower was the location of the applicant's FM translator, which is being replaced by the full-service facility. The measured elevation pattern supplied by Dielectric (page 9 of this Exhibit) indicates that the downward radiation of the antenna is substantially less than the horizontal radiation value of 1.0, which was used in the preliminary estimation of rf radiation compliance. The actual relative field value at the base of the tower is .15, resulting in an ERP of .450 kW (horizontal and vertical combined) at 90 degrees below horizontal. It has been determined that at 2 meters above ground level at the base of the tower the rf radiation will not exceed 1.2% of the FM limit, which is less than the general public maximum exposure limit.



A Unit of SPX Corporation

PATTERN CERTIFICATION

Method of Measurement

The azimuth pattern for "WBMV", Dielectric Document Sketch # 24, was measured in the following manner.

A single 4.4 to 1 scale model "DCRH" bay radiator was mounted on a similarly scaled model of the tower according to information provided to Dielectric by the customer; refer to Dielectric Document Sketch # 24. The antenna under test, all parasitics, all known tower appurtenances, and the tower section were rotated through 360 degrees while receiving a signal at the appropriate frequency from a linear cavity-backed source antenna. Both the horizontal and vertical polarization azimuth patterns were measured in an anechoic test range.

The transmit and scale model antennas are mounted at identical elevations and at opposite ends of the chamber. A Hewlett Packard model 8752C network analyzer was used to supply the RF signal the source antenna at 4.4 times the fundamental FM frequency and to receive the signal intercepted by the antenna under test. The received signal to was converted to a relative level, referenced to the source. This level was stored on a computer acting as the master controller. The computer controls the measurement system via IEEE-488 control bus through a GPIB card.

Statement of Qualifications

Paul S. Jones Jr. is a Senior Electrical Engineer here at Dielectric. He received a BS in Electrical Engineering from the University of New Hampshire in 1990. He has over 12 years of experience in RF antenna engineering and has been employed by Dielectric Communications since 1995.

Signed By:

Paul S Jones Jr

Date:

9/30/02

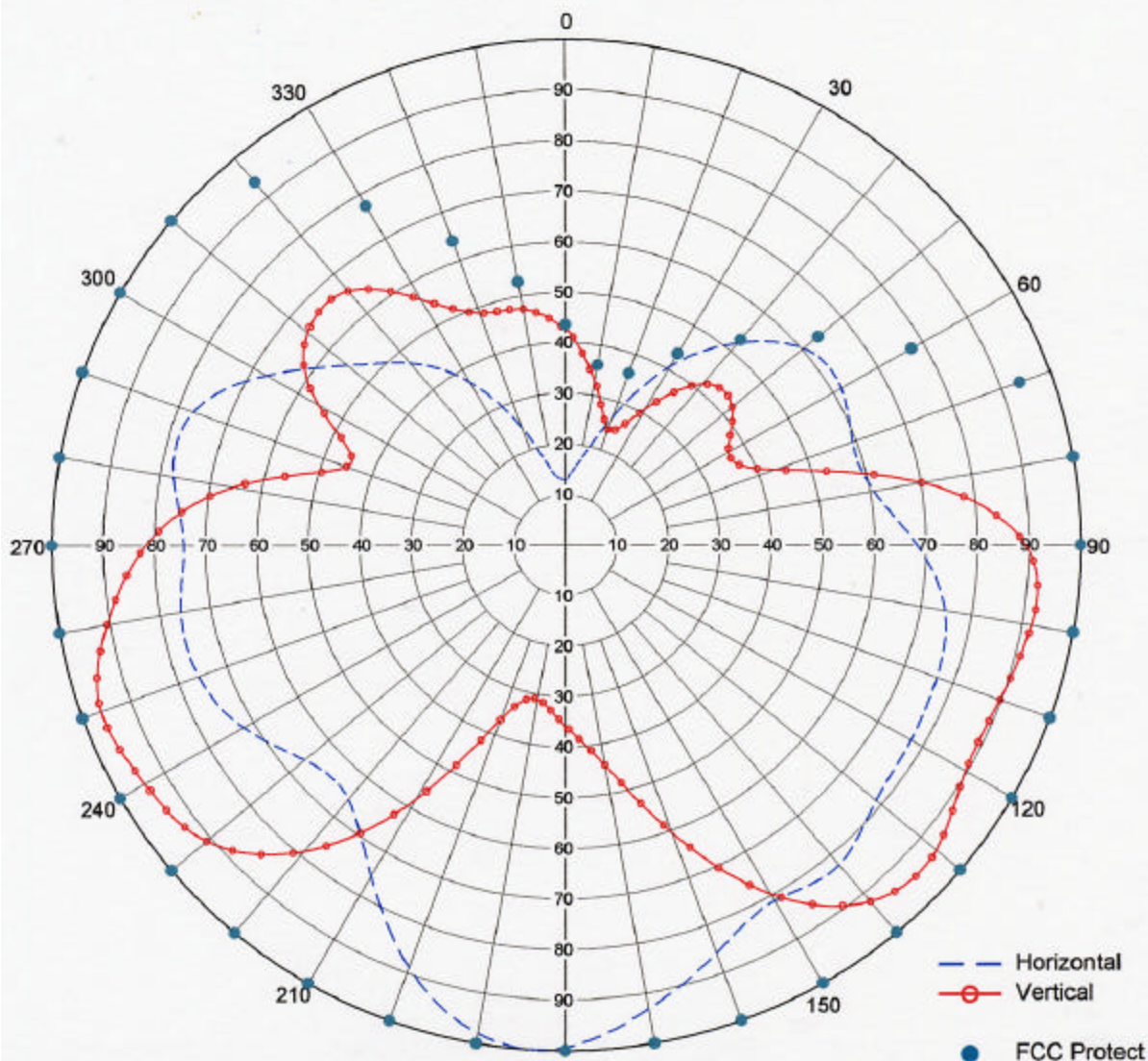


Proposal Number **73136**
Date **Sep 30, 2002**
Call Letters **WBMV**
Location **Schoolcraft, MI**
Customer **Linda Adams**
Antenna Type **DCRH3ERD**

AZIMUTH PATTERN

85.0% Ccov - 50.6% Hrms - 49.4% Vrms

Calculated / Measured **Measured** Frequency **89.5**
Drawing # **24**



Post Office Box 949, 22 Tower Road, Raymond, Maine 04071
Voice: 207-655-4555 1-800-341-9678 Email: dcsales@dielectric.spx.com

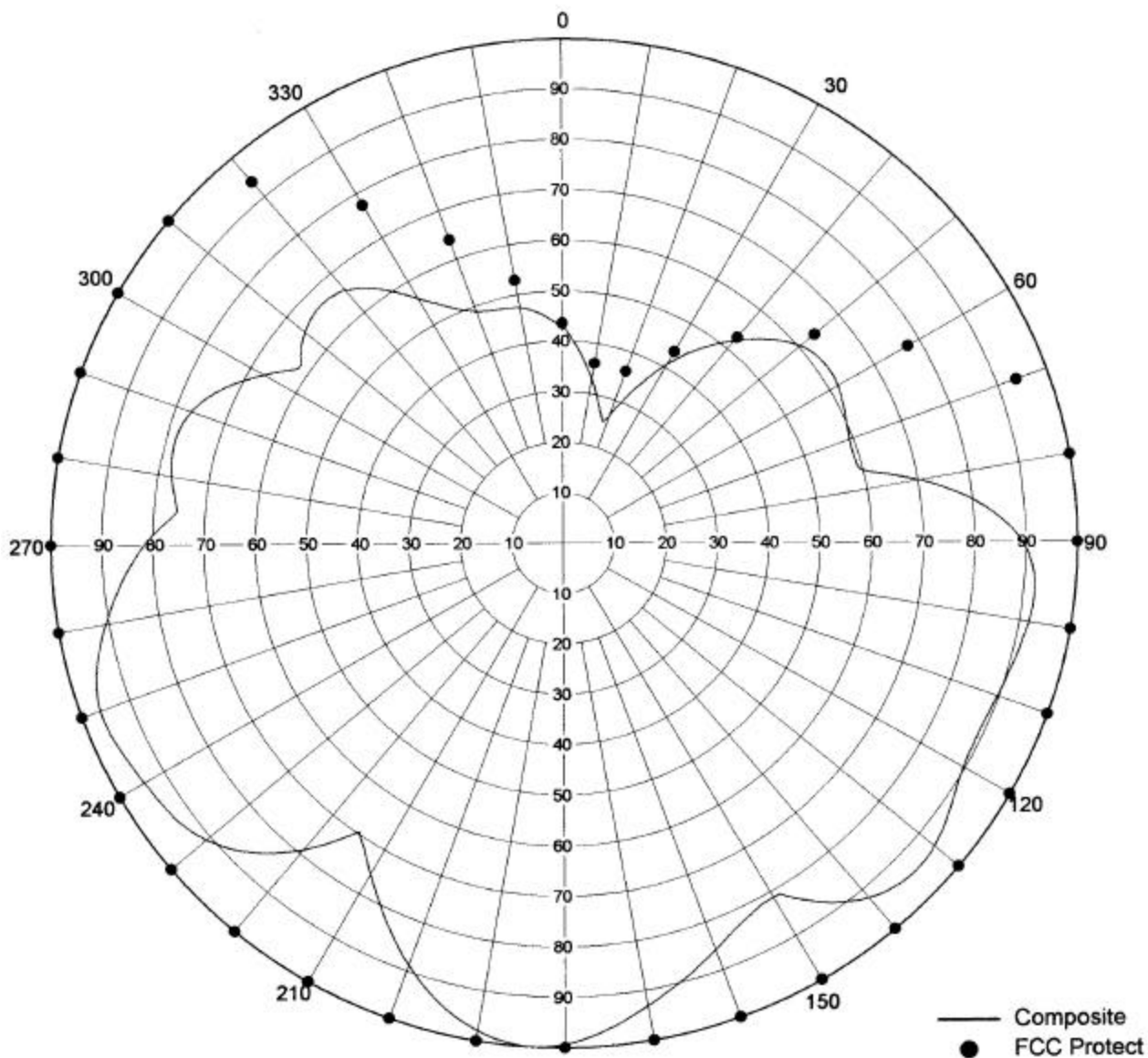


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CUSTOMER GAIN SUMMARY

Azimuth Pattern Gain of Horizontal Polarization	2.17
Elevation Pattern Gain Per Polarization	1.50
Peak Gain at Horizontal Polarization	3.26



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TABULATION OF HORIZONTAL AZIMUTH PATTERN

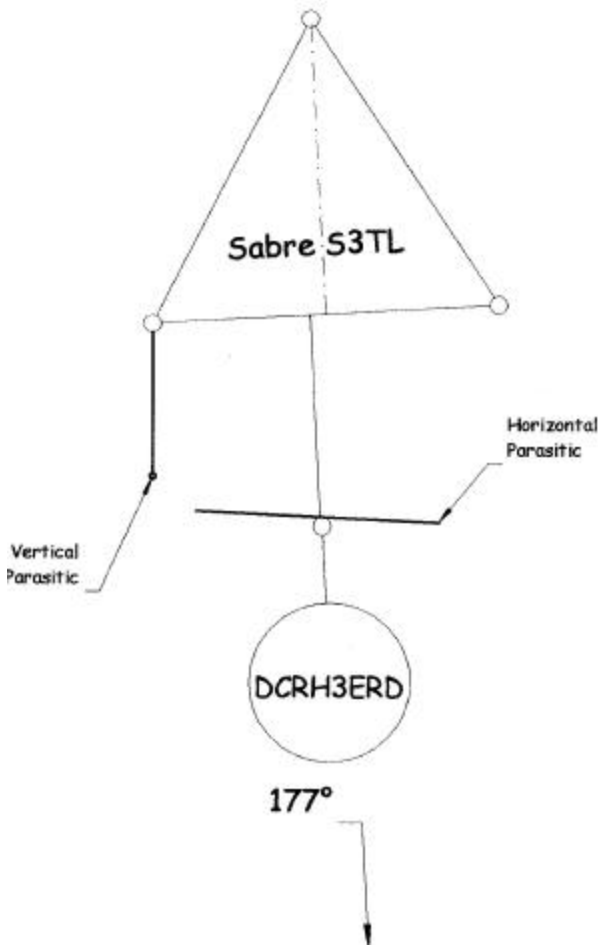
Angle	Field	dBk	Power kW
0	0.128	-7.856	0.164
10	0.170	-5.391	0.289
20	0.268	-1.437	0.718
30	0.407	2.192	1.656
40	0.520	4.320	2.704
50	0.603	5.606	3.636
60	0.618	5.820	3.819
70	0.593	5.461	3.516
80	0.608	5.678	3.697
90	0.682	6.676	4.651
100	0.748	7.478	5.595
110	0.767	7.696	5.883
120	0.774	7.775	5.991
130	0.787	7.919	6.194
140	0.826	8.340	6.823
150	0.813	8.202	6.610
160	0.859	8.680	7.379
170	0.932	9.388	8.686
180	0.994	9.948	9.880
190	0.981	9.833	9.624
200	0.888	8.968	7.885
210	0.755	7.559	5.700
220	0.656	6.338	4.303
230	0.661	6.404	4.369
240	0.722	7.171	5.213
250	0.758	7.593	5.746
260	0.759	7.605	5.761
270	0.742	7.408	5.506
280	0.773	7.764	5.975
290	0.769	7.719	5.914
300	0.670	6.521	4.489
310	0.553	4.855	3.058
320	0.470	3.442	2.209
330	0.372	1.411	1.384
340	0.247	-2.146	0.610
350	0.148	-6.595	0.219



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TABULATION OF VERTICAL AZIMUTH PATTERN

Angle	Field	dBk	Power kW
0	0.427	2.609	1.823
10	0.330	0.370	1.089
20	0.243	-2.288	0.590
30	0.309	-0.201	0.955
40	0.414	2.340	1.714
50	0.423	2.527	1.789
60	0.366	1.270	1.340
70	0.433	2.730	1.875
80	0.702	6.927	4.928
90	0.893	9.017	7.974
100	0.918	9.257	8.427
110	0.897	9.056	8.046
120	0.897	9.056	8.046
130	0.939	9.453	8.817
140	0.921	9.285	8.482
150	0.797	8.029	6.352
160	0.605	5.635	3.660
170	0.442	2.908	1.954
180	0.358	1.078	1.282
190	0.310	-0.173	0.961
200	0.368	1.317	1.354
210	0.581	5.284	3.376
220	0.790	7.953	6.241
230	0.910	9.181	8.281
240	0.944	9.499	8.911
250	0.961	9.654	9.235
260	0.906	9.143	8.208
270	0.816	8.234	6.659
280	0.656	6.338	4.303
290	0.452	3.103	2.043
300	0.553	4.855	3.058
310	0.654	6.312	4.277
320	0.656	6.338	4.303
330	0.562	4.995	3.158
340	0.489	3.786	2.391
350	0.474	3.516	2.247



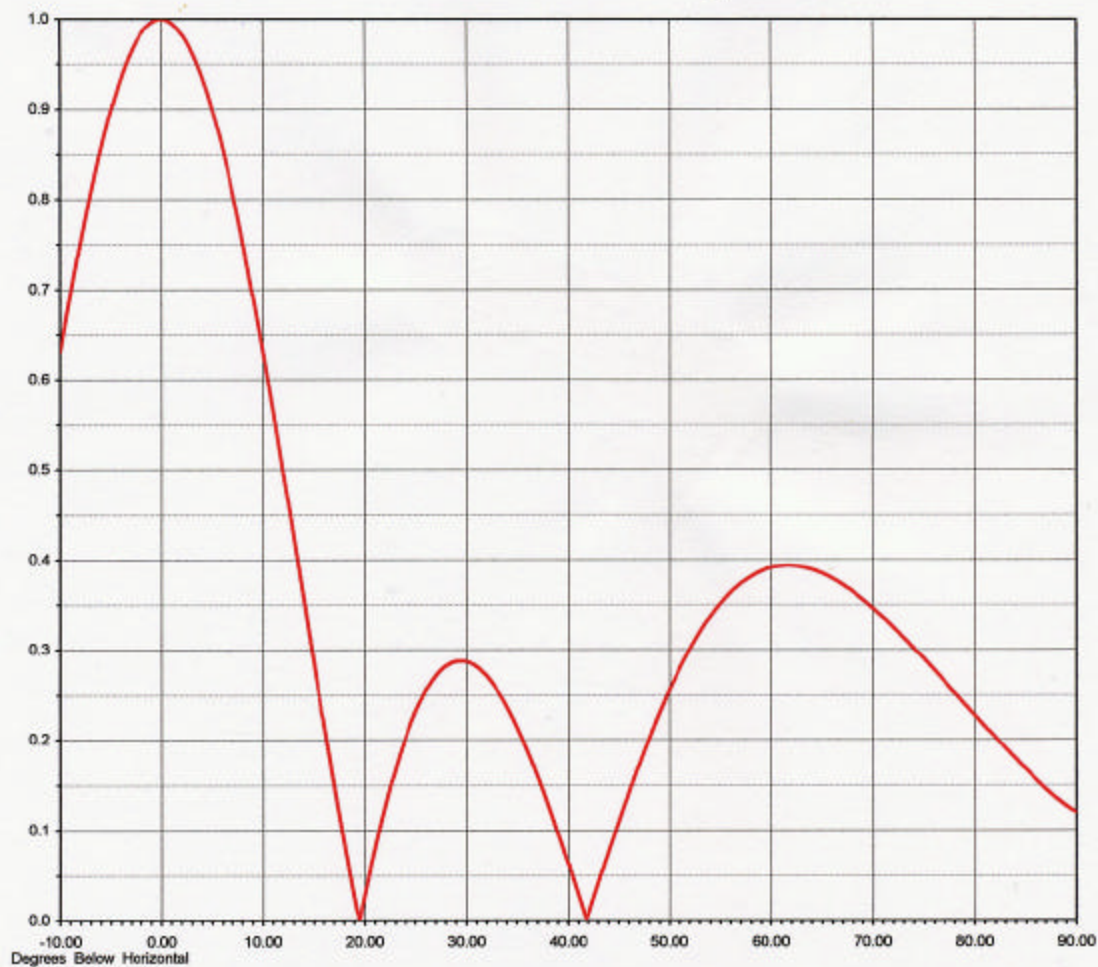
WBMY - 89.5
Document Sketch # 24
Leg Azimuths @ 117°, 237°, 357°

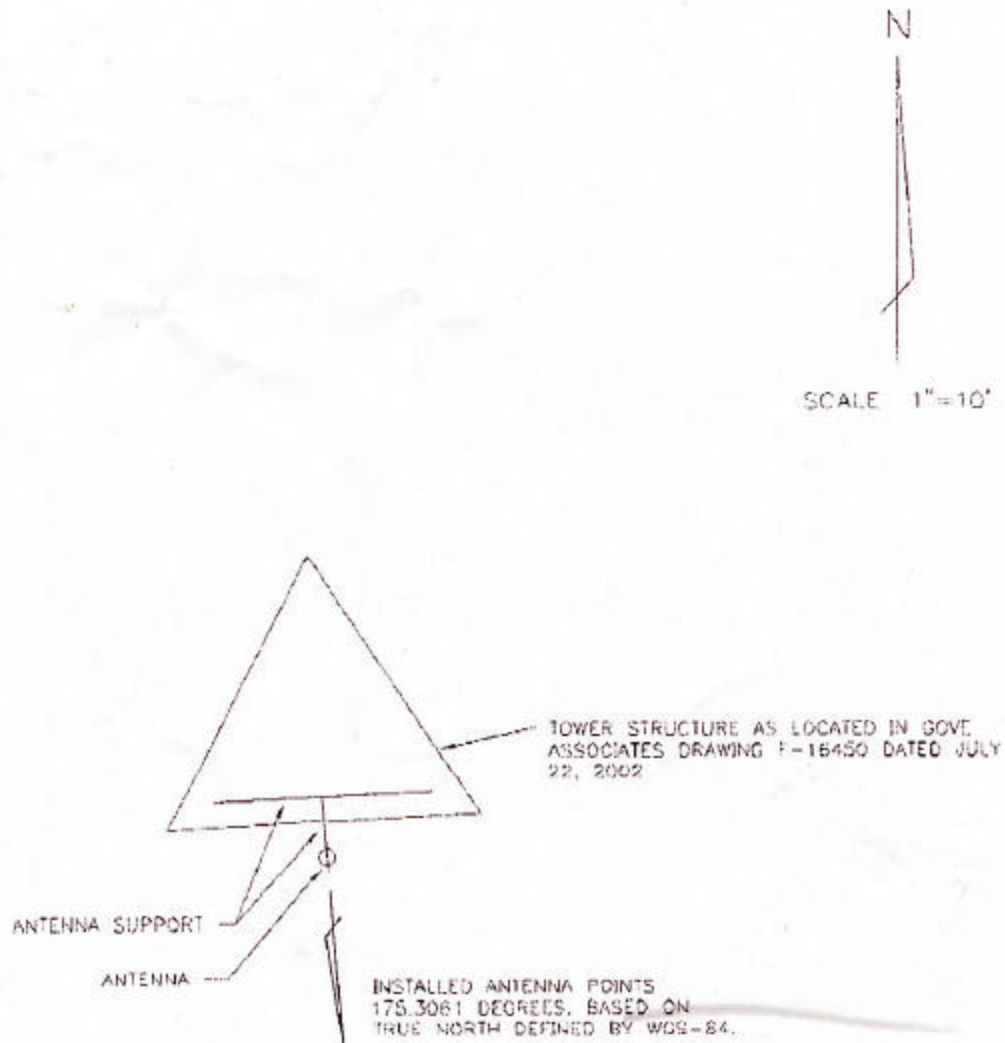



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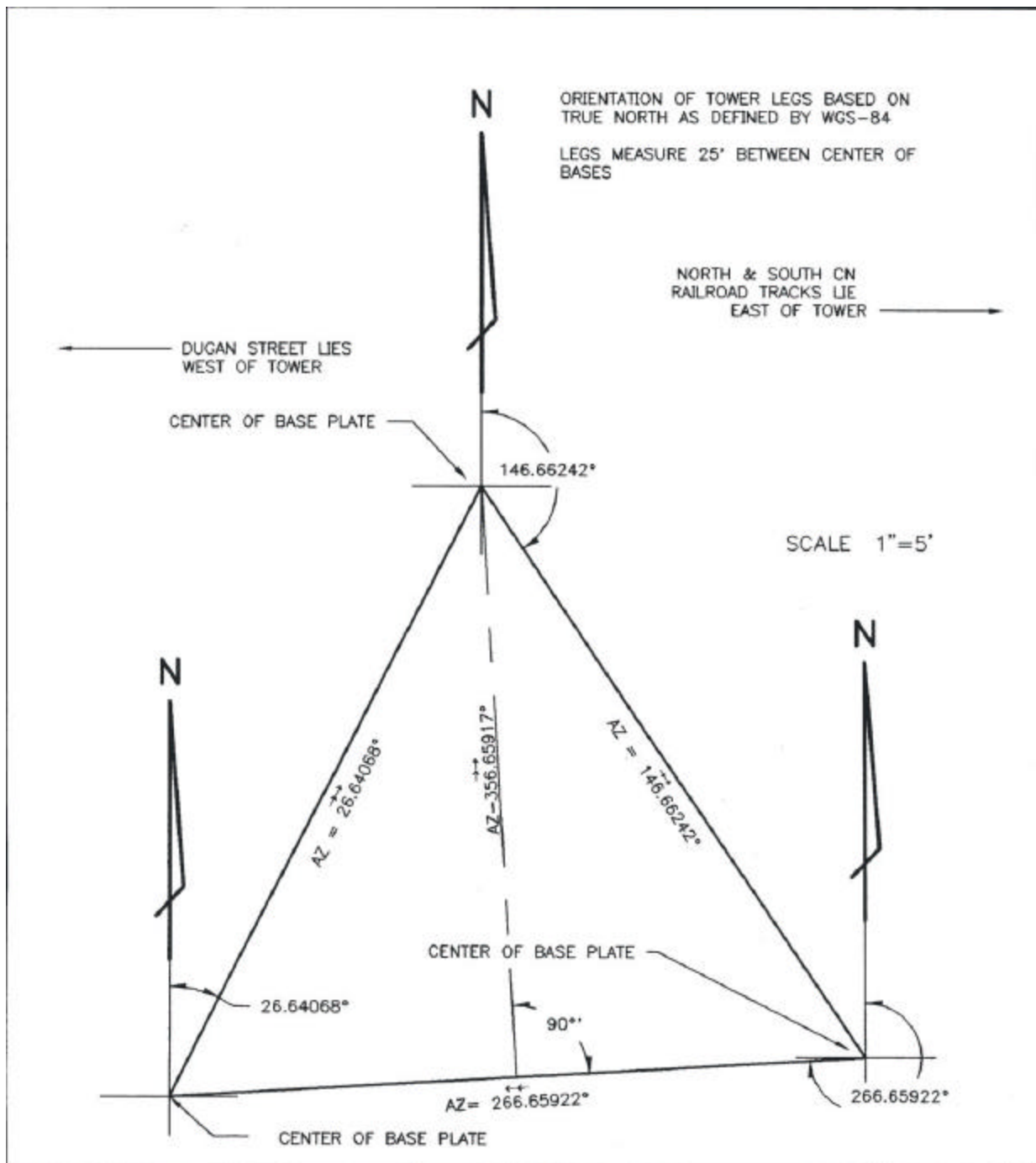
MEASURED ELEVATION PATTERN

RMS Gain at Main Lobe **1.50 (1.76 dB)** Beam Tilt **0.00 deg**
Per Polarization Frequency **89.50 MHz**
Plane **Typical**





ORIENTATION OF ANTENNA FAMILY STATIONS, INC SECTION 19, TOWN 4 SOUTH, RANGE 11 WEST, SCHOOLCRAFT TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN.	 GOVE ASSOCIATES INC 1901 PORTAGE STREET KALAMAZOO, MICHIGAN 49001	
	DATE: 11/20/02	CHECKED BY:
	SCALE: 1"=10'	SHEET 1 OF 1
	DRAWN BY: MG	JOB NO F-16450



RADIO TOWER ORIENTATION SKETCH FOR:
FAMILY STATIONS, INC

SECTION 19, TOWN 4 SOUTH, RANGE
11 WEST, SCHOOLCRAFT TOWNSHIP,
KALAMAZOO COUNTY, MICHIGAN.



GOVE ASSOCIATES INC

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001

DATE: 7/22/02

SCALE: 1"=5'

DRAWN BY: MG

CHECKED BY:

SHEET 1 OF 1

JOB NO: F-16450



December 7, 2002

On November 18 and November 19, 2002 I served as the on-site representative for Family Stations during the installation of the transmitting antenna for Family Station's new operation licensed to Schoolcraft, Michigan on 89.5 MHz. The station has call-sign W O F R issued to it. The antenna is a 3-bay circularly-polarized version manufactured by Dielectric specifically for this installation. Dielectric provided site-specific installation documentation which was followed in detail. Installation of the six (6) parasitic elements supplied and documented by Dielectric was performed and confirmed visually from ground-level as the on-tower work was concluding. No on-site revisions or alterations were needed or made, either electrically or mechanically. In the afternoon of November 19 we had the orientation of the antenna system surveyed by the registered surveying company of Gove and Associates of Kalamazoo, MI. The results of the surveyor are to be supplied to Family Stations separately. Beyond the Dielectric documentation followed, the antenna is fed by a 131 foot length of Andrews type HJ7-50J air-dielectric, 1-5/8" line. Between 6:40 p.m. and 7:10 p.m. local time on November 19, 2002 the tower-crew and myself followed the Dielectric written instructions concerning optimizing the input characteristics of the antenna. We initially delivered approximately 20 watts of R.F. power, then 500 watts and finally 2.5 kW power while carefully adjusting the documented external adjustments on the matching section. The result was a match showing less than 0.25 % reflected power. The line was pressurized and the system is considered ready for operation.

Walker Sisson
General Radiotelephone licenses # PG-19-17406