BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM F. REMULAR
DEPUTY

PB 94-526

May 25, 1994

Dr. Bruce S. Anderson, Interim Director
Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Dr. Anderson:

Subject: Negative Declaration for Honolulu Police Department, Communications System Upgrade Leahi Hospital Communications Site

The Building Department has reviewed the comments received during the 30-day public comment period which began on December 23, 1993. The agency has determined that this project will not have significant environmental effect and has issued a negative declaration. Please publish this notice in the June 8, 1994 OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final environmental assessment.

Should there be any questions, please have your staff call Clifford Morikawa at 527-6350.

Very truly yours,

Herbert K. Muraoka

HERBERT K. MURAOKA
Director and Building Superintendent

Attach.
cc: Schema Systems, Inc.
Lacayo Planning, Inc.
Police Dept.

1994-06-08-DA-FEA - Honolulu Police Department
Leahi Hospital Communications Facility

FINAL
Supplemental Environmental Assessment

Honolulu Police Department
Leahi Hospital Communications Facility

Proposed by:
City and County of Honolulu
Building Department
650 South King Street
Honolulu, Hawaii 96813

Prepared by:
Lacayo Planning, Inc.

In association with:
SCHEMA Systems, Inc.
Leach Mounce Architects

May 1994

Table of Contents

ATTACHMENTS

LEAHI HOSPITAL COMMUNICATIONS FACILITY

TMK:	3-2-031: 001
AREA OF SITE: Area of Use:	6.662 acres 675 sf
LANDOWNER:	State of Hawaii
NEAREST TOWN/LANDMARK: Distance from Site:	Kaimuki neighborhood 100 feet
EXISTING USE:	Hospital
STATE LAND USE DISTRICT:	Urban
COUNTY DEVELOPMENT PLAN AREA: Land Use Designation: Public Facilities Designation:	Primary Urban Center Public and Quasi-Public Hospital/Modification
ZONING:	R-5 Residential
SPECIAL DISTRICT:	Diamond Head Special District

1. INTRODUCTION AND BACKGROUND

The City and County of Honolulu is proposing to upgrade its existing public safety telecommunications system. The new upgraded system, would be supported by facilities at 26 sites on the island of Oahu, 22 of which are existing sites. The project is being funded jointly by the City and County of Honolulu and the State of Hawaii.

Compliance with Hawaii Environmental Impact Statement Law

An Environmental Assessment (EA) was prepared in accordance with Chapter 343, Hawaii Revised Statutes, Environmental Impact Statements (EIS), and Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules. The notice of availability of the Draft EA was published in the ***OEQC Bulletin*** by the Office of Environmental Quality Control on September 8, 1992 and September 23, 1992. The Final EA/Negative Declaration was subsequently published in the December 23, 1992 and January 8, 1993 issues of the ***OEQC Bulletin***. Copies of both the Draft EA and Final EA/NegDec were distributed to interested public agencies and community organizations. In addition, representatives from the Building Department consulted with a number of these agencies and organizations. Various changes were made to the Draft EA as a result of these consultations and were indicated in the Final EA. One of these changes involved relocating the existing Diamond Head Communications Facility.

Diamond Head Communications Facility

Due to age, type of construction, insufficient height, and lack of adequate surface mounting space, the antenna poles at the City and County's existing Diamond Head radio facility require replacement. In 1992, however, the Hawaii State Legislature passed Act 313,

expanding the boundaries of the Diamond Head State Monument to include the entire crater, its interior slopes and all state lands along the exterior slopes extending to Diamond Head Road. The Act also requires compliance with the Diamond Head State Monument Plan of 1979, which calls for reforestation of the crater slopes and phasing out of all facilities not related to park use. Act 313 restricts expansion of buildings and other structures and construction activity within the boundaries of the Diamond Head State Monument unless consistent with park use according to the Plan.

As a result, and following consultation with the Diamond Head Neighborhood Board and the Department of Land and Natural Resources, the City and County decided to explore alternative sites to its Diamond Head facility. The new location would largely depend on its ability to relay signals between the Makiki Round Top and Koko Head sites and satisfactory two-way radio coverage for the Kaimuki-Palolo-Waialae area. As a result of follow-up studies conducted during 1993, the City and County is proposing to relocate the Diamond Head facility to the rooftop of Leahi Hospital in Kaimuki.

Supplemental Environmental Assessment

This report is intended to supplement the Final EA, dated December 1992. (A description of the islandwide system is provided in Attachment A. For additional information on the other 25 sites, refer to the Final EA.) The Draft Supplemental EA was distributed for comments and a notice of its availability was published in the OEQC Bulletin on December 23, 1993 and January 8, 1994. The various changes made to the Draft Supplemental EA as a result of these comments are indicated in this Final Supplemental as underlined text. A list of consulted parties and copies of the correspondence are presented in Attachment B.

2. SITE LOCATION AND EXISTING USES

The City and County is proposing to replace the existing communications facility, located on the southeast portion of Diamond Head Crater, with a new facility on the roof of Leahi Hospital in Kaimuki (See Location Plan and Site Plan). A portion of the roof is currently used by the Protective Services and State Law Enforcement Office to house two state VHF radio stations. These units are installed in a different equipment room and will not be part of the new City and County radio equipment facility (See Site Profile Plan and Roof Plan). Surrounding uses include the Diamond Head Health Center, Kapiolani Community College, Fort Ruger Theater, Kapaolono Park and private residences. To be used by several public safety agencies, this new facility will be a backbone link to the Koko Head and Makiki Round Top sites.

3. DESCRIPTION OF PROPOSED RADIO SYSTEM AT LEAHI HOSPITAL

Relocated City VHF (150-160 MHz) Two-Way Radio System

The City intends to operate radio equipment on the 150-160 MHz and 800 MHz bands at Leahi Hospital. The City proposes to relocate its existing VHF two-way radio equipment from Diamond Head to Leahi Hospital. This equipment consist of two (2) police department radios and three (3) fire department radios and corresponding antennas.

Once the new 800 MHz system is in operation, the police department will decommission its VHF system and remove the radio equipment and associated antennae from Leahi Hospital. The fire department's VHF equipment, however, will be retained at the Leahi Hospital site for a longer period of time until the department can budget for a changeout to the 800 MHz system. Once the department acquires the necessary funds, its VHF equipment will

also be removed. Further, it is the intent of the City & County to ultimately change all radio users to the 800 MHz system. While this may take a few years, as budgets permit, various departments will move to the new system, and decommission their radio equipment and remove it and the associated antennae. This will ultimately reduce the number of radio units and antennae at the hospital, with only the 800 MHz system retained.

State of Hawaii Two-way Radio Equipment at Leahi Hospital

The State of Hawaii, Emergency Medical Services (EMS) currently operates two UHF stations at the City's Diamond Head radio facility. The state proposes to move this equipment to Leahi Hospital concurrent with the City's equipment relocation. The equipment will be installed in the City's new radio room. As noted previously, the two existing state VHF radio stations that are already installed on top of the hospital are used by the Protective Services and State Law Enforcement Office. These units are installed in a different equipment room and will not be part of the new City radio equipment facility.

New 800 MHz Radio Equipment

The 800 MHz radio stations will be installed on top of the hospital, in an old but refurbished mechanical room. The 800 MHz antennae are to be mounted on a new mast, which will be attached to the side of the mechanical room. To provide adequate radio coverage, the radio equipment will be mounted in a secure area and the antennae mounted at significant heights above ground. As such, neither the stations nor the antennas will be accessible to the general public.

The Leahi 800 Mhz system will consist of twelve (12) stations. Eight (8) stations will operate in the simulcast mode (transmitting the same information simultaneously with radio sites at Round Top, Aliamanu and Puu Manawahua). The four (4) remaining stations will operate in a zone mode transmitting information meant just for the local area served by Leahi Hospital radio facility.

To reduce the number of antennae, the 800 MHz radio stations will operate with transmitter combiners (combining multiple transmitters into a common antenna) and receiver multicouplers (combining multiple receivers into a common antenna). Using a lesser number of antennae reduces the visual impact.

The 800 MHz equipment is to be installed permanently.

4. PROPOSED IMPROVEMENTS

Improvements proposed for this facility include attaching two six-ft diameter dishes and one 21-ft tall mast onto an existing, unused equipment room, located on the fourth floor roof of the building. Four 10-ft long 800 MHz vertical antennas will be attached to the mast. In addition, up to five 21-ft long VHF vertical antennas and one 10-ft UHF antenna will be attached along the Diamond Head side of the equipment room. (See Site Profile Plan and Equipment Room Profile Plan. The Site Profile Plan illustrates the proposed improvements relative to existing structures. Refer to Equipment Room Profile Plan for accurate representation of antenna and dish placements and orientation.)

In order to assemble and service the new facility, two ramps and a landing will be constructed along the Diamond Head side of the building. The ramps will total approximately 37 feet (one ramp will measure 20 feet long; the other will be 17 feet long) and will rest above an existing cantilevered sun shade. In addition, a new guardrail will be

constructed along the ramp and landing, and will be designed compatible with the railing that currently exists in that area of the building. (See Area Plan.)

The construction cost for the proposed improvements is estimated at $101,050.

5. AFFECTED ENVIRONMENT

Physical Environment

The proposed facility will be located within a hospital complex on top of a five-floor building. No threatened or endangered flora or fauna exist in the area. The improvements proposed for the facility will not require any ground disturbance and will not result in any negative impacts to the area's physical environment.

Access to the site is from Makapuu Avenue. Although periodic maintenance and servicing will be required at the facility, such services will have minimal impact on current traffic levels. Existing roads and rights-of-way will be adequate to accommodate any access required to the site.

Scenic Views

Sited on top of the Control Building, the vertical antennas will rise to a height of about 80 feet from ground level. The new antennae will be visible from very few public vantage points. It will be readily visible only in the immediate vicinity of Leahi Hospital; namely, at the intersection of Makapuu Avenue and Kilauea Avenue, within a portion of the parking lot at the mauka-ewa corner of the Kapiolani Community College campus, and within the unpaved parking lot on the makai side of the hospital. Beyond this immediate area, views of the antennae will be obscured by existing buildings and trees.

The only public area from which it will be possible to see the antennae and Diamond Head simultaneously is at the high and distant vantage point of the Kaimuki Reservoir Park. At this point, the antennae will be barely visible, sitting well below the profile of Diamond Head. At no point will the antennae detract from any of the significant views of Diamond Head that are described in the Diamond Head Special District provisions.

Radio Frequency (RF) Radiation

(The following section was moved from Attachment A of the Draft Supplemental)

Within the last several decades, the proliferation of radio frequency (RF) emitters in the environment has spurred extensive and ongoing research efforts to investigate the biological and public health effects of low-level non-ionizing radiation. In addition to increases in radio and television broadcast stations and in police and other public agency radio systems, there has been substantial growth in private sector development and use of land mobile radio systems. These include fast-growing new technologies, such as cellular telephone.

It should be emphasized that environmental levels of RF radiation routinely encountered by the public are well below hazardous levels. The U.S. Environmental Protection Agency has estimated that 98-99 percent of the population in seven U.S. urban areas studied is exposed to less than 0.001 milliwatts per centimeter squared (mW/cm^2).[1]

---

[1] Athey, et. al., "Radio Frequency Radiations Levels and Population Exposure in Urban Areas of the Eastern United States", Technical Report EPA-520/2077-008, 1978.

By far the greatest amounts of RF radiation affecting populated areas are emitted by the more than 11,000 AM, FM, and TV stations operating in the United States today. These stations broadcast on various RF frequencies, ranging from 550-1,600 kilohertz (kHz) for AM, 88-106 megahertz (MHz) for FM, and 56-800 MHz for VHF and UHF television stations. In contrast to two-way radio systems which broadcast intermittently, broadcast stations operate at much higher magnitudes of radiated power, and they typically broadcast *continuously* up to 24 hours per day. Radiated power, including antenna gain, from these stations can range from a several hundred watts upwards to several thousand watts.

RF Radiation Exposure Guidelines

In the United States, there is presently no mandatory federal standard for protection of the public or workers from potentially hazardous exposure to RF radiation. Nonetheless, several *federal agencies and non-government organizations have adopted general guidelines. The* Occupational Safety and Health Administration (OSHA) generated a guideline for workers in 1971, but it was later ruled to be advisory only. The National Institute for Occupational Safety and Health (NIOSH) has been working on a recommended worker standard for some time. However, there is no evidence that NIOSH will issue a recommendation in the near future.

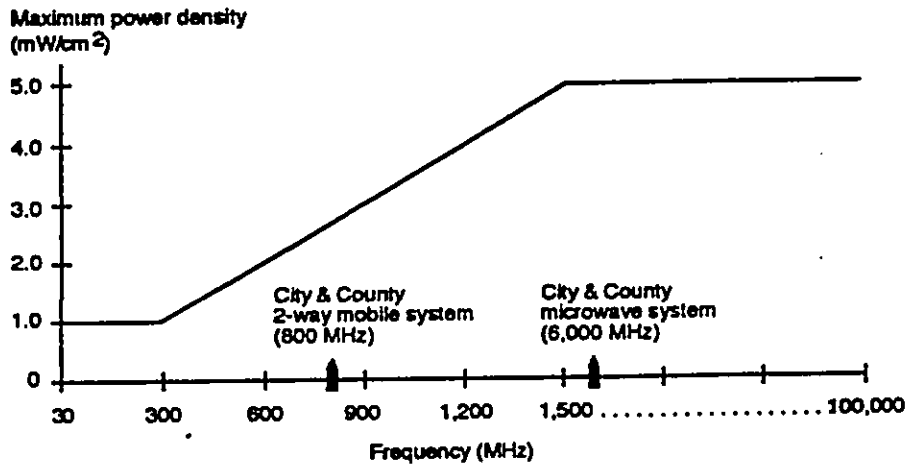
The Center for Devices and Radiological Health (CDRH), a part of the U. S. Food and Drug Administration, has regulated radiation from microwave ovens since 1971. CDRH has established a radiation performance standard for microwave ovens that allows leakage (measured at five centimeters from the oven surface) of 1.0 mW/cm^2 at the time of manufacture and a maximum level of 5.0 mW/cm^2 during the lifetime of the oven.

By far the most widely-used guideline is that issued by the American National Standards Institute (ANSI), a non-profit organization that develops recommended standards for a variety of applications. In 1982, ANSI issued revised RF protection standards (C-95.1, 1982) which were based on data regarding the interaction of RF radiation with the human body.

The standards are intended to apply to non-occupational as well as to occupational exposures. Compliance with the ANSI standards is voluntary but they are widely used by federal, state, and local authorities. The FCC uses the 1982 ANSI standards for purposes of evaluating the environmental impacts of the RF transmitters it regulates.

The 1982 ANSI standard shows that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits apply to the frequency range of 30-300 MHz, where a maximum level of 1 milliwatt (mW) per centimeter squared (cm^2), as averaged over any six-minute period of exposure, is recommended. At frequencies between 300-1,500 MHz, the levels are calculated by dividing the frequency by a factor of 300 (freq/300). Thus, the levels range from 2.6 mW/cm^2 at 800 MHz to 3.0 mW/cm^2 at 900 MHz. Frequencies between 1,500-100,000 have a maximum power density of 5.0 mW/cm^2 (see figure below).

1982 ANSI Exposure Standards and City & County Proposed Frequencies



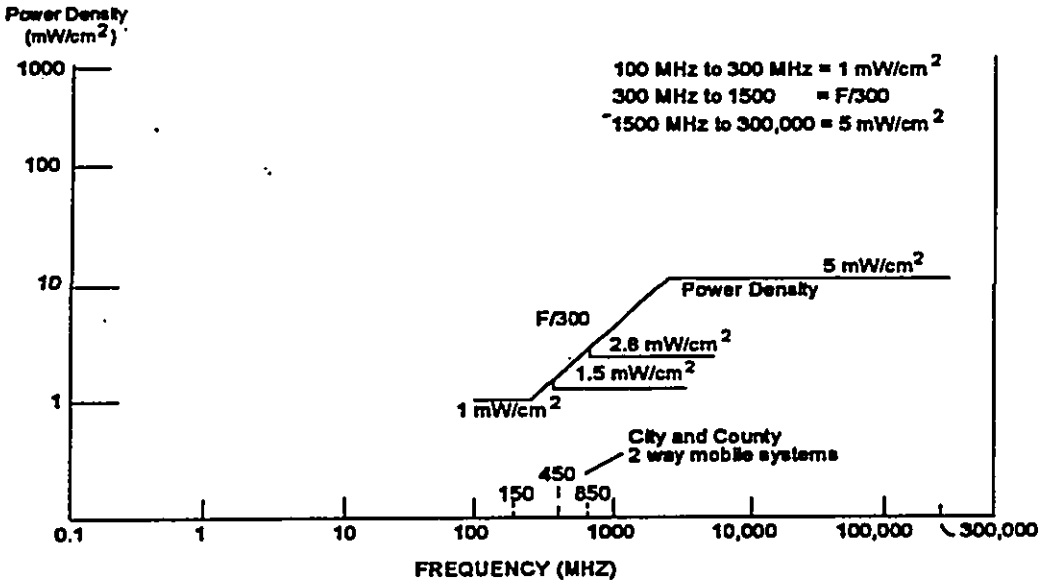
ANSI has been in the process of revising its 1982 standard and in late 1993, it adopted a revised standard C-95-1, 1992). The new standard has not yet been adopted industry-wide but there is every evidence that the FCC and other agencies will soon consider it as the official guideline.

The new guide differentiates between occupational standards for workers or technicians (controlled environment) and the general public (uncontrolled environment). There is essentially no change from 1982 guidelines for occupation or controlled environment, which are based on a six minute exposure. However, the guidelines for general public or uncontrolled environment is more stringent but covers a 30 minute exposure.

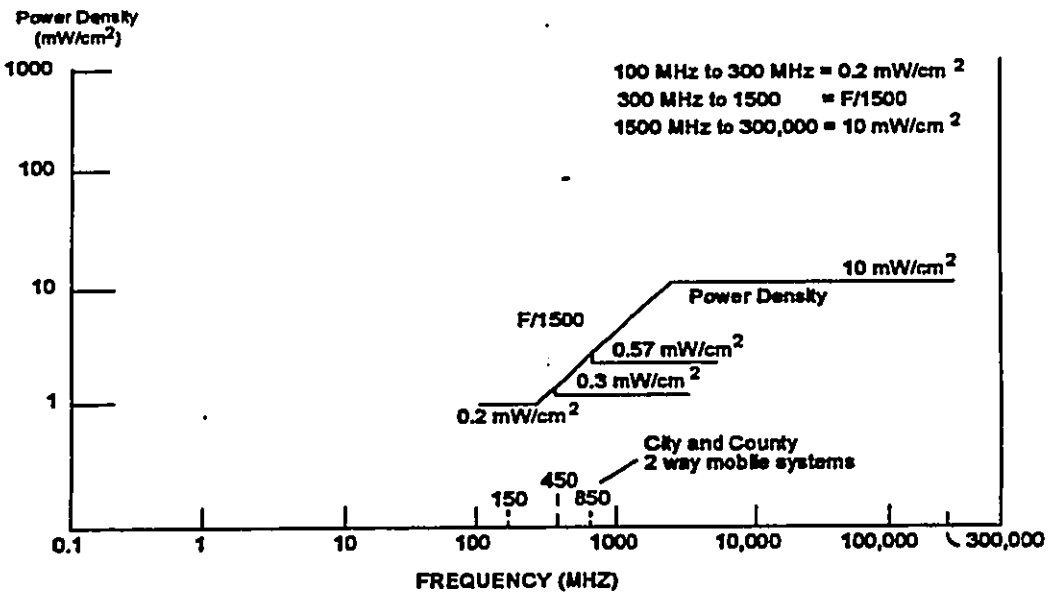
It should be noted that compliance with the ANSI standards is voluntary. Nonetheless, they are widely used for Federal, State, and Local authorities. At the present time, the FCC uses the 1982 ANSI guidelines but it is in the process of adopting the 1992 guidelines for purposes of evaluating environmental impact from the RF transmitters it regulates and licenses.

The details of the 1992 ANSI standard is very complicated and too complex for this report. However, the basic exposure limits, as they apply to the city and state transmitting equipment and frequencies are used in this report.

1992 ANSI Exposure Standards and City & County Proposed Frequencies
Graphical Representation of Maximum Permissible Exposure
CONTROLLED ENVIRONMENT – 6 MINUTE EXPOSURE
Showing 100 MHz to 300,000 MHz



1992 ANSI Exposure Standards and City & County Proposed Frequencies
Graphical Representation of Maximum Permissible Exposure
UNCONTROLLED ENVIRONMENT – 30 MINUTE EXPOSURE
Showing 100 MHz to 300,000 MHz



The reader should understand that the City's stations *will not transmit continuously but will transmit intermittently and only when needed to carry public safety related communications.*

The antennae installed for the city and state systems at Leahi Hospital are to be mounted well above ground level and away from the general public. These are vertical antennae that are designed to convey the signals outward along the horizontal plane in a 360 degree direction, similar to a doughnut pattern, with very little signal radiating from the "hole in the doughnut" directly above or below the vertical antenna. For reference, a copy of typical vertical antenna patterns for the three bands involved is attached to this report.

By observing the attached antenna patterns, it should be noted that there is a decrease in radiated power in the null areas above and below the vertical antennas that ranges from a -6 decibels (dB) to -10 dB, depending on the frequency band. This results in a power *reduction of four (-6 dB) to ten (-10 db) times less than in the main horizonal lobe.* As an example, a fourfold decrease at 200 watts ERP of the main lobe of the antenna would result in a 50 watt level in the null area and a tenfold decrease would result in 20 watts.

Further, there is also a shielding effect or loss factor on radio energy when passing through concrete that should be taken into consideration. There are 4-inches of poured concrete on the roof and each floor of the hospital. The loss factor through 4-inches of concrete averaged over the three bands involved ranges from 3 to 6 dB. Using the lower of 3 dB, the energy after passing through the concrete would be reduced by one-half. In other words, 200 watts would be reduced to 100 watts.

The combined loss in radio energy (from both the antenna null and loss through concrete) should be considered when evaluating the levels within the hospital. Using an average RF level reduction of -10 dB (-6 dB null and -4 dB concrete), a 200 watt antenna ERP in the main lobe would be reduced to approximately 20 watts. In order to demonstrate that safe distances exist and MPE levels are not exceeded for each band of frequencies to be used, the -10 dB or tenfold average loss factor described above is used in the calculations shown below.

Hospital construction plans show that the nearest uncontrolled environment (for personnel) will be in excess of 20 feet from the antennas and shielded by the concrete roof. Thus, all the calculations for exposure levels uses the loss factor of 10 to determine if levels within the hospital at a distance of 20 feet or beyond is at or below the 1992 ANSI standards.

150 MHz VHF Radio System

The ERP from the antenna for each of the City's VHF transmitters will be approximately 175 watts. It should be noted that Leahi Hospital will be a backup site for the City's primary sites at Round Top and Koko Head. The stations will be used intermittently when Round Top or Koko Head radio facilities are off the air or when they do not provide satisfactory radio coverage into specific areas. Both the police and fire departments estimate a 25 percent usage of the VHF transmitters at Leahi Hospital.

The two State VHF radios have been in operation for quite some time and the ERP for each station is calculated to be roughly 175 watts. The duty cycle or percentage of use is unavailable. Furthermore, in recent months their use may have diminished considerably since some of the users on the two channels have moved to 800 MHz systems using radio sites located elsewhere.

The intensity of the radiation depends on the source, the distance from the source, and the radiation pattern. Given the source level and any given distance, the field intensity can be calculated fairly accurately, usually in fractions of a watt (milliwatts or microwatts) that pass through the standard unit area of one square centimeter.

Radiated RF energy from a given source decreases rapidly as distance is increased. In fact, the level decreases according to the inverse square law—i.e., it is inversely proportional to the square of the distance. Simply stated, as the distance doubles, the level of radiation decreases by a factor of four.

RF Exposure to City Microwave System

The microwave antennae used in the City & County's system operate in the 6 Ghz (gigahertz) band and have a highly directional beam for point-to-point communications. They are generally tower mounted and range in height from 30- to 200-feet above ground level. Depending on the transmitter power output (0.5 watts to 1.0 watts), branching losses, transmission line losses, and size (diameter) and gain of antenna, the ERP from the antenna in the focused beam can range from five hundred to six or seven thousand watts.

Because of their highly direction beam and usual height above ground, power densities at ground level from the microwave antennas are markedly below the ANSI guidelines. An individual would have to stand *directly in front of the antenna for a significant period of time* in order to be exposed to a radiation level that might be considered harmful. This is generally not possible due to the height of the antenna above ground.

As an example, using the 1992 ANSI guideline of 10.0 mW/cm^2 for 6 gHz (from the chart, 1,500-300,000 MHz) and using a six foot dish with an approximate ERP of 7000 watts, the location of maximum power density in the focal plan of the antenna is calculated as follows[2]:

Location of Max Power Density	Calculated Level
45-feet in front of antenna	0.1849 mW/cm^2

These calculations indicate that the exposure levels to City microwave at 45-feet are well below the ANSI standard of 10.0 mW/cm^2. Beyond that distance, the level would continue to decrease significantly.

RF Exposure to City Two-Way Radio Transmitters

The safe distances for a the Maximum Permissible Exposure (MPE) contained in this report are based on the more stringent 1992 ANSI exposure levels for each band of frequencies to be used at Leahi Hospital. The primary concern of the hospital is that the MPE levels for uncontrolled environment for the general public, as outlined in the 1992 ANSI standard, are not exceeded for personnel and patients. Thus, this report deals with the more stringent levels for the uncontrolled environment. The ANSI recommended MPE for each of the frequency bands are:

Band	MPE Uncontrolled Environment
150-160 MHz	0.20 mW/cm^2
450-460 MHz	0.30 mW/cm^2
800 MHz	0.57 mW/cm^2

---

2 Reference Source: Bickmore and Hansen, "Antenna Power Densities in the Fresnel Region", Proceedings of the IRE, page 2119, December 1959

The reader should understand that the City's stations *will not transmit continuously but will transmit intermittently and only when needed to carry public safety related communications.*

The antennae installed for the city and state systems at Leahi Hospital are to be mounted well above ground level and away from the general public. These are vertical antennae that are designed to convey the signals outward along the horizontal plane in a 360 degree direction, similar to a doughnut pattern, with very little signal radiating from the "hole in the doughnut" directly above or below the vertical antenna. For reference, a copy of typical vertical antenna patterns for the three bands involved is attached to this report.

By observing the attached antenna patterns, it should be noted that there is a decrease in radiated power in the null areas above and below the vertical antennas that ranges from a -6 decibels (dB) to -10 dB, depending on the frequency band. This results in a power reduction of four (-6 dB) to ten (-10 db) times less than in the main horizonal lobe. As an example, a fourfold decrease at 200 watts ERP of the main lobe of the antenna would result in a 50 watt level in the null area and a tenfold decrease would result in 20 watts.

Further, there is also a shielding effect or loss factor on radio energy when passing through concrete that should be taken into consideration. There are 4-inches of poured concrete on the roof and each floor of the hospital. The loss factor through 4-inches of concrete averaged over the three bands involved ranges from 3 to 6 dB. Using the lower of 3 dB, the energy after passing through the concrete would be reduced by one-half. In other words, 200 watts would be reduced to 100 watts.

The combined loss in radio energy (from both the antenna null and loss through concrete) should be considered when evaluating the levels within the hospital. Using an average RF level reduction of -10 dB (-6 dB null and -4 dB concrete), a 200 watt antenna ERP in the main lobe would be reduced to approximately 20 watts. In order to demonstrate that safe distances exist and MPE levels are not exceeded for each band of frequencies to be used, the -10 dB or tenfold average loss factor described above is used in the calculations shown below.

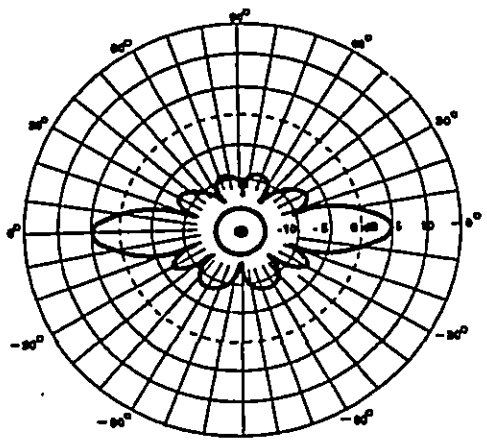
Hospital construction plans show that the nearest uncontrolled environment (for personnel) will be in excess of 20 feet from the antennas and shielded by the concrete roof. Thus, all the calculations for exposure levels uses the loss factor of 10 to determine if levels within the hospital at a distance of 20 feet or beyond is at or below the 1992 ANSI standards.

150 MHz VHF Radio System

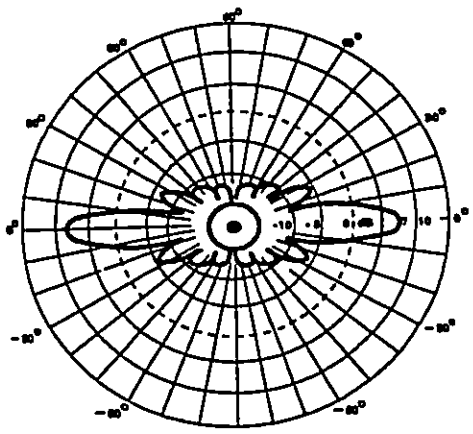
The ERP from the antenna for each of the City's VHF transmitters will be approximately 175 watts. It should be noted that Leahi Hospital will be a backup site for the City's primary sites at Round Top and Koko Head. The stations will be used intermittently when Round Top or Koko Head radio facilities are off the air or when they do not provide satisfactory radio coverage into specific areas. Both the police and fire departments estimate a 25 percent usage of the VHF transmitters at Leahi Hospital.

The two State VHF radios have been in operation for quite some time and the ERP for each station is calculated to be roughly 175 watts. The duty cycle or percentage of use is unavailable. Furthermore, in recent months their use may have diminished considerably since some of the users on the two channels have moved to 800 MHz systems using radio sites located elsewhere.

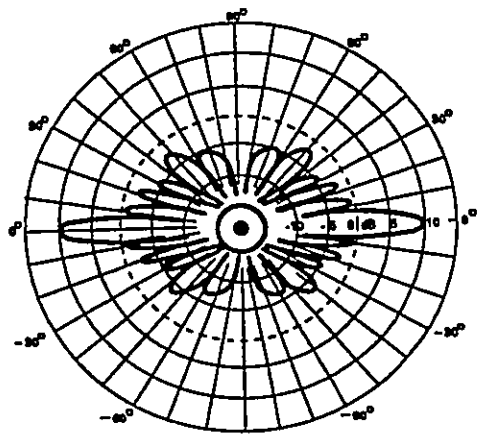
Typical Vertical Antenna Patterns



VHF 5.0 DB GAIN ANTENNA
TYPICAL VERTICAL RADIATION PATTERN



UHF 7.5 DB GAIN ANTENNA
TYPICAL VERTICAL RADIATION PATTERN



800 MHZ 10.0 DB GAIN ANTENNA
TYPICAL VERTICAL RADIATION PATTERN

Since Leahi Hospital is mostly a backup site for the City's Round Top and Koko Head facilities, it is unlikely that all five of its VHF transmitters and the two State VHF transmitters would be on the air at the same time. However, taking a worse case situation, if all seven transmitters (5 City and 2 State) were transmitting simultaneously, the combined ERP would be 1225 watts.

Using the loss factor of 10, the reduced power level would be 122.5 watts. At this power, the exposure level shown below is less than the 0.2 mW/cm^2 ANSI standard for 150 MHz:

0.1050 mW/cm^2

It assumed that for practical purposes the VHF transmitters will have a 25 percent use factor. Thus, the ERP will be approximately one-quarter, or 306 watts, of the total of 1225 watts averaged over the peak hour period. The tenfold average loss factor on the 306 watts results in 30.6 watts. The exposure level for this power level is below the ANSI standard as shown:

0.0262 mW/cm^2

450 MHz UHF Radio System

The ERP of the EMS UHF transmitters is calculated at 175 watts each. Due to the configuration of the EMS radio system and the mode of operation, it is unlikely that both stations would be on the air simultaneously. Like the City's police and fire radio system, the current EMS equipment at Diamond Head is used intermittently to provide coverage in areas on those rare occasions when EMS signals to and from Round Top or Koko Head radio facilities are deficient.

If the two State UHF EMS transmitters were on the air simultaneously, the combined ERP would be 350 watts. Using the average loss factor of 10 results in 35 watts. The exposure level at this power falls well below the ANSI standard of 0.3 mW/cm^2 for 450 MHz:

0.0300 mW/cm^2

It also assumed that the UHF transmitters will have a 25 percent use factor. At this duty cycle, the ERP will be about one-quarter of the total of 350 watts, or 87.5 watts, averaged over the peak hour period. The tenfold average loss factor reduces the power to 8.75 watts. At this power level, the exposure level is far below the ANSI standard:

0.0075 mW/cm^2

800 MHz Radio System

The 800 MHz stations at Leahi Hospital will operate with an average effective radiated power (ERP) of 100 watts. Radio traffic analyses indicate that peak hour transmissions on the simulcast system may require up to an average of up to 4.5 transmitters on the air at the same time or 450 watts. The same peak hour study for the zone stations indicate that an average of 1.6 transmitters would be on the air simultaneously equating to 160 watts.

Thus, the combined average ERP for the peak hour for both the simulcast and zone transmitters would be 610 watts (450 watts plus 160 watts). A tenfold loss factor on 610 watts results in 61 watts. The exposure level for this power is significantly below the ANSI standard of 0.57 mW/cm^2 for 850 MHz:

0.0523 mW/cm^2

CITY & COUNTY OF HONOLULU	
3 LEAHI HOSPITAL (DIAMOND HEAD REPLACEMENT)	
Location Map	1" = 2000 ft.

The average use for non-peak hours for both the simulcast and zone systems could run about 25 percent or less resulting in about 305 watts or less average ERP. A loss factor of 10 for the 305 watts is 30.5 watts. The exposure level is considerably less than the ANSI standard as shown below:

$0.0262\ mW/cm^2$

It should be noted that none of the 800 MHz utilization rates discussed above will not occur until the City's police VHF transmitters are fully decommissioned. Further, it is unlikely that all twelve of 800 MHz transmitters would be on the air simultaneously. However, should this occur, the combined ERP would be 1200 watts. A tenfold loss factor for 1200 watts results in 120 watts. The exposure level for this power is well under the ANSI standard:

$0.1029\ mW/cm^2$

Total Combined ERP All Transmitters

The impact of the safe distance varies for each of the radio bands. However, for the purposes of this report, the worst case situation is assumed wherein the combined average peak hour ERP of all transmitters is 977 watts. Using the more stringent 800 MHz standard for the uncontrolled environment and the tenfold loss factor on 977 watts, the reduced power level is 97.7 watts. With this power level, the exposure level shown below is significantly below the ANSI standard:

$0.0838\ mW/cm^2$

5. SUMMARY OF IMPACTS AND MITIGATIVE MEASURES

Viewplanes

Sited on top of the Control Building, the new antennae will be visible from very few public vantage points, and at no point will the antennae detract from any of the significant views of Diamond Head.

To minimize any visual impact, the ramps and antenna masts will be painted to blend with the building.

RF Radiation

All City & County and State government agencies do, and will continue to operate its systems according to all rules, regulations, frequencies and transmitter power levels allowed by all Federal Communications Commission licenses issued to the City & County of Honolulu or the State of Hawaii.

The RF energy from the proposed antennae decreases according to the inverse square law – i.e., it is inversely proportional to the square of the distance, that is, as the distance is doubled, the RF energy decreases by a factor of four. Thus, as distances for the levels shown in this report are increased, the RF energy will fall off significantly and result in considerably lower exposure rates.

Through the calculations included in this report, the City & County of Honolulu has demonstrated that sufficient distances and shielding exist between the antennae and the personnel and patients at Leahi Hospital to maintain an MPE well below the minimums in the 1992 ANSI standards.

6. LAND USE APPROVALS REQUIRED

Diamond Head Special District Permit Application
The facility is located within the Diamond Head Special District, although it is outside the core area. The proposed improvements, consist of minor repairs and additions that will not adversely change the character or appearance of the structure, and therefore, are exempt from Special District Permit requirements.

7. DETERMINATION

The proposed Leahi Hospital Communications Facility project is not anticipated to cause significant negative impacts to the environment. It has therefore, been determined that a negative declaration will be issued.

8 FINDINGS AND REASONS SUPPORTING DETERMINATION

The following findings are based on the information provided above:

a. The proposed project will not involve an irrevocable commitment to loss or destruction to any natural or cultural resources;

b. The proposed project will not curtail the range of beneficial uses of the environment;

c. The proposed project will not conflict with the State's long-term environmental policies;

d. The proposed project will not substantially affect the economic or social welfare of the community or State;

e. The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities;

f. The proposed project will not involve a substantial degradation of environmental quality;

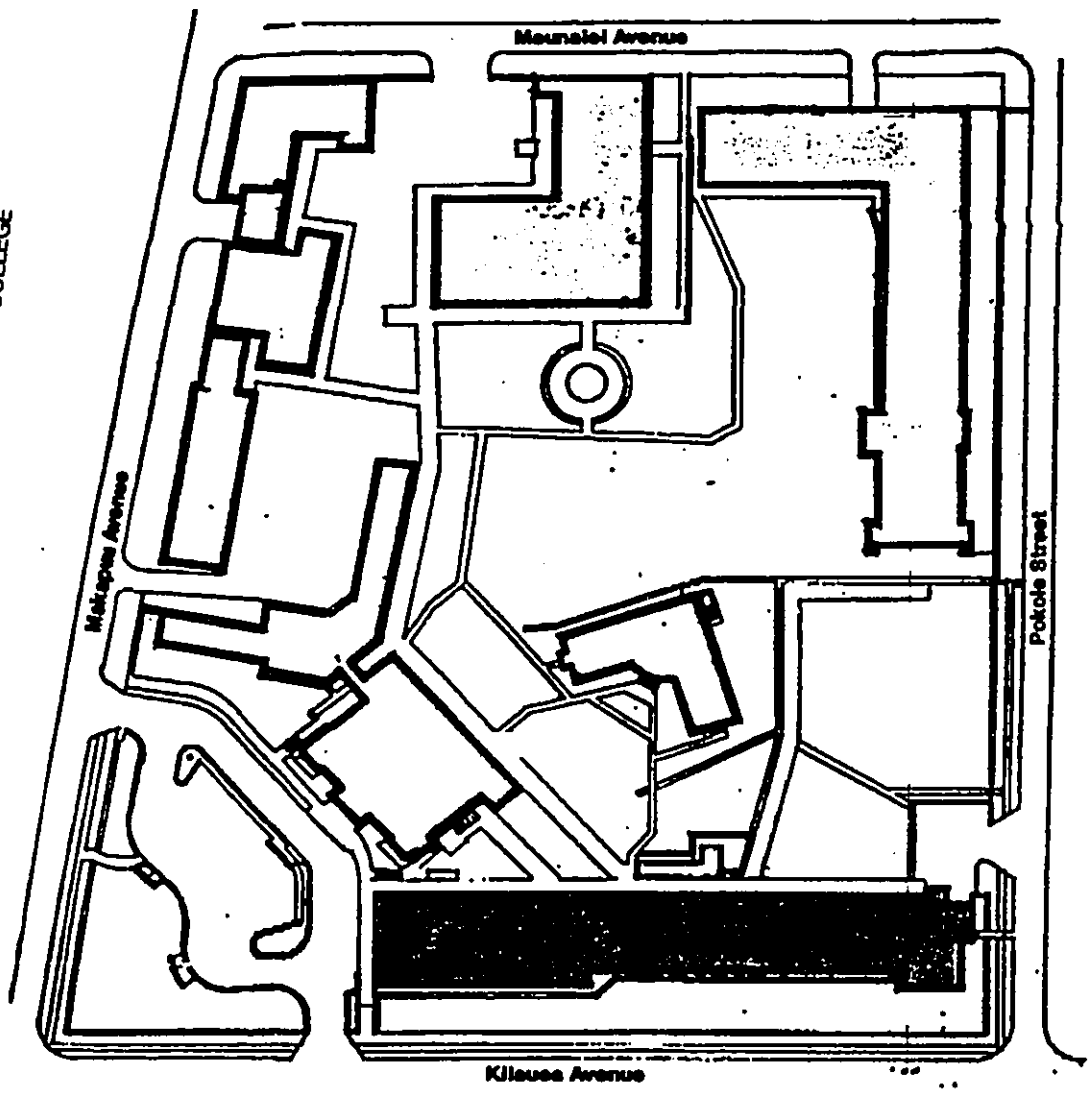
g. The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat. No endangered species of flora or fauna are known to exist in any of the facility sites;

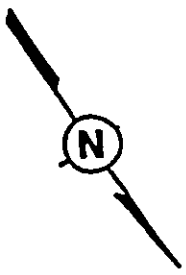
h. The proposed project will not detrimentally affect air or water quality or ambient noise levels; and

i. The various elements of the proposed project will not be located in any environmentally sensitive area, such as flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, freshwater or coastal waters.

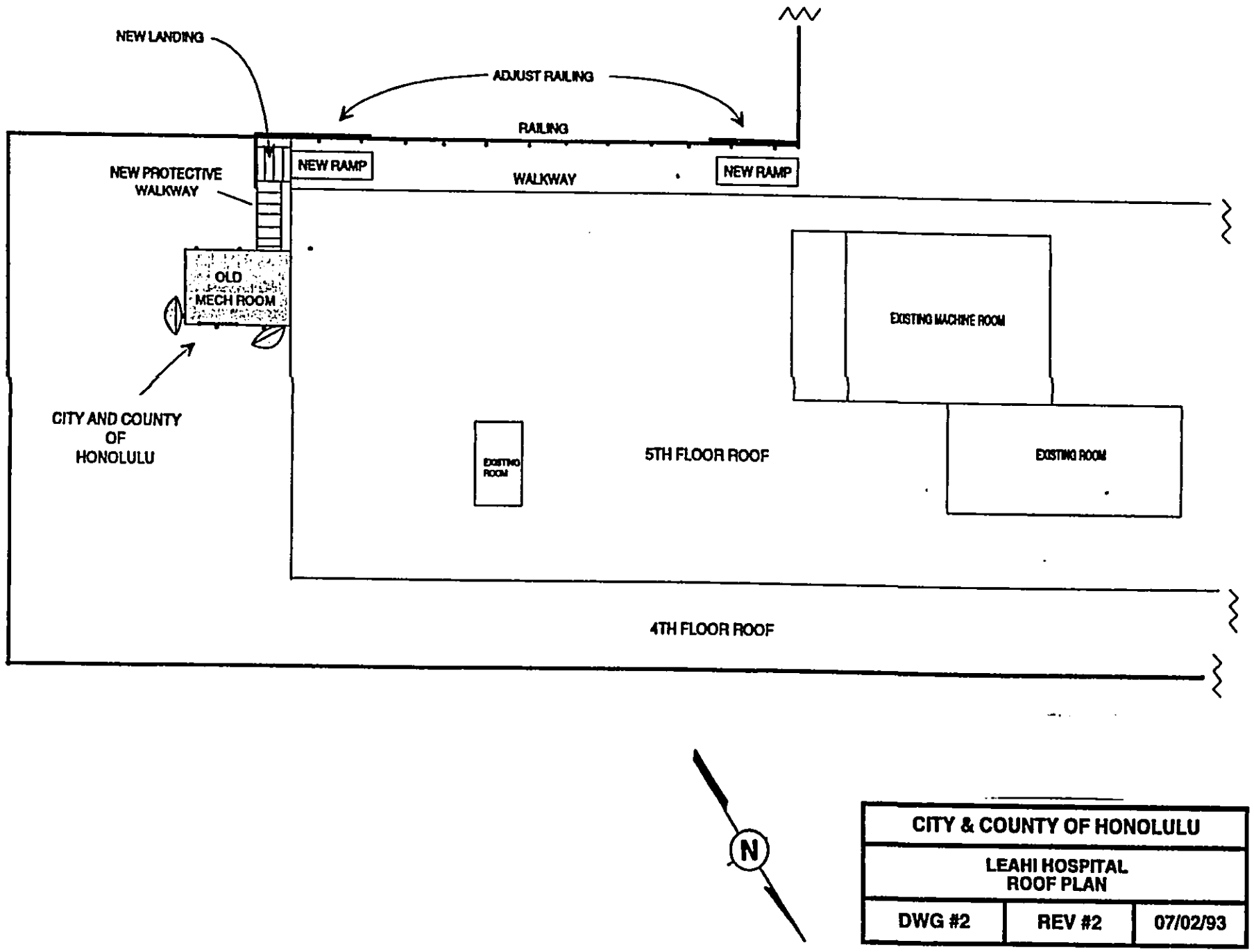
For the reasons above, the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and §11-200-12, Hawaii Administrative Rules.

KAPIOLANI COMMUNITY COLLEGE



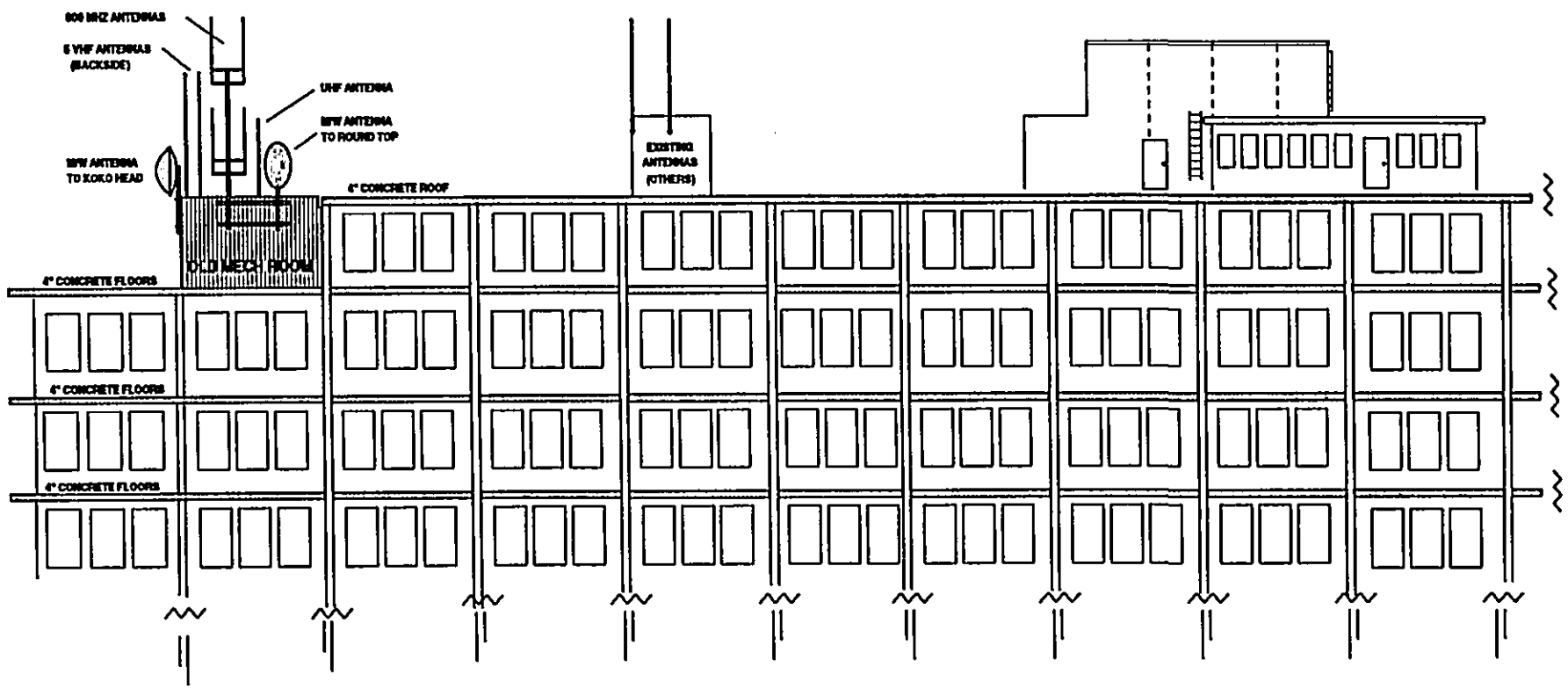


CITY & COUNTY OF HONOLULU	
LEAHI HOSPITAL	
Site Plan	02/23/94

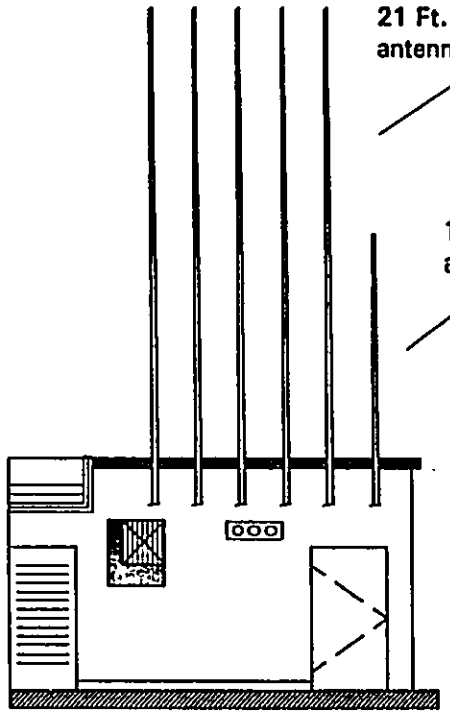


CITY & COUNTY OF HONOLULU		
LEAHI HOSPITAL ROOF PLAN		
DWG #2	REV #2	07/02/93

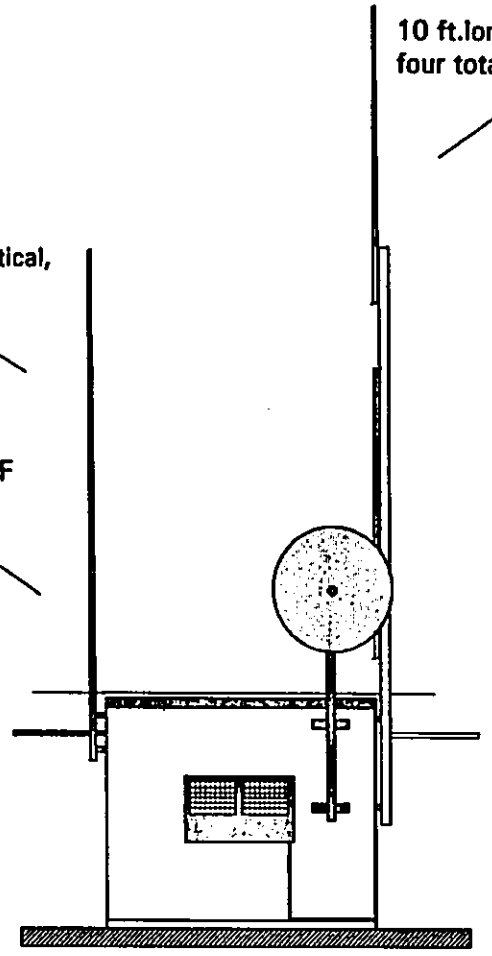
CITY AND COUNTY OF HONOLULU



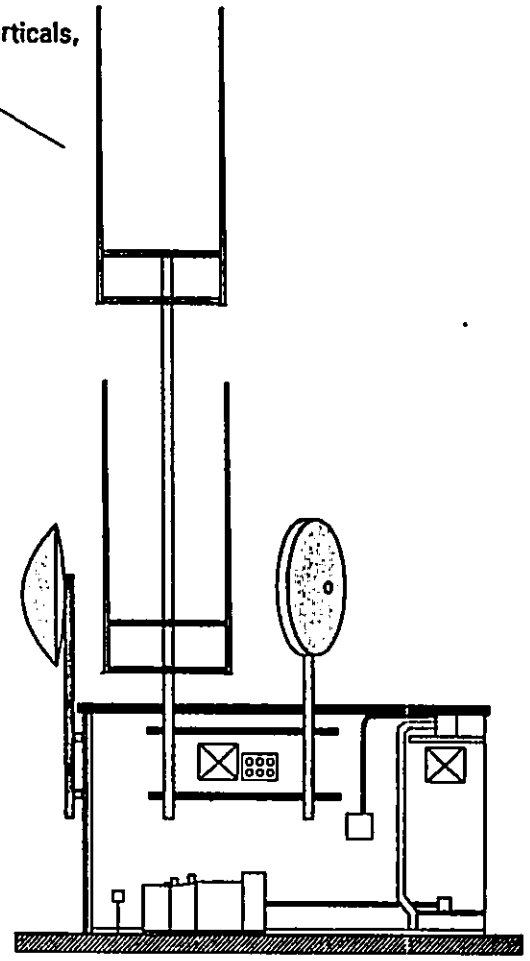
CITY AND COUNTY OF HONOLULU		
LEAHI HOSPITAL SITE PROFILE PLAN		
DWG #1	REV #3	02/07/94



DIAMOND HEAD SIDE

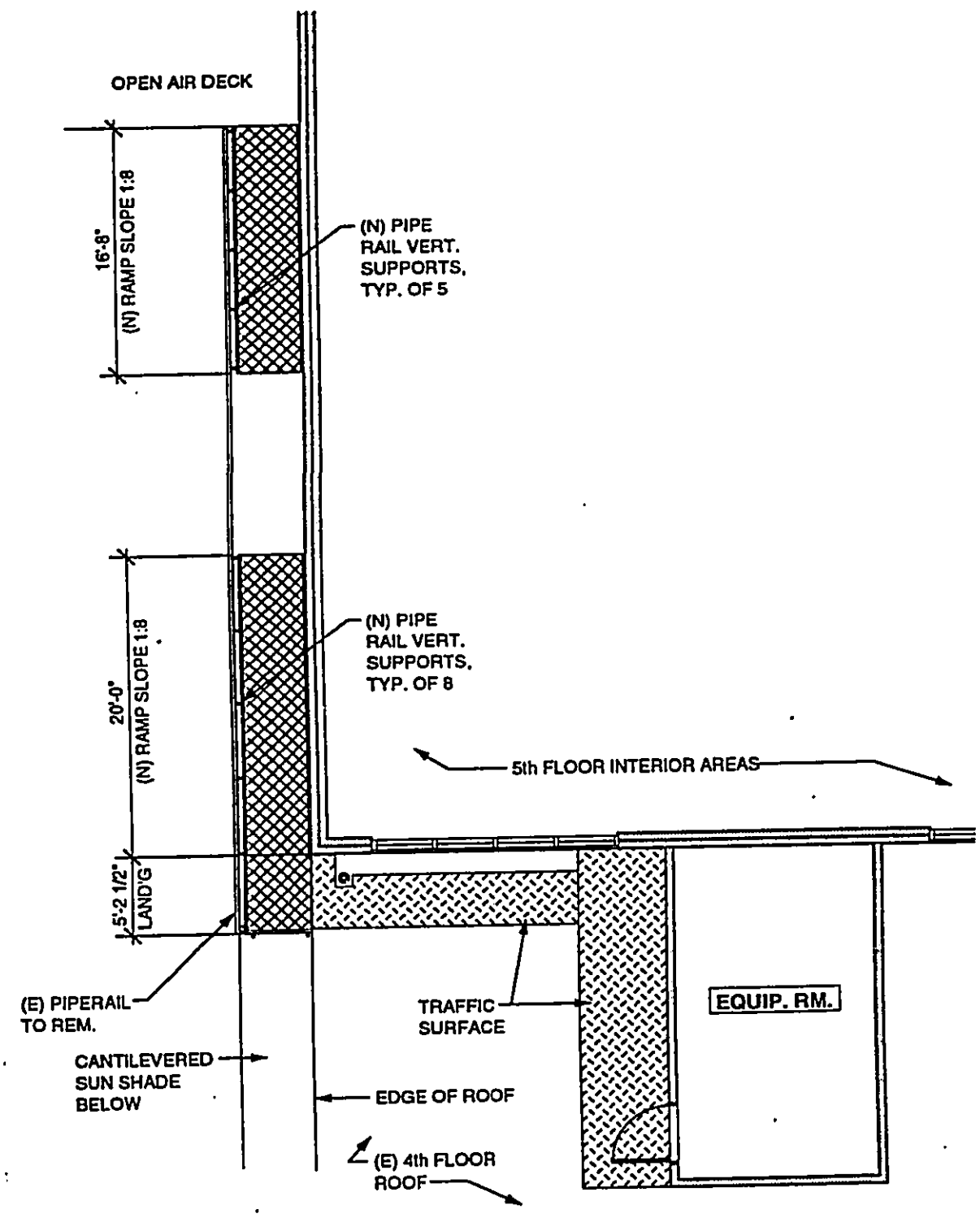


KOKO HEAD SIDE



MAUKA SIDE

CITY AND COUNTY OF HONOLULU		
LEAHI HOSPITAL PROPOSED NEW RADIO ROOM LOCATION		
DWG #2	REV #3	01/02/94



CITY & COUNTY OF HONOLULU	
LEAHI HOSPITAL	
Area Plan	12/03/93

Attachments

ATTACHMENT A
PUBLIC SAFETY TELECOMMUNICATIONS UPGRADE PROJECT

A1. Background

The project to upgrade the public safety telecommunications system is based on a Master Plan prepared for the City and County of Honolulu during 1990-1991. The result of an extensive consultant study, the Master Plan identifies problems in the current telecommunications system and the current and future needs of the Honolulu Police Department. It also anticipates future use of the system by other City and County agencies. With the concurrence of the Police Department, the Building Department has adopted the Master Plan as the basis for the design, procurement, installation and implementation of the upgraded communications system.

The system consists essentially of two elements which share common towers and equipment rooms: (1) an islandwide microwave system, also referred to as the "backbone system", which relays signals around the island and to police stations; and (2) a land mobile two-way radio system, which provides coverage between fixed stations and mobile or portable radios.

The microwave relay and terminal stations transmit and receive microwave signals across relatively short distances using round, dish-shaped antennas usually mounted at or near the top of a supporting tower or occasionally on top of a building. The antenna height above ground level varies with the radio site, ranging from a low of about 25 feet to a high of 200 feet.

The mobile two-way radio system uses fixed stations at City and County communications sites to transmit and receive signals. The number of stations varies from 1-2 at minor sites to 5-10 at major sites, such as remote repeater locations. Antennas are typically the vertical "whip" type, mounted on towers and/or buildings at heights which are adequate to provide reliable coverage in the subject area. At sites where multiple frequencies are in use, transmitter combining and receiver multi-coupling techniques will be employed to minimize the number of antennas.

The problems and needs identified in the Master Plan are summarized below.

Microwave system

- Existing equipment aging and nearing end of useful life
- Need to change from the existing analog system to a digital system that will improve reliability, make more efficient use of equipment, reduce dispatch workload, and accommodate data transmission

Mobile two-way system

- Inadequate coverage in some areas
- Existing system uses channels in two different bands, each requiring different mobile radio equipment
- Congestion in the existing system
- Need for a trunked system to provide increased efficiency, flexibility and expansion capability
- Need for digital mobile radio system that can accommodate data transmission

Towers and equipment rooms

- Degradation of equipment being caused by poor condition of facilities and intrusion of pests
- Some towers are not high enough to provide adequate coverage

While the primary motivation of the project is to solve the pressing and serious needs of the Police Department, the Master Plan calls for implementing new communications technology that will have sufficient system capacity to address future communications needs of other City and County agencies. Rather than obtain separate, stand-alone mobile radio systems, other agencies will be able to utilize surplus capacity on the new trunked public safety system at substantially less cost. The microwave backbone system will continue to support other City and County users, as well as certain other users, including some State agencies.

A2. Project Description

The Master Plan calls for implementation of the communications facilities upgrade project in four major phases: (1) facilities upgrading and new construction; (2) new microwave backbone system; (3) 800 MHz mobile voice system; and (4) 800 MHz mobile data system.

The first phase will entail the preparation of the radio facilities, including police station radio rooms, to house the new equipment. Most of the existing facilities will be upgraded to professional communications standards and a few new sites will be constructed as necessary to accomplish the desired radio coverage objective.

In the second phase, the existing analog microwave system will be replaced with a new digital backbone system. This phase will also include any new links in the backbone, plus the spur links to the police stations and other new locations, if constructed.

The third and fourth phases represent implementation of the two components of the new trunked mobile radio system: the mobile voice radio and mobile data systems. Though separable with regard to both procurement and installation, the two components are technically parts of the single integrated mobile system and can be implemented simultaneously, depending on funds.

The voice radio system will consist of the fixed, mobile, and portable radios used for voice communications. The data radio system will consist of similar equipment but will also include vehicle-mounted computer devices and possibly portable units carried by individuals.

Following this section are a "HPD Communications System Map" showing the location of existing and proposed communications facilities and microwave links and a "Facility

Improvement Summary" – a table showing the nature of facility improvements proposed at each site.

Facilities Upgrade and New Construction

Nearly all of the radio facilities, including some equipment rooms at district police stations, are in need of upgrading. Most lack air conditioning, and most buildings at the remote sites are subject to the intrusion of dust, blowing trash, leaves, small animal life (rodents and geckos) and, at some sites, vegetation growth. Over the long term, intrusion of foreign elements results in degradation of the costly electronic equipment, which in turn leads to unit failures, increased downtime, and escalated maintenance obligations.

The project goal is to upgrade the City and County's radio facilities, whether existing or new, to provide maximum protection to equipment and personnel. To meet professional communications standards, all sites will be environmentally controlled (air conditioned) and will have proper equipment grounding and appropriate emergency and uninterruptible power sources.

Improvements include upgrading existing facilities and constructing new sites as necessary to meet the coverage requirements.

Remote Site Upgrading

Each of the existing remote sites will receive some degree of upgrading. In addition to the installation of air conditioning, some facilities will require substantial repairs to roofs, walls (inside and out), ceilings, and doors, as well as painting and fencing. Others will require only air conditioning and minor repairs and maintenance.

Existing sites to be upgraded include the following:

Honolulu Municipal Building	Kawela
Makiki Roundtop	Mokuleia
Koko Head	US Navy-EASTPAC
Waimanalo Ridge	Puu Manawahua
Aikahi Sewage Treatment Plant	Sand Island Sewage Treatment Plant
Kaaawa Fire Station	

Smaller equipment buildings at Kawela and USN-EASTPAC sites will require expansion in order to house the new equipment. Existing towers will be analyzed to determine their structural capability to accommodate proposed height extensions and antenna loading and to meet wind stress specifications. Most have sufficient height and are of sufficiently heavy construction to meet requirements.

Due to age, type of construction, insufficient height, and lack of adequate surface mounting space, the existing tower at Koko Head is scheduled for replacement. Other towers will be replaced to accommodate height extensions. All replacement towers will be designed to withstand Category 5-Hurricane Forces. In addition, where required, new waveguide ladders and cable bridges will be installed on towers to allow for a clean routing of transmission lines.

Police Station Radio Room Upgrading

Generally, the existing police station radio equipment rooms are of adequate size to house the new radio equipment. Each room will require some upgrading, which will generally include repair of ceilings, walls (inside and outside), painting, closing of outside vents, general cleanup, the installation or extension of air conditioning, and the installation of an adequate electrical grounding system for all radio and data equipment. Some of the rooms

also house file servers for the data system. Special attention will be required to provide radio frequency isolation and filtering for co-located file servers or other data equipment.

Existing police station radio rooms to be upgraded are as follows:

Pearl City Police Station
Kalihi Police Station
Kailua Police Station
Kaneohe Police Station
Kahuku Police Station
Wahiawa Police Station
Waianae Police Station

New Facilities to be Implemented or Constructed

In order to reconfigure the existing system to accommodate coverage requirements, four new remote sites have been selected based on the results of the field coverage surveys:

Aliamanu 385 Reservoir (new microwave backbone site)
Sunset Beach Park (new mobile receive site)
Keanu Beach Park (new mobile two way site)
HPD Telecommunications Service Section (new shop near Honolulu Airport)
Leahi Hospital (replacement site for the existing Diamond Head facility)

The "Facility Improvement Summary" table shows the type of improvements which will be constructed. In addition, the Kapaa 272 Reservoir site will be converted from a passive facility to an active microwave facility, with the addition of an equipment building and the replacement of one tower. Both new and replacement towers will be designed to withstand Category 5-Hurricane Forces.

Finally, the Waikiki site will be altered to improve hand-held radio coverage. The Waikiki site consists of three sub-sites, all on top of tall buildings. The existing mobile receive sub-site on top of the Outrigger Hobron would be retained and improved. The mobile two-way site at the Outrigger West would be abandoned and replaced with a new two-way site on top of the Outrigger Malia. The existing mobile receive site at the Honolulu Zoo would also be abandoned and replaced with a new receive site on top of the Prince Kuhio.

Microwave System Replacement

The present microwave system was installed in 1978. It is an analog system operating in the 6 GHz microwave band and is configured in a protected loop configuration with several spur links off the loop to police sub-stations. Including the spurs, there are 20 microwave station locations throughout the island. The majority of the microwave radio equipment is Motorola, Model MR-600, which is no longer in production. The age of this equipment is fast approaching its normal life span of roughly 15 years.

A new digital microwave system will be implemented to replace the older analog system. Digital microwave equipment is a more modern design that will provide superior performance and better support of modern communications requirements, particularly electronic data transmission and digital voice systems.

The new system will serve all the existing remote sites and police stations plus the new sites shown in the "HPD Communications System Map". It will support all two-way voice and mobile data systems and point-to-point data transmission for the Police Department and other City and County and State users. The system channel capacity will allow for the addition of new users in the future.

Types of communications will include two-way voice radio, telemetry, data, and telephone. With digital microwave, increased channel capacity can be obtained by various technical means, such as multiplexing more than one communications circuit per microwave channel.

Pending selection of a vendor, the specific number of individual communications channels that can be carried on the microwave cannot be firmly identified. At a minimum, however, the system should support 672 voice equivalent channels.

Two Way Voice Radio System Replacement

The existing police radio system uses channels in two different radio bands: VHF and UHF. The VHF system operates in the simplex mode (non-repeater) and is controlled from the police dispatch center. It is primarily used by police patrol units.

The UHF system operates in the repeater (mobile relay) mode and is controlled islandwide from the main offices of the Intelligence Unit (IEU), the Special Service Division (SSD), and the Vice Division. Islandwide radio access is over the microwave backbone system. Both systems have problems, which are briefly described below.

There is unreliable two way mobile and portable radio coverage in certain locations, particularly in the country districts. Areas with unreliable coverage include the Mokuleia-Kaena Point-Yokohama Bay area, Waimea Bay and Sunset Beach, the Helemano area, Waikakalaua and Kipapa gulches, Lanikai, Kahana Bay, and Sacred Falls.

Islandwide radio coverage is needed for all users throughout the system. The police dispatch center needs islandwide coverage with every patrol unit. In addition, certain specialized divisions or sections need system access directly from their offices for communicating with their own field units. There is a need to provide an adequate number of radio channels to support the varied police activities for both voice and digital communications.

Because of technical limitations, one single radio cannot transmit on both the VHF and UHF bands, so units that need to communicate with all units in the department, such as investigators, must carry two separate radios, one VHF and one UHF. Conversely, officers with only a single radio in one band cannot talk to officers with a radio in the other band.

The number of units on some radio channels result in an excessive congestion problem. There are too few radio channels, requiring the dispatch channels to be used for tasks that could otherwise be transferred to a different channel. This adds to the congestion problem.

To improve the Department's operation, the existing two-way radio network will be replaced with a modern, high-technology, 800 MHz trunked system. The new system will be integrated, permitting an officer to communicate with any other officer using a single radio. The new 800 MHz radio equipment will be installed at all the site locations shown on the system map.

Implementing an 800 MHz trunked system is inherently more costly and complex, but it offers several major technological and operational advantages. It provides low potential for radio interference, more privacy, flexibility for restructuring, protection from loss of an individual repeater, and multiple features, such as the ability to add a mobile data component. 800 MHz trunking offers frequency efficiency, and, if implemented on an islandwide basis, it will provide maximum flexibility for multiple users, operational applications, and expansion capability.

While HPD has a large number of radios, the islandwide trunked system will be capable of supporting a significantly larger number of field units. The initial capacity of the system will be sufficient to accommodate other government users who operate throughout the island. These users would only need to purchase their own mobile, portable, and control

radio units, and they would essentially become "subscribers" on the islandwide trunked backbone system. Adding new users will not require additional remote site equipment, such as new repeaters and antennas, until the new system reaches a very high threshold of new utilization.

Moreover, the cost of adding radio channels to an existing trunked system is *less* than a linear cost when compared to building the initial system. Thus, from a global view of government radio system needs, it is much less expensive to add a few channels in the future to a large trunked network than to build independent radio systems for each separate government user. With correct design, each user agency will perceive that it operates on its own network and will never know that the system resources are, in fact, shared.

Mobile Data Radio System Implementation

There is a need to automate certain field operations to improve the efficiency of field officers. Current needs include report writing and submittal, traffic citation issuance, gang contact documentation, and electronic mail. Future requirements include warrant information, mug image information and access to yet unbuilt automated data systems.

The use of mobile digital communications equipment will greatly reduce the amount of voice radio traffic and alleviate the operational problems that can be expected with a voice-only system.

The proposed new 800 MHz mobile data radio system will fully support data base access, computer aided dispatch access, mobile terminal-to-mobile terminal communications, and integration of field-initiated report writing with the records management system. The data radio units will utilize the same sites as the mobile voice radio units.

A3. Alternatives

Do Nothing

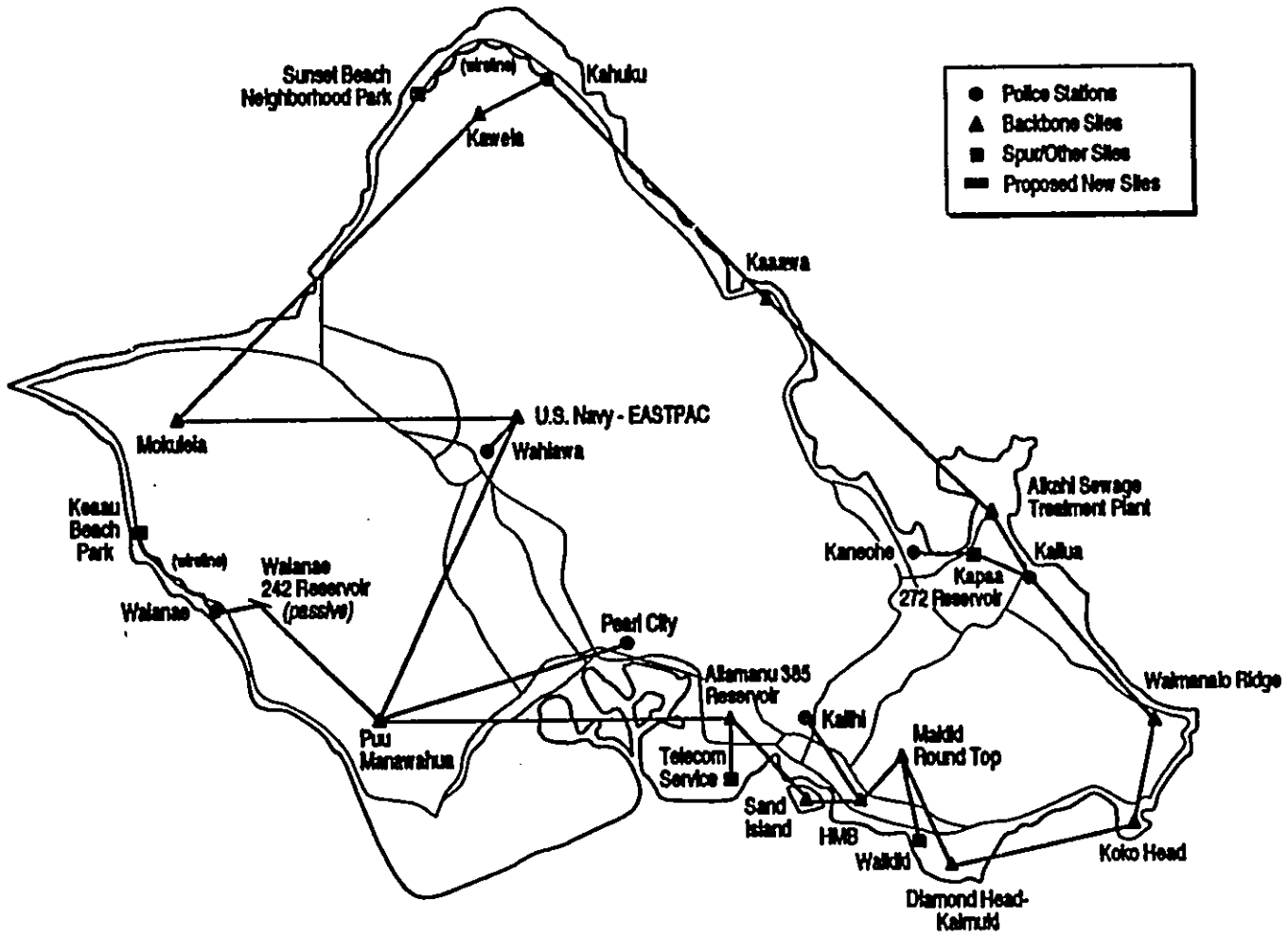
The "do nothing" alternative poses an unacceptable risk to public safety because existing radio facilities are deteriorating and need to be replaced or repaired. In addition, public safety is jeopardized by poor communications coverage in certain areas of the island. In addition, taking no action to improve the public safety communications system would mean forgoing significant gains in the effectiveness and efficiency of the system and of the police force itself.

Alternative System Design

The Master Plan considered alternative system designs. Some alternatives would be less costly in the short-term but (1) would provide fewer opportunities for expansion of communications applications; (2) would not accommodate new users; and/or (3) would lead to long-term higher costs for system expansion.

Alternative Sites

All but five of the sites are existing and are planned for relatively minor modifications. New sites were selected on the basis of radio coverage surveys and land availability. In many cases, such as the Aliamanu 385 Reservoir site, the location was largely determined by topography. Unless sites at higher elevations are used, communications facilities will need tall towers to achieve similar radio coverage. All of the new sites (with the exception of Diamond Head-Kaimuki, which has yet to be decided) are on City and County-controlled property, which reduces costs and security problems.



CITY & COUNTY OF HONOLULU

HPD COMMUNICATIONS SYSTEM MAP

SITE	TMK	EIS/PERMIT REQUIREMENTS		BUILDING		TOWER		
		ENVIRONMENTAL ASSESSMENT	MAJOR PERMITS	Addition	New	Extension	Replace-ment	New
1. Honolulu Municipal Building	2-1-033: 010	X						
1A. Kalihi Police Station	1-3-024: 006	exempt						
2. Makiki Round Top	2-5-019: 011	X	CDUA					
2A. Waikiki Outrigger Hobron	2-6-012: 047	exempt						
Outrigger Malia	2-6-019: 021	exempt						
Outrigger Prince Kuhio	2-6-025: 024	exempt						
3. Diamond Head-Kalmuki	3-1-042: 014	*to be selected*						
4. Koko Head	3-9-012: 004	X	CDUA / SMA				40 to 50-ft.	
5. Waimanalo Ridge	3-9-009: 001	X	CDUA				70-ft.	
6. Kailua Police Station	4-3-056: 006	exempt						
6A. Kapaa 272 Reservoir	4-2-017: 018	X	CDUA / SMA		X		50-ft.	
6B. Kaneohe Police Station	4-5-018: 002	exempt						
7. Aikahi Sewage Treatment Plant	4-4-011: 061	exempt						
8. Kaaawa Fire Station	5-1-011: 051	X						
9. Kahuku Police Station	5-8-006: 020	exempt						
9A. Sunset Beach Neighborhood Park	5-9-005: 070	X		X				
10. Kawela	5-7-004: 002	X	CDUA	X				
11. Mokuleia	6-8-001: 001	X	CDUA				70-ft.	
12. U.S. Navy-EASTPAC	7-1-002: 007	exempt		X				
12A. Waialua Police Station	7-4-007: 008	exempt						
13. Puu Manawahua	9-2-005: 014	X	CDUA					
13A. Waianae 242 Reservoir	8-8-001: 048	X	CDUA					
13B. Waianae Police Station	8-5-008: 051	X					50-ft.	
13C. Keaau Beach Park	8-3-001: 001	X	CDUA / SMA		X			25-ft.*
13D. Pearl City Police Station	9-7-094: 022	exempt						
14. Altamanu 385 Reservoir	1-1-063: 010	X	CDUA		X			50-ft.
14A. HPD Telecom Service Section	1-1-015: 013	exempt						
15. Sand Island Sewage Treatment Plant	1-5-041: 005	X				20-ft.		

*antenna pole

Facility Improvement Summary
HPD Communications Facilities

ATTACHMENT B
CONSULTED PARTIES IN THE PREPARATION OF THE SUPPLEMENTAL ASSESSMENT

The notice of availability of the Draft Supplemental EA was published in the *OEQC Bulletin* by the Office of Environmental Quality Control on December 23, 1993 and January 8, 1994. In addition, representatives from the Building Department consulted with a number of public agencies and community organizations. The parties that were requested to review and comment on the Draft Supplemental EA are listed below. Those who responded in writing are identified with an asterik (*) next to their names, with copies of the correspondence presented on the following pages.

Federal Agencies
U.S. Department of Transportation - Federal Aviation Administration*

State Agencies
Department of Accounting and General Services*
Department of Defense*
Department of Health - Environmental Health Administration*
Department of Land and Natural Resources*
Department of Land and Natural Resources - State Historic Preservation Division*
Department of Transportation*
University of Hawaii - Environmental Center*
State Main Library
Kaimuki Regional Library

City and County of Honolulu Agencies
Board of Water Supply*
Department of Land Utilization*
Department of Parks and Recreation*
Department of Public Works*
Department of Transportation Services*
Fire Department*
Oahu Civil Defense Agency*
Planning Department*
Police Department*

Other Organizations
Diamond Head/Kapahulu/Saint Louis Neighborhood Board No. 5
Kaimuki Neighborhood Board No. 4
Leahi Hospital
Outdoor Circle

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

RECEIVED
BUILDING DEPT.
CITY & COUNTY OF HONOLULU
'94 MAY 4 PM 1 19

JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

In reply, please refer to:
HESS OFFICE
EPR.Leahi.2

April 8, 1994

Mr. Herbert Muraoka
Director, Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Muraoka:

Subject: Draft Supplemental Environmental Assessment (EA)
Honolulu Police Department Communications Upgrade
Leahi Hospital Communications Facility

Thank you for the opportunity to review and comment on the proposed placement of microwave and 800-megahertz radio antennae on the roof (5th floor) of Leahi Hospital in Kaimuki.

The Department of Health (DOH) agrees with the conclusions in the revised Draft Supplemental Environmental Assessment, which was provided to the DOH's Hazard Evaluation and Emergency Response Office on March 3, 1994. There were additional discussions with your consultants' (Lacayo Planning) physics expert in order to clarify a few points. Your consultants were very thorough, helpful, and courteous.

The Leahi Hospital Communications Facility, as planned, will not endanger the health of Leahi Hospital workers or patients. This applies to hospital people who are at least 20 feet away on the 5th floor or anywhere on Floors 1-4, since the 4-inch-thick concrete roof will shield half of the radio energy. Furthermore, the Facility will not endanger the public's health in Kaimuki.

This conclusion applies to the undated Draft Supplemental EA which was provided to the DOH on March 3, 1994. If you should have any questions on this matter, please contact Mr. Leslie Au, Hazard Evaluation and Emergency Response Office, at 586-4250.

Very truly yours,

JOHN C. LEWIN, M.D.
Director of Health

cc: State Representative Les Ihara
Vernon Tam, Kaimuki Neighborhood Board
John Whalen, Lacayo Planning, Inc.

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. BONNAR
DEPUTY

PB 94-474

May 13, 1994

John C. Lewin, M.D., Director
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801

Dear Dr. Lewin:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communications Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your April 8, 1994 letter indicating that you agree with the conclusions in the revised Draft Supplemental EA for the subject project. We are pleased that the additional information that we provided was helpful and we will be including this information in the Final Supplemental EA.

Should there be any additional questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

RECEIVED
BUILDING DEPT.
CITY & CO OF HONOLULU
94 MAR 4 PM 1 30

University of Hawaii at Manoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawaii 96822
Telephone: (808) 956-7361

March 2, 1994
EA:00046

Mr. Clifford Morikawa
City and County of Honolulu
Building Department
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Morikawa:

Draft Supplemental Environmental Assessment
Honolulu Police Department Communications Facilities Upgrade
Leahi Hospital Communications Facility Site
Kaimuki, Oahu

The Draft Supplemental Environmental Assessment (EA) addresses the potential impacts of the construction of proposed improvements to the communications facilities of the Honolulu Police Department. The improvements include the construction and attachment of two three-foot diameter microwave dishes and one 21-foot mast onto an existing, unused equipment room, located on the fourth floor roof of Leahi Hospital in the Diamond Head Special District on Oahu.

We have been assisted in this review by Kazutoshi Najita, Electrical Engineering; and Huilin Dong, Environmental Center.

The document seems to address most of the potential impacts of the project. The area of primary concern is the potential for human health risks resulting from radiation. The effect of the antennas to viewplanes particularly to the new Kapiolani Community College campus is another concern.

Radiation Issues

There are essentially three frequency ranges of radiation discussed in the EA:

1. 6 GHz point-to-point communication system.

In the 6 GHz microwave band system the radiation will be through very directional parabolic antennas located on the roof of Leahi Hospital. The directed beam could have high energy densities, but the possibility of the beam intercepting people along the path is negligible. However, since the parabolic dish is at the roof height and if the direction of radiation is across the roof, maintenance people could be exposed. Provisions should be taken to assure that transmissions from these antennas do not take place when maintenance or repair people could be exposed.

2. 800 MHz antennas.

The new 800 MHz antennas will have a vertical orientation and the radiation is uniform in all 360 degrees. The radiation density levels are far below the numbers quoted from the ANSI exposure standards given on page A10. We note that the dipolar resonance of H_2O is in the 1 to 4 GHz region and that microwave ovens operate in this frequency range for cooking. (800 MHz is on the edge of this frequency range). The document does not indicate the absorption phenomenon of any object with a significant amount of water. It is, however, possible that the power density is low enough that no significant damage can occur.

3. VHF radiation.

The effect of the VHF radiation is relatively negligible.

Viewplan Issues

The Draft Supplemental EA document sites Scenic Views and Viewplanes in the Summary of Impacts and Mitigative Measures (pg. 3) but there is no further discussion of these impacts in section A4 under General Environmental Impacts. It appears from the discussion on page 3 and the description of the antennas on page 2 that the low, 3 foot diameter microwave dish and the much higher (longer) vertical antennas will not be unduly obtrusive, particularly with their location on top of Leahi Hospital. We are assuming that this location will not be within the viewplanes of any of the buildings of the Kapiolani Community College. It would have been helpful if a picture or drawing of the location relative to the campus had been included in the Draft Supplemental EA.

Thank you for the opportunity to review and comment on the document.

Sincerely,

Jacquelin N. Miller
Associate Environmental Coordinator

cc: OEQC
Lacayo Planning, Inc.
Roger Fujioka
Kazutoshi Najita
Huilin Dong

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM REMSLAR
DEPUTY

PB 94-297

April 12, 1994

Ms. Jacquelin N. Miller
Associate Environmental Coordinator
University of Hawaii At Manoa
Environmental Center
Crawford 317
2550 Campus Road
Honolulu, Hawaii 96822

Dear Ms. Miller:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communications Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your March 2, 1994 letter regarding the subject project. We offer the following responses to your comments:

1. 6 GHz Point-to-Point Communications System

The azimuth (beam bearing) of the two microwave antennas to be installed at Leahi Hospital has been calculated using a computer azimuth program. The drawing entitled "Microwave Antenna Azimuth" shows a beam heading from the top of the hospital to Round Top at 336.54 degrees and to Koko Head at 96.91 degrees.

The radio room roof is the same level as the fifth floor roof. Both microwave parabolic (dish) antennas will be mast mounted with the antenna center line 5-1/2 feet above the roof line of the radio room.

The directed beam to Round Top cuts across a very small portion of the northeast corner of the fifth floor roof (see Attachment No. 1). That area of the 5th floor roof can be marked to warn maintenance personnel of the microwave beam path.

The fifth floor roof does not extend eastward beyond the radio room. Thus, the directed beam pointing eastward to Koko Head is well above the fourth floor roof and completely clears it by at least 15 feet.

The City and County of Honolulu concludes that the directed beams should not cause any adverse biological effects to maintenance or repair personnel.

2. 800 MHz Antennas

This is in reference to your March 2, 1994 letter, item No. 2, referring to 800 MHz antennas. The ability of highly concentrated RF energy to heat biological tissue is the principle by which microwave ovens cook food. By comparison, it should be noted that the RF energy used in microwave ovens is highly concentrated and confined to a very small, shielded area. On the other hand, while 800 MHz is on the edge of the 1 GHz range, the 800 MHz RF radiation from the antennas to be used at Leahi Hospital is not highly concentrated and it is radiated on a much broader and uniform basis into the air and falls off rapidly as the distance increases.

The Center for Devices and Radiological Health (CDRH), a part of the U.S. Food and Drug Administration, regulates radiation from microwave ovens. CDRH has established a radiation performance standard for microwave ovens that allows leakage (measured at 5 centimeters from the oven surface) of 1mW/cm² at the time of manufacture and a maximum of 5mW/cm² over the life of the oven. The standard also requires ovens to have two independent interlock systems that prevent the oven from generating microwave the moment that the latch is released or the door of the oven is opened.

As stated in the University's March 2 letter, the 800 MHz antennas will have a vertical orientation and the radiated signal is uniform in all 360 degrees. As calculated in the latest supplement for Leahi Hospital, the radiation densities from the antennas are below the stringent 1992 ANSI standards. As such, the RF levels from the 800 Mhz antennas are too low to cause the same heating phenomenon as do microwave ovens.

3. Your comment that the effect of VHF radiation is relatively negligible is duly noted.

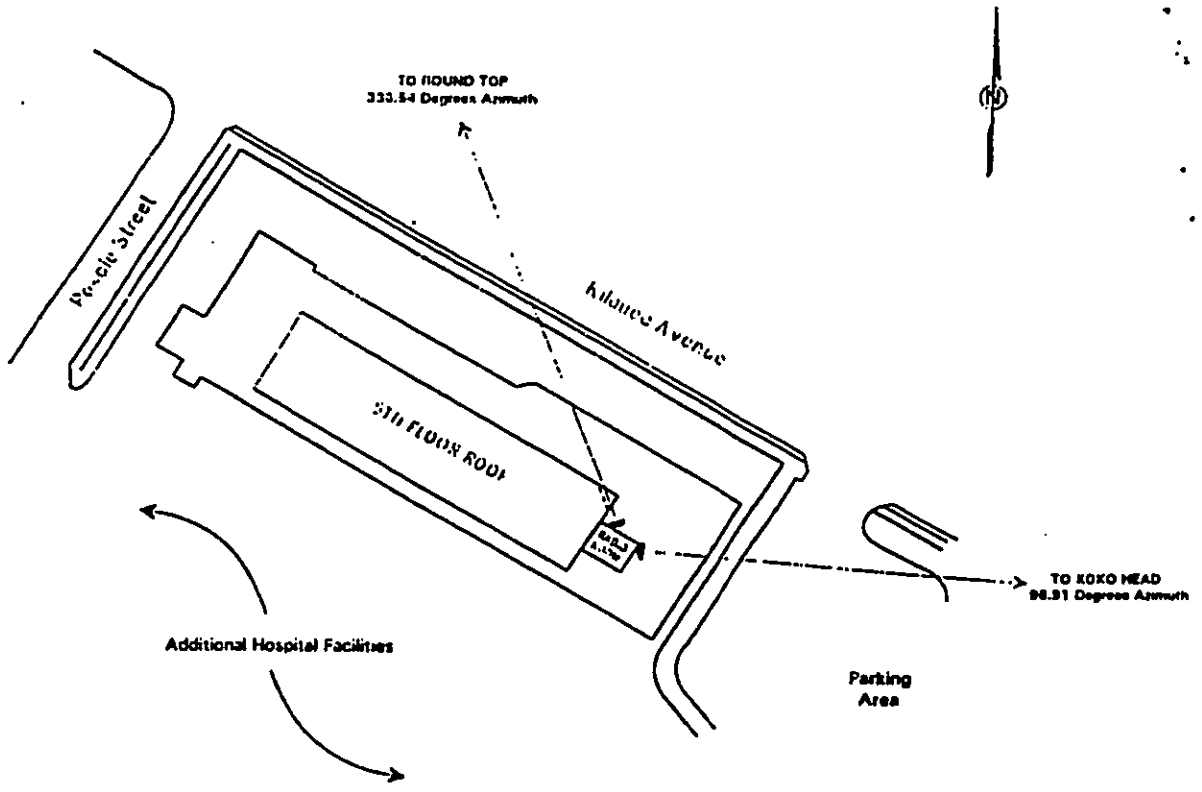
4. As noted on page 3 of the Draft Supplemental EA, the proposed communications equipment will be visible from very low public vantage points. It will be readily visible only in the immediate vicinity of Leahi Hospital; namely, (1) at the intersection of Makapuu Avenue and Kilauea Avenue, (2) within the unpaved parking lot on the makai side of the hospital, and (3) within a portion of the parking lot at the mauka-ewa corner of the Kapiolani Community College campus (see Attachment No. 2). A visual analysis, including color photos, was prepared and presented to the Kaimuki and Diamond Head neighborhood boards. Should you be interested in reviewing the photos, they can be made available for your use.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

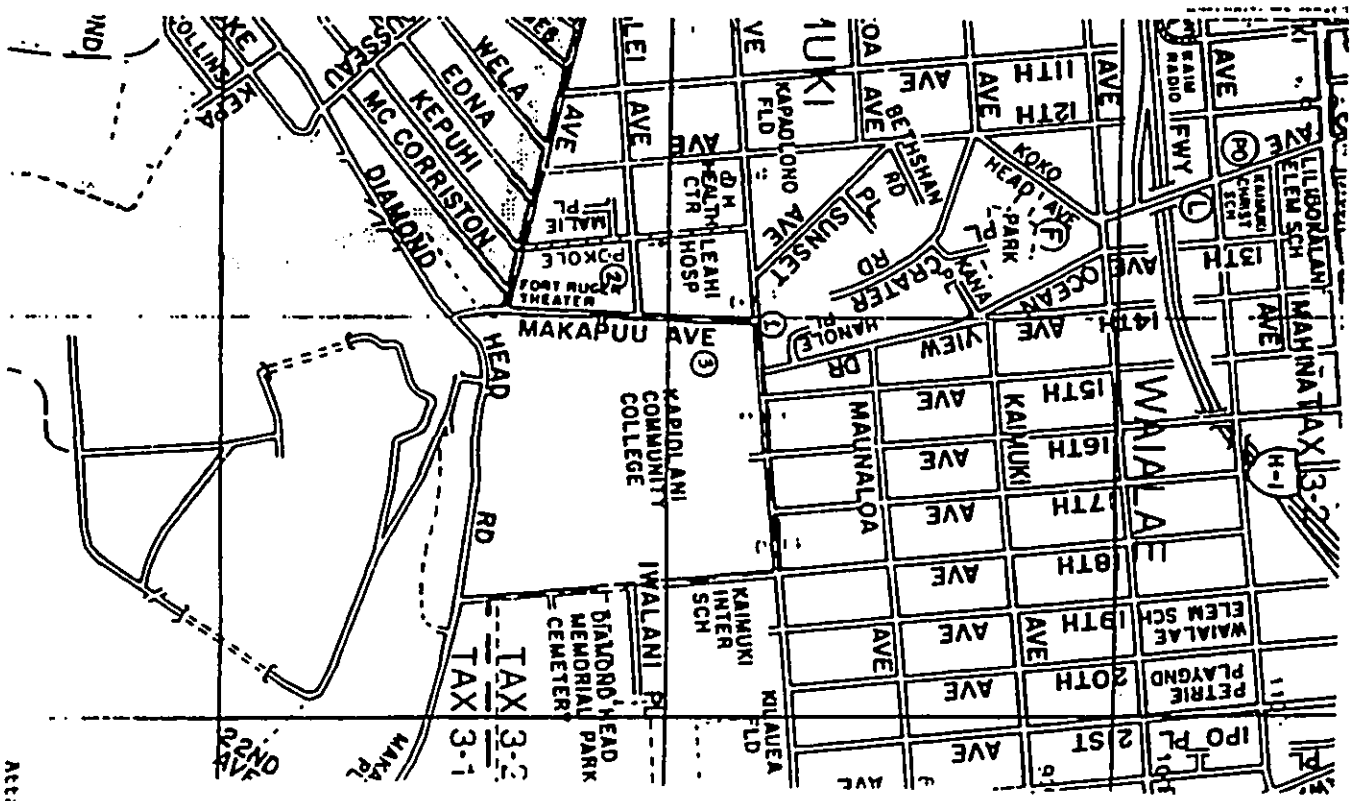
Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

Attach.



CITY AND COUNTY OF HONOLULU		
LEAHI HOSPITAL MICROWAVE ANTENNA AZIMUTH		
DWG #1	REV #	03/17/94



Attachment No. 2

JOHN WAIHEE
Governor

MAJOR GENERAL EDWARD V. RICHARDSON
Director of Civil Defense

ROY C. PRICE, SR.
Vice Director of Civil Defense

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

PHONE (808) 734-2161

January 25, 1994

TO: Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu

FROM: Roy C. Price, Sr.
Vice Director of Civil Defense

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (DSEA), HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS SITE

We appreciate this opportunity to comment on your DSEA for the Honolulu Police Department Communications Facilities Upgrade, Leahi Hospital, City and County of Honolulu, Island of Oahu, TMK: 3-2-031: 001.

State Civil Defense (SCD) does not have any negative comments specifically directed at this DSEA. However, we propose that City and County of Honolulu seriously consider allowing the State of Hawaii and its departments access to and use of the facilities and microwave capabilities proposed by this project. Additionally, there is a possibility that the installation of the new radio equipment may cause interference to other nearby existing equipment. Should this new installation result in the verified interference with the normal operation of other equipment, action must be taken by the applicant to insure that the capability of the systems that are impacted are restored with no diminished capacity. Cost of this restoration is to be borne by the applicant.

The addition of two three-foot diameter microwave dishes and a 21-foot tall mast, with four 10-foot long 800 MHz vertical antennas attached to the mast and up to five 21-foot long VHF vertical antennas will certainly enhance the existing communications capability of the City and County of Honolulu. With the vertical antennas rising to an approximate height of 80 feet from ground level, extra care must be taken to secure the equipment to insure survivability from tropical cyclone/hurricane strength winds.

Our SCD planners and technicians are available to discuss this further if there is a requirement. Please have your staff call Mr. Mel Nishihara of my staff at 734-2161.

JOHN WAIHEE
GOVERNOR

MG GENERAL EDWARD V RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C PRICE, SR
VICE DIRECTOR OF CIVIL DEFENSE

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

PHONE (808) 734-2161

January 25, 1994

1/27/94

TO: Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu

FROM: Roy C. Price, Sr.
Vice Director of Civil Defense

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (DSEA), HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS SITE

We appreciate this opportunity to comment on your DSEA for the Honolulu Police Department Communications Facilities Upgrade, Leahi Hospital, City and County of Honolulu, Island of Oahu, TMK: 3-2-031: 001.

State Civil Defense (SCD) does not have any negative comments specifically directed at this DSEA. However, we propose that City and County of Honolulu seriously consider allowing the State of Hawaii and its departments access to and use of the facilities and microwave capabilities proposed by this project. Additionally, there is a possibility that the installation of the new radio equipment may cause interference to other nearby existing equipment. Should this new installation result in the verified interference with the normal operation of other equipment, action must be taken by the applicant to insure that the capability of the systems that are impacted are restored with no diminished capacity. Cost of this restoration is to be borne by the applicant.

The addition of two three-foot diameter microwave dishes and a 21-foot tall mast, with four 10-foot long 800 MHz vertical antennas attached to the mast and up to five 21-foot long VHF vertical antennas will certainly enhance the existing communications capability of the City and County of Honolulu. With the vertical antennas rising to an approximate height of 80 feet from ground level, extra care must be taken to secure the equipment to insure survivability from tropical cyclone/hurricane strength winds.

Our SCD planners and technicians are available to discuss this further if there is a requirement. Please have your staff call Mr. Mel Nishihara of my staff at 734-2161.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

PB 94-248

March 14, 1994

Mr. Roy C. Price, Sr.
Vice Director of Civil Defense
Department of Defense
State of Hawaii
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Mr. Price:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your January 25, 1994 memorandum regarding the subject project. With regard to access and use of the facilities by state departments, the City currently shares a number of its other communications facilities with various state and federal agencies and plans to continue these arrangements, as feasible. We will also continue to coordinate our efforts with other radio equipment users to ensure that our new installation will not interfere with existing normal operations of other equipment. Furthermore, we will be responsible for any changes to the system that may be required to ensure this compatibility.

Regarding the survivability of the equipment during periods of high winds, please be advised that the existing concrete walls and ceilings of the mechanical room scheduled for renovation should withstand 155 mph winds. All existing openings in the former mechanical room are being closed up except for ventilating and air conditioning purposes. In addition, the antenna and microwave dish masts are being designed to withstand 155 mph winds.

It is not possible to completely secure the microwave dishes and UHF/VHF antennas to withstand 155 mph winds. However, we feel that these items can be easily repaired or replaced in the event they are damaged by high winds.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

KEITH W. AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JOHN P. KEPPELER II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

REF:OCEA:SSK

File No: 94-400
DOC. ID: 4030

JAN 21 1994

The Honorable Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Muraoka:

Subject: Draft Supplemental Environmental Assessment for the Honolulu Police Department Communications Facilities Upgrade - Leahi Hospital Communications Site, Diamond Head District, TMK: 3-2-031: 001

Thank you for giving our Department the opportunity to comment on this matter. We have reviewed the materials you submitted and have the following comments.

Division of Land Management Comments:

As Act 313 takes its course, additional radio facilities could move to Leahi Hospital. An evaluation should be made of the possible health effects on patients of increasing the number of microwave antennas on the roof of the hospital.

Thank you for your cooperation in this matter. Please feel free to call Sam Lemmo at our Office of Conservation and Environmental Affairs, at 587-0377, should have any questions.

Very truly yours,

KEITH W. AHUE

FRANK F. FASI
MAYOR

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
WILLIAM P. REMULLA
DEPUTY

PB 94-195

March 1, 1994

Mr. Keith W. Ahue, Chairperson
Board of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Ahue:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your January 21, 1994 letter regarding the health effects as a result of an increasing number of microwave antennae at the proposed site. As noted in your letter, with the implementation of Act 313, additional radio facilities may also choose to relocate their facilities from Diamond Head to Leahi Hospital.

While we understand your concerns over potential health effects on hospital patients as a result of these additional facilities, it is beyond the scope of this project to anticipate the number and type of facilities that could relocate to the site or determine the potential cumulative impact of these yet unknown sources. We have, however, conducted additional investigations on the potential impact that our proposed radio facility may have on hospital patients. Based on our follow-up study, we have determined that sufficient distances and shielding exist between the antennae and the patients and personnel at Leahi Hospital to maintain a "maximum permissible exposure" level well below existing industry standards. A summary of our study and these findings will be included in the Final Supplemental EA.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
P. O. Box 50109
Honolulu, Hawaii 96850-4983

January 20, 1994

Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

1/24/94

Dear Mr. Muraoka:

Your letter of December 14, 1993, requested comments on your Draft Supplemental Environmental Assessment and proposed Negative Declaration for the portion of the Honolulu Police Department Communications Facilities upgrade project which will relocate the facility at Diamond Head to Leahi Hospital.

The Federal Aviation Administration has no objection to the subject request provided that the facility will continue to operate in the 821 to 824 megahertz and 866 to 869 megahertz frequency spectrum.

We appreciate this opportunity to comment on your proposed project. Please contact me at 541-1236, if there are any ways we may be of assistance.

Sincerely,

Darice B. N. Young
Realty Contracting Officer, AHNL-56

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. MEDEIROS
DEPUTY

PB 94-196

March 1, 1994

Ms. Darice B. N. Young
Realty Contracting Officer, AHNL-56
U.S. Department of Transportation
Federal Aviation Administration
Western-Pacific Region
P.O. Box 50109
Honolulu, Hawaii 96850-4983

Dear Ms. Young:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your January 24, 1994 letter regarding the subject project. As noted, all new frequencies will operate on the 800 MHz frequency spectrum, which has been specifically allocated for public safety radio use. However, the current UHF and VHF systems that are proposed for relocation to the proposed site from the existing Diamond Head facility will continue to operate on the 150-160 MHz bands.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ROBIN FOSTER
CHIEF PLANNING OFFICER

ROLAND D. LIBBY, JR.
DEPUTY CHIEF PLANNING OFFICER

LW 12/93-2797

January 19, 1994

MEMORANDUM

TO: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: ROBIN FOSTER, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE--LEAHI HOSPITAL COMMUNICATIONS SITE, TAX MAP KEY: 3-2-31: 1

We have reviewed the subject EA and have no objections to the proposal. This proposal will have less impact on views within the Diamond Head Special District than the earlier proposal to construct a larger antenna tower within Diamond Head Crater.

Should you have any questions, please contact Lin Wong of our staff at extension 4485.

ROBIN FOSTER
Chief Planning Officer

RF:ft

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
WILLIAM P. BERNARD
DEPUTY

PB 94-200

March 1, 1994

MEMO TO: ROBIN FOSTER, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your December 28, 1993 memorandum regarding the subject project. We concur with your comment that the proposed relocation will have less impact on views within the Diamond Head Special District than our earlier proposal to construct a larger antenna tower within Diamond Head Crater.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

ROBERT P. TARUSHI
COMPTROLLER

LLOYD I. UNEBASAMI
DEPUTY COMPTROLLER

LETTER NO. (P)1029.4

JAN 18 1994

Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Muraoka:

Subject: Leahi Hospital Communications Site
Communications Facilities Upgrade
Honolulu, Hawaii
Draft Supplemental Environmental Assessment

Thank you for the opportunity to review the subject document. We have no comments to offer.

If there are any questions, please have your staff contact Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

RY:jy

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM F. DENUELAR
DEPUTY

PB 94-201

March 1, 1994

Mr. Gordon Matsuoka
State Public Works Engineer
Department of Accounting & General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Matsuoka:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your January 18, 1994 letter indicating that you have no comments regarding the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA
711 KAPIOLANI BOULEVARD SUITE 1200
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

J. JOSEPH M. MAGALDI JR.
DIRECTOR

AMAR SAPPAL
DEPUTY DIRECTOR

TE-4940
PL93.1.486

January 11, 1994

MEMORANDUM

TO: HERBERT K. MURAOKA, DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: JOSEPH M. MAGALDI, JR., DIRECTOR

SUBJECT: LEAHI HOSPITAL
HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITY
TMK: 3-2-31: 01

This is in response to your memorandum dated December 14, 1993 requesting our review of the subject project.

Based upon our review of the Draft Supplemental Environmental Assessment, it appears that this project will not generate a substantial amount of traffic. We, therefore, have no objections or comments to offer at this time.

Should you have any questions, please contact Wayne Nakamoto of my staff at local 4190.

JOSEPH M. MAGALDI, JR.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM K. REVILAR
DEPUTY

PB 94-202

March 1, 1994

MEMO TO: JOSEPH M. MAGALDI, JR., DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your January 11, 1994 memorandum indicating that you have no objections or comments regarding the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

REX D. JOHNSON
DIRECTOR

DEPUTY DIRECTORS
RANANI HOLT
JOYCE T. OMAYE
AL PANG
CALVIN M. TSUDA

IN REPLY REFER TO:
STP 8.5700

January 11, 1994

1/14/94

Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Muraoka:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communications Facilities Upgrade - Leahi Hospital Communications Site

The proposed Honolulu Police Department communications facilities upgrade at Leahi Hospital Communications Site will not have a impact on our State transportation system.

We appreciate the opportunity to provide comments.

Sincerely,

Rex D. Johnson
Director of Transportation

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
WILLIAM P. REMOLAD
DEPUTY

PB 94-203

March 1, 1994

Mr. Rex D. Johnson, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Johnson:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your January 11, 1994 letter indicating that the proposed project will have no impact on the State transportation system.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • PHONE: 523-4432

FRANK F. FASI
MAYOR

DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

93-09760(JT)
94/EC-23

January 10, 1994

1/12/94

MEMORANDUM

TO: HERBERT K. MURAOKA, DIRECTOR
AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE - LEAHI HOSPITAL COMMUNICATIONS SITE

We have reviewed the above referenced document and have the following comments to offer:

1. The Environmental Assessment (EA) should include a site plan showing all existing structures. The location of the proposed antenna shall be clearly identified on the site plan.

2. The EA should describe the cumulative impact of radio frequency (RF) emissions from the proposed antenna combined with all other existing antennas on the site.

3. A height waiver will be required.

4. The proposal is a minor addition to an existing structure outside the Diamond Head Special District (DHSD) core area. Therefore, it does not require a DHSD permit. However, the architectural appearance and character of the proposal (e.g., screening, color) must comply with Section 7.20-4.(c) of the Land Use Ordinance, and will be reviewed and approved by the Department of Land Utilization at the time of building permit application.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Joan Takano of our staff at 527-5038.

Donald Clegg

DONALD A. CLEGG
Director of Land Utilization

DAC:ak

g:leahidea.jht

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

PB 94-197

March 1, 1994

MEMO TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your January 10, 1994 memorandum regarding the subject project. We offer the following response to your comments:

1. In addition to the Site Roof Plan and Site Profile Plan, the Final Supplemental EA will include a plan showing existing structures in the hospital complex and identifying the proposed communications facility site.

2. There are two state radio stations currently installed on top of the building that we are proposing for our project. The Final Supplemental EA will discuss the cumulative impact of radio frequency emissions from both the existing radio facilities and our proposed project.

3. An application for a height waiver has been submitted.

4. Your comment that the proposed project does not require a Diamond Head Special District permit is noted. Furthermore, we understand that the project's architectural appearance and character will be reviewed and must be approved by your department at the time of the building permit application.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU HAWAII 96843

January 7, 1994

1/14/94

TO: HERBERT K. MURAOKA, DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: YOUR LETTER OF DECEMBER 14, 1993 REGARDING THE DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HONOLULU POLICE DEPARTMENT (HPD) COMMUNICATIONS FACILITIES UPGRADE - LEAHI HOSPITAL COMMUNICATIONS SITE, TMK: 3-2-31: 1, KILAUEA AVENUE

Thank you for the opportunity to review the EA for the proposed relocation of HPD's Diamond Head communications facilities to Leahi Hospital.

We have no objections to the proposed project. The relocation will not impact water system facilities in the area.

If you have any questions, please contact Barry Usagawa at 527-5235.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. KENDALL
DEPUTY

PB 94-204

March 1, 1994

MEMO TO: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your January 7, 1994 memorandum indicating that you have no objections to the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1998

FRANK F. FASI
MAYOR

DONALD S. M. CHANG
FIRE CHIEF

RICHARD K. SETO HOOK
DEPUTY FIRE CHIEF

January 4, 1994

1/7/94

TO: HERBERT K. MURAOKA, DIRECTOR
BUILDING DEPARTMENT

FROM: DONALD S. M. CHANG, FIRE CHIEF

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE - LEAHI HOSPITAL COMMUNICATIONS SITE

We have reviewed the application for the above subject request and are in support of this project. We have no objections to the proposal.

Should you have any questions, please call Assistant Chief Attilio Leonardi of our Administrative Services Bureau at 831-7775.

DONALD S. M. CHANG
Fire Chief

AKL:ny

Returning Draft Suplemental Enviromental Assessment report.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM F. DENOLAN
DEPUTY

PB 94-205

March 1, 1994

MEMO TO: RICHARD R. SETO-HOOK, ACTING FIRE CHIEF
HONOLULU FIRE DEPARTMENT

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your January 4, 1994 memorandum indicating that you have no objections to the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

WALTER M. OZAWA
DIRECTOR

ALVIN C. AU
DEPUTY DIRECTOR

December 30, 1993

1/7/94

'94 JAN 7 PM 3:17

TO: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: WALTER M. OZAWA, DIRECTOR

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE
LEAHI HOSPITAL COMMUNICATIONS SITE

We have reviewed the draft supplemental EA and have no objection to the proposed project at the Leahi Hospital site.

Thank you for the opportunity to review this project.

Should you have any questions, please contact Lester Lai of our Advance Planning Branch at extension 4696.

For WALTER M. OZAWA, Director

WKO:al

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. REMBIAS
DEPUTY

PB 94-206

March 1, 1994

MEMO TO: WALTER OZAWA, DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your January 4, 1994 memorandum indicating that you have no objections to the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

OAHU CIVIL DEFENSE AGENCY
CITY AND COUNTY OF HONOLULU

FRANK F. FASI
MAYOR

MALCOLM A. SUSSEL
EXECUTIVE DIRECTOR

December 29, 1993

1/4/94

TO: HERBERT K. MURAOKA
DIRECTOR & BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: MALCOLM A. SUSSEL, ADMINISTRATOR
OAHU CIVIL DEFENSE AGENCY

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE--LEAHI HOSPITAL COMMUNICATIONS SITE

The Oahu Civil Defense Agency welcomes the forthcoming upgrade of the public safety telecommunications system as described in the subject document. We concur with the relocation of communications facilities from the southeast portion of Diamond Head Crater to the Leahi Hospital site. With respect to any future relocations from Diamond Head, request our 47.5 MHz voice link between Diamond Head and the Emergency Operating Center at Waialua be examined well in advance to assure the continued integrity of that circuit.

cc: Fire Department

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. DENUHAM
DEPUTY

PB 94-198

March 1, 1994

MEMO TO: MALCOLM S. SUSSEL, ADMINISTRATOR
OAHU CIVIL DEFENSE AGENCY

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your December 29, 1993 memorandum regarding the subject project. With regard to your facility at Diamond Head, it is our understanding that this facility is located in a separate building, apart from our existing radio equipment. Since our plans do not include relocating your facility, your communications link will be unaffected by our relocation activities.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

KEITH AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

December 30, 1993

Mr. Herbert K. Muraoka
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

LOG NO: 10426
DOC NO: 9312TD25

Dear Mr. Muraoka:

SUBJECT: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communications Facilities Upgrade -- Leahi Hospital Communications Site
Waikiki, Kona, O'ahu
TMK: 3-2-31: 1

This project proposes to install microwave antennae on the roof of Leahi Hospital. Because Leahi Hospital is not a historic property and there are no associated ground breaking activities, we believe this project will have "no effect" on historic sites

Sincerely,

DON HIBBARD, Administrator
State Historic Preservation Division

TD amk

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM F. REMULLA
DEPUTY

PB 94-207

March 1, 1994

Mr. Don Hibbard, Administrator
Department of Land and Natural Resources
State Historic Preservation Division
State of Hawaii
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Hibbard:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade, Leahi Hospital Communications Facility Site

Thank you for your December 30, 1993 letter indicating that the subject project will have "no effect" on historic sites.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE [808] 529-3111

FRANK F. FASI
MAYOR

MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWABATA
DEPUTY CHIEF

OUR REFERENCE OK-CA

December 28, 1993

12/29/93

TO: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

FROM: MICHAEL S. NAKAMURA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATIONS FACILITIES UPGRADE - LEAHI HOSPITAL COMMUNICATIONS SITE

In response to your memorandum of December 14, 1993, the Honolulu Police Department has reviewed the Draft Supplemental Environmental Assessment for the Leahi Hospital communications site.

We notice a minor error on Page 2, "3. Proposed Action." We believe "two three-ft-diameter microwave dishes" should read "two six-ft-diameter microwave dishes."

Should you have any questions or need additional information, please contact Mr. Osama Kobayashi, Radio Engineer, at 831-7200.

MICHAEL S. NAKAMURA
Chief of Police

By
CHESTER E. HUGHES
Assistant Chief

Attach.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
WILLIAM F. DENHAM
DEPUTY

PB 94-199

March 1, 1994

MEMO TO: MICHAEL NAKAMURA, POLICE CHIEF
HONOLULU POLICE DEPARTMENT

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your December 28, 1993 memorandum regarding the subject project. The description of the proposed microwave dishes will be corrected to reflect its proper size.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU HAWAII 96813

FRANK F. FASI
MAYOR

KENNETH E. SPRAGUE
ACTING DIRECTOR AND CHIEF ENGINEER

ENV 93-264

December 27, 1993

MEMORANDUM

TO: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: KENNETH E. SPRAGUE
ACTING DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
COMMUNICATIONS FACILITIES UPGRADE-
LEAHI HOSPITAL COMMUNICATIONS SITE
TMK: 3-2-31: 01

We have reviewed the subject DEA and have no comments to offer at this time.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

KENNETH E. SPRAGUE
Acting Director and Chief Engineer

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT
WILLIAM D. REPUBLA
DEPUTY

PB 94-208

March 1, 1994

MEMO TO: KENNETH E. SPRAGUE, ACTING DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE HONOLULU POLICE DEPARTMENT COMMUNICATION FACILITIES UPGRADE, LEAHI HOSPITAL COMMUNICATIONS FACILITY SITE

Thank you for your December 27, 1993 memorandum indicating that you have no comments regarding the subject project.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

HERBERT K. MURAOKA
Director and Building Superintendent

JOHN WAIHEE
GOVERNOR

BRIAN J. J. CHOY
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185

DEC 20 9 1

December 17, 1993

Mr. Herbert Muraoka
City and County of Honolulu
Building Department
650 South King Street
Honolulu, Hawaii 96813

Attention: Clifford Morikawa

Dear Mr. Muraoka,

Subject: Draft Environmental Assessment for Honolulu Police Department Communications Facilities Upgrade - Leahi Hospital Communications Facility Site

Thank you for the opportunity to review and comment on the subject document. Please include a list of findings and reasons to support the determination in the Final Environmental Assessment.

If you have any questions, please contact Faith Caplan.

Sincerely,

BRIAN J.J. CHOY
Director

BC:fc

c: Lacayo Planning, Inc.

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

WILLIAM P. REINHARDT
DEPUTY

PB 94-209

March 1, 1994

Dr. Bruce Anderson, Interim Director
Office of Environmental Quality Control
State of Hawaii
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Mr. Choy:

Subject: Draft Supplemental Environmental Assessment (EA) for the Honolulu Police Department Communication Facilities Upgrade
Leahi Hospital Communications Facility Site

Thank you for your December 17, 1993 letter regarding the subject project. The Final Supplemental EA will include a list of findings and reasons to support the determination.

We appreciate your time and effort in reviewing the Draft Supplemental EA. Should there be any questions regarding this project, please have your staff contact Clifford Morikawa at 527-6350 or Richard Imamoto at 527-6363.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

1994-07-08-OA-FEA- Iwilei Homeless Shelter

JUL 8 1994

ENVIRONMENTAL ASSESSMENT

Administrative Information

A. Project: Institute for Human Services, Incorporated
Renovation of the Iwilei Emergency Shelter for the Homeless

B. Type of Action: ___ Applicant
_X_ Agency

Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813
Ronald S. Lim, Acting Director

C. Approving Agencies:

U.S. Department of Housing and Urban Development (HUD)
Seven Waterfront Plaza, Suite 500
500 Ala Moana Boulevard
Honolulu, Hawaii 96813-4918

State of Hawaii
Office of Environmental Quality Control (OEQC)
Central Pacific Plaza
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

D. Environmental Assessment Prepared by:

Department of Housing and Community Development
June 1994

Description of Proposed Actions

A. Proposed Activity

_X_ Single activity;
___ Aggregation of activities;
___ Multi-year activity.