

Appendix I

Electric and Magnetic Field Calculation Results

Table A-1. Summary of Electric Field Calculations

Distance from Centerline (Feet)	Calculated Electric Field (kV/m)		Distance from Centerline (Feet)	Calculated Electric Field (kV/m)	
	Existing Configuration	Proposed Configuration		Existing Configuration	Proposed Configuration
-100	0.029	0.019	0	0.344	0.988
-98	0.031	0.020	2	0.434	1.132
-96	0.033	0.020	4	0.548	1.256
-94	0.035	0.021	6	0.670	1.348
-92	0.037	0.021	8	0.782	1.399
-90	0.039	0.022	10	0.872	1.406
-88	0.042	0.022	12	0.931	1.373
-86	0.044	0.022	14	0.956	1.305
-84	0.047	0.023	16	0.949	1.211
-82	0.051	0.024	18	0.917	1.101
-80	0.054	0.024	20	0.867	0.982
-78	0.058	0.025	22	0.805	0.862
-76	0.062	0.025	24	0.738	0.746
-74	0.067	0.026	26	0.670	0.638
-72	0.072	0.027	28	0.605	0.539
-70	0.078	0.028	30	0.543	0.451
-68	0.084	0.029	32	0.487	0.373
-66	0.091	0.030	34	0.436	0.305
-64	0.099	0.031	36	0.390	0.247
-62	0.108	0.033	38	0.349	0.197
-60	0.117	0.035	40	0.313	0.154
-58	0.128	0.037	42	0.281	0.119
-56	0.140	0.040	44	0.253	0.089
-54	0.154	0.043	46	0.228	0.065
-52	0.169	0.047	48	0.206	0.046
-50	0.187	0.052	50	0.187	0.031
-48	0.206	0.057	52	0.169	0.021
-46	0.228	0.064	54	0.154	0.026
-44	0.253	0.072	56	0.140	0.032
-42	0.281	0.082	58	0.128	0.037
-40	0.313	0.093	60	0.117	0.041
-38	0.349	0.107	62	0.108	0.045
-36	0.390	0.122	64	0.099	0.049
-34	0.436	0.140	66	0.091	0.051
-32	0.487	0.161	68	0.084	0.053
-30	0.543	0.184	70	0.078	0.054
-28	0.605	0.210	72	0.072	0.055
-26	0.670	0.239	74	0.067	0.055
-24	0.738	0.269	76	0.062	0.056
-22	0.805	0.300	78	0.058	0.056
-20	0.867	0.332	80	0.054	0.055
-18	0.917	0.361	82	0.051	0.055
-16	0.949	0.387	84	0.047	0.054
-14	0.956	0.409	86	0.044	0.053
-12	0.931	0.430	88	0.042	0.052
-10	0.872	0.456	90	0.039	0.051
-8	0.782	0.502	92	0.037	0.050
-6	0.670	0.582	94	0.035	0.049
-4	0.548	0.698	96	0.033	0.048
-2	0.434	0.838	98	0.031	0.047
0	0.344	0.988	100	0.029	0.046

Table A-2. Summary of Magnetic Field Calculations for Existing Configuration

Distance from Centerline (Feet)	Calculated Magnetic Field (mG)		Distance from Centerline (Feet)	Calculated Magnetic Field (mG)	
	Existing Configuration Normal Load	Existing Configuration Max Load		Existing Configuration Normal Load	Existing Configuration Max Load
-100	1.3	4.4	0	31.0	108.2
-98	1.3	4.6	2	30.9	107.7
-96	1.4	4.8	4	30.5	106.3
-94	1.4	5.0	6	29.8	103.8
-92	1.5	5.2	8	28.7	100.2
-90	1.6	5.4	10	27.4	95.6
-88	1.6	5.6	12	25.8	90.0
-86	1.7	5.9	14	24.0	83.7
-84	1.8	6.2	16	22.1	77.1
-82	1.9	6.5	18	20.2	70.5
-80	1.9	6.8	20	18.4	64.0
-78	2.0	7.1	22	16.6	57.9
-76	2.2	7.5	24	15.0	52.4
-74	2.3	7.9	26	13.6	47.3
-72	2.4	8.3	28	12.3	42.7
-70	2.5	8.8	30	11.1	38.7
-68	2.7	9.3	32	10.1	35.1
-66	2.8	9.8	34	9.2	31.9
-64	3.0	10.4	36	8.4	29.1
-62	3.2	11.0	38	7.6	26.6
-60	3.4	11.7	40	7.0	24.4
-58	3.6	12.5	42	6.4	22.4
-56	3.8	13.4	44	5.9	20.7
-54	4.1	14.3	46	5.5	19.1
-52	4.4	15.3	48	5.1	17.7
-50	4.7	16.5	50	4.7	16.5
-48	5.1	17.7	52	4.4	15.3
-46	5.5	19.1	54	4.1	14.3
-44	5.9	20.7	56	3.8	13.4
-42	6.4	22.4	58	3.6	12.5
-40	7.0	24.4	60	3.4	11.7
-38	7.6	26.6	62	3.2	11.0
-36	8.4	29.1	64	3.0	10.4
-34	9.2	31.9	66	2.8	9.8
-32	10.1	35.1	68	2.7	9.3
-30	11.1	38.7	70	2.5	8.8
-28	12.3	42.7	72	2.4	8.3
-26	13.6	47.3	74	2.3	7.9
-24	15.0	52.4	76	2.2	7.5
-22	16.6	57.9	78	2.0	7.1
-20	18.4	64.0	80	1.9	6.8
-18	20.2	70.5	82	1.9	6.5
-16	22.1	77.1	84	1.8	6.2
-14	24.0	83.7	86	1.7	5.9
-12	25.8	90.0	88	1.6	5.6
-10	27.4	95.5	90	1.6	5.4
-8	28.7	100.2	92	1.5	5.2
-6	29.8	103.8	94	1.4	5.0
-4	30.5	106.3	96	1.4	4.8
-2	30.9	107.7	98	1.3	4.6
0	31.0	108.2	100	1.3	4.4

Table A-3. Summary of Magnetic Field Calculations for Proposed Configuration

Distance from Centerline (Feet)	Calculated Magnetic Field (mG)		Distance from Centerline (Feet)	Calculated Magnetic Field (mG)	
	Normal Load	Max Load		Normal Load	Max Load
-100	0.4	2.1	0	6.1	31.5
-98	0.4	2.2	2	5.8	30.0
-96	0.4	2.3	4	5.5	28.3
-94	0.5	2.4	6	5.1	26.3
-92	0.5	2.5	8	4.7	24.2
-90	0.5	2.6	10	4.3	22.0
-88	0.5	2.7	12	3.9	19.8
-86	0.6	2.9	14	3.5	17.8
-84	0.6	3.0	16	3.1	15.8
-82	0.6	3.2	18	2.7	14.1
-80	0.6	3.3	20	2.4	12.5
-78	0.7	3.5	22	2.2	11.1
-76	0.7	3.7	24	1.9	9.9
-74	0.8	3.9	26	1.7	8.8
-72	0.8	4.1	28	1.5	7.8
-70	0.8	4.3	30	1.4	7.0
-68	0.9	4.6	32	1.2	6.3
-66	0.9	4.9	34	1.1	5.7
-64	1.0	5.1	36	1.0	5.1
-62	1.1	5.5	38	0.9	4.7
-60	1.1	5.8	40	0.8	4.2
-58	1.2	6.2	42	0.8	3.9
-56	1.3	6.6	44	0.7	3.6
-54	1.4	7.0	46	0.6	3.3
-52	1.5	7.5	48	0.6	3.0
-50	1.6	8.0	50	0.5	2.8
-48	1.7	8.6	52	0.5	2.6
-46	1.8	9.3	54	0.5	2.5
-44	1.9	9.9	56	0.4	2.3
-42	2.1	10.7	58	0.4	2.2
-40	2.2	11.5	60	0.4	2.1
-38	2.4	12.4	62	0.4	1.9
-36	2.6	13.4	64	0.4	1.8
-34	2.8	14.5	66	0.3	1.8
-32	3.0	15.7	68	0.3	1.7
-30	3.3	17.0	70	0.3	1.6
-28	3.6	18.4	72	0.3	1.5
-26	3.9	19.9	74	0.3	1.5
-24	4.2	21.5	76	0.3	1.4
-22	4.5	23.2	78	0.3	1.4
-20	4.8	24.9	80	0.3	1.3
-18	5.2	26.6	82	0.2	1.3
-16	5.5	28.3	84	0.2	1.2
-14	5.8	29.9	86	0.2	1.2
-12	6.1	31.2	88	0.2	1.2
-10	6.3	32.3	90	0.2	1.1
-8	6.4	33.0	92	0.2	1.1
-6	6.5	33.3	94	0.2	1.0
-4	6.4	33.2	96	0.2	1.0
-2	6.3	32.5	98	0.2	1.0
0	6.1	31.5	100	0.2	1.0

Table A-4. Summary of Radio Stations Near Granby, Colorado

AM RADIO STATIONS				FM RADIO STATIONS			
Station	Freq-kHz	Dist- Mi.	Signal-dB	Station	Freq-kHz	Dist- Mi.	Signal-dB
KCOL (Daytime)	600 AM	60	68.0	KCOL (Daytime)	600 AM	60	68.0
KCOL (Nighttime)	600 AM	60	59.6	KCOL (Nighttime)	600 AM	60	59.6
KHOW (Daytime)	630 AM	55	74.2	KHOW (Daytime)	630 AM	55	74.2
KHOW (Nighttime)	630 AM	55	68.0	KHOW (Nighttime)	630 AM	55	68.0
KLTT (Daytime)	670 AM	55	123.6	KLTT (Daytime)	670 AM	55	123.6
KLTT (Nighttime)	670 AM	55	61.0	KLTT (Nighttime)	670 AM	55	61.0
KKZN (Daytime)	760 AM	45	120.9	KKZN (Daytime)	760 AM	45	120.9
KKZN (Nighttime)	760 AM	45	62.9	KKZN (Nighttime)	760 AM	45	62.9
KLVZ (Daytime)	810 AM	48	63.8	KLVZ (Daytime)	810 AM	48	63.8
KLVZ (Nighttime)	810 AM	48	30.0	KLVZ (Nighttime)	810 AM	48	30.0
KOA	850 AM	75	72.5	KOA	850 AM	75	72.5
KRKY (Daytime)	930 AM	24	110.5	KRKY (Daytime)	930 AM	24	110.5
KRKY (Nighttime)	930 AM	24	340.0	KRKY (Nighttime)	930 AM	24	340.0
KMZA (Daytime)	1090 AM	76	64.4	KMZA (Daytime)	1090 AM	76	64.4
KMZA (Nighttime)	1090 AM	76	52.6	KMZA (Nighttime)	1090 AM	76	52.6