

EXHIBIT #1
ENGINEERING STATEMENT

Concerning the Application of
Minnesota Public Radio
To Make a Minor Change to Translator
K297AH
BLFT-19990730TC
Serving Winona, Minnesota

November 2004

Channel 297D

0.235 kW H & V DA

This engineering statement supports the application filed by Minnesota Public Radio to make a minor change to licensed translator K297AH (BLFT-19990730TC) serving Winona, Minnesota.

The applicant proposes to change transmitter location, increase ERP and install a directional antenna. The current transmitter site is terrain shielded from the primary station, due to the presence of a bluff in the direct line of site between the two locations. This move is intended to provide better line of site, improving the reliability of service to the city of license. Page # 3 of this exhibit is a change area map which depicts the 60 dBu contour of the proposed facility and of the currently authorized license facility. The N.G.D.C. 30 sec terrain database was used for this and all other exhibits.

The primary station of this translator will be changed to KLSE, Rochester, Minnesota. The proposed translator will function as a fill-in translator. The map on page #3 of this exhibit also displays the 60 dBu signal contour of KLSE. Page #4 of this exhibit is the same map using a larger scale. The maps are composed from the U.S.G.S. World, polygon shaped, map databases. Distance scales are shown on the maps. It should be noted that the 60 dBu contour of the fill-in translator does not extend the 60 dBu of the proposed primary station facility. Page #5 of this engineering statement is a table of the distances to the 60 dBu contour of the proposed facility. Page #6 is a distance-to-contour table of the existing K297AH facility and page #7 is a distance-to-contour table of the 60 dBu of KLSE. The proposed Scala, CA5-150, cross-polarized, antenna, is oriented such that its full-field 0.235 kW is rotated to 238 degrees True North. The 12 azimuth HAAT is 185.6 meters.

Exhibit #12 is a single channel, contour-to-contour, allocation study showing that interference is not caused to any FM radio station, translator, construction permit or application. Page # 2 of this exhibit is a narrative explaining the procedures and conventions used in the study. Page #3-11 are allocation study maps and FMOVER tabulations showing the relationship between the applicant's proposal and critical stations KROC-FM, Rochester, as well as a pending application for a translator in La Crosse, BNPFT-20030313ALB. (The CDBS database also lists BNPFT-20030313AUF; however the parameters are the same as for BNPFT-20030313ALB, so only one filing was studied.) There are no pertinent I.F. relationships. The proposal is not within 320 kilometers of the U.S. border with Canada or Mexico, and is outside the protected zone of any AM station, Table Mountain, FCC monitoring stations and the West Virginia Quiet Zone.

Exhibit #16 shows compliance with the Commission's R.F. emission's standards.

Page #8 of this exhibit (Ex. # 1) is a declaration made by the preparer attesting to his qualifications.

Change Area & 60 dBu Coverage

K297AH-NEW

Latitude: 44-04-26 N
Longitude: 091-34-38 W
ERP: 0.235 kW
Channel: 297
Frequency: 107.3 MHz
AMSL Height: 476.0 m
Elevation: 354.0 m
Horiz. Pattern: Directional

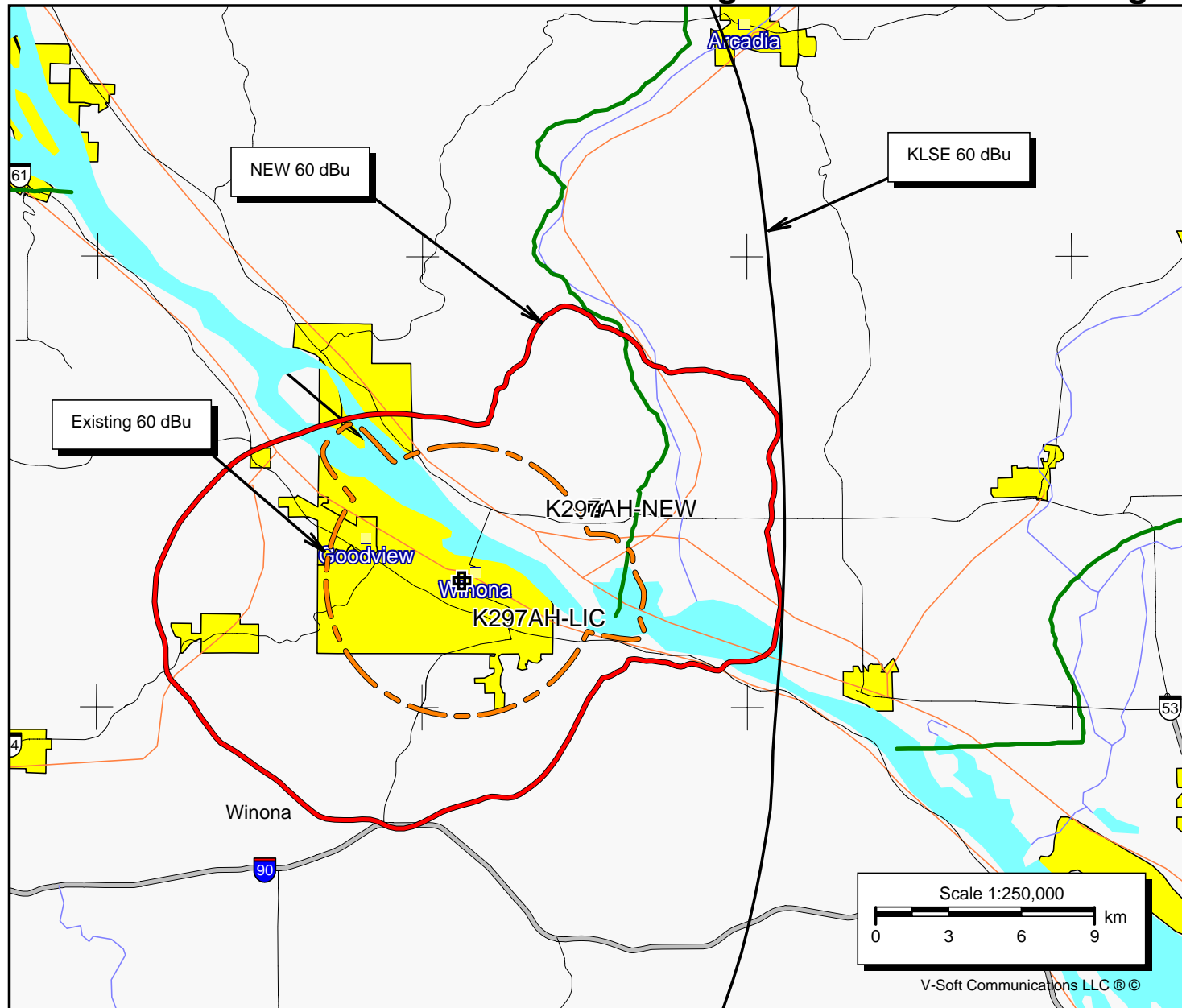
K297AH-LIC

BLFT19990730TC
Latitude: 44-02-49 N
Longitude: 091-38-47 W
ERP: 0.095 kW
Channel: 297
Frequency: 107.3 MHz
AMSL Height: 256.0 m
Elevation: 206.0 m
Horiz. Pattern: Omni

KLSEFM

BLED19980504KG
Latitude: 44-02-28 N
Longitude: 092-20-25 W
ERP: 94.00 kW
Channel: 219
Frequency: 91.7 MHz
AMSL Height: 638.0 m
Elevation: 380.0 m
Horiz. Pattern: Omni

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V-Soft Communications LLC ©

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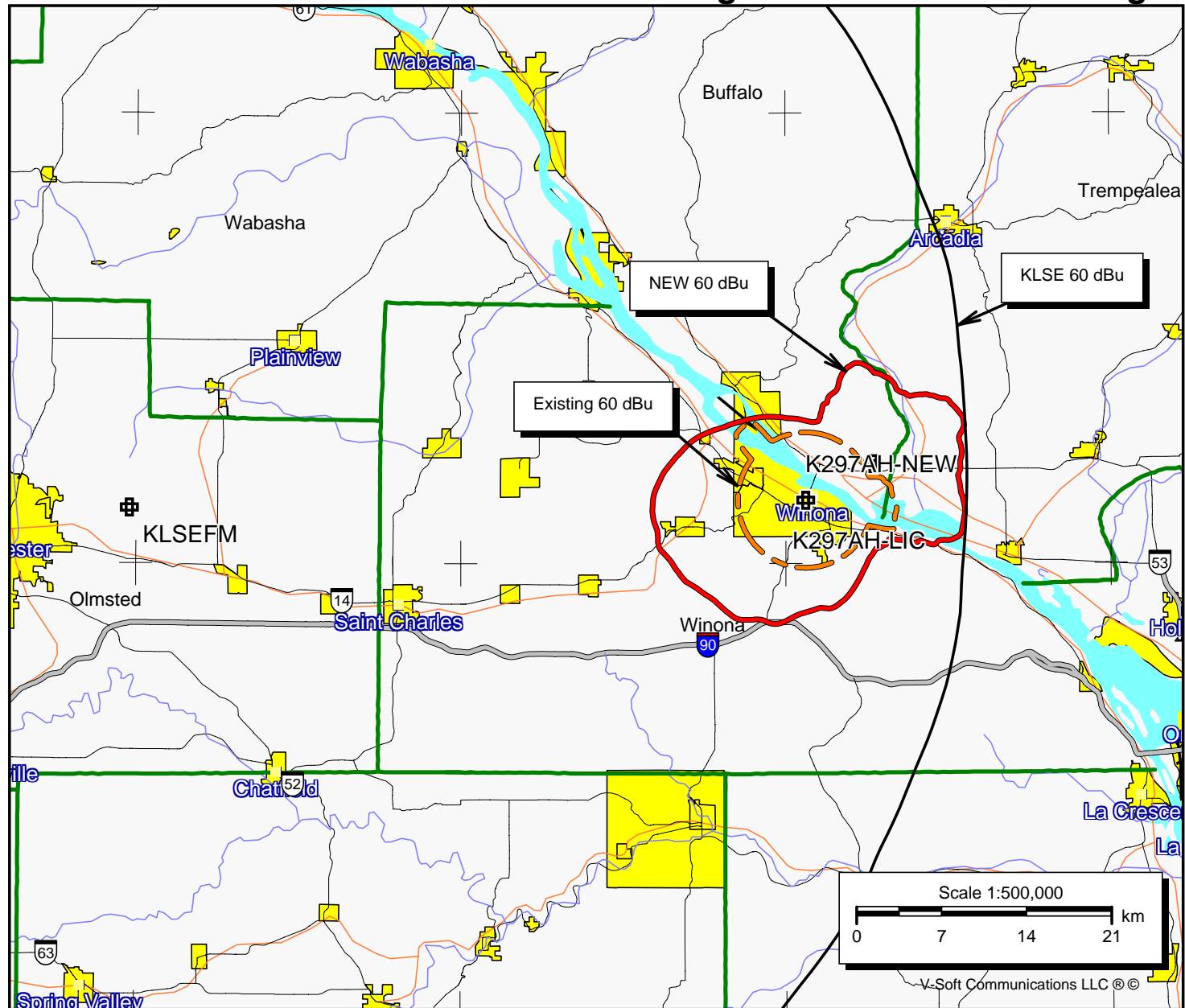
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N. Lat. = 44 04 26 W. Lng. = 91 34 38

HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

Proposed K297AH - Minnesota Public Radio - Fill-in for KLSE

Azi .	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	260.1	215.9	0.0059	-22.28	0.159	7.42
030	292.3	183.7	0.0049	-23.06	0.145	6.54
060	257.8	218.2	0.0084	-20.78	0.189	8.20
090	230.0	246.0	0.0040	-24.00	0.130	7.10
120	212.3	263.7	0.0074	-21.31	0.177	8.76
150	252.7	223.3	0.0054	-22.71	0.151	7.35
180	322.1	153.9	0.0142	-18.48	0.246	7.85
210	288.4	187.6	0.1419	-8.48	0.777	15.42
240	272.5	203.5	0.2261	-6.46	0.981	18.21
270	227.0	249.0	0.0969	-10.14	0.642	16.14
300	285.1	190.9	0.0066	-21.80	0.168	7.18
330	307.9	168.1	0.0065	-21.86	0.167	6.75

Ave EI = 267.36 M HAAT= 208.64 M AMSL= 476

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N. Lat. = 44 02 49 W. Lng. = 91 38 47

HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

K297AH, Minnesota Public Radio, BLFT19990730TC - Licensed

Azi .	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	315.4	-59.4	0.0950	-10.22	1.000	5.56
030	267.7	-11.7	0.0950	-10.22	1.000	5.56
060	251.4	4.6	0.0950	-10.22	1.000	5.56
090	204.2	51.8	0.0950	-10.22	1.000	7.29
120	265.8	-9.8	0.0950	-10.22	1.000	5.56
150	312.2	-56.2	0.0950	-10.22	1.000	5.56
180	346.6	-90.6	0.0950	-10.22	1.000	5.56
210	356.9	-100.9	0.0950	-10.22	1.000	5.56
240	314.5	-58.5	0.0950	-10.22	1.000	5.56
270	312.0	-56.0	0.0950	-10.22	1.000	5.56
300	241.2	14.8	0.0950	-10.22	1.000	5.56
330	224.7	31.3	0.0950	-10.22	1.000	5.67

Ave EI = 284.39 M HAAT= -28.39 M AMSL= 256 M

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 N. Lat. = 44 02 28 W. Lng. = 92 20 25
 HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

KLSEFM, Minnesota Public Radio, BLED19980504KG

Azi .	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	347.8	290.2	94.0000	19.73	1.000	70.98
010	347.5	290.5	94.0000	19.73	1.000	71.00
020	346.7	291.3	94.0000	19.73	1.000	71.07
030	348.6	289.4	94.0000	19.73	1.000	70.91
040	344.4	293.6	94.0000	19.73	1.000	71.25
050	350.6	287.4	94.0000	19.73	1.000	70.75
060	353.2	284.8	94.0000	19.73	1.000	70.54
070	358.3	279.7	94.0000	19.73	1.000	70.11
080	367.1	270.9	94.0000	19.73	1.000	69.38
090	373.8	264.2	94.0000	19.73	1.000	68.81
100	373.6	264.4	94.0000	19.73	1.000	68.83
110	383.1	254.9	94.0000	19.73	1.000	68.04
120	382.3	255.7	94.0000	19.73	1.000	68.10
130	387.5	250.5	94.0000	19.73	1.000	67.67
140	383.0	255.0	94.0000	19.73	1.000	68.05
150	372.2	265.8	94.0000	19.73	1.000	68.95
160	374.9	263.1	94.0000	19.73	1.000	68.72
170	366.8	271.2	94.0000	19.73	1.000	69.40
180	355.8	282.2	94.0000	19.73	1.000	70.32
190	354.9	283.1	94.0000	19.73	1.000	70.40
200	363.8	274.2	94.0000	19.73	1.000	69.66
210	352.3	285.7	94.0000	19.73	1.000	70.61
220	340.8	297.2	94.0000	19.73	1.000	71.54
230	330.8	307.2	94.0000	19.73	1.000	72.30
240	336.9	301.1	94.0000	19.73	1.000	71.84
250	319.9	318.1	94.0000	19.73	1.000	73.11
260	323.5	314.5	94.0000	19.73	1.000	72.85
270	333.5	304.5	94.0000	19.73	1.000	72.10
280	339.6	298.4	94.0000	19.73	1.000	71.63
290	331.7	306.3	94.0000	19.73	1.000	72.23
300	336.9	301.1	94.0000	19.73	1.000	71.84
310	328.9	309.1	94.0000	19.73	1.000	72.44
320	343.1	294.9	94.0000	19.73	1.000	71.36
330	353.1	284.9	94.0000	19.73	1.000	70.55
340	353.4	284.6	94.0000	19.73	1.000	70.52
350	350.8	287.2	94.0000	19.73	1.000	70.73

Ave EI = 353.08 M HAAT= 284.92 M AMSL= 638 M

Declaration:

I, Douglas L. Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 30 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Re-certified 10/2000.)

That, my qualifications are a matter of record with the Federal Communications Commission;

That, I have been retained by the Minnesota Public Radio to prepare the engineering showings appended hereto:

That, I have prepared these broadcast engineering showings, the technical information contained in same and the facts stated within are true of my knowledge;

That, under penalty of perjury, I declare that the foregoing is correct.



Douglas L. Vernier

Executed on November 29, 2004