

TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
IN SUPPORT OF ITS POST-TRANSITION FACILITY
STATION KFVE-DT (FACILITY ID 34445)
HONOLULU, HAWAII

MARCH 17, 2008

CH 23 5.4 KW (MAX-DA) 446 M

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Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KFVE-DT for its final DTV operation at Honolulu, Hawaii. This application requests a construction permit (CP) for a digital television operation on channel 23, with the same parameters as the recently revised Appendix B allotment, except that a correction to the antenna height above average terrain (HAAT) is being made, as detailed later in this exhibit, in order to comply with FCC rule section 73.313(d)(2)(ii).

Proposed Facilities

Station KFVE-DT proposes to operate DTV channel 23 at the site currently being used under special temporary authority (STA), with a directional antenna maximum effective radiated power (ERP) of 5.4 kilowatts and antenna height above average terrain (HAAT) of 446 meters. The transmitter site coordinates are:

21° 22' 55" North Latitude
158° 06' 19" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. Figure 2 depicts the antenna elevation pattern.

Figure 3 is a map showing the DTV predicted 41 dBu and 48 dBu coverage contours. Since the Appendix B facility is identical to the proposed operation, the Appendix B contour is not shown on the map (or would be identical to the proposed operation. Also, the predicted 41 dBu contour will not extend beyond Appendix B contour at any location (as they are identical). The extent of the proposed contours has been calculated using the normal FCC contour prediction method and the U.S.G.S. 3-second digitized terrain database.

The proposed 48 dBu contour will encompass all of Honolulu. The Honolulu city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

The overall antenna HAAT was determined according to the provisions of Section 73.313(d)(2)(ii) of the FCC Rules. Four of the eight cardinal radials were truncated at water's edge as shown below:

Azimuth	Distance to Water	Average Terrain	HAAT
0	> 16.1 km	502.2	58.6
45	> 16.1 km	215.1	345.7
90	> 16.1 km	32.6	528.2
135	11.0 km	41.4	519.4
180	9.0 km	25.3	535.5
225	4.3 km	18.5	542.3
270	4.4 km	11.3	549.5
315	> 16.1 km	73.0	487.7
Average		114.9	445.9

Population Served

The herein proposed will serve 100% of the Appendix B facility as both are identical.

Allocation Considerations

Since the proposed KFVE-DT operation will not exceed the Commission's *Appendix B* allotment contour, this can be considered a checklist application and no allocation studies are needed.

It is noted that the nearest FCC monitoring station is located at Waipahu, Hawaii, 11 kilometers east of the proposed KFVE site. Coordination with this monitoring station may be required.

Radiofrequency Electromagnetic Field Exposure

The proposed KFVE-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 12.2 meters above ground level with a maximum ERP of 5.4 kW. A conservative relative field value of 0.25 was assumed for the antenna calculation. The calculated power density at a point 2 meters above ground level will be 0.108 mW/cm². This is 31% of the FCC's recommended limit of 0.35 mW/cm² for channel 35 for an "uncontrolled" environment.

The only other known or proposed broadcast operation within 0.5 mile of the proposed site is the STA for KHNL-DT. This KHNL facility provides a worst-case power density level of 42% at 2 meters above ground level. Thus, the combined power density for both operations is 73%, or less than 100 % of the limit for an uncontrolled environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective

clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down. The proposed KFVE-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

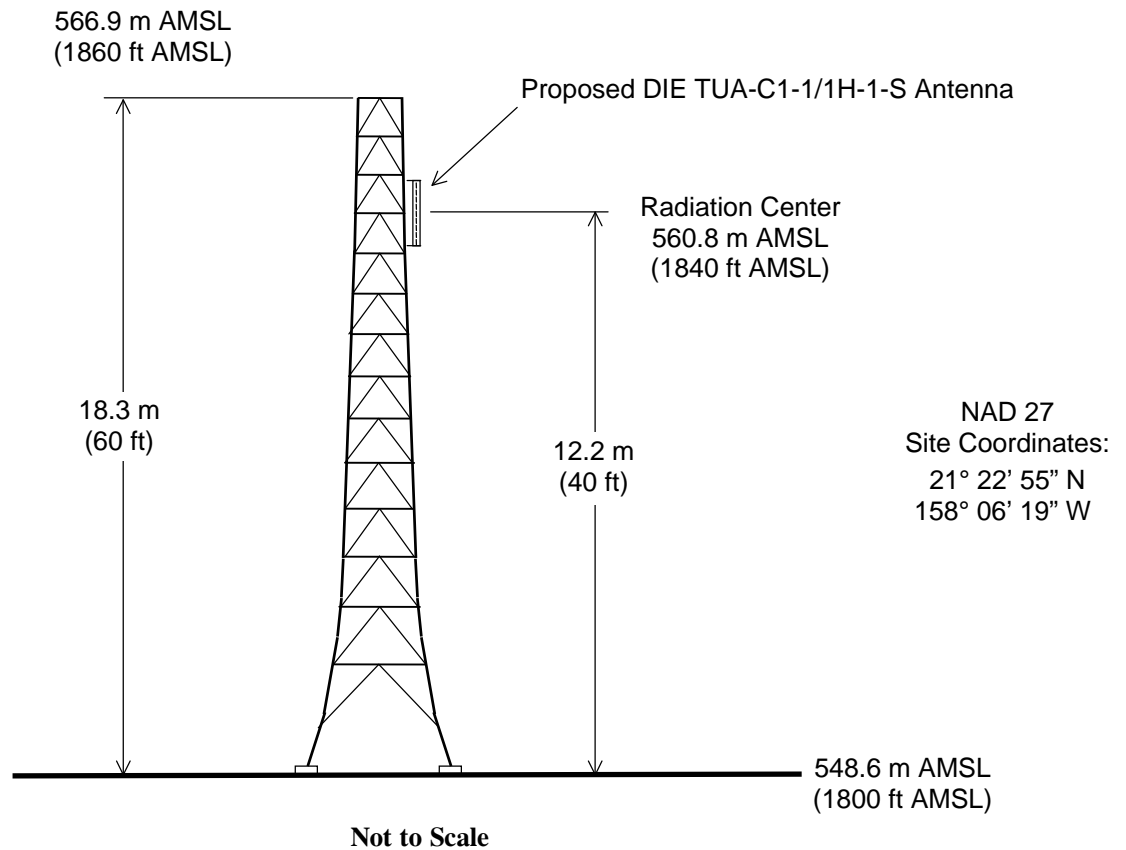


Jonathan N. Edwards

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000
JON@DLR.COM

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Figure 1



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION KFVE-DT

HONOLULU, HAWAII

CH 23 5.4 KW (MAX-DA) 446 M

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



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

01 Jun 2004

KFVE-DT

Honolulu, HI

TUA-C1-1/H-1-S

Revision

Channel 23

Figure 2

AZIMUTH PATTERN

Gain

Calculated / Measured

5.80 (7.63 dB)

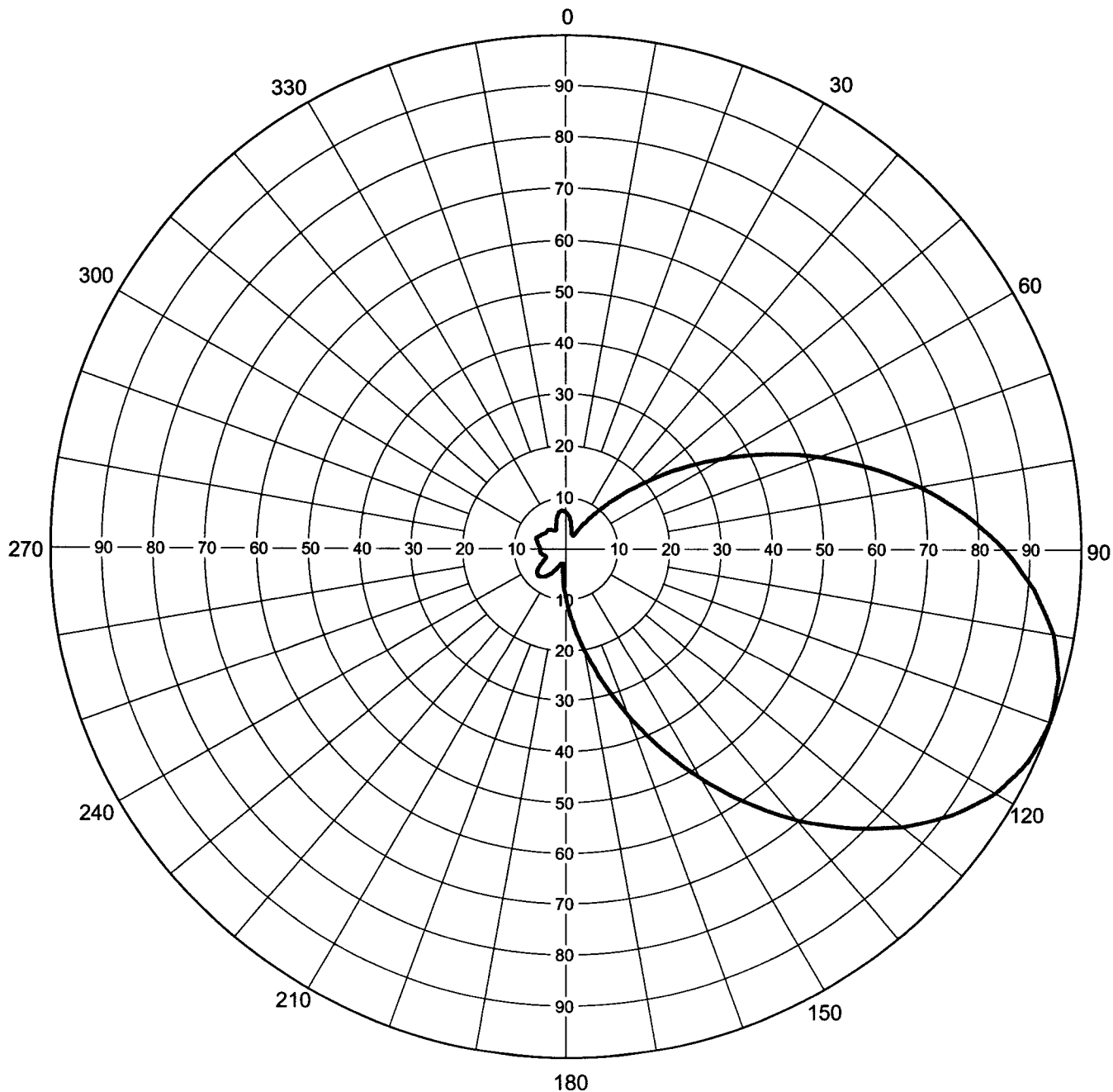
Calculated

Frequency

Drawing #

527 MHz

TUA-C1-5270



Remarks:

Figure 2

Dielectric

Proposal Number

Revision

Date

01 Jun 2004

Call Letters

KFVE-DT

Channel

23

Location

Honolulu, HI

Customer

Antenna Type

TUA-C1-1/1H-1-S

ELEVATION PATTERN

RMS Gain at Main Lobe

2.2 (3.42 dB)

Beam Tilt

0.00 Degrees

RMS Gain at Horizontal

2.2 (3.42 dB)

Frequency

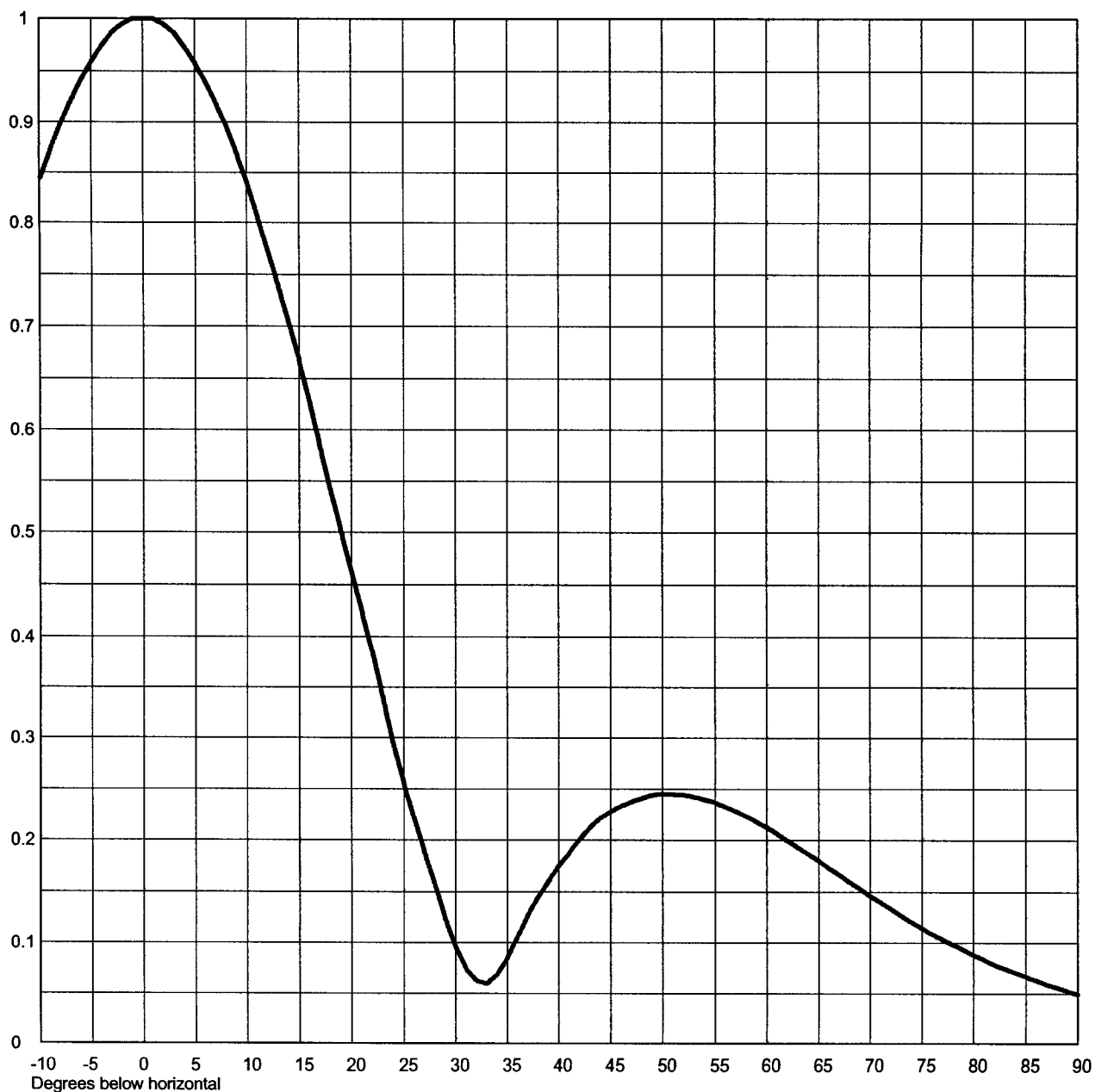
527.00 MHz

Calculated / Measured

Calculated

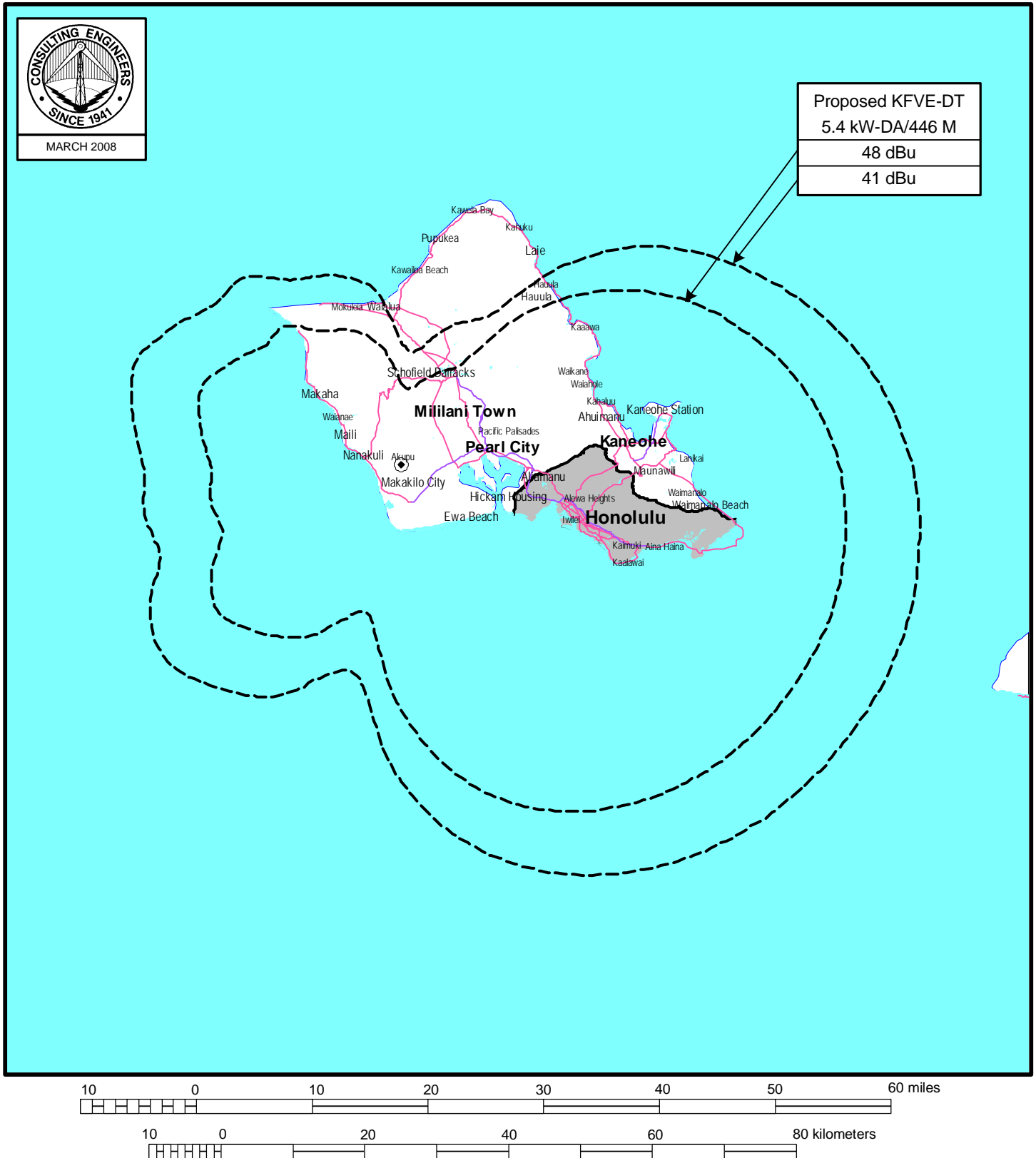
Drawing #

01U022000-5270-90



Remarks:

Figure 3



PREDICTED COVERAGE CONTOURS

STATION KFVE-DT

HONOLULU, HAWAII

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du Treil, Lundin & Rackley, Inc Sarasota, Florida