

DELAUDER COMMUNICATIONS, INC.

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ENGINEERING REPORT

K269GT, Houston, TX, Channel 269D Minor Mod

ENGINEERING STATEMENT

PROTECTION TO KLOL AND KMJQ

All contour non-overlap protection requirements are met with the exception of Houston, TX stations KLOL (266C) and KMJQ (271C), discussed below.

KLOL (25 kilometers at 215 degrees True) and KMJQ (24 kilometers at 211 degrees True) are second/third adjacent-channel to the proposed channel 269D facility. The 60 dBu F50,50 service contour of each station extends well beyond the proposed 269D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KMJQ or KLOL.

Note that a rule waiver of Section 74.1204 for this second/third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to any station.

The F50,50 signal strength from KMJQ at the proposed 291D transmitter site is at least 90 dBu (the "desired" signal to KMJQ). The F50,50 signal strength from KLOL at the proposed 269D transmitter site is also at least 90 dBu (the "desired" signal to KLOL). The second/third adjacent-channel protection of Section 74.1204 is an undesired-to-desired ("U/D") dB signal strength ratio of 40:1. Therefore, predicted interference to KMJQ and KLOL from the proposed 269D facility is a signal of greater than or equal to 130 dBu.

The centerline of the antenna is at least 10 meters above the top floor of the building. Attached is the vertical plane relative field pattern for the proposed Scala CLFM one-bay antenna. By adjusting for the vertical plane downward relative field values of the proposed antenna, it is herein demonstrated that the 130 dBu interfering signal (using a free space field determination) does not exist at any point on the top floor of the building. (The clearance is at least 2.8 meters.) This is demonstrated by the attached table (requested for use by the FCC for these studies). Therefore, KMJQ and KLOL are adequately protected by the proposed facility.

FIGURE EE1 (Page 1 of 2)

Antenna: CL-FM

Horizontal Polarization (**Vertical Pattern** for V-Pol Antenna)

Azimuth	Field	Rel.dB	dBd	Pwr Gain
0	1.000	0.0	7.0	5.012
1	0.996	-0.0	7.0	5.012
2	0.992	-0.1	6.9	4.898
3	0.988	-0.1	6.9	4.898
4	0.984	-0.1	6.9	4.898
5	0.980	-0.2	6.8	4.786
6	0.974	-0.2	6.8	4.786
7	0.968	-0.3	6.7	4.677
8	0.962	-0.3	6.7	4.677
9	0.956	-0.4	6.6	4.571
10	0.950	-0.4	6.6	4.571
11	0.939	-0.5	6.5	4.467
12	0.928	-0.6	6.4	4.365
13	0.917	-0.8	6.2	4.169
14	0.906	-0.9	6.1	4.074
15	0.895	-1.0	6.0	3.981
16	0.880	-1.1	5.9	3.890
17	0.865	-1.3	5.7	3.715
18	0.850	-1.4	5.6	3.631
19	0.835	-1.6	5.4	3.467
20	0.820	-1.7	5.3	3.388
21	0.803	-1.9	5.1	3.236
22	0.786	-2.1	4.9	3.090
23	0.769	-2.3	4.7	2.951
24	0.752	-2.5	4.5	2.818
25	0.735	-2.7	4.3	2.692
26	0.717	-2.9	4.1	2.570
27	0.699	-3.1	3.9	2.455
28	0.681	-3.3	3.7	2.344
29	0.663	-3.6	3.4	2.188
30	0.645	-3.8	3.2	2.089
31	0.628	-4.0	3.0	1.995
32	0.612	-4.3	2.7	1.862
33	0.595	-4.5	2.5	1.778
34	0.579	-4.7	2.3	1.698
35	0.563	-5.0	2.0	1.585
36	0.544	-5.3	1.7	1.479
37	0.525	-5.6	1.4	1.380
38	0.507	-5.9	1.1	1.288
39	0.488	-6.2	0.8	1.202
40	0.470	-6.6	0.4	1.096
41	0.448	-7.0	0.0	1.000
42	0.426	-7.4	-0.4	0.912
43	0.404	-7.9	-0.9	0.813
44	0.382	-8.4	-1.4	0.724

FIGURE EE1 (Page 2 of 2)

Antenna: CL-FM

Horizontal Polarization (**Vertical Pattern** for V-Pol Antenna)

Azimuth	Field	Rel.dB	dBd	Pwr Gain
45	0.360	-8.9	-1.9	0.646
46	0.338	-9.4	-2.4	0.575
47	0.316	-10.0	-3.0	0.501
48	0.294	-10.6	-3.6	0.437
49	0.272	-11.3	-4.3	0.372
50	0.250	-12.0	-5.0	0.316
51	0.231	-12.7	-5.7	0.269
52	0.212	-13.5	-6.5	0.224
53	0.193	-14.3	-7.3	0.186
54	0.174	-15.2	-8.2	0.151
55	0.155	-16.2	-9.2	0.120
56	0.141	-17.0	-10.0	0.100
57	0.127	-17.9	-10.9	0.081
58	0.113	-18.9	-11.9	0.065
59	0.099	-20.1	-13.1	0.049
60	0.085	-21.4	-14.4	0.036
61	0.077	-22.3	-15.3	0.030
62	0.069	-23.2	-16.2	0.024
63	0.061	-24.3	-17.3	0.019
64	0.053	-25.5	-18.5	0.014
65	0.045	-26.9	-19.9	0.010
66	0.040	-28.0	-21.0	0.008
67	0.035	-29.1	-22.1	0.006
68	0.030	-30.5	-23.5	0.004
69	0.025	-32.0	-25.0	0.003
70	0.020	-34.0	-27.0	0.002
71	0.018	-34.9	-27.9	0.002
72	0.016	-35.9	-28.9	0.001
73	0.014	-37.1	-30.1	0.001
74	0.012	-38.4	-31.4	0.001
75	0.010	-40.0	-33.0	0.001
76	0.010	-40.0	-33.0	0.001
77	0.010	-40.0	-33.0	0.001
78	0.010	-40.0	-33.0	0.001
79	0.010	-40.0	-33.0	0.001
80	0.010	-40.0	-33.0	0.001
81	0.010	-40.0	-33.0	0.001
82	0.010	-40.0	-33.0	0.001
83	0.010	-40.0	-33.0	0.001
84	0.010	-40.0	-33.0	0.001
85	0.010	-40.0	-33.0	0.001
86	0.010	-40.0	-33.0	0.001
87	0.010	-40.0	-33.0	0.001
88	0.010	-40.0	-33.0	0.001
89	0.010	-40.0	-33.0	0.001
90	0.010	-40.0	-33.0	0.001

74.1204(d) Showing

K269GT, Houston, TX 269D

ERP (kw) 0.099
 Height of Antenna above top floor (m) 10
 Translator's IX Contour 130

Scala CLFM(V) one bay

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Top Floor (m)</u>
0	1	0.0990	22.0708	10.000
5	0.98	0.0951	21.6294	8.115
10	0.95	0.0893	20.9672	6.359
15	0.895	0.0793	19.7533	4.887
20	0.82	0.0666	18.0980	3.810
25	0.735	0.0535	16.2220	3.144
30	0.645	0.0412	14.2357	2.882
35	0.563	0.0314	12.4258	2.873
40	0.47	0.0219	10.3733	3.332
45	0.36	0.0128	7.9455	4.382
50	0.25	0.0062	5.5177	5.773
55	0.155	0.0024	3.4210	7.198
60	0.085	0.0007	1.8760	8.375
65	0.045	0.0002	0.9932	9.100
70	0.02	0.0000	0.4414	9.585
75	0.01	0.0000	0.2207	9.787
80	0.01	0.0000	0.2207	9.783
85	0.01	0.0000	0.2207	9.780
90	0.01	0.0000	0.2207	9.779

Note: Input the ERP, Height of the antenna above Ground, the Calculated Translator IX contour, and the specified Antenna Relative Field Pat