

City and County of Honolulu • State of Hawaii

October 8, 2004

Carlito Caliboso, Chair
Janet Kawelo, Member
Wayne Kimura, Member
Public Utilities Commission

PUBLIC UTILITIES
COMMISSION

OCT 8 1 52 PM '04

FILED

Dear Mr. Caliboso, Ms. Kawelo, and Mr. Kimura:

SUBJECT: East Oahu Transmission Project (Docket No. 03-0417)

Chair Caliboso and members of the Commission, thank you for the opportunity to testify on this significant concern of our constituency.

We understand that there are many other concerned citizens that have expressed or will be expressing their concerns on various aspects of this proposed project. For the purpose of brevity, we will focus our comments on HECO's recommended routing of its 46kV transmission line as proposed in Phase 1 of this proposed project (installation of a 46kV transmission line between the Makaloa and McCully Substations). We believe that HECO should utilize the route identified as Alternative Alignment 1 in its Draft Environmental Assessment instead of its recommended proposal.

HECO's proposal is that the 46kV transmission line be routed through a largely residential area and alongside Lunalilo School. Due to the potential health risks to children that exposure to electromagnetic fields (EMF) poses, we recommend that HECO utilize the alternative alignment it describes in its Draft Environmental Assessment, (Alternative Alignment 1, Item 3.2.2.1.1, page 3-45-46), as the preferred transmission line alignment. This alternative alignment would route the transmission line primarily along Kapiolani Boulevard, thus avoiding potential exposure by the students and faculty of Lunalilo School to EMFs emitted by the transmission line.

Under HECO's recommended proposal, in certain areas, existing ductlines and conduits will be used for the routing of 46kV transmission line. According to the information provided by HECO, much of this existing ductline is routed under, or very close to, existing residences and Lunalilo School, particularly in the Fern Street area. HECO's recommendation would put the 46kV transmission lines closer to where people live, work, and go to school, thus increasing their exposure to EMFs.

Although no "smoking gun" has been found that directly links EMF exposure to certain diseases, EMF exposure has been linked to the occurrence of childhood leukemia by the National Institute of Environmental Health Sciences (NIEHS). In addition, in a recent risk evaluation conducted by three scientists on behalf of the California Public Utilities Commission, all three scientists were inclined to believe that EMF exposure can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage (Executive Summary, California EMF Risk Evaluation Study 2002).

We understand that HECO's position on EMF exposure is that studies have indicated that there is no conclusive evidence that links power line configurations (wire codes) with illnesses such as childhood leukemia. However, the NIEHS states that, although there is no conclusive evidence linking power line configurations to childhood leukemia, there is an association between measured fields of EMFs and childhood leukemia.

In fact, in a recent meta-analysis of nineteen studies related to residential EMF exposure and childhood leukemia conducted by Daniel Wartenberg, PhD, and funded by the Public Health Institute of the California Department of Health Services and the NIEHS, Dr. Wartenberg determined that it was not uncommon for individual EMF studies to be inconclusive with regard to finding a link between EMF exposure and childhood leukemia. However, his meta-analysis found that when the results of the studies he reviewed are combined, ". . . many people believe there are no data to support an association between residential magnetic field exposure and childhood leukemia. To the contrary, the data strongly and relatively consistently support such an association, although the estimated magnitude of risk is moderate." The meta-analysis goes on to conclude that, "[i]f one chooses to use these summary estimates for interpretation, given the widespread exposure to magnetic fields the suggest perhaps as much as a 15-25% increase in the childhood leukemia rate, which is a large and important public health impact."¹

It can be argued that the findings of this meta-analysis carry more credibility than findings of an individual study in that when utilized properly, meta-analytic tools create a composite estimate with greater statistical power than individual studies.

According to our review of existing research material on this issue, of the forty-four studies conducted across the world on this issue since 1979, ten studies found some association between EMFs and an adverse human health condition. Of those ten, seven found an increased health risk to children.

Exposure to measured fields of EMFs can be likened to the constant adding of additional weight (additional EMF exposure) to a camel's back (human body). At some point, any additional weight (EMF exposure) will cause the camel's back to

¹ Wartenberg D. Residential EMF Exposure and Childhood Leukemia: Meta-Analysis and Population Attributable Risk. Bioelectromagnetics Supplement 5: S86-S104, 2001

break or, in the case of a human, adverse consequences to the person's health and well being. While a certain amount of EMF exposure is unavoidable in our everyday lives (e.g., EMFs emitted from televisions, microwave ovens, etc.), we as a society can do something about lessening the amount of any additional EMF exposures experienced by our citizens. Aligning HECO's 46kV transmission line along HECO's proposed Alternate Alignment 1 would help avoid the unnecessary additional EMF exposure by humans along Fern Street and at Lunalilo School because it would: (1) require HECO to route its power line down the middle of Pumehana Street, rather than close to residences as proposed in HECO's recommendation; and (2) avoid additional EMF exposure to children attending Lunalilo School.

Regardless of findings that power line configurations probably have limited, if any, effect on human health and well being, the fact that another significant emitter of EMFs is being placed in a residential area and next to Lunalilo School only increases the risk of additional long term exposure to EMFs. Studies have indicated that, at certain measured levels, long term exposure to EMFs have been linked to human illness (e.g., chronic lymphocytic leukemia in adults and childhood leukemia).

With this in mind, the most prudent and logical course of action would be to keep large-scale EMF emitters (e.g., 46kV transmission lines) away from schools and residences. Although routing the proposed 46kV transmission line between the Makaloa and McCully Substations would be more cost effective for HECO since it utilizes, to a certain extent, existing ductlines; in the long term, the potential health risk to area residents (since existing ductlines and conduits are so close to residences) and to schoolchildren outweighs HECO's short-term cost savings on this project.

In its Draft Environmental Assessment, HECO states that if the Alternative Alignment 1 is used, additional inconvenience may be encountered by motorists due to the need to excavate sections of Kapiolani Boulevard in order to underground the 46kV transmission line. However, this inconvenience to motorists and immediate area residents could be easily mitigated, and the construction costs to HECO minimized, if HECO collaborated with the Honolulu Board of Water Supply in its existing eighteen-month Kapiolani Boulevard water and sewer line improvement project.

We contacted Clifford S. Jamile, Manager and Chief Engineer of the Honolulu Board of Water Supply, and obtained an outline of their project's scope, timeline (see attached correspondence from Board of Water Supply). According to the Board of Water Supply's project outline, the Board's Kapiolani Boulevard water and sewer line improvement project is anticipated to begin on July 5, 2005, and scheduled to be completed on March 31, 2007.

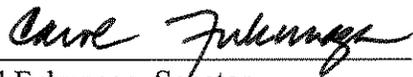
This water and sewer line improvement project tracks along the exact same traffic corridor as HECO's Alternative Alignment 1, with the exception of the diversion up Kaheka Street and onto Makaloa Street on the westernmost section, and the extension from Kalakaua Boulevard and onto Pumehana Street on the southeasternmost boundary of HECO's Alternative Alignment 1. The project timeline of the Board of

Water Supply's project could coincide with HECO's 46kV transmission line installation project. If HECO collaborates with the Board of Water Supply and coordinates the implementation of their respective projects, both entities could realize reduced construction costs and lessen the inconvenience to area residents and motorists.

As such, we believe that by utilizing the Alternative Alignment 1 of HECO's Draft Environmental Assessment HECO has the opportunity to safeguard the health of area residents and Lunalilo School attendees by ensuring that the 46kV transmission line is aligned in a manner that, as much as possible, mitigates the potential adverse effects of EMF exposure. Use of the Alternative Alignment 1 also provides an opportunity for the private (HECO) and public sector (Board of Water Supply) to work together to lessen inconveniences to the public and to reduce costs. Such collaboration would truly be a "win-win" solution to this issue and serve as a model for public/private sector collaboration.

In closing, we ask that the Commission accede to the community's request to require HECO to reroute its proposed installation of a 46kV transmission line between the Makaloa and McCully Substations from its current proposed route to a route that primarily follows Kapiolani Boulevard as described in Alternative Alignment 1 of its Draft Environmental Assessment.

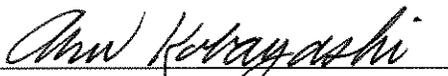
Sincerely,



Carol Fukunaga, Senator
11th District (Makiki-Pawaa-Punchbowl)
Hawaii State Senate



Scott K. Saiki, Representative
22nd District (Moiliili-McCully-Kaimuki)
Hawaii State House of Representatives



Ann Kobayashi, Councilwoman
5th District (Kaimuki-Manoa-McCully-Kakaako)
City Council of the City and County of Honolulu

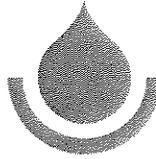
PUBLIC UTILITIES
COMMISSION

OCT 8 1 52 PM '04

FILED

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843



October 1, 2004

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
HERBERT S.K. KAOPIA, SR.
DAROLYN H. LENDIO

RODNEY K. HARAGA, Ex-Officio
LARRY J. LEOPARDI, Ex-Officio

CLIFFORD S. JAMILE
Manager and Chief Engineer

DONNA FAY K. KIYOSAKI
Deputy Manager and Chief Engineer

The Honorable Carol Fukunaga
Senate
State Capitol, Room 216
Honolulu, Hawaii 96813

Dear Senator Fukunaga:

Subject: Your Letter of September 30, 2004 on Timeline for
Kapiolani Boulevard Water Line Project

Our 12-inch water main along Kapiolani Boulevard is to be installed during the same time frame as the rehabilitation of the 36-inch sewer main from Kalakaua Avenue to Ward Avenue. In addition, the 12-inch water main along Atkinson Drive from Kapiolani Boulevard to Ala Moana Boulevard will be replaced, and the 36-inch sewer main along Kamakee Street from Kapiolani Boulevard to Auahi Street will be rehabilitated.

We will solicit bids on the joint project in mid-January 2005 and begin construction in May 2005. The duration of the project is 18 months with a completion of late October 2006. After the installation of the water and sewer mains, Kapiolani Boulevard will be resurfaced under a separate contract.

If you have any questions, please contact Howard Tanaka at 748-5700.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

PUBLIC UTILITIES
COMMISSION

OCT 8 1 52 PM '04

FILED

KAPIOLANI BOULEVARD WATER AND SEWER LINE IMPROVEMENTS

PROJECT SCHEDULE

6-Oct-04

Notes: 1) Tentatively, no construction will be allowed from November 22 to January 3. (Dates to be revised as required.)
 2) Night work will be utilized to the maximum extent possible

Plans and Specifications	October 15, 2004
File Noise Variance	November 1, 2004
Public Relations	
Public Meetings (4 meetings)	December 1, 2004 to March 31, 2007
Business Meetings	
The Bus	
Oahu Transportation Organization	
Waikiki Business Association	
Ala Moana Center	
Hawaii Convention Center	
Hawaiian Groups	
etc....	
Approval by DPP	January 31, 2005
Final Noise Variance Approval	February 15, 2005
Advertise & Bid	February 14, 2005
Bid Opening	March 24, 2005
Complete Contract Execution	May 2, 2005
NTP	May 16, 2005
Start Construction	July 5, 2005
Kapiolani Boulevard from Ward to Kamakee	
Water line Replacement Work	
Kapiolani Boulevard from Kamakee to Kalakaua	
Sewer Rehabilitation Work	
Water line Replacement Work	
Curb Ramp Upgrade (7 Each)	
Kamakee Street from Auahi to Kapiolani	
Sewer Rehabilitation Work	
Atkinson from Kapiolani to Ala Moana	
Water line Replacement Work	
Curb Ramp Upgrade (2 Each)	
Kalakaua Avenue from Ala Wai Bridge to Kapiolani	
Construction Sewer Force Main and Appertenances	
Project completion	March 31, 2007

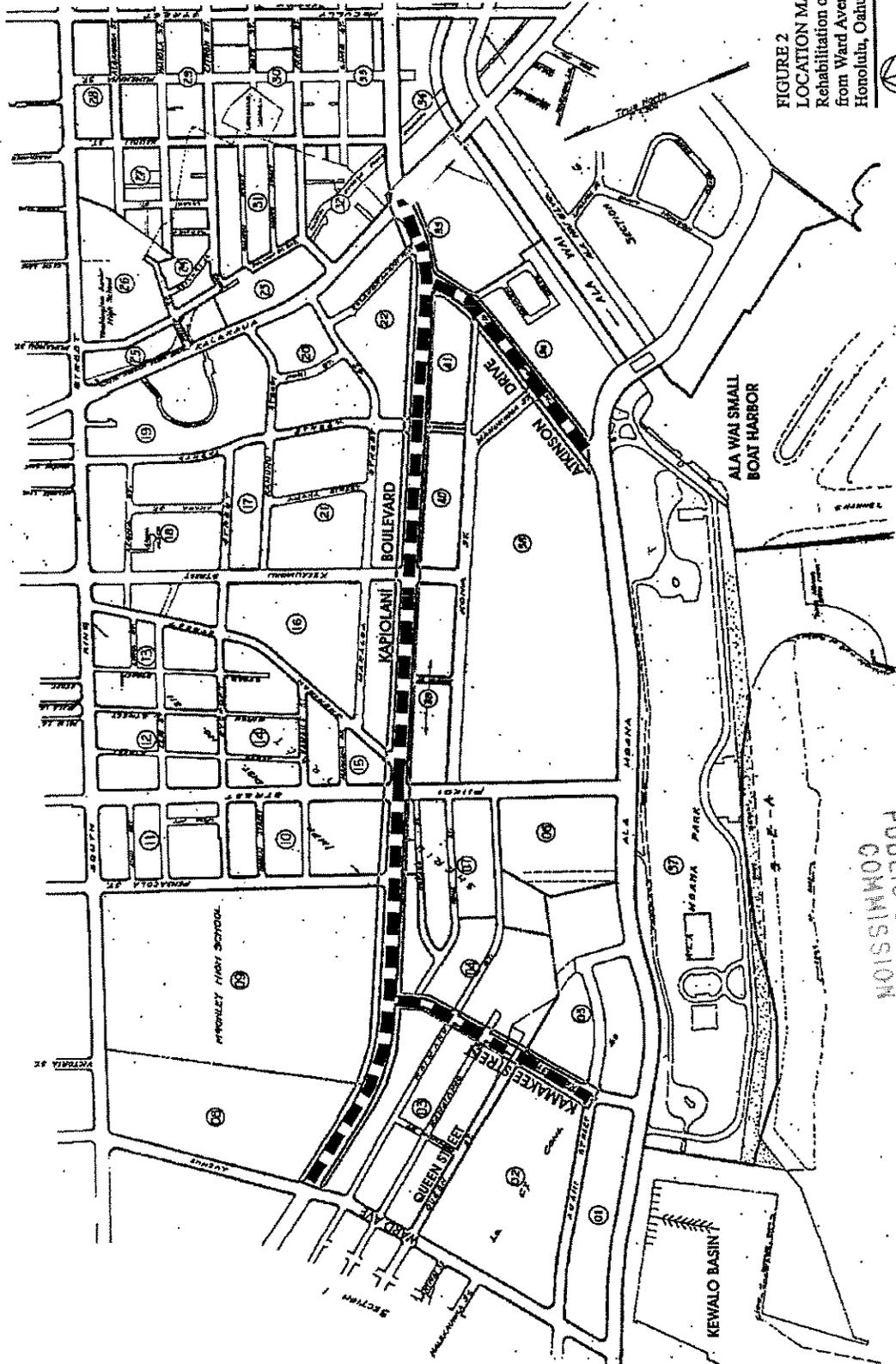


FIGURE 2
 LOCATION MAP - TMK PLATS 1-2-3-XX
 Rehabilitation of Streets, Kapiolani Boulevard
 from Ward Avenue to Kalakaua Avenue
 Honolulu, Oahu, Hawaii



NOT TO SCALE

R. M. TOWELL CORPORATION

April 2003

PUBLIC UTILITIES
 COMMISSION

OCT 8 1 53 PM '04

FILED

- PROJECT LIMITS
- TMK PLAT NUMBER