

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of OMEGA MEDIA BROADCASTING, licensee of digital Low Power Television Station KOPS-LD, Channel 50 in Beaumont, Texas, in support of its displacement Application for Construction Permit to specify operation on Channel 25. This station is being displaced as a result of the spectrum auction and the relocation of upper UHF channel television stations to the band between Channels 14 and 36. No change in site location, effective radiated power, antenna azimuth pattern or antenna height is proposed herein.

It is proposed to mount a 16-bay slotted-cylinder horizontally-polarized omnidirectional antenna at the 110-meter level of the existing 182.8-meter communications tower on which the present KOPS-LD antenna is located. The proposed effective radiated power for the facility is 15.0 kW in the horizontal plane, which is the present power level of KOPS-LD. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted.

Included in a separate showing is a summary report from a TVStudy interference analysis for the proposed facility. Our study employed a cell size of 0.5 kilometer and an increment spacing of 0.1 kilometer. Further the applicant proposes use of a full-service mask filter. The results indicate that the proposed KOPS-LD facility meets the Commission's interference requirements to all full-power and low-power co-channel and adjacent-channel television facilities, except to the pre-repack facility of KFDM-DT, Channel 25 in Beaumont. KFDM-DT has been allotted repack Channel 15 in Beaumont and the instant proposal protects that new facility. Since operation of KOPS-LD on proposed Channel 25 is contingent upon the

EXHIBIT A

move of KFDM-DT to its post-repack facility on Channel 15, the instant applicant has requested a waiver of the Commission's "contingent application Rule", which the FCC has said it will entertain during this LPTV displacement filing window.

Elevation pattern data for the proposed antenna is provided in Exhibit C, and a detailed power density calculation is attached hereto as Exhibit D.

Since no change in the overall height or location of the existing KOPS-LD tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the FCC assigned Antenna Structure Registration Number 1064380 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher", with a stylized flourish at the end.

KEVIN T. FISHER

May 14, 2018

CONTOUR POPULATION  
2015 U.S. CENSUS DATA  
405,835 (173,226 HH)

Smith and Fisher, LLC

PROPOSED CH. 15  
51 DBU CONTOUR

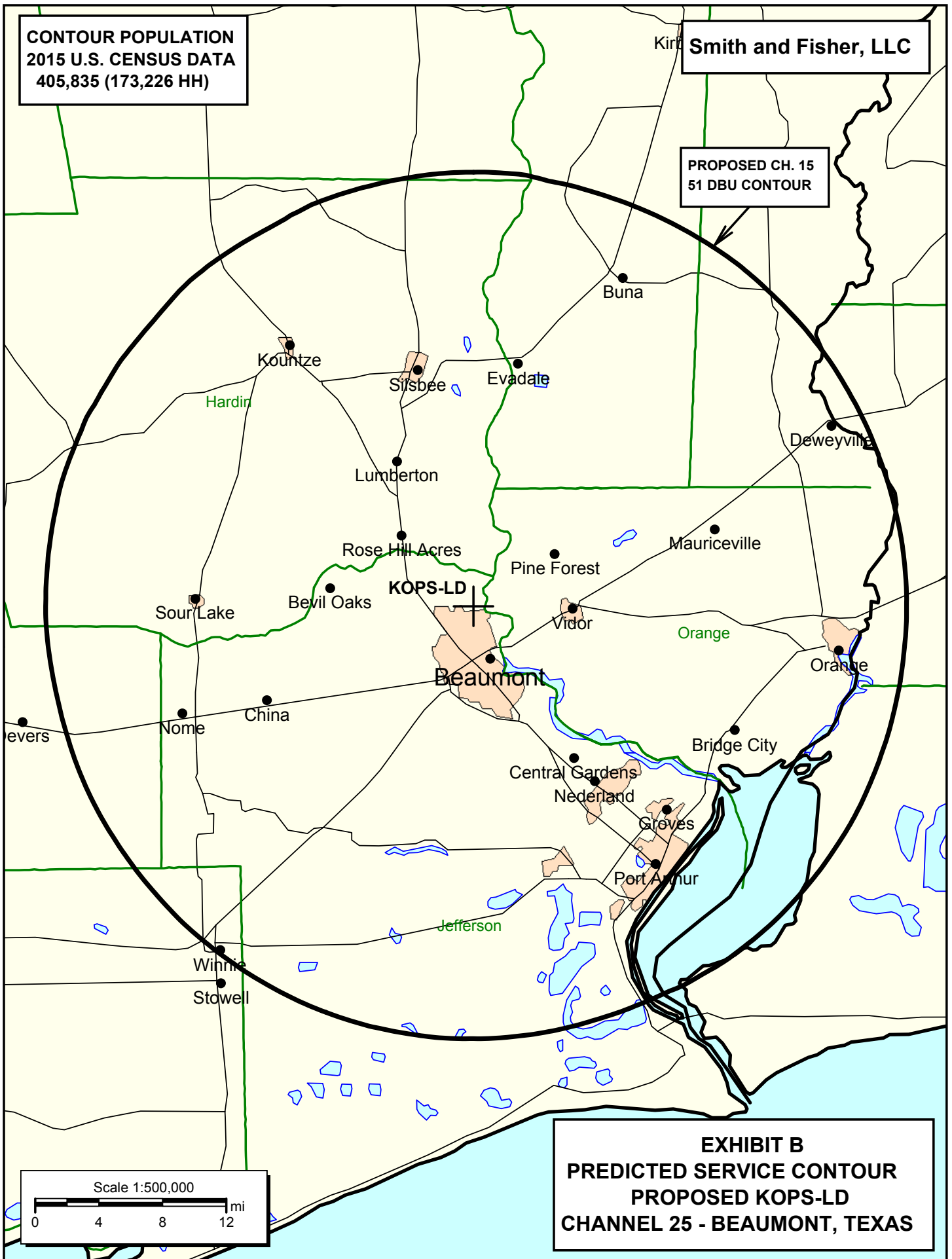
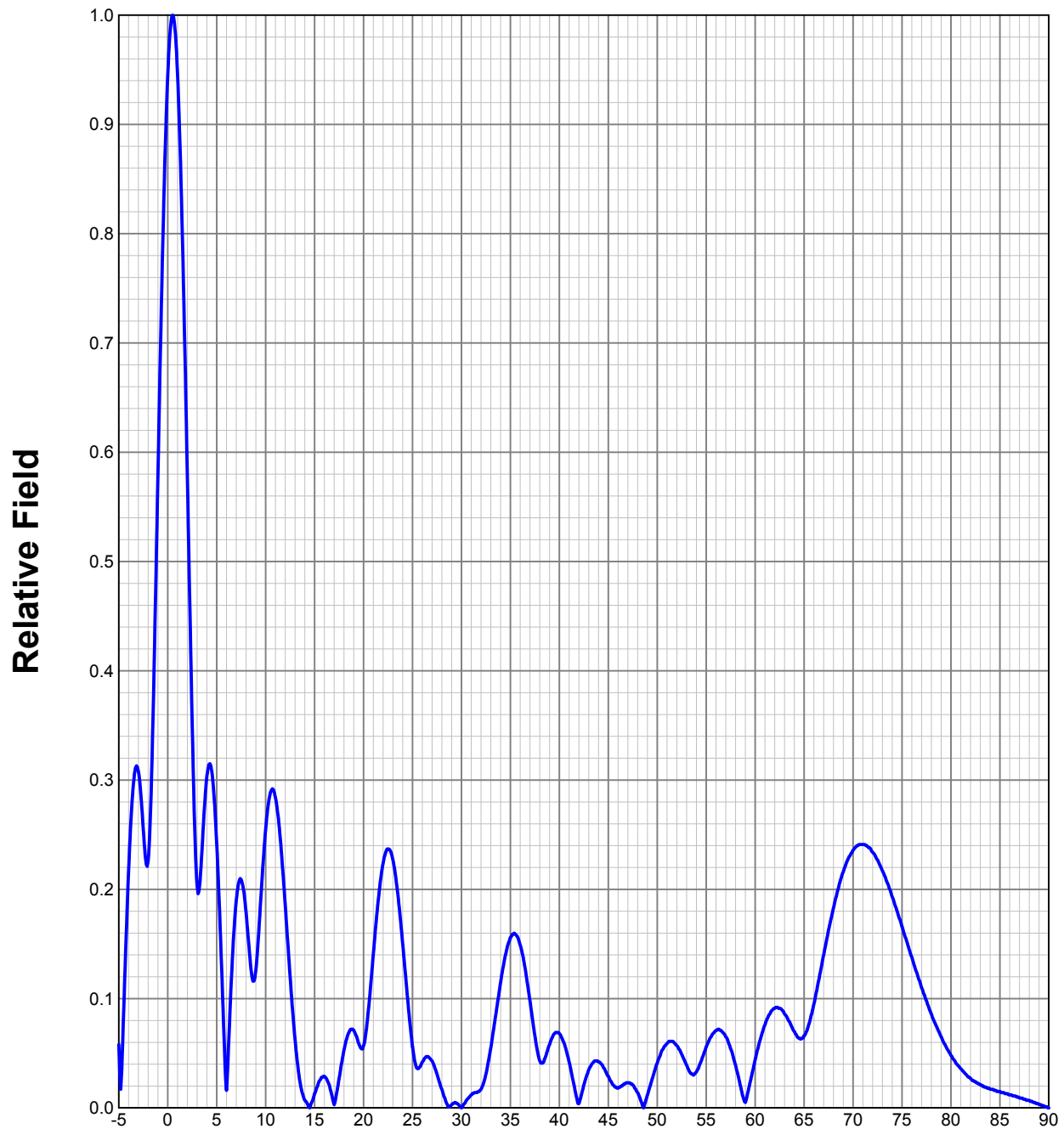


EXHIBIT B  
PREDICTED SERVICE CONTOUR  
PROPOSED KOPS-LD  
CHANNEL 25 - BEAUMONT, TEXAS

**ELEVATION PATTERN**

Type:	ALP16L2		Channel:	25
Directivity:	Numeric	dBd	Location:	
Main Lobe:	16.59	12.20	Beam Tilt:	0.50
Horizontal:	14.82	11.71	Polarization:	Horizontal



Preliminary, subject to final design and review.

## TABULATED DATA FOR ELEVATION PATTERN

Type: ALP16L2

PolarizationHorizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
-5.00	0.058	-24.73	6.75	0.160	-15.92	27.00	0.043	-27.33	50.50
-4.75	0.026	-31.70	7.00	0.190	-14.42	27.50	0.031	-30.17	51.00
-4.50	0.089	-21.01	7.25	0.206	-13.72	28.00	0.017	-35.39	51.50
-4.25	0.156	-16.14	7.50	0.209	-13.60	28.50	0.004	-47.96	52.00
-4.00	0.217	-13.27	7.75	0.199	-14.02	29.00	0.003	-50.46	52.50
-3.75	0.265	-11.55	8.00	0.179	-14.94	29.50	0.004	-47.96	53.00
-3.50	0.297	-10.54	8.25	0.152	-16.33	30.00	0.000	-40.00	53.50
-3.25	0.312	-10.12	8.50	0.127	-17.92	30.50	0.007	-43.10	54.00
-3.00	0.308	-10.23	8.75	0.116	-18.71	31.00	0.012	-38.42	54.50
-2.75	0.287	-10.84	9.00	0.126	-17.99	31.50	0.014	-37.08	55.00
-2.50	0.255	-11.87	9.25	0.155	-16.19	32.00	0.017	-35.39	55.50
-2.25	0.227	-12.88	9.50	0.191	-14.38	32.50	0.031	-30.17	56.00
-2.00	0.226	-12.92	9.75	0.226	-12.94	33.00	0.055	-25.19	56.50
-1.75	0.274	-11.24	10.00	0.255	-11.87	33.50	0.085	-21.41	57.00
-1.50	0.359	-8.90	10.50	0.289	-10.78	34.00	0.115	-18.79	57.50
-1.25	0.467	-6.62	11.00	0.284	-10.93	34.50	0.140	-17.08	58.00
-1.00	0.580	-4.73	11.50	0.246	-12.18	35.00	0.156	-16.14	58.50
-0.75	0.693	-3.19	12.00	0.186	-14.61	35.50	0.159	-15.97	59.00
-0.50	0.794	-2.00	12.50	0.120	-18.42	36.00	0.149	-16.54	59.50
-0.25	0.880	-1.11	13.00	0.063	-24.01	36.50	0.128	-17.86	60.00
0.00	0.945	-0.49	13.50	0.024	-32.40	37.00	0.098	-20.18	60.50
0.25	0.986	-0.13	14.00	0.007	-43.10	37.50	0.066	-23.61	61.00
0.50	1.000	0.00	14.50	0.000	-40.00	38.00	0.043	-27.33	61.50
0.75	0.986	-0.12	15.00	0.013	-37.72	38.50	0.045	-26.94	62.00
1.00	0.946	-0.48	15.50	0.025	-32.04	39.00	0.058	-24.73	62.50
1.25	0.881	-1.10	16.00	0.029	-30.75	39.50	0.068	-23.35	63.00
1.50	0.796	-1.98	16.50	0.021	-33.56	40.00	0.068	-23.35	63.50
1.75	0.693	-3.19	17.00	0.003	-50.46	40.50	0.059	-24.58	64.00
2.00	0.579	-4.75	17.50	0.027	-31.37	41.00	0.042	-27.54	64.50
2.25	0.462	-6.71	18.00	0.053	-25.51	41.50	0.021	-33.56	65.00
2.50	0.350	-9.12	18.50	0.069	-23.22	42.00	0.004	-47.96	65.50
2.75	0.258	-11.78	19.00	0.071	-22.97	42.50	0.021	-33.56	66.00
3.00	0.203	-13.85	19.50	0.059	-24.58	43.00	0.035	-29.12	66.50
3.25	0.204	-13.83	20.00	0.057	-24.88	43.50	0.042	-27.54	67.00
3.50	0.236	-12.54	20.50	0.090	-20.92	44.00	0.042	-27.54	67.50
3.75	0.275	-11.21	21.00	0.141	-17.02	44.50	0.037	-28.64	68.00
4.00	0.304	-10.34	21.50	0.190	-14.42	45.00	0.029	-30.75	68.50
4.25	0.315	-10.05	22.00	0.224	-13.00	45.50	0.021	-33.56	69.00
4.50	0.308	-10.23	22.50	0.237	-12.51	46.00	0.018	-34.89	69.50
4.75	0.282	-10.98	23.00	0.227	-12.88	46.50	0.021	-33.56	70.00
5.00	0.242	-12.32	23.50	0.196	-14.15	47.00	0.023	-32.77	70.50
5.25	0.190	-14.45	24.00	0.150	-16.48	47.50	0.021	-33.56	71.00
5.50	0.129	-17.79	24.50	0.100	-20.00	48.00	0.014	-37.08	71.50
5.75	0.065	-23.74	25.00	0.056	-25.04	48.50	0.002	-53.98	72.00
6.00	0.016	-35.92	25.50	0.036	-28.87	49.00	0.012	-38.42	72.50
6.25	0.065	-23.74	26.00	0.042	-27.54	49.50	0.027	-31.37	73.00
6.50	0.118	-18.56	26.50	0.047	-26.56	50.00	0.041	-27.74	73.50

Preliminary, subject to final design and review.

POWER DENSITY CALCULATION

PROPOSED KOPS-LD  
CHANNEL 25 – BEAUMONT, TEXAS

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Beaumont facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kW, an antenna radiation center 110 meters above ground, and the specific elevation pattern for the proposed 16-bay slotted-cylinder antenna, maximum power density two meters above ground of  $0.0022 \text{ mW/cm}^2$  is calculated to occur 37 meters from the base of the tower. Since this is only 0.6 percent of the  $0.36 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 25 (536-542 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.