

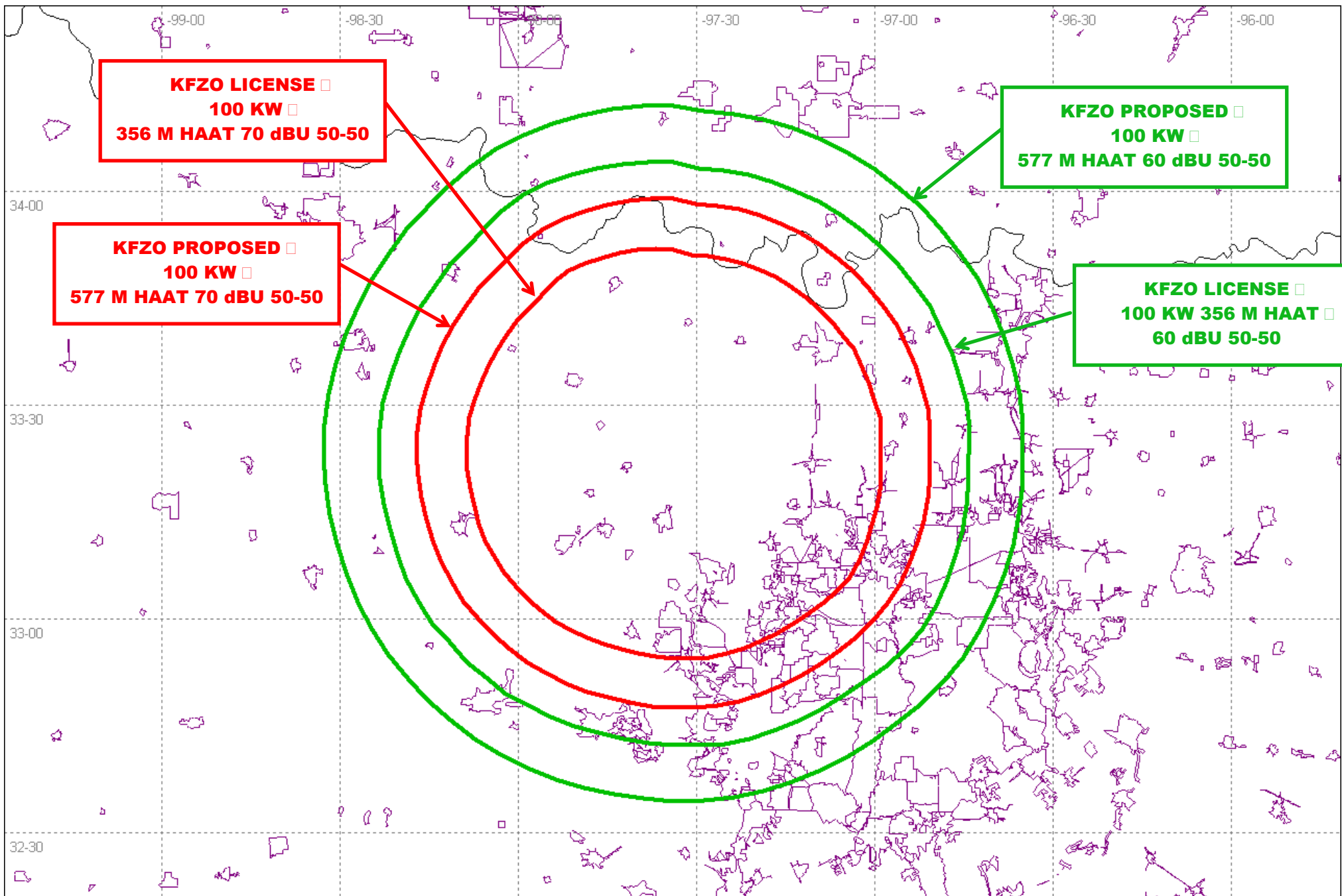
**ENGINEERING EXHIBIT  
APPLICATION FOR MINOR CHANGE  
TO LICENSED FACILITY  
KFZO (FM)  
FACILITY ID# 7040  
DENTON, TEXAS  
Channel 256C**

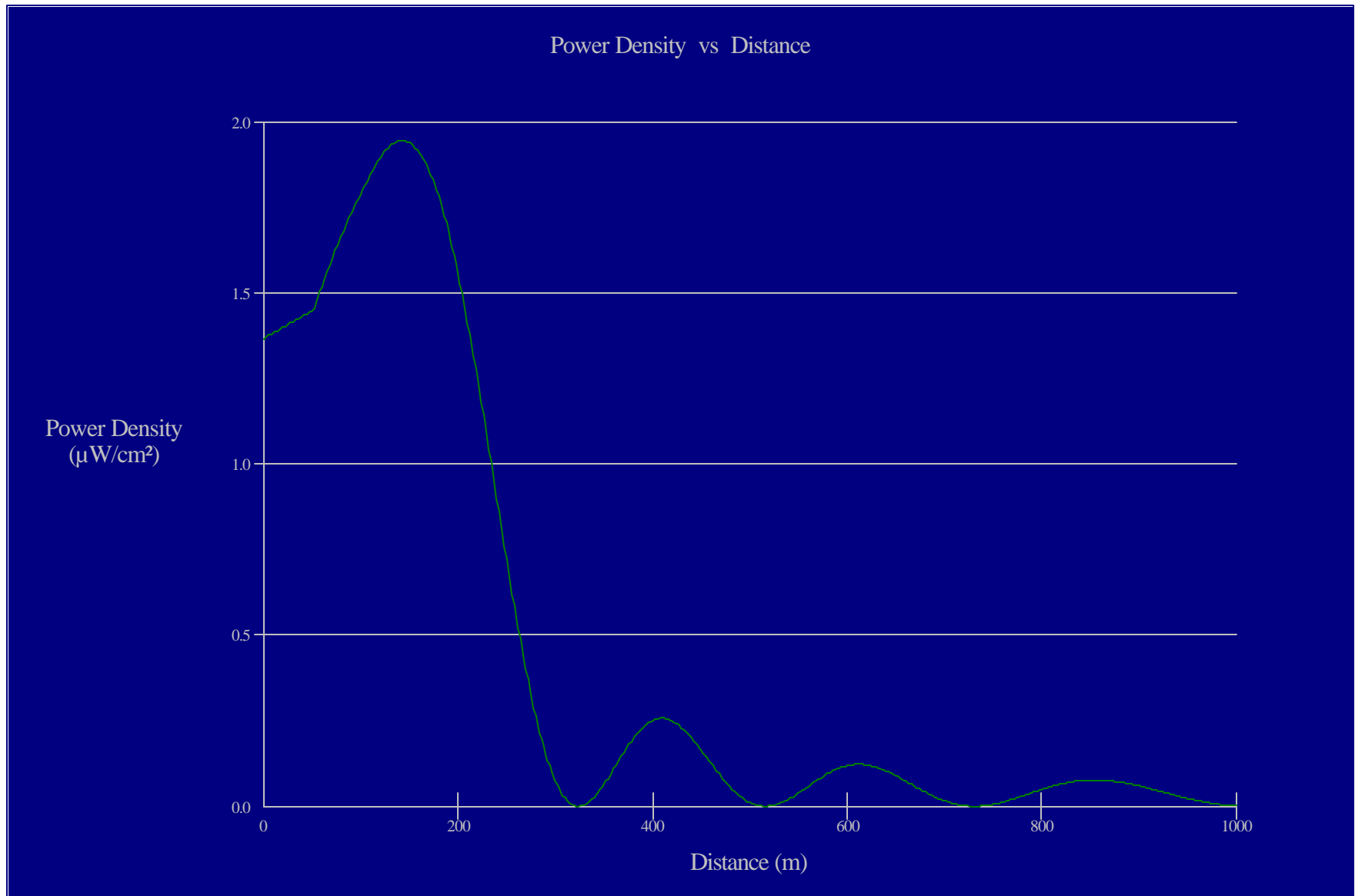
**Purpose of Application**

KHCK-FM License Corporation (FM License Corp.) seeks a minor change to the presently licensed facility. In this instant application, FM License Corp. proposes to upgrade this *existing* structure at the same geographic coordinates, and relocate the antenna to 587 meters above ground level and 577 meters height above average terrain. The coordinates of the facility are: N33°23'22" / W97°33'53", NAD 27. The ASR of the upgraded structure is 1259832. See the following pages for the proposed coverage of the modified facility.

**Environmental Considerations**

The present and proposed site is the home of a 385 meter KFZO antenna tower that will be upgraded as a result of a grant of this application. In addition to this tower, there is an existing 601 meter tower 320 meters away from the tower base on an adjacent property. This nearby tower is the antenna support structure for two other FM licensees. The lighting method presently used on the adjacent tower, red and medium intensity strobes will be used on the new tower. No new night time strobe lighting is proposed. This area is of no significant historic significance and is already an antenna farm. The proposed antenna is an 8 bay full wave spaced double Vee type with a radiation center at 587 meters above ground level. Operation of the modified facility was evaluated in terms of a potential radio frequency radiation hazard to the general population and workers at ground level in accordance with OET Bulletin 65, "Evaluating Compliance With FCC Guidelines For Human Exposure To Radiofrequency Electromagnetic Fields", Edition 97-01 and the OET FM Model program. Using the FM Model program, the maximum predicted intensity at two meters above ground level was found to be 1.94 microwatts/cm<sup>2</sup>. This maximum level occurs at 142 meters from the base of the tower. This level is .97 percent of the maximum for general population, uncontrolled exposure level, and exempts the facility from further study. Based on the previous studies this facility is excluded from environmental processing as defined in 47 C.F.R. 1.1306 and 1.1307, as it is only an upgrade to an existing tower site. FM License Corp. certifies the site will meet RF radiation safety requirements as outlined in 47 C.F.R. 1.1310 See the following pages for detailed calculations from the FM Model program.





**100,000 Watts Horizontal and Vertical  
587 m Radiation Center Above Ground level  
8 Bay Full Wave Spaced Double “Vee” Type Antenna  
Power Density at 2 meters Above Ground Level**

Distance (meters) = 1000  
Horizontal ERP (W) = 100000  
Vertical ERP (W) = 100000  
Antenna Height (m) = 587  
Antenna Type = 2  
Number of Elements = 8  
Element Spacing = 1  
Y-axis (Linear) = -1  
X-axis Setup = 0, 500

X (meters)    Y ( $\mu\text{W}/\text{cm}^2$ )

0	1.36697949020202
2	1.37011076842274
4	1.37326499167512
6	1.37644150405868
8	1.37963940399359
10	1.38285754183225
12	1.38609451755423
14	1.38934867855246
16	1.39261811751948
18	1.39590067044417
20	1.39919391472993
22	1.4024951674473
24	1.40580148373436
26	1.40910965536012
28	1.41241620946675
30	1.41571740750788
32	1.41900924440139
34	1.42228744791574
36	1.42554747831059
38	1.42878452825273
40	1.43199352302985
42	1.43516912108523
44	1.43830571489735
46	1.44139743222921
48	1.44443813777262
50	1.44742143521378
52	1.4556377948792
54	1.47143113044886
56	1.48715975429287
58	1.50281234196624
60	1.51837708497577
62	1.5338416887296
64	1.54919337159299
66	1.56441886511546
68	1.5795044154942
70	1.59443578633925

72	1.60919826280513
74	1.62377665715339
76	1.63815531580944
78	1.65231812797596
80	1.66624853586327
82	1.67992954659562
84	1.69334374584931
86	1.70647331327645
88	1.71930003976436
90	1.73180534657761
92	1.74397030642499
94	1.75577566648981
96	1.76720187345625
98	1.77822910055988
100	1.78883727668353
102	1.79900611751436
104	1.81004752563788
106	1.82245644172772
108	1.83441813746789
110	1.84590791846974
112	1.85690090350428
114	1.86737206916499
116	1.87729629708544
118	1.88664842368344
120	1.89540329239218
122	1.90353580832627
124	1.91102099531819
126	1.91783405524743
128	1.92395042957138
130	1.92934586295294
132	1.93399646886638
134	1.93787879704801
136	1.94096990264466
138	1.94324741689791
140	1.944689619188
142	1.94527551024678
144	1.94498488633506
146	1.9437984141657
148	1.94169770634013
150	1.93866539705306
152	1.93468521780739
154	1.92974207286911
156	1.92382211418121
158	1.91747644203887
160	1.91047660839807
162	1.90247418120231
164	1.89345847164416
166	1.88342037843242

168	1.87235245932189
170	1.86024900015195
172	1.84710608104051
174	1.83292163937728
176	1.81769552925968
178	1.80142957701543
180	1.78412763245888
182	1.76579561553232
184	1.74644155799056
186	1.726075639795
188	1.70471021989441
190	1.68235986108169
192	1.65904134863085
194	1.63477370243475
196	1.60957818238294
198	1.58347828673932
200	1.55649974330225
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204	1.50002066683268
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208	1.44039055801289
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