

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
LOW POWER TV STATION W51AE  
ADAMS, MASSACHUSETTS

October 23, 2002

CHANNEL 38(+) 6.0 KW (MAX-DA)

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ADAMS, MASSACHUSETTS  
CHANNEL 38(+) 6.0 KW (MAX-DA)

Technical Statement

This Technical Exhibit was prepared in support of a displacement application for TV Translator station W51AE, Adams, Massachusetts (FCC File No. BLTT-19840209ID / Facility ID 73358). The instant application proposes operation on Channel 38(+) with a maximum directional antenna peak visual effective radiated power (ERP) of 6.0 kW. Changes in the facility as now licensed are limited to those necessary to meet the allocation and coverage requirements on Channel 38. There is no change in the height or location of the transmitting antenna. However, the transmitting antenna coordinates have been revised to harmonize with the antenna structure registration data.<sup>\*</sup> As detailed below, this application does not require coordination with Canada.

The licensed W51AE facility will be displaced by the full-service analog television facility allotted to Pittsfield, Massachusetts on Channel 51. Applications are pending for Channel 51 at Pittsfield as close as 14 km from the W51AE transmitter site.<sup>†</sup> Pittsfield itself is located approximately 23 km south-southeast of Adams.

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<sup>\*</sup> This amounts only to a 1-second change in longitude.

<sup>†</sup> See for example, FCC File No. BPCT-19960724LI.

Proposed Facilities

The proposed facility will operate on Channel 38 (614-620 MHz) with a "plus" carrier frequency offset using an Andrew, model ALP4L1-HSM directional antenna. The maximum directional ERP will be 6.0 kW in any horizontal or vertical angle. The antenna will be mounted on an existing tower located on Mount Greylock located near Adams. The overall height of the existing antenna structure is 76 m AGL (1124 m AMSL). The antenna radiation center height above ground will be 57 m, with a radiation center height above mean sea level of 1105 m. The antenna structure is registered with the FCC and bears ASRN 1035419. There will be no change in the height of the existing tower structure as a result of the instant proposal.

Response to Paragraph 13(a) – TV Broadcast Analog Protection

An allocation study has been conducted pursuant to the provisions of Section 74.705 of the FCC Rules. The proposed facility meets the contour overlap and spacing requirements with respect to all pertinent analog TV broadcast facilities with the exception of the following:

- WXXA-TV, Albany-NY, Ch. 23, (FCC File No. BLCT-20020314ABC)
- WSBK-TV, Boston-MA, Ch. 38(o), (FCC File No. BLCT-199910619KG)
- WEWB-TV, Schenectady-NY, Ch. 45, (FCC File No. BLCT-19850114KJ)
- WEWB-TV, Schenectady-NY, Ch. 45, (FCC File No. BPCT-20020213AAL)

Pursuant to Section 73.705(e) of the FCC Rules, a waiver of the interference protection rules is requested to permit the use of the Longley-Rice propagation methodology as provided in FCC OET Bulletin No. 69 (OET-69) with respect to the above facilities. As detailed in Figure 2 herein, the proposed facility meets the 0.5% de minimis criteria with respect to all of the above facilities.

Response to Paragraph 13(b) – DTV Station Protection

Calculations based on OET-69 indicate that the proposed operation on Channel 38 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 38 and 39. Figure 3 provides the output of study based on OET-69, which demonstrates that the proposed operation complies with the FCC's DTV de minimis interference protection criteria.

Response to Paragraph 13(c) – LPTV/TV Translator/Class A TV Protection

An allocation study has been conducted pursuant to the provisions of Section 74.707 of the FCC Rules. The proposed facility meets the contour overlap requirements with respect to all pertinent facilities pursuant to Section 74.707 of the FCC Rules requirements with respect to all pertinent facilities with the exception of the following:

- W38CB, Littleton-NH, Ch. 38(+), (FCC File No. BLTT-19950725II)

Pursuant to Section 73.707(e) of the FCC Rules, a waiver of the interference protection rules is requested to permit the use of the Longley-Rice propagation methodology as provided in OET-69 with respect to the above facilities. As detailed in Figure 4 herein, the proposed facility meets the 0.5% de minimis criteria with respect to all of the above facilities.

Canadian Allocation Concerns

The proposed facility is located within the Canadian coordination zone. The transmitter site is located 264 km from the Canada border with the United States. According to the Canada/U.S. bilateral agreement concerning the UHF television service, proposed low-power facilities located more than 32 km from the border, and

whose interfering contour falls outside of Canadian territory, do not require coordination with Canada.<sup>‡</sup> The proposed facility produces a predicted 19 dBu, f(50,10), interfering contour that does not fall over Canadian territory. See Figure 5. Therefore, the proposed low power facility will not require coordination with Canada.

### Environmental Considerations

With respect to the potential for human exposure to radio frequency (RF) radiation, calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground<sup>§</sup> based on the following conservative assumptions, with the following results:

Call Sign	Channel	Peak Visual ERP or Average ERP (kW)	Aural ERP (kW)	Relative Field Factor <sup>**</sup>	FCC Limit <sup>††</sup> (mW/cm <sup>2</sup> )	Percentage of Limit
W51AE	38	6.0	0.6	0.30	0.411	0.73%

As indicated above, the exposure to RF radiation at 2-m above ground level will not exceed 0.73% of the FCC limit for general population / uncontrolled exposure.

Therefore, the proposal complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from environmental processing. The applicant, in coordination with other users of the transmission facility, shall reduce power or cease

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<sup>‡</sup>See Section 5.4.1 of the *Working Arrangement for Allotment and Assignment of VHF and UHF Television Broadcasting Channels Under the Agreement Between the Government of the United States of America and the Government of Canada Relating to the TV Broadcasting Service*, dated March 1, 1989.

<sup>§</sup> The radiation center height above ground is 57 m.

<sup>\*\*</sup> This relative field level is not exceeded for elevation angles greater than 12° below horizontal.

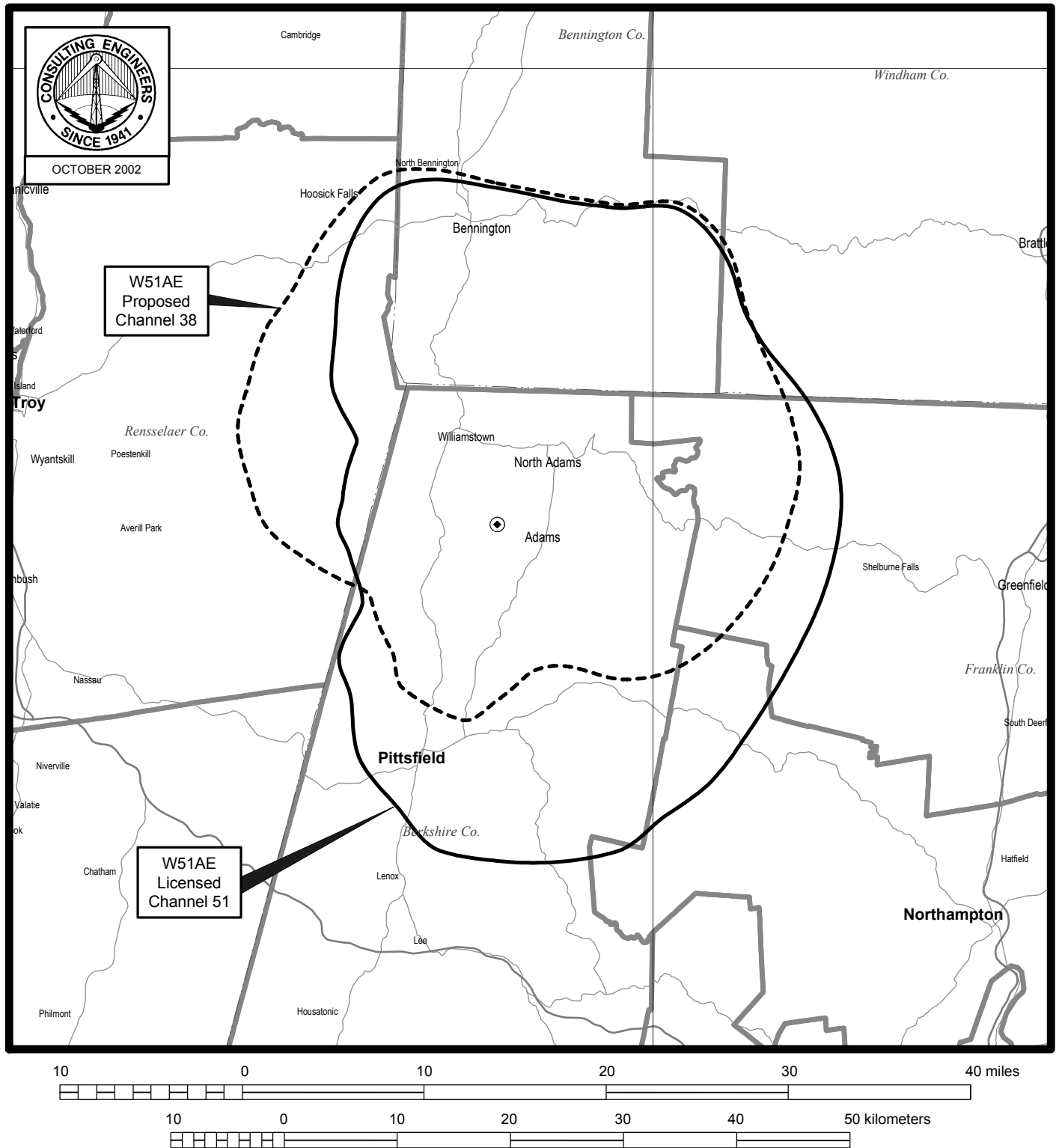
<sup>††</sup> for general population/uncontrolled environments

operation as necessary to protect persons having access to the tower or antenna from radio frequency radiation in excess of the FCC guidelines.

Louis Robert du Treil, Jr.

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, FL 34237

October 23, 2002



## PREDICTED 74 dBu COVERAGE COMPARISON

TV TRANSLATOR STATION W51AE  
ADAMS, MASSACHUSETTS  
CHANNEL 38(+) 6.0 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



**OET-69 TV INTERFERENCE CAUSED STUDY**

INTERFERENCE CAUSED  
CELL SIZE : 1.00  
Using offset in determining thresholds  
Per 6th Report & Order and FCC OET-69 Bulletin

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**WXXA-T 42-37-00 074-00-45 23(N) 3675.000 kw 629.7 m DA 50.0 % 62.6 dBu**  
**ALBANY NY 16337 1162 FCC NTSC BL: 1343837 FCC IX POP%: 0.9**  
**LIC BLCT20020314ABC**  
0.99 1.00 1.00 0.97 0.94 0.94 0.96 0.99 0.99 0.99 0.97 0.94  
0.94 0.96 0.99 0.99 0.99 0.97 0.92 0.81 0.69 0.60 0.50 0.36  
0.23 0.19 0.19 0.19 0.23 0.35 0.50 0.60 0.69 0.80 0.92 0.98  
( 13.0 1.00)

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	22107.16	1379577
not affected by terrain losses	17813.78	1193962

\*\*\*\*\*

**W51AE3 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0**  
**ADAMS ETC. MA**  
**LIC BLTT19850228IB**  
1.00 0.99 0.95 0.91 0.85 0.78 0.72 0.67 0.61 0.55 0.49 0.41  
0.33 0.25 0.20 0.22 0.26 0.31 0.32 0.31 0.26 0.22 0.20 0.25  
0.33 0.41 0.49 0.55 0.61 0.67 0.72 0.78 0.85 0.91 0.95 0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -9.00

	Area	Pop
<b>Interference</b>	<b>38.47</b>	<b>291 ( 0.0 FCC - 0.0)</b>

\*\*\*\*\*

**WSBK-T 42-18-12 071-13-08 38(Z) 2340.000 kw 401 m 50.0 % 64.0 dBu**  
**BOSTON MA 19603 6037 FCC NTSC BL: 6316042 FCC IX POP%: 3.9**  
**LIC BLCT19910619KG**

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	20925.09	6314527
not affected by terrain losses	20161.74	6211141

\*\*\*\*\*

**W51AE3 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0**  
**ADAMS ETC. MA**  
**LIC BLTT19850228IB**  
1.00 0.99 0.95 0.91 0.85 0.78 0.72 0.67 0.61 0.55 0.49 0.41  
0.33 0.25 0.20 0.22 0.26 0.31 0.32 0.31 0.26 0.22 0.20 0.25  
0.33 0.41 0.49 0.55 0.61 0.67 0.72 0.78 0.85 0.91 0.95 0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 28.00

	Area	Pop
<b>Interference</b>	<b>313.68</b>	<b>24570 ( 0.4 FCC - 0.4)</b>

```

*****
WEWB-2 42-37-37 074-00-38 45(Z) 2950.000 kw 589 m DA 50.0 % 64.6 dBu
SCHENECTADY NY 13868 1071 FCC NTSC BL: 1255481 FCC IX POP%: 0.3
LIC BLCT19850114KJ
0.90 0.94 0.96 0.98 1.00 1.00 0.98 0.96 0.94 0.90 0.87 0.83
0.79 0.74 0.67 0.58 0.47 0.37 0.30 0.29 0.34 0.40 0.43 0.43
0.40 0.34 0.29 0.30 0.38 0.48 0.58 0.67 0.74 0.80 0.84 0.87
( 45.0 1.00)(186.0 0.28)(225.0 0.43)(264.0 0.28)
Ref Az: 0.0
Using DEFAULT vertical antenna pattern
                                Area                Pop
within Noise Limited Contour    17221.05            1256029
not affected by terrain losses   13988.78            1066871
*****
W51AE3 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0
ADAMS ETC. MA
LIC BLTT19850228IB
1.00 0.99 0.95 0.91 0.85 0.78 0.72 0.67 0.61 0.55 0.49 0.41
0.33 0.25 0.20 0.22 0.26 0.31 0.32 0.31 0.26 0.22 0.20 0.25
0.33 0.41 0.49 0.55 0.61 0.67 0.72 0.78 0.85 0.91 0.95 0.99
Ref Az: 20.0
Using DEFAULT vertical antenna pattern

D/U Baseline: -30.00
                                Area                Pop
Interference                0                    0

*****
WEWB-T 42-37-31 074-00-38 45(Z) 2950.000 kw 669 m DA 50.0 % 64.6 dBu
SCHENECTADY NY 13868 1071 FCC NTSC BL: 1255481 FCC IX POP%: 0.3
APP BPCT20020213AAL
0.89 0.85 0.85 0.88 0.92 0.96 0.99 1.00 0.97 0.91 0.82 0.71
0.61 0.54 0.52 0.53 0.53 0.52 0.55 0.63 0.74 0.84 0.93 0.98
1.00 0.99 0.96 0.91 0.87 0.85 0.86 0.90 0.95 0.99 0.99 0.94
Ref Az: 0.0
Using DEFAULT vertical antenna pattern
                                Area                Pop
within Noise Limited Contour    21354.00            1324690
not affected by terrain losses   16976.73            1134877
*****
W51AE3 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0
ADAMS ETC. MA
LIC BLTT19850228IB
1.00 0.99 0.95 0.91 0.85 0.78 0.72 0.67 0.61 0.55 0.49 0.41
0.33 0.25 0.20 0.22 0.26 0.31 0.32 0.31 0.26 0.22 0.20 0.25
0.33 0.41 0.49 0.55 0.61 0.67 0.72 0.78 0.85 0.91 0.95 0.99
Ref Az: 20.0
Using DEFAULT vertical antenna pattern

D/U Baseline: -30.00
                                Area                Pop
Interference                0                    0

```

**OET-69 DTV INTERFERENCE CAUSED STUDY**

INTERFERENCE CAUSED  
CELL SIZE : 1.00  
Using offset in determining thresholds  
Per 6th Report & Order and FCC OET-69 Bulletin

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**WWOR-T 40-42-43 074-00-49 38(N) 143.000 kw 459 m 90.0 % 41.0 dBu**  
**SECAUCUS NJ 26254 17915 DTVSERVICE:17915000 NTSCSERVICE:16641000**  
**CP BPCDT19990304KE**

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	26889.04	18009419
not affected by terrain losses	25251.42	17751515

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>67.61</b>	<b>5476( 0.0 FCC - 0.0)</b>

\*\*\*\*\*

**DWWORT 40-42-43 074-00-49 38(0) 136.400 kw 510 m DA 90.0 % 41.0 dBu**  
**SECAUCUS NJ 26254 17915 DTVSERVICE:17915000 NTSCSERVICE:16641000**

**DTVALT DTV ALLOTMENT**

1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	28871.18	18278417
not affected by terrain losses	27005.83	17991888

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>80.54</b>	<b>7923( 0.0 FCC - 0.0)</b>

\*\*\*\*\*

WCFE-T 44-41-43 073-53-00 38(N) 100.000 kw 1223 m DA 90.0 % 41.0 dBu  
PLATTSBURGH NY 14864 260 DTVSERVICE: 260000 NTSCSERVICE: 258000  
CP BPEDT20000427ACT

0.99	0.96	0.94	0.92	0.90	0.90	0.90	0.90	0.90	0.92	0.94	0.96
0.99	1.00	0.99	0.94	0.85	0.73	0.59	0.44	0.30	0.22	0.21	0.23
0.25	0.23	0.21	0.22	0.30	0.44	0.59	0.73	0.85	0.94	0.99	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	29676.69	426877
not affected by terrain losses	26310.80	384893

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0  
ADAMS ETC. MA  
LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	29.92	65 ( 0.0 FCC - 0.0)

\*\*\*\*\*

DWCFET 44-41-43 073-53-00 38(0) 50.000 kw 1241 m DA 90.0 % 41.0 dBu  
PLATTSBURGH NY 14864 260 DTVSERVICE: 260000 NTSCSERVICE: 258000  
DTVALT DTV ALLOTMENT

1.00	0.99	0.96	0.90	0.83	0.74	0.66	0.57	0.47	0.38	0.29	0.22
0.15	0.11	0.08	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.11
0.15	0.22	0.29	0.38	0.46	0.56	0.66	0.74	0.83	0.90	0.96	0.99

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	15887.54	279834
not affected by terrain losses	15025.07	267827

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0  
ADAMS ETC. MA  
LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	1.99	0 ( 0.0 FCC - 0.0)

\*\*\*\*\*

**WGME-T 43-55-28 070-29-28 38(N) 1000.000 kw 606.5 m DA 90.0 % 41.0 dBu**  
**PORTLAND ME 32110 933 DTVSERVICE: 933000 NTSCSERVICE: 995000**  
**CP BPCDT19991028ACC**

1.00	0.98	0.94	0.92	0.94	0.98	1.00	0.98	0.94	0.92	0.94	0.98
1.00	0.98	0.94	0.92	0.94	0.98	1.00	0.98	0.94	0.92	0.94	0.98
1.00	0.98	0.94	0.92	0.94	0.98	1.00	0.98	0.94	0.92	0.94	0.98

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	40054.44	1210860
not affected by terrain losses	34650.15	1085293

\*\*\*\*\*

**W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0**  
**ADAMS ETC. MA**  
**LIC BLTT19850228IB**

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>40.55</b>	<b>1309( 0.1 FCC - 0.1)</b>

\*\*\*\*\*

**DWGMET 43-55-28 070-29-28 38(0) 826.400 kw 607 m DA 90.0 % 41.0 dBu**  
**PORTLAND ME 32110 933 DTVSERVICE: 933000 NTSCSERVICE: 995000**  
**DTVALT DTV ALLOTMENT**

0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	39328.52	1191082
not affected by terrain losses	34145.64	1071775

\*\*\*\*\*

**W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0**  
**ADAMS ETC. MA**  
**LIC BLTT19850228IB**

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>39.56</b>	<b>1561( 0.1 FCC - 0.2)</b>

\*\*\*\*\*

DWRGB 42-38-12 073-59-45 39(0) 1000.000 kw 555 m DA 90.0 % 41.1 dBu  
SCHENECTADY NY 25950 1438 DTVSERVICE: 1438000 NTSCSERVICE: 1434000

DTVALT DTV ALLOTMENT

0.69	0.69	0.69	0.69	0.69	0.69	0.70	0.70	0.70	0.70	0.70	0.69
0.69	0.69	0.69	0.71	0.76	0.82	0.88	0.94	0.99	0.99	0.88	0.86
0.96	1.00	0.98	0.93	0.92	0.91	0.90	0.89	0.85	0.78	0.72	0.69

(205.0 1.00) (206.0 1.00)

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	33689.69	1675655
not affected by terrain losses	26617.63	1439499

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	<b>0</b>	<b>0</b>

\*\*\*\*\*

WRGB 42-37-31 074-00-38 39(N) 746.000 kw 681.8 m 90.0 % 41.1 dBu  
SCHENECTADY NY 25950 1438 DTVSERVICE: 1438000 NTSCSERVICE: 1434000

CP BPCDT19991029ADH

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	34264.98	1697178
not affected by terrain losses	28216.82	1492543

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	<b>0</b>	<b>0</b>

\*\*\*\*\*

**WCTX** 41-25-22 072-57-06 39(N) 100.000 kw 431 m DA 90.0 % 41.1 dBu  
**NEW HAVEN** CT 1425 546 DTVSERVICE: 546000 NTSCSERVICE: 530000  
**CP MOD** BMPCDT20020305AAE

0.92	0.95	0.98	0.99	1.00	0.99	0.98	0.95	0.92	0.87	0.82	0.77
0.71	0.67	0.63	0.61	0.60	0.61	0.62	0.64	0.66	0.67	0.68	0.67
0.66	0.64	0.62	0.61	0.60	0.61	0.63	0.67	0.71	0.77	0.82	0.87

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	19120.65	4438529
not affected by terrain losses	18294.11	4345302

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0  
 ADAMS ETC. MA  
 LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	0	0

\*\*\*\*\*

**WEDY** 41-25-22 072-57-06 39(N) 100.000 kw 431 m DA 90.0 % 41.1 dBu  
**NEW HAVEN** CT 1425 546 DTVSERVICE: 546000 NTSCSERVICE: 530000  
**APP** BMPEDT20020201ABQ

0.92	0.95	0.98	0.99	1.00	0.99	0.98	0.95	0.92	0.87	0.82	0.77
0.71	0.67	0.63	0.61	0.60	0.61	0.62	0.64	0.66	0.67	0.68	0.67
0.66	0.64	0.62	0.61	0.60	0.61	0.63	0.67	0.71	0.77	0.82	0.87

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	19120.65	4438529
not affected by terrain losses	18294.11	4345302

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0  
 ADAMS ETC. MA  
 LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	0	0

Figure 3  
Sheet 6 of 7

\*\*\*\*\*

DWEDY 41-19-42 072-54-25 39(0) 50.000 kw 133 m DA 90.0 % 41.1 dBu  
NEW HAVEN CT 1425 546 DTVSERVICE: 546000 NTSCSERVICE: 530000

DTVALT DTV ALLOTMENT

0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99
0.99	0.99	0.98	0.97	0.95	0.94	0.93	0.92	0.92	0.94	0.96	0.98

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	1431.606	544040
not affected by terrain losses	1431.606	544040

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0

\*\*\*\*\*

WSBK-T 42-18-37 071-14-14 39(N) 135.000 kw 434 m 90.0 % 41.1 dBu  
BOSTON MA 20192 6230 DTVSERVICE: 6230000 NTSCSERVICE: 6037000

CP BPCDT19991029AEJ

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	24721.82	6515143
not affected by terrain losses	23863.28	6451936

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0

ADAMS ETC. MA

LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0



\*\*\*\*\*

DWSBKT 42-18-12 071-13-08 39(0) 70.800 kw 401 m DA 90.0 % 41.1 dBu  
BOSTON MA 20192 6230 DTVSERVICE: 6230000 NTSCSERVICE: 6037000  
DTVALT DTV ALLOTMENT

1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	20928.07	6314534
not affected by terrain losses	20493.29	6252877

\*\*\*\*\*

W51AE4 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0  
ADAMS ETC. MA  
LIC BLTT19850228IB

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0

OET-69 LPTV INTERFERENCE CAUSED STUDY

INTERFERENCE CAUSED  
CELL SIZE : 1.00  
Using offset in determining thresholds  
Per 6th Report & Order and FCC OET-69 Bulletin

\*\*\*\*\*

**W38CB 44-09-24 071-41-57 38(+) 13.000 kw 1269 m DA 50.0 % 74.0 dBu**  
**LITTLETON NH**  
**LIC BLTT19950725II**

1.00	0.97	0.95	0.93	0.92	0.94	0.98	1.00	0.98	0.95	0.88	0.77
0.63	0.47	0.35	0.23	0.22	0.22	0.23	0.22	0.22	0.23	0.35	0.47
0.63	0.77	0.88	0.95	0.98	1.00	0.98	0.94	0.92	0.93	0.95	0.97

Ref Az: 350.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	3076.088	36659
not affected by terrain losses	2534.232	25977

\*\*\*\*\*

**W51AE5 42-38-14 073-10-08 38(+) 6.000 kw 1105 m DA 10.0 % 64.0**  
**ADAMS ETC. MA**  
**LIC BLTT19850228IB**

1.00	0.99	0.95	0.91	0.85	0.78	0.72	0.67	0.61	0.55	0.49	0.41
0.33	0.25	0.20	0.22	0.26	0.31	0.32	0.31	0.26	0.22	0.20	0.25
0.33	0.41	0.49	0.55	0.61	0.67	0.72	0.78	0.85	0.91	0.95	0.99

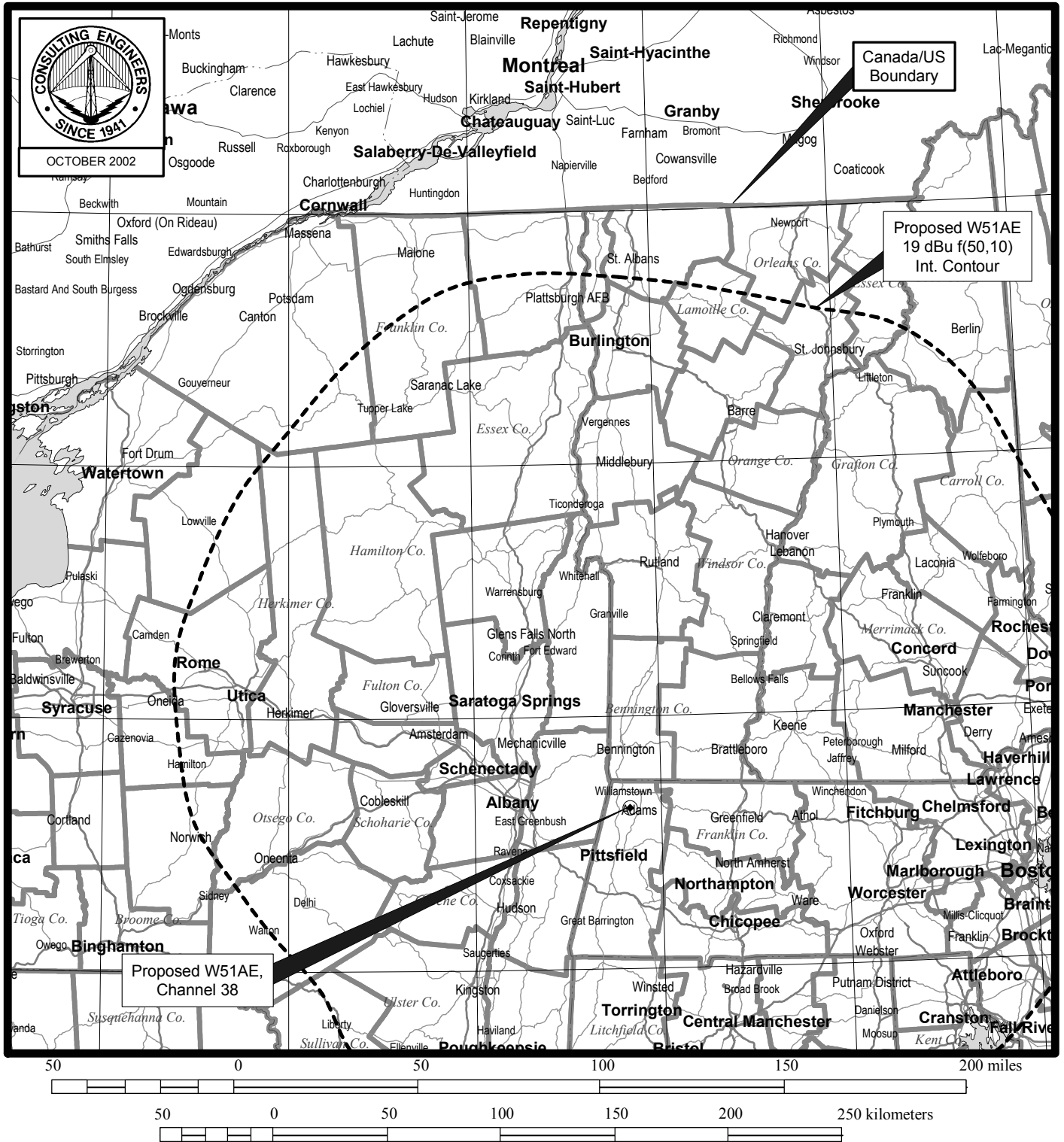
Ref Az: 20.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 45.00

	Area	Pop
<b>Interference</b>	<b>8.85</b>	<b>0 ( 0.0)</b>

Figure 5



## PREDICTED COVERAGE CONTOURS

TV TRANSLATOR STATION W51AE  
ADAMS, MASSACHUSETTS  
CHANNEL 38(+) 6.0 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
LOW POWER TV STATION W51AE  
ADAMS, MASSACHUSETTS  
CHANNEL 38(+) 6.0 KW (MAX-DA)

Transmitting Antenna Manufacturer's Data Sheets

(four sheets follow)



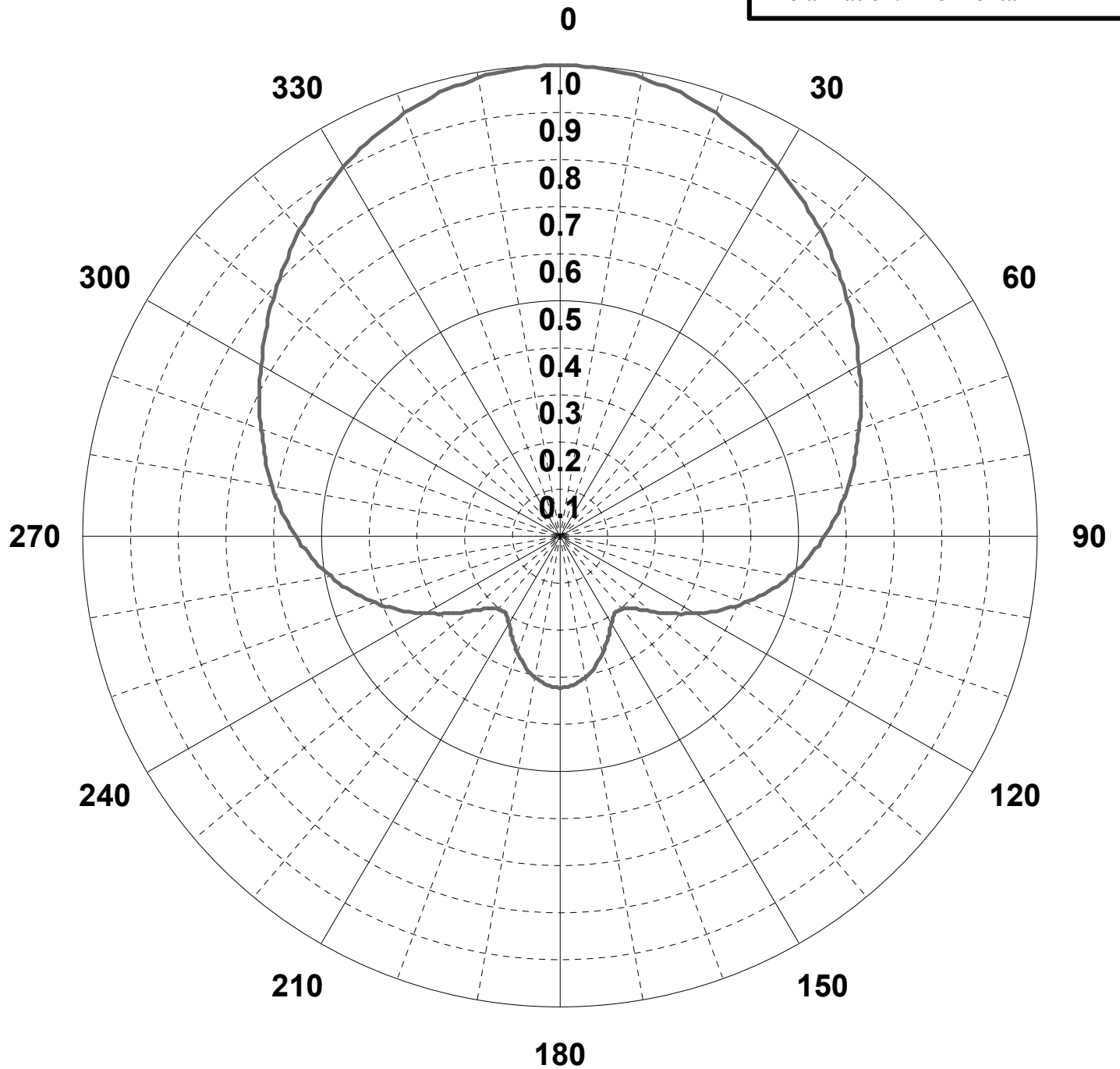
**ANDREW**

Channel: 38

Type: ALP-M

Gain: 2.54 (4.05 dB)

Polarization: Horizontal



ANDREW CORPORATION  
10500 W. 153rd Street  
Orland Park, Illinois U.S.A. 60462

Company:  
Site:  
Proposal Number:

Date: 10/23/2002  
Author:



Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
0	1.000	0.00	72	0.656	-3.66	144	0.199	-14.02	216	0.199	-14.02	288	0.656	-3.66
1	0.999	-0.01	73	0.650	-3.74	145	0.199	-14.02	217	0.199	-14.02	289	0.661	-3.60
2	0.999	-0.01	74	0.645	-3.81	146	0.202	-13.89	218	0.200	-13.98	290	0.667	-3.52
3	0.998	-0.02	75	0.639	-3.89	147	0.205	-13.76	219	0.200	-13.98	291	0.673	-3.44
4	0.998	-0.02	76	0.634	-3.96	148	0.208	-13.64	220	0.200	-13.98	292	0.678	-3.38
5	0.997	-0.03	77	0.628	-4.04	149	0.211	-13.51	221	0.203	-13.85	293	0.684	-3.30
6	0.995	-0.04	78	0.623	-4.11	150	0.214	-13.39	222	0.207	-13.68	294	0.689	-3.24
7	0.994	-0.05	79	0.617	-4.19	151	0.219	-13.19	223	0.210	-13.56	295	0.695	-3.16
8	0.992	-0.07	80	0.612	-4.26	152	0.223	-13.03	224	0.214	-13.39	296	0.701	-3.09
9	0.991	-0.08	81	0.606	-4.35	153	0.228	-12.84	225	0.217	-13.27	297	0.706	-3.02
10	0.989	-0.10	82	0.601	-4.42	154	0.232	-12.69	226	0.223	-13.03	298	0.712	-2.95
11	0.986	-0.12	83	0.595	-4.51	155	0.237	-12.51	227	0.229	-12.80	299	0.717	-2.89
12	0.983	-0.15	84	0.590	-4.58	156	0.242	-12.32	228	0.235	-12.58	300	0.723	-2.82
13	0.981	-0.17	85	0.584	-4.67	157	0.247	-12.15	229	0.241	-12.36	301	0.729	-2.75
14	0.978	-0.19	86	0.578	-4.76	158	0.252	-11.97	230	0.247	-12.15	302	0.735	-2.67
15	0.975	-0.22	87	0.572	-4.85	159	0.257	-11.80	231	0.255	-11.87	303	0.742	-2.59
16	0.971	-0.26	88	0.566	-4.94	160	0.262	-11.63	232	0.263	-11.60	304	0.748	-2.52
17	0.967	-0.29	89	0.560	-5.04	161	0.267	-11.47	233	0.270	-11.37	305	0.754	-2.45
18	0.964	-0.32	90	0.554	-5.13	162	0.272	-11.31	234	0.278	-11.12	306	0.760	-2.38
19	0.960	-0.35	91	0.548	-5.22	163	0.277	-11.15	235	0.286	-10.87	307	0.766	-2.32
20	0.956	-0.39	92	0.542	-5.32	164	0.282	-11.00	236	0.294	-10.63	308	0.773	-2.24
21	0.951	-0.44	93	0.535	-5.43	165	0.287	-10.84	237	0.303	-10.37	309	0.779	-2.17
22	0.947	-0.47	94	0.529	-5.53	166	0.291	-10.72	238	0.311	-10.14	310	0.785	-2.10
23	0.942	-0.52	95	0.523	-5.63	167	0.295	-10.60	239	0.320	-9.90	311	0.791	-2.04
24	0.938	-0.56	96	0.516	-5.75	168	0.298	-10.52	240	0.328	-9.68	312	0.797	-1.97
25	0.933	-0.60	97	0.509	-5.87	169	0.302	-10.40	241	0.337	-9.45	313	0.804	-1.89
26	0.928	-0.65	98	0.503	-5.97	170	0.306	-10.29	242	0.345	-9.24	314	0.810	-1.83
27	0.923	-0.70	99	0.496	-6.09	171	0.308	-10.23	243	0.354	-9.02	315	0.816	-1.77
28	0.917	-0.75	100	0.489	-6.21	172	0.311	-10.14	244	0.362	-8.83	316	0.822	-1.70
29	0.912	-0.80	101	0.482	-6.34	173	0.313	-10.09	245	0.371	-8.61	317	0.829	-1.63
30	0.907	-0.85	102	0.474	-6.48	174	0.316	-10.01	246	0.379	-8.43	318	0.835	-1.57
31	0.901	-0.91	103	0.467	-6.61	175	0.318	-9.95	247	0.388	-8.22	319	0.842	-1.49
32	0.895	-0.96	104	0.459	-6.76	176	0.319	-9.92	248	0.396	-8.05	320	0.848	-1.43
33	0.890	-1.01	105	0.452	-6.90	177	0.320	-9.90	249	0.405	-7.85	321	0.854	-1.37
34	0.884	-1.07	106	0.444	-7.05	178	0.320	-9.90	250	0.413	-7.68	322	0.860	-1.31
35	0.878	-1.13	107	0.436	-7.21	179	0.321	-9.87	251	0.421	-7.51	323	0.866	-1.25
36	0.872	-1.19	108	0.429	-7.35	180	0.322	-9.84	252	0.429	-7.35	324	0.872	-1.19
37	0.866	-1.25	109	0.421	-7.51	181	0.321	-9.87	253	0.436	-7.21	325	0.878	-1.13
38	0.860	-1.31	110	0.413	-7.68	182	0.320	-9.90	254	0.444	-7.05	326	0.884	-1.07
39	0.854	-1.37	111	0.405	-7.85	183	0.320	-9.90	255	0.452	-6.90	327	0.890	-1.01
40	0.848	-1.43	112	0.396	-8.05	184	0.319	-9.92	256	0.459	-6.76	328	0.895	-0.96
41	0.842	-1.49	113	0.388	-8.22	185	0.318	-9.95	257	0.467	-6.61	329	0.901	-0.91
42	0.835	-1.57	114	0.379	-8.43	186	0.316	-10.01	258	0.474	-6.48	330	0.907	-0.85
43	0.829	-1.63	115	0.371	-8.61	187	0.313	-10.09	259	0.482	-6.34	331	0.912	-0.80
44	0.822	-1.70	116	0.362	-8.83	188	0.311	-10.14	260	0.489	-6.21	332	0.917	-0.75
45	0.816	-1.77	117	0.354	-9.02	189	0.308	-10.23	261	0.496	-6.09	333	0.923	-0.70
46	0.810	-1.83	118	0.345	-9.24	190	0.306	-10.29	262	0.503	-5.97	334	0.928	-0.65
47	0.804	-1.89	119	0.337	-9.45	191	0.302	-10.40	263	0.509	-5.87	335	0.933	-0.60
48	0.797	-1.97	120	0.328	-9.68	192	0.298	-10.52	264	0.516	-5.75	336	0.938	-0.56
49	0.791	-2.04	121	0.320	-9.90	193	0.295	-10.60	265	0.523	-5.63	337	0.942	-0.52
50	0.785	-2.10	122	0.311	-10.14	194	0.291	-10.72	266	0.529	-5.53	338	0.947	-0.47
51	0.779	-2.17	123	0.303	-10.37	195	0.287	-10.84	267	0.535	-5.43	339	0.951	-0.44
52	0.773	-2.24	124	0.294	-10.63	196	0.282	-11.00	268	0.542	-5.32	340	0.956	-0.39
53	0.766	-2.32	125	0.286	-10.87	197	0.277	-11.15	269	0.548	-5.22	341	0.960	-0.35
54	0.760	-2.38	126	0.278	-11.12	198	0.272	-11.31	270	0.554	-5.13	342	0.964	-0.32
55	0.754	-2.45	127	0.270	-11.37	199	0.267	-11.47	271	0.560	-5.04	343	0.967	-0.29
56	0.748	-2.52	128	0.263	-11.60	200	0.262	-11.63	272	0.566	-4.94	344	0.971	-0.26
57	0.742	-2.59	129	0.255	-11.87	201	0.257	-11.80	273	0.572	-4.85	345	0.975	-0.22
58	0.735	-2.67	130	0.247	-12.15	202	0.252	-11.97	274	0.578	-4.76	346	0.978	-0.19
59	0.729	-2.75	131	0.241	-12.36	203	0.247	-12.15	275	0.584	-4.67	347	0.981	-0.17
60	0.723	-2.82	132	0.235	-12.58	204	0.242	-12.32	276	0.590	-4.58	348	0.983	-0.15
61	0.717	-2.89	133	0.229	-12.80	205	0.237	-12.51	277	0.595	-4.51	349	0.986	-0.12
62	0.712	-2.95	134	0.223	-13.03	206	0.232	-12.69	278	0.601	-4.42	350	0.989	-0.10
63	0.706	-3.02	135	0.217	-13.27	207	0.228	-12.84	279	0.606	-4.35	351	0.991	-0.08
64	0.701	-3.09	136	0.214	-13.39	208	0.223	-13.03	280	0.612	-4.26	352	0.992	-0.07
65	0.695	-3.16	137	0.210	-13.56	209	0.219	-13.19	281	0.617	-4.19	353	0.994	-0.05
66	0.689	-3.24	138	0.207	-13.68	210	0.214	-13.39	282	0.623	-4.11	354	0.995	-0.04
67	0.684	-3.30	139	0.203	-13.85	211	0.211	-13.51	283	0.628	-4.04	355	0.997	-0.03
68	0.678	-3.38	140	0.200	-13.98	212	0.208	-13.64	284	0.634	-3.96	356	0.998	-0.02
69	0.673	-3.44	141	0.200	-13.98	213	0.205	-13.76	285	0.639	-3.89	357	0.998	-0.02
70	0.667	-3.52	142	0.200	-13.98	214	0.202	-13.89	286	0.645	-3.81	358	0.999	-0.01
71	0.661	-3.60	143	0.199	-14.02	215	0.199	-14.02	287	0.650	-3.74	359	0.999	-0.01

ANDREW CORPORATION  
10500 W. 153rd Street  
Orland Park, Illinois U.S.A. 60462

Company:  
Site:  
Proposal Number:

Author:

Date: 10/23/2002



**ANDREW**

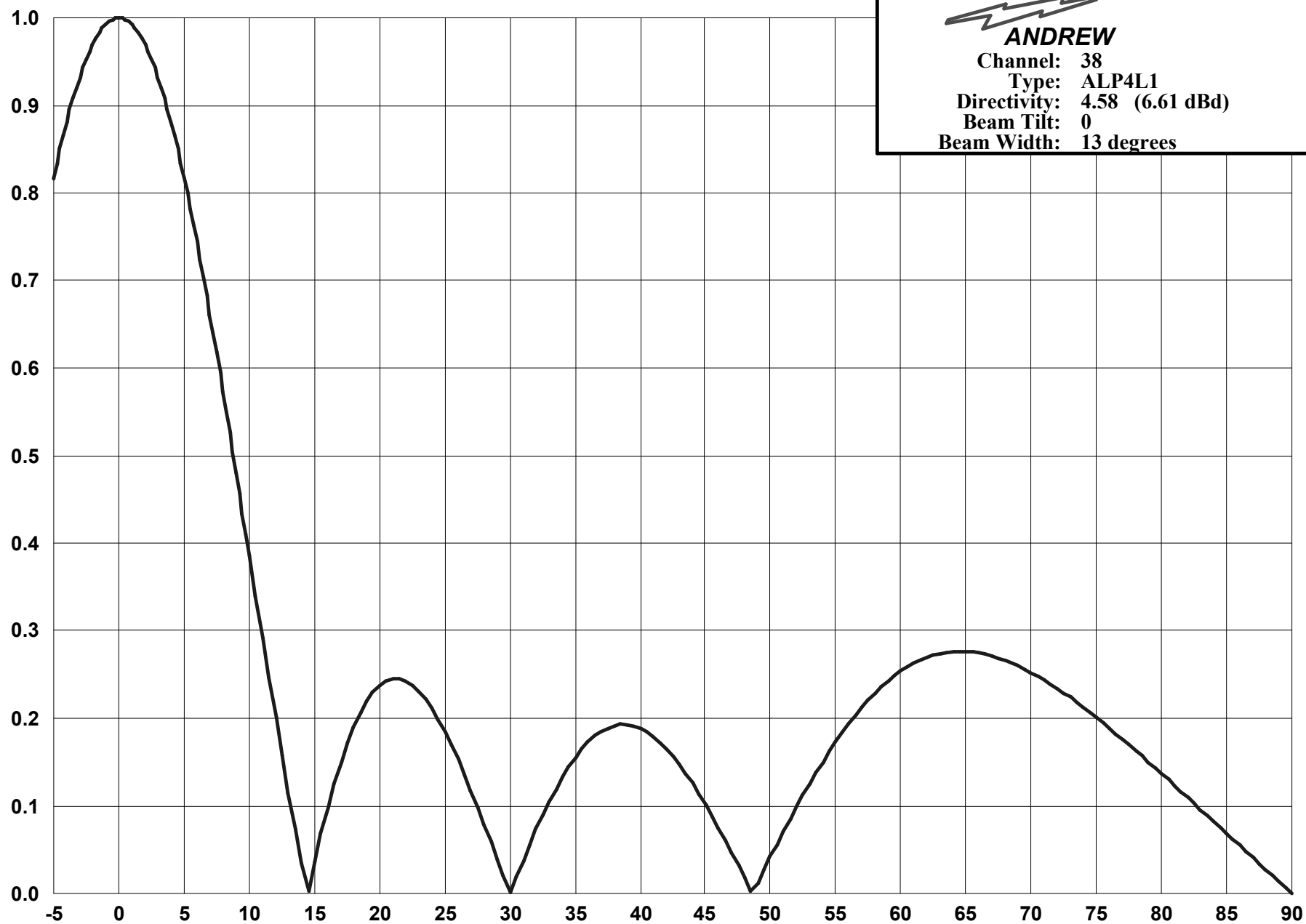
Channel: 38

Type: ALP4L1

Directivity: 4.58 (6.61 dBd)

Beam Tilt: 0

Beam Width: 13 degrees



ANDREW CORPORATION  
10500 W. 153rd Street  
Orland Park, Illinois U.S.A. 60462

Company:  
Site:  
Proposal Number:

Author:

Date: 10/23/2002



Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
-5.00	0.817	-1.76	9.00	0.480	-6.38	36.00	0.173	-15.24	63.50	0.275	-11.21
-4.75	0.834	-1.58	9.25	0.457	-6.80	36.50	0.180	-14.89	64.00	0.276	-11.18
-4.50	0.850	-1.41	9.50	0.433	-7.27	37.00	0.185	-14.66	64.50	0.276	-11.18
-4.25	0.866	-1.25	9.75	0.410	-7.74	37.50	0.189	-14.47	65.00	0.276	-11.18
-4.00	0.881	-1.10	10.00	0.386	-8.27	38.00	0.191	-14.38	65.50	0.276	-11.18
-3.75	0.895	-0.96	10.50	0.339	-9.40	38.50	0.193	-14.29	66.00	0.275	-11.21
-3.50	0.908	-0.84	11.00	0.292	-10.69	39.00	0.192	-14.33	66.50	0.273	-11.28
-3.25	0.920	-0.72	11.50	0.246	-12.18	39.50	0.191	-14.38	67.00	0.271	-11.34
-3.00	0.932	-0.61	12.00	0.201	-13.94	40.00	0.188	-14.52	67.50	0.269	-11.40
-2.75	0.943	-0.51	12.50	0.157	-16.08	40.50	0.184	-14.70	68.00	0.266	-11.50
-2.50	0.952	-0.43	13.00	0.115	-18.79	41.00	0.179	-14.94	68.50	0.263	-11.60
-2.25	0.961	-0.35	13.50	0.074	-22.62	41.50	0.172	-15.29	69.00	0.260	-11.70
-2.00	0.969	-0.27	14.00	0.035	-29.12	42.00	0.165	-15.65	69.50	0.256	-11.84
-1.75	0.977	-0.20	14.50	0.002	-53.98	42.50	0.156	-16.14	70.00	0.252	-11.97
-1.50	0.983	-0.15	15.00	0.036	-28.87	43.00	0.147	-16.65	70.50	0.248	-12.11
-1.25	0.988	-0.10	15.50	0.068	-23.35	43.50	0.137	-17.27	71.00	0.244	-12.25
-1.00	0.992	-0.07	16.00	0.098	-20.18	44.00	0.126	-17.99	71.50	0.239	-12.43
-0.75	0.996	-0.03	16.50	0.125	-18.06	44.50	0.114	-18.86	72.00	0.234	-12.62
-0.50	0.998	-0.02	17.00	0.150	-16.48	45.00	0.101	-19.91	72.50	0.229	-12.80
-0.25	1.000	0.00	17.50	0.171	-15.34	45.50	0.088	-21.11	73.00	0.224	-13.00
0.00	1.000	0.00	18.00	0.190	-14.42	46.00	0.075	-22.50	73.50	0.218	-13.23
0.25	1.000	0.00	18.50	0.206	-13.72	46.50	0.061	-24.29	74.00	0.213	-13.43
0.50	0.998	-0.02	19.00	0.220	-13.15	47.00	0.047	-26.56	74.50	0.207	-13.68
0.75	0.996	-0.03	19.50	0.230	-12.77	47.50	0.032	-29.90	75.00	0.201	-13.94
1.00	0.992	-0.07	20.00	0.238	-12.47	48.00	0.018	-34.89	75.50	0.195	-14.20
1.25	0.988	-0.10	20.50	0.243	-12.29	48.50	0.003	-50.46	76.00	0.189	-14.47
1.50	0.983	-0.15	21.00	0.245	-12.22	49.00	0.012	-38.42	76.50	0.182	-14.80
1.75	0.977	-0.20	21.50	0.245	-12.22	49.50	0.027	-31.37	77.00	0.176	-15.09
2.00	0.969	-0.27	22.00	0.243	-12.29	50.00	0.042	-27.54	77.50	0.170	-15.39
2.25	0.961	-0.35	22.50	0.238	-12.47	50.50	0.056	-25.04	78.00	0.163	-15.76
2.50	0.952	-0.43	23.00	0.231	-12.73	51.00	0.071	-22.97	78.50	0.157	-16.08
2.75	0.943	-0.51	23.50	0.222	-13.07	51.50	0.085	-21.41	79.00	0.150	-16.48
3.00	0.932	-0.61	24.00	0.212	-13.47	52.00	0.099	-20.09	79.50	0.143	-16.89
3.25	0.920	-0.72	24.50	0.199	-14.02	52.50	0.112	-19.02	80.00	0.137	-17.27
3.50	0.908	-0.84	25.00	0.185	-14.66	53.00	0.125	-18.06	80.50	0.130	-17.72
3.75	0.895	-0.96	25.50	0.170	-15.39	53.50	0.138	-17.20	81.00	0.123	-18.20
4.00	0.881	-1.10	26.00	0.153	-16.31	54.00	0.150	-16.48	81.50	0.116	-18.71
4.25	0.866	-1.25	26.50	0.136	-17.33	54.50	0.162	-15.81	82.00	0.110	-19.17
4.50	0.850	-1.41	27.00	0.117	-18.64	55.00	0.173	-15.24	82.50	0.103	-19.74
4.75	0.834	-1.58	27.50	0.098	-20.18	55.50	0.184	-14.70	83.00	0.096	-20.35
5.00	0.817	-1.76	28.00	0.079	-22.05	56.00	0.194	-14.24	83.50	0.089	-21.01
5.25	0.800	-1.94	28.50	0.059	-24.58	56.50	0.204	-13.81	84.00	0.082	-21.72
5.50	0.782	-2.14	29.00	0.039	-28.18	57.00	0.213	-13.43	84.50	0.075	-22.50
5.75	0.763	-2.35	29.50	0.020	-33.98	57.50	0.221	-13.11	85.00	0.069	-23.22
6.00	0.744	-2.57	30.00	0.001	-60.00	58.00	0.229	-12.80	85.50	0.062	-24.15
6.25	0.724	-2.81	30.50	0.019	-34.42	58.50	0.236	-12.54	86.00	0.055	-25.19
6.50	0.704	-3.05	31.00	0.038	-28.40	59.00	0.243	-12.29	86.50	0.048	-26.38
6.75	0.683	-3.31	31.50	0.056	-25.04	59.50	0.249	-12.08	87.00	0.041	-27.74
7.00	0.661	-3.60	32.00	0.073	-22.73	60.00	0.254	-11.90	87.50	0.034	-29.37
7.25	0.640	-3.88	32.50	0.090	-20.92	60.50	0.259	-11.73	88.00	0.027	-31.37
7.50	0.618	-4.18	33.00	0.105	-19.58	61.00	0.263	-11.60	88.50	0.021	-33.56
7.75	0.595	-4.51	33.50	0.119	-18.49	61.50	0.267	-11.47	89.00	0.014	-37.08
8.00	0.573	-4.84	34.00	0.133	-17.52	62.00	0.270	-11.37	89.50	0.007	-43.10
8.25	0.550	-5.19	34.50	0.145	-16.77	62.50	0.272	-11.31	90.00	0.000	---
8.50	0.527	-5.56	35.00	0.155	-16.19	63.00	0.274	-11.24			
8.75	0.504	-5.95	35.50	0.165	-15.65	63.50	0.275	-11.21			

<b>ANDREW CORPORATION</b> 10500 W. 153rd Street Orland Park, Illinois U.S.A. 60462						<b>Company:</b> Site: Proposal Number:			<b>Date:</b> 10/23/2002 <b>Author:</b>		
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